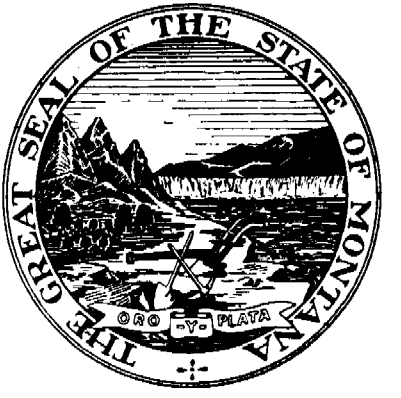
RESERVE

MONTANA ADMINISTRATIVE REGISTER



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NOTICE OF FUNCTIONS OF ADMINISTRATIVE CODE COMMITTEE

The Administrative Code Committee reviews all proposals for adoption of new rules or amendment or repeal of existing rules filed with the Secretary of State. Proposals of the Department of Revenue are reviewed only in regard to the procedural requirements of the Montana Administrative Procedure Act. The Committee has the authority to make recommendations to an agency regarding the adoption, amendment, or repeal of a rule or to request that the agency prepare a statement of the estimated economic impact of a proposal. In addition the Committee may poll the members of the Legislature to determine if a proposed rule is consistent with the intent of the Legislature or, during a legislative session, introduce a Joint Resolution directing an agency to adopt, amend, or repeal a rule.

The Committee welcomes comments from the public and invites members of the public to appear before it or to send it written statements in order to bring to the Committee's attention any difficulties with existing or proposed rules. The address is Room 138, State Capitol, Helena, Montana 59601.

NOTICE: The July 1977 through June 1979 Montana Administrative Registers have been placed on microfiche. For information, please contact the Secretary of State, Room 202, Capitol Building, Helena, Montana 59601.

MONTANA ADMINISTRATIVE REGISTER

ISSUE NO. 2

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NOTICE SECTION

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule ARM 16-2.14(10)-S14480 relating to reimbursement of state grant money for water pollution control facilities	NOTICE OF CANCELLATION OF MAR NOTICE NO. 16-2-125

TO: All Interested Persons

At the request of the Department of Health and Environmental Sciences, the Board of Health and Environmental Sciences has cancelled MAR Notice No. 16-2-125 regarding notice of proposed repeal of ARM 16-2.14(10)-S14480 (Reimbursement of State Grant Money) with no public hearing contemplated. The cancelled notice contained erroneous rule numbers and page citation. A new notice will be issued.

In the matter of the repeal of rule ARM 16-2.14(10)-S14471 relating to reimbursement of state grant money for water pollution control facilities	NOTICE OF PROPOSED REPEAL OF ARM 16-2.14(10)-S14471 (Reimbursement of State Grant Money) NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 14, 1980, the Board of Health and Environmental Sciences of the State of Montana proposes to repeal rule 16-2.14(10)-S14471 relating to reimbursement of state grant money for water pollution control facilities.

2. Rule 16-2.14(10)-S14471 may be found on page 16-375 of the Administrative Rules of Montana.

3. The Board of Health and Environmental Sciences proposes to repeal this rule because the state funds for this program have been exhausted and there is no necessity for maintaining the rule.

4. Interested persons may submit their data, views or arguments concerning the proposed repeal of this rule in writing no later than March 3, 1980, to C. W. Leaphart, Esq., 1 North Last Chance Gulch, Helena, Montana, 59601.

5. If a person who is directly affected by the proposed repeal of rule 16-2.14(10)-S14471 wishes to express his data, views, and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to C. W. Leaphart at the address given in paragraph 4 no later than March 3, 1980.

6. If the Board of Health and Environmental Sciences receives requests for a public hearing on the proposed repeal

from either 10% or 25, whichever is less, of the persons directly affected; from the Administrative Code Committee of the Legislature, from a governmental subdivision or agency; or from an association having not less than 25 members who are directly affected, a hearing will be held at a later date. Notice of such a hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be in excess of 25 based on population statistics for the State of Montana.

7. The authority of the Board of Health and Environmental Sciences to repeal the rule is based on Section 1, Chapter 122, Laws of Montana (1973) (not codified temporarily).

JOHN F. McGREGOR, M.D., Chairman

By: RITA ANN SHEEHY

Certified to the Secretary of State January 22, 1980

BEFORE THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the adoption of rules establishing the forms for letter of intent and application for certificate of need	NOTICE OF PROPOSED ADOPTION OF RULES FOR THE FORMS FOR THE LETTER OF INTENT AND THE CERTIFICATE OF NEED APPLICATION NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 3, 1980, the Department of Health and Environmental Sciences proposes to adopt rules establishing forms for letters of intent and applications for certificates of need.

2. The proposed rules provide as follows:

RULE I LETTER OF INTENT FORM The following form shall be used to submit a letter of intent to apply for certificate of need:

CERTIFICATE OF NEED
LETTER OF INTENT

Name of Health Care Facility_____
Proposal Title_____
Proposal Estimated Cost_____
Is an abbreviated review requested? Yes_____ No_____
This proposal is: (Please check all items below that apply)
___A substantial change in existing services
___Addition of equipment
___Replacement of existing equipment
___Renovation of existing structure
___Addition to existing structure
___Other (Explain)
In order to determine the type of review necessary, the following information must be completed and attached to this form.
1. A brief narrative summary of the proposal, including statements on whether additional beds, new facilities, and/or changes of services are contemplated.
2. An itemized estimate of the proposed capital expenditures including a detailed equipment list. (If existing equipment is being replaced include details on this equipment.)
3. The method(s) and terms of financing the proposal.
4. The effects of this proposal on the cost of patient care in the service area affected.
5. Projected dates for commencement and completion of the proposed project.
6. The location of the proposed project.
7. The proposed geographic area to be served.
[Administrator's Signature] [Date]

RULE II CERTIFICATE OF NEED APPLICATION FORM The following form shall be used to apply for a certificate of need:

APPLICATION FOR CERTIFICATE OF NEED
FOR CONSTRUCTION, MODIFICATION, OR EXPANSION
OF HEALTH CARE FACILITIES AND/OR SERVICES

Official Name of Applicant, Health Care Facility or Services

_____

Name of Person to Contact for Additional Information _____

_____

City _____ State _____ Zip _____ Telephone _____

I. INTRODUCTION

A. It is suggested that the applicant contact the Bureau of Health Planning and Resource Development before completing and submitting this form. It is possible that some information listed on the form may not be required for a simple review, or that additional information will be required for a complex review. If an early contact is made between an applicant and the appropriate review agency, the applicant will be made aware of what will be required in specific cases before a formal application is completed and submitted.

B. Please fill out portions of this application applicable to your project, and send the original and one copy to: Wallace A. King, Chief, Bureau of Health Planning and Resource Development, Department of Health and Environmental Sciences, Cogswell Building, Capitol Station, Helena, Montana, 59601.

II. DESCRIPTION OF PROJECT

A. This project involves: (Please check all items below that apply.)

___The construction, development, or other establishment of a health care facility which did not previously exist.

___Any capital expenditure in excess of $150,000 within a 12-month period.

___A change in bed capacity by more than 10 beds or 10% of the total licensed bed capacity, whichever is less.

___Health services which are offered in or through a health care facility and which were not offered on a regular basis in or through such health care facility within the 12-month period prior to the time such services would be offered, or the deletion by a health care facility of a service previously offered.

___The expansion of a geographic service area of a home health agency.

___An expenditure made in preparation for the offering or development of any of the above or an arrangement or commitment made for financing the offering or development of the above.

B. Provide a description of the proposal. (Include as attachment if necessary.)

C. For existing facilities only: Provide a brief summary describing the existing institution.

D. Complete Exhibit A and Exhibit H.

E. Estimate start and completion date:

Start_____ Completion_____

Total proposed capital expenditure_____

Principal_____ Interest_____

Size of proposed building or addition (square feet)_____

Note: If a certificate of need is approved and there is a total cost overrun which exceeds the amount included in your proposal by $150,000 or 15% of the approved budget, another certificate of need may be needed.

III. DETERMINATION OF NEED AND DEMAND FACTORS

A. Need for facility or service.

1. Justification -- service area, utilization, accessibility, etc.

a. What geographic area will the proposed project serve and what criteria are being used for determining this service area?

b. What is the current population of that service area? (source)

c. What is the 5-year projected population of that service area? (source)

d. What percent of the population in that service area do you expect to serve?

e. In terms of age, ethnic background and economic status, describe the specific population which will be served by the proposed new institution or service. Indicate the number of people matching this description in the service area. (Indicate general public if facility is for non-specific population.)

f. What current and projected future trends in health care which might affect facility usage were given consideration in the development of this project? Explain. (source)

g. Please include a patient origin study for the last 3 years of operation.

2. Accessibility to public.

a. Please indicate the location of the proposed facility with respect to:

(1) Transportation routes

(2) Center of population in the service area.

b. Does the architectural plan promote access for the physically handicapped? (If so, in what ways?)

c. What other health care institutions serve this area or portion thereof and provide similar services to those proposed in this application? Attach list giving name, location and evidence of joint planning efforts with these institutions. Include proposed shared services, if any. (Designate as attachment.)

d. If there are no similar services in the area, please indicate the nearest facility or facilities providing these services.

B. Service components.

1. Have you consulted with the Bureau of Health Planning and Resource Development regarding the need for hospital or nursing home beds in your area? _____ (Changes in the number of beds per area should be compatible with the State Health Plan and the Health Systems Plan.)

2. Do you have available for our information a short, long-range, or master plan containing plans for expansion, land available, zoning, public transportation, utilities, parking, etc? _____ (If yes, please enclose.)

3. Utilization of services -- complete Exhibit B.

4. Available and proposed services -- complete Exhibit C.

5. Please elaborate on items entered in the last column of Exhibit C (services contracted for or shared with other institutions). Describe major existing or proposed working relationships with other providers or services in your community. For example, if the provision of a particular service is required by the proposed institution but is not within the capacity of the proposed institution to provide it, what arrangements have been made with the other community resources for providing this service for your patients?

C. Quality of care factors.

1. Complete applicable portions of Exhibit D for evaluation of applicant's demonstrated competence and quality of care.

2. Have the affected consumer/provider and related groups in your service area indicated support for your projects? (List agencies, groups, and their reactions.)

3. Why do you feel this service or institution is needed in this service area?

4. What are the purposes and goals of the project?

5. Indicate sources of need statistics.

6. Do you have a waiting list of persons desiring your proposed services? If so, please enclose.

IV. PROGRAM STAFFING AND OPERATION CAPABILITY FACTORS

A. Manpower and education

1. Complete Exhibit E.

2. What are the expectations and from what sources will you draw for filling the staff positions created by the proposed institution or service? Include manpower development needs, training resources, etc.

3. Have recruiting efforts in your area been successful? If so, describe.

4. If you operate an existing facility, do you meet current staffing standards?

B. Organizational and physical structure

1. Provide a narrative description of the project, to include:

a. Size, type construction, floor space, beds, square feet per bed, parking, etc.

b. Description of both old and new facilities where applicable.

c. Time frame(s) for construction.

d. Method of, or anticipated, long-term community support.

e. Please include a line drawing of proposal.

C. Legal and licensure considerations

1. Complete Exhibit D.

2. Will the project correct non-conforming conditions?

3. Is the project in conformance with local zoning laws? (city or county)

4. Do the structures meet safety codes?

D. System compatibility

1. Does the proposed project fit into the overall or long-range plans of the community and state?

a. Describe the relationship of this proposal to other community and state plans, such as the State Health Plan and the Health Systems Plan.

b. Is this service part of the current three-year capital expenditure plan for the facility? Do you have a three-year plan for the facility? Yes_____ No _____ If yes, please enclose.

c. Have environmental considerations been made? Architectural compatibility, waste disposal accessibility, etc. Explain.

V. FINANCIAL FEASIBILITY

A. Capital expenditure requirements

1. Please indicate the approximate date that obligation of funds will be incurred for the proposal.

2. What is the source of funds?

a. Amount available _____

b. Amount to be borrowed _____

3. Include a complete debt service cash flow schedule. (complete Exhibit F)

a. Term of loan _____

b. Interest rate _____

4. Include the following financial operating statements for the last 3 years.

a. Audited balance sheets.

b. Audited revenue and expense statements.

c. Changes in net working capital.

d. Any other financial operating statements.

5. Please provide the following:

a. Projected revenue and expense statements with supportive population and utilization assumptions both during

construction and the first two years of operation.

b. Projected cash flow schedule for proposed project during construction and the first two years of operation.

c. Projected balance statements with statistical assumptions during construction and first two years of operation.

d. Utilization projections demonstrating need for the project.

6. Provide cost breakdown and projections for both construction and operations. Complete Exhibit G.

7. Will costs and charges for room rates or specific services be increased? If yes, by how much? (Please explain in detail.)

B. Operating fund demands and budget factors

1. What the sources of operating revenue in percentages?

Medicare_____

Medicaid_____

Private Pay_____

Insurance_____

2. If grant support is provided the project, how will you finance the service upon termination of this support?

3. Will depreciation be funded?

4. Explain plans for meeting possible operating deficits.

5. What effect will the proposed capital expenditure have on annual operating costs? Will the operating costs be increased or decreased? By how much?

VI. COST CONTAINMENT FACTORS

A. How does your architectural plan promote economy in the delivery of service?

B. Does your proposal demonstrate superior community cost-benefit or community cost-effectiveness? Explain.

C. Are shared services available as an alternative to duplication? (Please explain in detail.)

D. Have alternatives been considered to provide the service proposed by your project? If so, explain.

(Signature of responsible party) (Title) (Date)

EXHIBIT A.

Please complete application portions of the following table providing information concerning current and proposed capacity of the existing and/or proposed institution or services.

General Hospital	*A	*B	*C	*D
Medical Surgical				
Obstetrical				
Intensive Care				
Pediatric				
Nursery Bassinets				
Psychiatric				
Rehabilitation				
Skilled Nursing				
Other, Specify				
TOTAL:				
Special Hospitals				
Please specify				
Long Term Care				
Skilled Nursing Care				
Intermediate				

Outpatient Centers	**Current Capacity**	**Proposed Capacity**
Outpatient procedures performed		
Other, specify		
Home Health Agencies		
Number of visits		
Consultation provided		

Current Capacity - Reporting Period _____

*A - Licensed Beds
*B - Certified Medicare or Medicaid Beds
*C - Average Daily Census
*D - Number of beds to be added, proposed capacity

EXHIBIT B

Please complete the following information as it applies to your proposal:

EXISTING	3 yrs. ago	1 yr. ago	Current FY	FY + one*	FY + two*	FY + three*
Average Daily Census						
% Occupancy						
Average Length of Stay						
Total Discharges						
Emergency Room Visits						
Outpatient Visits						
Home Care Visits						
Lab Exams						
Radiology						
Surgical Procedures						
Respiratory Therapy						
Other (specify)						

Proposed						
Average Daily Census						
% Occupancy						
Average Length of Stay						
Total Discharges						
Emergency Room Visits						
Outpatient Visits						
Home Care Visits						
Lab Exams						
Radiology						
Surgical Procedures						
Respiratory Therapy						
Other (specify)						

Note:

FY — Fiscal Year

*FY + one = Projected future utilization after inauguration of new facility or service.

EXHIBIT C.

Which of the following services are currently available and/or proposed for the health care facility? Which of the following services are contracted for or shared with other health care institutions or services?

	Yes	No	To be added	Date	Contracted or shared
1. Postoperative Recovery Room					
2. Coronary Care Unit					
3. Intensive Care Unit					
4. Open-Heart Surgery Facility					
5. Pharmacy w/FT Registered Pharmacist					
6. Pharmacy w/PT Registered Pharmacist					
7. X-ray					
8. Cobalt Therapy					
9. Radium Therapy					
10. Diagnostic Radioisotope Facility					
11. Therapeutic Radioisotope Facility					
12. Histopathology Lab.					
13. Organ Bank					
14. Blood Bank					
15. Electroencephalography					
16. Inhalation Therapy Department					
17. Premature Nursery					
18. Self-Care Unit					
19. Renal Dialysis Inpatient					
20. Renal Dialysis Outpatient					
21. Burn Care Unit					
22. Physical Therapy Department					
23. Occupational Therapy Department					
24. Medical Rehabilitation Unit Inpatient					
25. Medical Rehabilitation Services-Outpatient					
26. Chemotherapy					
27. Pediatric Care					
28. Maternity Care					
29. Psychiatric Care Inpatient					
30. Psychiatric Services Outpatient					
31. Phychiatric Partial Hospitalization Program					
32. Psychiatric Emergency Services					
33. Psychiatric Foster and/or Home Care					
34. Psychiatric Consultation & Education Services					
35. Clinical Psychology Services					
36. Organized Outpatient Department					
37. Emergency Department					
38. Social Work Department					
39. Family Planning Service					
40. Genetic Counseling Service					
41. Abortion Service Inpatient					
42. Abortion Service Outpatient					
43. Home Care Department					
44. Dental Services					
45. Podiatric Services					
46. Speech Pathology Services					
47. Long-Term Care Unit					
48. Patient Representative Services					
49. Alcoholic and Detoxification Unit-Inpatient					
50. Alcoholic and Detoxification Services-Outpatient					
51. TB and other Respiratory Diseases Unit					
52. Neonatal Intensive Care Unit					
53. Audiology Services					
54. Paramedic Training Program					
55. Other Services (please specify)					
_____					
_____					

EXHIBIT D.

Please complete all applicable items:

1. Ownership or control of facility (Please circle)

   Corporation Governmental
   Individual Partnership
   Other, specify _____

   Is institution for profit _____ or, non- profit _____

2. Please attach lists of names, titles, addresses and business affiliations of the following:

   Owners and corporate officers of the health care institution.
   Governing Board of Directors of the institution.
   Owners and corporate officers of the organization which operate the institution.

3. Operating organization: _____

   Chief administrative officer of operating organization: _____
   Name Title

   Chief administrator of institution: _____
   Name Title

4. Accreditation and approval:

	Yes	No	Plan to apply Yes	Plan to apply No	Expiration Date
Licensed by State					
Membership-National Ass'n.					
_____ Name					
Accreditation: Joint Commission on Accreditation of Hospitals					
Certification - Medicare					
Other, specify:					
_____					
_____					

If health care institution is not accredited or certified, please explain:

EXHIBIT E.

Please complete all applicable items:

	Number of staff (Full-time equivalent)		
	Currently	After Proposed Project Completion	Estimated No. of Available Personnel
Administration			
Administrative Professionals			
Business Services (secy., etc.)			
Physician Services			
Interns			
Residents			
Physicians, M.D. & D.O.			
Psychiatrists			
Pathologists			
Radiologists			
Dental Services			
Interns			
Residents			
Dentists			
Nursing Services			
R.N.'s			
L.P.N.'s			
Aides			
Orderlies			
Attendants			
Student Nurses			
Pharmacy			
Licensed Pharmacists			
Pharmacy Technicians			
Clinical Lab. Services			
Medical Technologists			
Laboratory Technicians			
Dietary Services			
Registered Dieticians			
Food Service Supervisors			
Other Food Service Personnel			
Radiological Services			
Radiologic Technologists			
Radiologic Technicians			
Other Radiologic Personnel			
Rehabilitation Services			
Registered Occupational Therapists			
Occupational Therapy Aides			
Registered Physical Therapists			
Physical Therapy Aides			
Respiratory Therapists			
Recreational Activity Therapists			

EXHIBIT E (Continued)

Please complete all applicable items:

	Number of staff (Full-time equivalent)		
	Currently	After Proposed Project Completion	Estimated No. of Available Personnel
Social Services			
Psychiatric Social Workers			
Medical Social Workers			
Medical Records			
Registered Records Administrators			
Accredited Records Technicians			
Other Professional/Technical			
Speech Pathologists			
Audiologists			
Psychologists			
C.R.N.A.'s			
Other _____			
Housekeeping			
Supervisors			
Laundry			
Maintenance			
Other _____			
All Other			
_____			
_____			
_____			

EXHIBIT F.

A. Provide the following estimated project costs:

1. Consultant Fee $_____
2. Legal Fee $_____
3. Printing Expenses $_____
4. Registration $_____
5. State Tax $_____
6. Title Recording $_____
7. Rating Fee $_____
8. Financing Fees (e.g., Underwriter's discount) $_____
9. Feasibility Study $_____
10. State/Local Inspection Fees $_____
11. Loan Insurance Fees $_____
12. Interest (during construction) $_____
13. Reserves related to public bond issue $_____
14. Temporary relocation expenses $_____
15. Pre-opening expenses $_____
16. Other consulting fees (e.g., environmental impact, acoustical, specialty spaces like radiation therapy rooms, etc.) Please detail.

    _____ $_____
    _____ $_____
    _____ $_____
    _____ $_____
17. Land acquisition and site development $_____
18. Site survey and soil investigation $_____
19. Material Testing $_____
20. Architect Fees $_____
21. Engineering Fees $_____
22. Supervision (owner's cost allowance) $_____
23. Performance and payment bond $_____
24. Contingency: Construction, change order, inflation. $_____
25. Labor and Materials $_____
26. Floor Area (square feet)

	Existing (Area)	New Construction (Area)	Renovation (Area)
Total Facility (Gross)	_____ sq. ft.	_____ sq. ft.	_____ sq. ft.
Patient Care	_____ sq. ft.	_____ sq. ft.	_____ sq. ft.
Administration	_____ sq. ft.	_____ sq. ft.	_____ sq. ft.

27. Construction/Renovation Costs

	New Construction (Costs)	Renovation (Costs)
Total Project	$_____	$_____
Patient Care	$_____	$_____
Administration	$_____	$_____

28. Estimated life of the assets for depreciation $_____

EXHIBIT F (Continued)

B. Source of capital financing for this project proposal:

Source of Funds	Amount	Percent
Cash on hand	$	
Commercial Loans	$	
Government Loans	$	
Government Grants	$	
Net earnings and reserve	$	
Bequests and endorsements	$	
Charitable fund raising	$	
Revenue Bonds	$	
Other:	$	
	$	
	$	
TOTAL PROJECT COSTS:	$	100%

Exhibit G

DEBT SERVICE CASH FLOW SCHEDULE

Year	Source of Funds						Use of Funds			
	Depreciation			Amortization		Total Funds	Principal Payments	Land Purchases	Total Payments	Cash Excess Shortage after use of funds
	(40 year life) Building Structure	(20 year life) Fixed Equipment	(10 year life) Movable Equipment	Finance & legal fees	Pre-open Expenses					
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Total project cost: _____

Debt: _____

Debt Ratio: _____

Terms: Construction - Land

EXHIBIT H.

Equipment List.

Please specify the major items of fixed and movable equipment you anticipate purchasing as a part of this project.

ITEM	ESTIMATED COST

3. The department is proposing these rules in order to implement section 50-5-302, MCA, by establishing the form of letters of intent to initiate activities for which a certificate of need is required and of applications for certificates of need.

4. Interested parties may submit their data, views or arguments concerning the proposed rule in writing to Robert L. Solomon, Hearings Officer, Department of Health and Environmental Sciences, Capitol Station, Helena, Montana, 59601, no later than March 1, 1980.

5. If a person who is directly affected by the proposed rule wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to Robert L. Solomon, Hearings Officer, Department of Health and Environmental Sciences, Capitol Station, Helena, Montana, 59601, by no later than March 1, 1980.

6. If Mr. Solomon receives requests for a public hearing on the proposed rules from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having no less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be in excess of 25 based on the population statistics for the state of Montana.

7. The authority of the department to make the proposed rules is based on section 50-5-103, MCA, and the rules implement section 50-5-302, MCA.

A. C. KNIGHT, M.D., Director

By: JOHN W. BARTLETT

Certified to the Secretary of State January 22, 1980

BEFORE THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule 16-2.14(6)-S14270, radiation control, and the adoption of new rules for radiation control	))))	NOTICE OF PUBLIC HEARING ON REPEAL OF RULE ARM 16-2.14(6)-S14270, (Radiation Control) AND FOR THE ADOPTION OF NEW RULES REGULATING RADIATION CONTROL

TO: All Interested Persons

1. On March 3, 1980, at 9:00 a.m., a public hearing will be held in Hospital-Medical Facilities Conference Room, 836 Front Street, Helena, Montana, to consider the repeal of rule 16-2.14(6)-S14270, and the adoption of new rules concerning radiation control.

2. The rule proposed to be repealed can be found on pages 16-203 to 16-305 of the Administrative Rules of Montana. The proposed new rules will replace rule 16-2.14(6)-S14270.

3. Rule 16-2.14(6)-S14270 is proposed to be repealed and new rules are proposed for adoption in order to facilitate amendments to federal standards and suggestions from the Conference of Radiation Control Program Directors.

4. The proposed rules provide as follows:

16-2.12(1)-S12101 POLICY (1) Except as otherwise specifically provided, this chapter applies to all persons who receive, possess, use, transfer, own or acquire any source of radiation; provided, however, that nothing in these rules shall apply to any person to the extent such person is subject to regulation by the United States Nuclear Regulatory Commission. Regulation by Montana of source material, byproduct material, and special nuclear material in quantities not sufficient to form a critical mass is subject to the provisions of the agreement between Montana and the United States Nuclear Regulatory Commission and to 10 C.F.R. Part 150 of its regulations.

16-2.12(1)-S12102 DEFINITIONS As used in this chapter, these terms have the definitions set forth below. Additional definitions used only in a certain sub-chapter will be found in that sub-chapter.

(1) "Accelerator-produced material" means any material made radioactive by a particle accelerator.

(2) "Act" means Title 75, Chapter 3, MCA.

(3) "Agreement state" means any state with which the U. S. Nuclear Regulatory Commission or the U. S. Atomic Energy Commission has entered into an effective agreement under subsection 274b. of the Atomic Energy Act of 1954, as amended (73 Stat. 689).

(4) "Airborne radioactive material" means any radioactive material dispersed in the air in the forms of dusts,

fumes, mists, vapors, or gases.

(5) "Airborne radioactivity area" means:

(a) any room, enclosure, or operating area in which airborne radioactive material exists in concentrations in excess of the amounts specified in Appendix A, Table I, Column 1, of sub-chapter 4 ; or

(b) any room, enclosure, or operating area in which airborne radioactive material exists in concentrations which, averaged over the number of hours in any week during which individuals are in the area, exceed 25 percent of the amounts specified in Appendix A, Table I, Column 1 of sub-chapter 4.

(6) "Byproduct material" means any radioactive material (except special nuclear material in quantities not sufficient to form a critical mass) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

(7) "Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The first calendar quarter of each year shall begin in January and subsequent calendar quarters shall be so arranged such that no day is included in more than one calendar quarter and no day in any one year is omitted from inclusion within a calendar quarter. No licensee or registrant shall change the method observed by him of determining calendar quarters for purposes of these rules except at the beginning of a calendar year.

(8) "C.F.R." means Code of Federal Regulations.

(9) "Curie" means a unit of measurement of radioactivity. One curie (Ci) is that quantity of radioactive material which decays at the rate of 3.7×10^{10} disintegrations per second (dps). Commonly used submultiples of the curie are the millicurie and the microcurie. One millicurie (mCi) = 0.001 curie = 3.7×10^{7} dps. One microcurie (μCi) = 0.000001 curie = 3.7×10^{4} dps.

(10) "Department" means the department of health and environmental sciences.

(11) "Depleted uranium" means the source material uranium in which the isotope uranium-235 is less than 0.711 weight percent of the total uranium present. Depleted uranium does not include special nuclear material.

(12) "Dose" as used in this chapter means absorbed dose or dose equivalent as appropriate.

(a) "Absorbed dose" is the energy imparted to matter by ionizing radiation per unit mass of irradiated material at the place of interest. The special unit of absorbed dose is the rad.

(b) "Dose equivalent" is a quantity that expresses on a common scale for all radiation a measure of the postulated

effect on a given organ. It is defined as the absorbed dose in rads times certain modifying factors. The unit of dose equivalent is the rem.

(13) "Dose commitment" means the total radiation dose to a part of the body that will result from retention in the body of radioactive material. For purposes of estimating the dose commitment, it is assumed that from the time of intake the period of exposure to retained material will not exceed 50 years.

(14) "Exposure" means the quotient of dQ by dm where "dQ" is the absolute value of the total charge of the ions of one sign produced in air when all the electrons (negatrons and positrons) liberated by photons in a volume element of air having mass "dm" are completely stopped in air.

(15) "Exposure rate" means the exposure per unit of time, such as Roentgen (R) per minute and mR per hour.

(16) "Former United States Atomic Energy Commission (AEC) or United States Nuclear Regulatory Commission (NRC) licensed facilities" means nuclear reactors, nuclear fuel reprocessing plants, uranium enrichment plants, or critical mass experimental facilities where AEC or NRC licenses have been terminated.

(17) "Healing arts" means diagnostic and/or healing treatment of human and animal maladies including but not limited to the following which are duly licensed by the state of Montana for the lawful practice of: medicine and its associated specialties, dentistry, veterinary medicine, osteopathy, chiropractic, and podiatry.

(18) "High radiation area" means any area, accessible to individuals, in which there exists radiation at such levels that a major portion of the body could receive in any one hour a dose in excess of 100 millirems.

(19) "Human use" means the internal or external administration of radiation or radioactive material to human beings.

(20) "Individual" means any human being.

(21) "Inspection" means an official examination or observation including but not limited to, tests, surveys, and monitoring to determine compliance with rules, regulations, orders, requirements and conditions of the department.

(22) "License" means a license issued by the department in accordance with the rules adopted by the department.

(23) "Licensee" means any person who is licensed by the department in accordance with these rules and the Act.

(24) "Licensing state" means any state with regulations equivalent to the Suggested State Regulations for Control of Radiation relating to, and an effective program for, the regulatory control of NARM.

(25) "Major processor" means a user processing, handling, or manufacturing radioactive material exceeding Type A quantities as unsealed sources or material, or exceeding 4 times

Type B quantities as sealed sources, but does not include nuclear medicine programs, universities, industrial radiographers or small industrial programs. Type A quantity and Type B quantity is a quantity of radioactive material the aggregate radioactivity of which does not exceed that specified in the following table:

Transport Groups (see Appendix A)	Type A Quantity (in curies)	Type B Quantity (in curies)
I	0.001	20
II	0.05	20
III	3	200
IV	20	200
V	20	5,000
VI and VII	1,000	50,000
Special form	20*	5,000

*Except that for californium-252, the limit is 2 Ci.

(26) "NARM" means any naturally occurring or accelerator-produced radioactive material except source material.

(27) "Natural radioactivity" means radioactivity of naturally occurring nuclides.

(28) "Occupational dose" means exposure of an individual to radiation:

(a) in a restricted area; or

(b) in the course of employment in which the individual's duties involve exposure to radiation; provided, that occupational dose shall not be deemed to include any exposure of an individual to radiation for the purpose of diagnosis or therapy of such individual.

(29) "Ore refineries" means all processors of a radioactive material ore.

(30) "Particle accelerator" means any machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of 1 MeV.

(31) "Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this state, any other state or political subdivision or agency thereof, and any legal successor, representative, agent or agency of the foregoing.

(32) "Personnel monitoring equipment" means devices (e.g., film badges, pocket dosimeters, and thermoluminescent dosimeters) designed to be worn or carried by an individual for the purpose of estimating the dose received by the individual.

(33) "Pharmacist" means an individual licensed by this state to compound and dispense drugs, prescriptions, and poisons.

(34) "Physician" means a duly licensed physician authorized to dispense drugs in the practice of medicine in Montana.

(35) "Rad" means the special unit of absorbed dose. One rad equals one hundredth of a joule per kilogram of material; for example, if tissue is the material of interest, then 1 rad equals 100 ergs per gram of tissue.

(36) "Radiation" means ionizing radiation, i.e., gamma rays and X-rays, alpha and beta particles, high speed electrons, neutrons, and other nuclear particles.

(37) "Radiation area" means any area, accessible to individuals, in which there exists radiation at such levels that a major portion of the body could receive in any one hour a dose in excess of 5 millirems, or in any 5 consecutive days a dose in excess of 100 millirems.

(38) "Radiation machine" means any device capable of producing radiation except those which produce radiation only from radioactive material.

(39) "Radiation safety officer" means one who has the knowledge and responsibility to apply appropriate radiation protection regulations.

(40) "Radioactive material" means any material (solid, liquid, or gas) which emits radiation spontaneously.

(41) "Radioactivity" means the disintegration of unstable atomic nuclei by the emission of radiation.

(42) "Registrant" means any person who is registered with the department and is legally obligated to register with the department pursuant to this chapter and the Act.

(43) "Registration" means registration with the department in accordance with the rules adopted by the department.

(44) "Regulations of the U.S. Department of Transportation" means the regulations in 49 C.F.R. Parts 100-189.

(45) "Rem" means a measure of the dose of any radiation to body tissue in terms of its estimated biological effect relative to a dose received from an exposure to one roentgen (R) of X-rays. (One millirem (mrem) = 0.001 rem.) For the purpose of this chapter, any of the following is considered to be equivalent to a dose of one rem:

(a) An exposure of 1 R of X, or gamma radiation.

(b) A dose of 1 rad due to X, gamma, or beta radiation.

(c) A dose of 0.05 rad due to particles heavier than protons and with sufficient energy to reach the lens of the eye.

(d) A dose of 0.1 rad due to neutrons or high energy protons.

(i) If it is more convenient to measure the neutron flux, or equivalent, than to determine the neutron absorbed dose in rads, one rem of neutron radiation may, for purposes of this chapter, be assumed to be equivalent to 14 million neutrons per square centimeter incident upon the body; or if there exists sufficient information to estimate with reason-

able accuracy the approximate distribution in energy of the neutrons, the incident number of neutrons per square centimeter equivalent to one rem may be estimated from the following table:

Neutron Flux Dose Equivalents

Neutron energy (MeV)	Number of neutrons per square centimeter for a dose equivalent of 1 rem (neutrons/cm^2)	Average flux density to deliver 100 millirems in 40 hours (neutrons/cm^2 per second)
Thermal	970 x 10^6	670
0.0001	720 x 10^6	500
0.005	820 x 10^6	570
0.02	400 x 10^6	280
0.1	120 x 10^6	80
0.5	43 x 10^6	30
1.0	26 x 10^6	18
2.5	29 x 10^6	20
5.0	26 x 10^6	18
7.5	24 x 10^6	17
10.0	24 x 10^6	17
10 to 30	14 x 10^6	10

(46) "Research and development" means:

(a) theoretical analysis, exploration, or experimentation; or

(b) the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials, and processes.

Research and development does not include the internal or external administration of radiation or radioactive material to human beings.

(47) "Restricted area" (controlled area) means any area access to which is controlled by the licensee or registrant for purposes of protection of individuals from exposure to radiation and radioactive material. "Restricted area" shall not include any areas used for residential quarters, although a separate room or rooms in a residential building may be set apart as a restricted area.

(48) "Roentgen" (R) means the special unit of exposure. One roentgen equals 2.58 x 10^{-4} coulombs/kilogram of air.

(49) "Sealed source" means radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions which are likely to be encountered in normal use and handling.

(50) "Source material" means:

(a) uranium or thorium, or any combination thereof, in

any physical or chemical form; or

(b) ores which contain by weight one-twentieth of one percent (0.05 percent) or more of:

(i) uranium,

(ii) thorium, or

(iii) any combination thereof.

Source material does not include special nuclear material.

(51) "Source of radiation" means any radioactive material, or any device or equipment emitting or capable of producing radiation.

(52) "Special form" means any of the following physical forms of licensed material of any transport group:

(a) The material is in solid form having no dimension less than 0.5 millimeter or at least one dimension greater than five millimeters; does not melt, sublime, or ignite in air at a temperature of 1,000° F.; will not shatter or crumble if subjected to the percussion test described in Appendix B of this sub-chapter; and is not dissolved or converted into dispersible form to the extent of more than 0.005 percent by weight by immersion for 1 week in water at 68° F. or in air at 86° F.

(b) The material is securely contained in a capsule having no dimension less than 0.5 millimeter or at least one dimension greater than five millimeters, which will retain its contents if subjected to the tests prescribed in Appendix B of this sub-chapter and which is constructed of materials which do not melt, sublime, or ignite in air at 1,475° F., and do not dissolve or convert into dispersible form to the extent of more than 0.005 percent by weight by immersion for 1 week in water at 68° F. or in air at 86° F.

(53) "Special nuclear material in quantities not sufficient to form a critical mass" means uranium enriched in the isotope U-235 in quantities not exceeding 350 grams of contained U-235; uranium-233 in quantities not exceeding 200 grams; plutonium in quantities not exceeding 200 grams; or any combination of them in accordance with the following formula: For each kind of special nuclear material, determine the ratio between the quantity of that special nuclear material and the quantity specified above for the same kind of special nuclear material. The sum of such ratios for all of the kinds of special nuclear material in combination shall not exceed "1" (i.e., unity). For example, the following quantities in combination would not exceed the limitation and are within the formula:

$$\frac{175 \text{ (grams contained U-235)}}{350} + \frac{50 \text{(grams U-233)}}{200} + \frac{50 \text{(grams Pu)}}{200} = 1$$

(54) "Survey" means an evaluation of the production, use, release, disposal, and/or presence of sources of radiation under a specific set of conditions to determine actual or

potential radiation hazards. When appropriate, such evaluation includes, but is not limited to tests, physical examination and measurements of levels of radiation or concentration of radioactive material present.

(55) "Test" means a method for determining the characteristics of condition of sources of radiation or components thereof.

(56) "Transport group" means any one of seven groups into which radionuclides in normal form are classified, according to their toxicity and their relative potential hazard in transport, in Appendix A of this sub-chapter.

(a) Any radionuclide not specifically listed in one of the groups in Appendix A shall be assigned to one of the groups in accordance with the following table:

Radioactive half-life

Radionuclide	0 to 1000 days	1000 days to 10^6 years	Over 10^6 years
Atomic number 1-81	Group III	Group II	Group III
Atomic number 82 and over.	Group I	Group I	Group III

(b) For mixtures of radionuclides the following shall apply:

(i) If the identity and respective activity of each radionuclide are known, the permissible activity of each radionuclide shall be such that the sum, for all groups present, of the ratio between the total activity for each group to the permissible activity for each group will not be greater than unity.

(ii) If the groups of the radionuclides are known but the amount in each group cannot be reasonably determined, the mixture shall be assigned to the most restrictive group present.

(iii) If the identity of all or some of the radionuclides cannot be reasonably determined, each of those unidentified radionuclides shall be considered as belonging to the most restrictive group which cannot be positively excluded.

(iv) Mixtures consisting of a single radioactive decay chain where the radionuclides are in the naturally occurring proportions shall be considered as consisting of a single radionuclide. The group and activity shall be that of the first member present in the chain, except that if a radionuclide "X" has a half-life longer than that of that first member and an activity greater than that of any other member, including the first, at any time during transportation, the transport group of the nuclide "X" and the activity of the

mixture shall be the maximum activity of that nuclide "X" during transportation.

(57) "U. S. Department of Energy" means the department of energy established by Public Law 95-91, August 4, 1977, 91 Stat. 565, 42 U.S.C. 7101 et seq., to the extent that the department exercises functions formerly vested in the U.S. Atomic Energy Commission, its chairman, its members, officers and components and transferred to the U.S. Energy Research and Development Administration and to the administrator thereof pursuant to sections 104(b), (c) and (d) of the Energy Reorganization Act of 1974 (Public Law 93-438, October 11, 1974, 88 Stat. 1233 at 1237, effective January 19, 1975) and retransferred to the Secretary of Energy pursuant to section 301(a) of the Department of Energy Organization Act (Public Law 95-91, August 4, 1977, 91 Stat. 565 at 577-578, 42 U.S.C. 7151, effective October 1, 1977).

(58) "Unrefined and unprocessed ore" means ore in its natural form prior to any processing, such as grinding, roasting, beneficiating, or refining.

(59) "Unrestricted area" (uncontrolled area) means any area access to which is not controlled by the licensee or registrant for purposes of protection of individuals from exposure to radiation and radioactive material, and any area used for residential quarters.

(60) "Waste handling licensees" mean persons licensed to receive and store radioactive wastes prior to disposal and/or persons licensed to dispose of radioactive waste.

(61) "Worker" means an individual engaged in work under a license or registration issued by the department and controlled by a licensee or registrant, but does not include the licensee or registrant.

16-2.12(1)-S12103 EXEMPTIONS (1) The department may, upon application therefor or upon its own initiative, grant such exemptions or exceptions from the requirements of this chapter as it determines are authorized by law and will not result in undue hazard to public health and safety or property.

(2) Common and contract carriers, freight forwarders, and warehousemen, who are subject to the rules and regulations of the U. S. Department of Transportation or the U. S. Postal Service (39 C.F.R. Parts 14 and 15), are exempt from this chapter to the extent that they transport or store sources of radiation in the regular course of their carriage for another or storage incident thereto. Private carriers who are subject to the rules and regulations of the U.S. Department of Transportation are exempt from this chapter to the extent that they transport sources of radiation. Common, contract, and private carriers who are not subject to the rules and regulations of the U. S. Department of Transportation or the U. S. Postal Service are subject to the applicable

rules of this chapter.

(3) Any U. S. Department of Energy contractor or subcontractor and any U.S. Nuclear Regulatory Commission contractor or subcontractor of the following categories operating within Montana is exempt from this chapter to the extent that such contractor or subcontractor under his contract receives, possesses, uses, transfers or acquires sources of radiation:

(a) prime contractors performing work for the U.S. Department of Energy at U.S. Government-owned or controlled sites, including the transportation of sources of radiation to or from such sites and the performance of contract services during temporary interruptions of such transportation;

(b) prime contractors of the U.S. Department of Energy performing research in, or development, manufacture, storage, testing or transportation of, atomic weapons or components thereof;

(c) prime contractors of the U.S. Department of Energy using or operating nuclear reactors or other nuclear devices in a United States Government-owned vehicle or vessel; and

(d) any other prime contractor or subcontractor of the U.S. Department of Energy or of the U.S. Nuclear Regulatory Commission when the department and the Nuclear Regulatory Commission jointly determine:

(i) that the exemption of the prime contractor or subcontractor is authorized by law; and

(ii) that under the terms of the contract or subcontract, there is adequate assurance that the work thereunder can be accomplished without undue risk to the public health and safety.

16-2.12(1)-S12104 RECORDS Each licensee and registrant shall maintain records showing the receipt, transfer, and disposal of all sources of radiation. Additional record requirements are specified elsewhere in this chapter.

16-2.12(1)-S12105 INSPECTIONS (1) Each licensee and registrant shall afford the department at all reasonable times opportunity to inspect sources of radiation and the premises and facilities wherein such sources of radiation are used or stored.

(2) Each licensee and registrant shall make available to the department for inspection, upon reasonable notice, records maintained pursuant to this chapter.

16-2.12(1)-S12106 TESTS (1) Each licensee and registrant shall perform upon instructions from the department, or shall permit the department to perform, such reasonable tests as the department deems appropriate or necessary including, but not limited to, tests of:

(a) sources of radiation;

(b) facilities wherein sources of radiation are used or stored;

(c) radiation detection and monitoring instruments; and

(d) other equipment and devices used in connection with utilization or storage of licensed or registered sources of radiation.

16-2.12(1)-S12107 ADDITIONAL REQUIREMENTS The department may, by rule, regulation, or order, impose upon any licensee or registrant such requirements in addition to those established in this chapter as it deems appropriate or necessary to minimize danger to public health and safety or property.

16-2.12(1)-S12108 PROHIBITED USES No person may use hand-held fluoroscopic screens or shoe-fitting fluoroscopic devices.

16-2.12(1)-S12109 COMMUNICATIONS All communications and reports concerning this chapter, and applications filed thereunder, should be addressed to the department at its office: Radiation Control Section, Department of Health and Environmental Sciences, Cogswell Building, Helena, Montana, 59601.

APPENDIX A

TRANSPORT GROUPING OF RADIONUCLIDES

Element[1]/	Radionuclide[2]/	Group
Actinium(89)	Ac-227	I
	Ac-228	I
Americium(95)	Am-241	I
	Am-243	I
Antimony(51)	Sb-122	IV
	Sb-124	III
	Sb-125	III
Argon(18)	Ar-37	VI
	Ar-41	II
	Ar-41(uncompressed)[3]/	V
Arsenic(33)	As-73	IV
	As-74	IV
	As-76	IV
	As-77	IV
Astatine(85)	At-211	III
Barium(56)	Ba-131	IV
	Ba-133	II
	Ba-140	III
Berkelium(97)	Bk-249	I
Beryllium(4)	Be-7	IV
Bismuth(83)	Bi-206	IV
	Bi-207	III
	Bi-210	II
	Bi-212	III
Bromine(35)	Br-82	IV
Cadmium(48)	Cd-109	IV
	Cd-115m	III
	Cd-115	IV
Calcium(20)	Ca-45	IV
	Ca-47	IV
Californium(98)	Cf-249	I
	Cf-250	I
	Cf-252	I
Carbon(6)	C-14	IV

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
3/ Uncompressed means at a pressure not exceeding one atmosphere.
m Metastable state.

Element[1/]	Radionuclide[2/]	Group
Cerium(58)	Ce-141	IV
	Ce-143	IV
	Ce-144	III
Cesium(55)	Cs-131	IV
	Cs-134m	III
	Cs-134	III
	Cs-135	IV
	Cs-136	IV
	Cs-137	III
Chlorine(17)	Cl-36	III
	Cl-38	IV
Chromium(24)	Cr-51	IV
Cobalt(27)	Co-56	III
	Co-57	IV
	Co-58m	IV
	Co-58	IV
	Co-60	III
Copper(29)	Cu-64	IV
Curium(96)	Cm-242	I
	Cm-243	I
	Cm-244	I
	Cm-245	I
	Cm-246	I
Dysprosium(66)	Dy-154	III
	Dy-165	IV
	Dy-166	IV
Erbium(68)	Er-169	IV
	Er-171	IV
Europium(63)	Eu-150	III
	Eu-152m	IV
	Eu-152	III
	Eu-154	II
	Eu-155	IV
Fluorine(9)	F-18	IV
Gadolinium(64)	Gd-153	IV
	Gd-159	IV
Gallium(31)	Ga-67	III
	Ga-72	IV
Germanium(32)	Ge-71	IV

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
m Metastable state.

Element[1]/	Radionuclide[2]/	Group
Gold(79)	Au-193	III
	Au-194	III
	Au-195	III
	Au-196	IV
	Au-198	IV
	Au-199	IV
Hafnium(72)	Hf-181	IV
Holmiun(67)	Ho-166	IV
Hydrogen(1)	H-3(see tritium)	
Indium(49)	In-113m	IV
	In-114m	III
	In-115m	IV
	In-115	IV
Iodine(53)	I-124	III
	I-125	III
	I-126	III
	I-129	III
	I-131	III
	I-132	IV
	I-133	III
	I-134	IV
	I-135	IV
Iridium(77)	Ir-190	IV
	Ir-192	III
	Ir-194	IV
Iron(26)	Fe-55	IV
	Fe-59	IV
Krypton(36)	Kr-85m	III
	Kr-85m(uncompressed)[3]/	V
	Kr-85	III
	Kr-85(uncompressed)[3]/	VI
	Kr-87	II
	Kr-87(uncompressed)[3]/	V
Lanthanum(57)	La-140	IV

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
3/ Uncompressed means at a pressure not exceeding one atmosphere.
m Metastable state.

Element 1/	Radionuclide 2/	Group
Lead(82)	Pb-203	IV
	Pb-210	II
	Pb-212	II
Lutetium(71)	Lu-172	III
	Lu-177	IV
Magnesium(12)	Mg-28	III
Manganese(25)	Mn-52	IV
	Mn-54	IV
	Mn-56	IV
Mercury(80)	Hg-197m	IV
	Hg-197	IV
	Hg-203	IV
Mixed fission products(MFP)		II
Molybdenum(42)	Mo-99	IV
Neodymium(60)	Nd-147	IV
	Nd-149	IV
Neptunium(93)	Np-237	I
	Np-239	I
Nickel(28)	Ni-56	III
	Ni-59	IV
	Ni-63	IV
	Ni-65	IV
Niobium(41)	Nb-93m	IV
	Nb-95	IV
	Nb-97	IV
Osmium(76)	Os-185	IV
	Os-191m	IV
	Os-191	IV
	Os-193	IV
Palladium(46)	Pd-103	IV
	Pd-109	IV
Phosphorus(15)	P-32	IV
Platinum(78)	Pt-191	IV
	Pt-193	IV
	Pt-193m	IV
	Pt-197m	IV
	Pt-197	IV

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
m Metastable state.

Element[1]/	Radionuclide[2]/	Group
Plutonium(94)	Pu-238(F)	I
	Pu-239(F)	I
	Pu-240	I
	Pu-241(F)	I
	Pu-242	I
Polonium(84)	Po-210	I
Pottassium(19)	K-42	IV
	K-43	III
Praseodymium(59)	Pr-142	IV
	Pr-143	IV
Promethium(61)	Pm-147	IV
	Pm-149	IV
Protactinium(91)	Pa-230	I
	Pa-231	I
	Pa-233	II
Radium(88)	Ra-223	II
	Ra-224	II
	Ra-226	I
	Ra-228	I
Radon(86)	Rn-220	IV
	Rn-222	II
Rhenium(75)	Re-183	IV
	Re-186	IV
	Re-187	IV
	Re-188	IV
	Re-Natural	IV
Rhodium(45)	Rh-103m	IV
	Rh-105	IV
Rubidium(37)	Rb-86	IV
	Rb-87	IV
	Rb-Natural	IV
Ruthenium(44)	Ru-97	IV
	Ru-103	IV
	Ru-105	IV
	Ru-106	III
Samarium(62)	Sm-145	III
	Sm-147	III
	Sm-151	IV
	Sm-153	IV

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
m Metastable state.
(F) Fissile material.

Element[1/]	Radionuclide[2/]	Group
Scandium(21)	Sc-46	III
	Sc-47	IV
	Sc-48	IV
Selenium(34)	Se-75	IV
Silicon(14)	Si-31	IV
Silver(47)	Ag-105	IV
	Ag-110m	III
	Ag-111	IV
Sodium(11)	Na-22	III
	Na-24	IV
Strontium(38)	Sr-85m	IV
	Sr-85	IV
	Sr-89	III
	Sr-90	II
	Sr-91	III
	Sr-92	IV
	Sr-89	III
	Sr-90	II
	Sr-91	III
	Sr-92	IV
Sulfur(16)	S-35	IV
Tantalum(73)	Ta-182	III
Technetium(43)	Tc-96m	IV
	Tc-96	IV
	Tc-97m	IV
	Tc-97	IV
	Tc-99m	IV
	Tc-99	IV
Tellurium(52)	Te-125m	IV
	Te-127m	IV
	Te-127	IV
	Te-129m	III
	Te-129	IV
	Te-131m	III
	Te-132	IV
Terbium(65)	Tb-160	III
Thallium(81)	Tl-200	IV
	Tl-201	IV
	Tl-202	IV
	Tl-204	III

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
m Metastable state.

Element[1/]	Radionuclide[2/]	Group
Thorium(90)	Th-227	II
	Th-228	I
	Th-230	I
	Th-231	I
	Th-232	III
	Th-234	II
	Th-Natural	III
Thulium(69)	Tm-168	III
	Tm-170	III
	Tm-171	IV
Tin(50)	Sn-113	IV
	Sn-117m	III
	Sn-121	III
	Sn-125	IV
Tritium(1)	H-3	IV
	H-3(as a gas, as luminous paint, or adsorbed on solid material).	VII
Tungsten(74)	W-181	IV
	W-185	IV
	W-187	IV
Uranium(92)	U-230	II
	U-232	I
	U-233(F)	II
	U-234	II
	U-235(F)	III
	U-236	II
	U-238	III
	U-Natural	III
	U-Enriched(F)	III
	U-Depleted	III
Vanadium(23)	V-48	IV
	V-49	III
	Y-91m	III
	Y-91	III
	Y-92	IV
	Y-93	IV

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
m Metastable state.
(F) Fissile material.

Element[1/]	Radionuclide[2/]	Group
Xenon(54)	Xe-125	III
	Xe-131m	III
	Xe-131m (uncompressed)[3/]	V
	Xe-133	III
	Xe-133 (uncompressed)[3/]	VI
	Xe-135	II
	Xe-135 (uncompressed)[3/]	V
Ytterbium(70)	Yb-175	IV
Yttrium(39)	Y-88	III
	Y-90 (uncompressed)[3/]	IV
Zinc(30)	Zn-65	IV
	Zn-69m	IV
	Zn-69	IV
Zirconium(40)	Zr-93	IV
	Zr-95	III
	Zr-97	IV

1/ Atomic number shown in parentheses.
2/ Atomic mass number shown after the element symbol.
3/ Uncompressed means at a pressure not exceeding one atmosphere.
m Metastable state.

APPENDIX B

TESTS FOR SPECIAL FORM LICENSED MATERIAL

1. Free Drop - A free drop through a distance of 30 feet onto a flat essentially unyielding horizontal surface, striking the surface in such a position as to suffer maximum damage.

2. Percussion - Impact of the flat circular end of a 1 inch diameter steel rod weighing 3 pounds, dropped through a distance of 40 inches. The capsule or material shall be placed on a sheet of lead, of hardness number 3.5 to 4.5 on the Vickers scale, and not more than 1 inch thick, supported by a smooth essentially unyielding surface.

3. Heating - Heating in air to a temperature of 1,475^{O} F. and remaining at that temperature for a period of 10 minutes.

4. Immersion - Immersion for 24 hours in water at room temperature. The water shall be at pH 6 - pH 8, with a maximum conductivity of 10 micromhos per centimeter.

Sub-Chapter 2

Registration of Radiation Machine Facilities

16-2.12(2)-S12201 PURPOSE (1) This sub-chapter provides for the registration of radiation machine facilities.

(2) In addition to the requirements of this sub-chapter, all registrants are subject to the applicable provisions of other rules of this chapter.

16-2.12(2)-S12202 DEFINITIONS For purposes of this sub-chapter, "facility" means the location at which one or more devices or sources are installed and/or located within one building, vehicle, or under one roof and are under the same administrative control.

16-2.12(2)-S12203 EXEMPTIONS (1) Electronic equipment that produces radiation incidental to its operation for other purposes is exempt from the registration and notification requirements of this sub-chapter, providing dose equivalent rate averaged over an area of 10 square centimeters does not exceed 0.5 mrem per hour at 5 cm from any accessible surface of such equipment. The production, testing, or factory servicing of such equipment shall not be exempt.

(2) Radiation machines while in transit or storage incident thereto are exempt from the requirements of this sub-chapter.

(3) Domestic television receivers are exempt from the requirements of this sub-chapter.

16-2.12(2)-S12204 REGISTRATION (1) The owner or person having possession of any radiation machine shall:

(a) Register such machine with the department within 30 days following the effective date of this chapter or after acquisition of such machine and prior to its use. Registration shall be on forms available from the department.

(b) Designate an individual who will be responsible for radiation protection for the machine. Such individuals shall:

(i) be qualified by training and experience concerning all hazards and precautions involved in operating the machine for which he is responsible;

(ii) upon request by the department provide a detailed program of radiation safety for effective compliance with the applicable requirements of this chapter;

(iii) give instructions concerning hazards and safety practices to individuals who may be occupationally exposed to radiation from the machine; and

(iv) make surveys and carry out other procedures as required by this chapter.

(c) When, in the opinion of the department, the individual designated to be responsible for radiation safety does not have qualifications sufficient to insure such safety, the department may order the registrant to designate another individual who meets the requirements of this subsection.

(2) The registrant shall notify the department within 10 days after any change which renders the information on the registration no longer accurate.

(3) The owner or person having possession of any registered radiation machine shall re-register such machine with the department every two years as long as the activity requiring such registration continues.

(4) No person, in any advertisement, shall refer to the fact that a radiation machine is registered with the department and no person shall state or imply that any activity under such registration has been approved by the department.

(5) Whenever a manufacturer, his agent or a dealer sells or transfers title to a radiation machine, said manufacturer, his agent or the dealer shall give written notification thereof to the department. Written notification shall be given within 15 days of such sale or transfer of title and shall include the name and address of the new owner or owners.

(6) Whenever an owner sells, transfers title, or disposes of a radiation machine, said owner shall given written notification thereof to the department. This written notification shall be given within 15 days of such sale, transfer of title, or disposal, and shall include the name and address of the owner and details of the final disposal of the machine.

16-2.12(2)-S12205 OUT-OF-STATE RADIATION MACHINES

(1) Whenever any radiation machine is to be brought into Montana, for any temporary use, the person proposing to bring such machine into Montana shall give written notice to the department at least two working days before such machine is to be used in Montana. The notice shall include:

(a) the type of radiation machine;

(b) the nature, duration, and scope of use; and

(c) the exact location(s) where the radiation machine is to be used.

(2) If, for a specific case, the two working-day period would impose an undue hardship on the person, upon application to the department, permission to proceed sooner may be granted.

(3) The person referred to in subsection (1) of this rule shall:

(a) comply with all applicable rules of the department;

(b) supply the department with such other information as the department may reasonably request; and

(c) not operate within Montana on a temporary basis in excess of 180 calendar days per year.

Sub-Chapter 3

Licensing of Radioactive Material

16-2.12(3)-S12301 PURPOSE (1) This sub-chapter provides for the licensing of radioactive material. No person shall receive, possess, use, transfer, or acquire radioactive material except as authorized in a specific or general license issued pursuant to this sub-chapter.

(2) In addition to the requirements of this sub-chapter, all licensees are subject to the requirements of Title 16, Chapter 12, sub-chapters (1), (4) and (10), ARM. Licensees engaged in industrial radiographic operations are subject to the requirements of Title 16, Chapter 12, sub-chapter (5), ARM and licensees using sealed sources in the healing arts are subject to the requirements of Title 16, Chapter 12, sub-chapter (7), ARM.

16-2.12(3)-S12302 EXEMPTIONS -- SOURCE MATERIAL (1) Any person is exempt from this sub-chapter to the extent that such person receives, possesses, uses, or transfers source material in any chemical mixture, compound, solution, or alloy in which the source material is by weight less than 1/20 of 1 percent (0.05 percent) of the mixture, compound, solution, or alloy.

(2) Any person is exempt from this sub-chapter to the extent that such person receives, possesses, uses, or transfers unrefined and unprocessed ore containing source material; provided that, except as authorized in a specific license, such person shall not refine or process such ore.

(3) Any person is exempt from this sub-chapter to the extent that such person receives, possesses, uses, or transfers:

(a) any quantities of thorium contained in

(i) incandescent gas mantles,

(ii) vacuum tubes,

(iii) welding rods,

(iv) electric lamps for illuminating purposes provided that each lamp does not contain more than 50 milligrams of thorium,

(v) germicidal lamps, sunlamps, and lamps for outdoor or industrial lighting provided that each lamp does not contain more than two grams of thorium,

(vi) rare earth metals and compounds, mixtures, and products containing not more than 0.25 percent by weight thorium, uranium, or any combination of these, or

(vii) personnel neutron dosimeters, provided that each dosimeter does not contain more than 50 milligrams of thorium;

(b) source material contained in the following products:

(i) glazed ceramic tableware, provided that the glaze

contains not more than 20 percent by weight source material,

(ii) glassware, glass enamel and glass enamel frit containing not more than 10 percent by weight source material, but not including commercially manufactured glass brick, pane glass, ceramic tile or other glass, glass enamel or ceramic used in construction, or

(iii) piezoelectric ceramic containing not more than 2 percent by weight source material;

(c) photographic film, negatives, and prints containing uranium or thorium;

(d) any finished product or part fabricated of, or containing, tungsten-thorium or magnesium-thorium alloys, provided that the thorium content of the alloy does not exceed 4 percent by weight and that this exemption shall not be deemed to authorize the chemical, physical, or metallurgical treatment or processing of any such product or part;

(e) uranium contained in counterweights installed in aircraft, rockets, projectiles, and missiles, or stored or handled in connection with installation or removal of such counterweights, provided that

(i) the counterweights are manufactured in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, authorizing distribution by the licensee pursuant to 10 C.F.R. Part 40,

(ii) each counterweight has been impressed with the following legend clearly legible through any plating or other covering: "DEPLETED URANIUM" The requirements specified in subsection (3)(e)(ii) and (iii) of this rule need not be met by counterweights manufactured prior to December 31, 1969; provided, that such counterweights are impressed with the legend "CAUTION - RADIOACTIVE MATERIAL - URANIUM", as previously required by this chapter.

(iii) each counterweight is durably and legibly labeled or marked with the identification of the manufacturer and the statement: "UNAUTHORIZED ALTERATIONS PROHIBITED", and

(iv) this exemption shall not be deemed to authorize the chemical, physical, or metallurgical treatment or processing of any such counterweights other than repair or restoration of any plating or other covering;

(f) uranium used as shielding constituting part of any shipping container which is conspicuously and legibly impressed with the legend "CAUTION - RADIOACTIVE SHIELDING - URANIUM" and which meets the specifications for containers for radioactive material prescribed in Section 173.394 or 173.395 of 49 C.F.R. Part 173 of the U. S. Department of Transportation regulations;

(g) thorium contained in finished optical lenses, provided that each lens does not contain more than 30 percent by weight of thorium, and that this exemption shall not be deemed to authorize either

(i) the shaping, grinding, or polishing of such lens or manufacturing processes other than the assembly of such lens into optical systems and devices without any alteration of the lens, or

(ii) the receipt, possession, use, or transfer of thorium contained in contact lenses, or in spectacles, or in eyepieces in binoculars or other optical instruments;

(h) uranium contained in detector heads for use in fire detection units, provided that each detector head contains not more than 0.005 microcurie of uranium; or

(i) thorium contained in any finished aircraft engine part containing nickel-thoria alloy, provided that

(i) the thorium is dispersed in the nickel-thoria alloy in the form of finely divided thoria (thorium dioxide), and

(ii) the thorium content in the nickel-thoria alloy does not exceed 4 percent by weight.

(4) The exemptions in subsection (3) of this rule do not authorize the manufacture of any of the products described.

16-2.12(3)-S12303 EXEMPTIONS -- RADIOACTIVE MATERIAL OTHER THAN SOURCE MATERIAL (1) (a) Except as provided in subsection (1)(b) of this rule, any person is exempt from this sub-chapter to the extent that such person receives, possesses, uses, transfers, or acquires products or materials containing radioactive material in concentrations not in excess of those listed in Schedule A of this sub-chapter.

(b) No person may introduce radioactive material into a product or material knowing or having reason to believe that it will be transferred to persons exempt under subsection (1)(a) of this rule or equivalent regulations of the U.S. Nuclear Regulatory Commission, any agreement state or licensing state, except in accordance with a specific license issued pursuant to ARM 16-2.12(3)-S12312(1) or the general license provided in ARM 16-2.12(3)-S12323.

(2) (a) Except as provided in ARM 16-2.12(3)-S12303 (2)(c) and (d), any person is exempt from this chapter to the extent that such person receives, possesses, uses, transfers or acquires radioactive material in individual quantities each of which does not exceed the applicable quantity set forth in Schedule B of this sub-chapter.

(b) ARM 16-2.12(3)-S12303(2) does not authorize the production, packaging or repackaging of radioactive material for purposes of commercial distribution, or the incorporation of radioactive material into products intended for commercial distribution.

(c) No person may, for purposes of commercial distribution, transfer radioactive material in the individual quantities set forth in Schedule B of this sub-chapter, knowing or having reason to believe that such quantities of radioactive

material will be transferred to persons exempt under ARM 16-2.12(3)-S12303(2) or equivalent regulations of the U.S. Nuclear Regulatory Commission, any agreement state or licensing state, except in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission pursuant to Section 32.18 of 10 C.F.R. Part 32 or by the department pursuant to ARM 16-2.12(3)-S12312(2) which license states that the radioactive material may be transferred by the licensee to persons exempt under subsection (2) of this rule or the equivalent regulations of the U.S. Nuclear Regulatory Commission, any agreement state or licensing state.

(3) Except for persons who apply radioactive material to, or persons who incorporate radioactive material into the following products, any person is exempt from this sub-chapter to the extent that he receives, possesses, uses, transfers, or acquires the following products: (Authority to transfer possession or control by the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing byproduct material whose subsequent possession, use, transfer, and disposal by all other persons are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.)

(a) Timepieces or hands or dials containing not more than the following specified quantities of radioactive material and not exceeding the following specified levels of radiation:

(i) 25 millicuries of tritium per timepiece.

(ii) 5 millicuries of tritium per hand.

(iii) 15 millicuries of tritium per dial (bezels when used shall be considered as part of the dial).

(iv) 100 microcuries of promethium-147 per watch or 200 microcuries of promethium-147 per any other timepiece.

(v) 20 microcuries of promethium-147 per watch hand or 40 microcuries of promethium-147 per other timepiece hand.

(vi) 60 microcuries of promethium-147 per watch dial or 120 microcuries of promethium-147 per other timepiece dial (bezels when used shall be considered as part of the dial).

(vii) The levels of radiation from hands and dials containing promethium-147 will not exceed, when measured through 50 milligrams per square centimeter of absorber:

(A) For wrist watches, 0.1 millirad per hour at 10 centimeters from any surface.

(B) For pocket watches, 0.1 millirad per hour at 1 centimeter from any surface.

(C) For any other timepiece, 0.2 millirad per hour at 10 centimeters from any surface.

(viii) One microcurie of radium-226 per timepiece in timepieces acquired prior to the effective date of this chapter.

(b) Lock illuminators containing not more than 15 millicuries of tritium or not more than 2 millicuries of promethium-147 installed in automobile locks. The levels of radiation from each lock illuminator containing promethium-147 will not exceed 1 millirad per hour at 1 centimeter from any surface when measured through 50 milligrams per square centimeter of absorber.

(c) Precision balances containing not more than 1 millicurie of tritium per balance or not more than 0.5 millicurie of tritium per balance part.

(d) Automobile shift quadrants containing not more than 25 millicuries of tritium.

(e) Marine compasses containing not more than 750 millicuries of tritium gas and other marine navigational instruments containing not more than 250 millicuries of tritium gas.

(f) Thermostat dials and pointers containing not more than 25 millicuries of tritium per thermostat.

(g) Electron tubes; provided, that each tube does not contain more than one of the following specified quantities of byproduct material:

(i) 150 millicuries of tritium per microwave receiver protector tube or 10 millicuries of tritium per any other electron tube.

(ii) 1 microcurie of cobalt-60.

(iii) 5 microcuries of nickel-63.

(iv) 30 microcuries of krypton-85.

(v) 5 microcuries of cesium-137.

(vi) 30 microcuries of promethium-147.

And provided further, that the levels of radiation from each electron tube containing byproduct material do not exceed 1 millirad per hour at 1 centimeter from any surface when measured through 7 milligrams per square centimeter of absorber. For purposes of subsection (3)(g) of this rule, "electron tubes" include spark gap tubes, power tubes, gas tubes including glow lamps, receiving tubes, microwave tubes, indicator tubes, pick-up tubes, radiation detection tubes, and any other completely sealed tube that is designed to conduct or control electrical currents.

(h) Ionizing radiation measuring instruments containing, for purposes of internal calibration or standardization, a source of radioactive material not exceeding the applicable quantity set forth in Schedule B of this sub-chapter.

(i) Spark gap irradiators containing not more than one microcurie of cobalt-60 per spark gap irradiator for use in electrically ignited fuel oil burners having a firing rate of at least 3 gallons (11.4 liters) per hour.

(4) (a) Tritium, Krypton-85, or Promethium-147. Except for persons who manufacture, process, or produce self-luminous products containing tritium, krypton-85, or

promethium-147, any person is exempt from this chapter to the extent that such person receives, possesses, uses, transfers, or acquires tritium, krypton-85 or promethium-147 in self-luminous products manufactured, processed, produced, imported, or transferred in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission pursuant to Section 32.22 of 10 C.F.R. Part 32, which license authorizes the transfer of the product to persons who are exempt from regulatory requirements. The exemption in subsection (4)(a) of this rule does not apply to tritium, krypton-85, or promethium-147 used in products for frivolous purposes or in toys or adornments.

(b) Radium-226. Any person is exempt from this chapter to the extent that such person receives, possesses, uses, or transfers articles containing less than 0.1 microcurie of radium-226 which were acquired prior to the effective date of this chapter.

(5) (a) Except for persons who manufacture, process, or produce gas and aerosol detectors containing radioactive material, any person is exempt from this chapter to the extent that such person receives, possesses, uses, transfers, or acquires radioactive material in gas and aerosol detectors designed to protect life or property from fire and airborne hazards provided that detectors containing radioactive material shall have been manufactured, imported, or transferred in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission pursuant to Section 32.26 of 10 C.F.R. Part 32; or a licensing state pursuant to ARM 16-2.12(3)-S12312(3), which authorizes the transfer of the detectors to persons who are exempt from regulatory requirements. Authority to transfer possession or control by the manufacturer, processor or producer of any equipment, device, commodity, or other product containing byproduct material whose subsequent possession, use, transfer, and disposal by all other persons are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

(b) Gas and aerosol detectors previously manufactured and distributed to general licensees in accordance with a specific license issued by an agreement state shall be considered exempt under subsection(5)(a) of this rule, provided that the device is labeled in accordance with the specific license authorizing distribution of the generally licensed device, and provided further that they meet the requirements of ARM 16-2.12(3)-S12312(3).

(c) Gas and aerosol detectors containing NARM previously manufactured and distributed in accordance with a specific license issued by a licensing state shall be considered exempt under subsection (5)(a) of this rule, provided that the

device is labeled in accordance with the specific license authorizing distribution, and provided further that they meet the requirements of ARM 16-2.12(3)-S12312(3).

(6) Any person is exempt from this chapter to the extent that such person receives, possesses, uses, transfers, or acquires synthetic plastic resins containing scandium-46 which are designed for sand consolidation in oil wells. Such resins shall have been manufactured or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, or shall have been manufactured in accordance with the specifications contained in a specific license issued by the department or any agreement state to the manufacturer of such resins pursuant to licensing requirements equivalent to those in Sections 32.16 and 32.17 of 10 C.F.R. Part 32 of the regulations of the U.S. Nuclear Regulatory Commission. This exemption does not authorize the manufacture of any resins containing scandium-46.

16-2.12(3)-S12304 LICENSES -- TYPES OF LICENSES

(1) Licenses for radioactive materials are of two types: general and specific. General licenses provided in this sub-chapter are effective without the filing of applications with the department or the issuance of licensing documents to the particular persons, although the filing of a certificate with the department may be required by the particular general license. The general license is subject to all other applicable portions of this chapter and any limitations of the general license.

(2) Specific licenses require the submission of an application to the department and the issuance of a licensing document by the department. The licensee is subject to all applicable portions of this chapter as well as any limitations specified in the licensing document.

16-2.12(3)-S12305 GENERAL LICENSES -- SOURCE MATERIAL

(1) A general license is hereby issued authorizing use and transfer of not more than 15 pounds of source material at any one time by persons in the following categories:

(a) Pharmacists using the source material solely for the compounding of medicinals.

(b) Physicians using the source material for medicinal purposes.

(c) Persons receiving possession of source material from pharmacists and physicians in the form of medicinals or drugs.

(d) Commercial and industrial firms, and research, educational, and medical institutions, and state and local governmental agencies for research, development, educational, commercial or operational purposes.

And provided, that no such person shall, pursuant to

this general license, receive more than a total of 150 pounds of source material in any one calendar year.

(2) Persons who receive, possess, use, or transfer source material pursuant to the general license issued in subsection (1) of this rule are exempt from the provisions of Title 16, Chapter 12, sub-chapters (4) and (10), ARM, to the extent that such receipt, possession, use, or transfer is within the terms of such general license; provided, however, that this exemption shall not be deemed to apply to any such person who is also in possession of source material under a specific license issued pursuant to this sub-chapter.

(3) A general license is hereby issued authorizing the receipt of title to source material without regard to quantity. This general license does not authorize any person to receive, possess, use, or transfer source material.

(4) (a) A general license is hereby issued to receive, acquire, possess, use, or transfer, in accordance with the provisions of subsections (4)(b), (c), (d) and (e) of this rule, depleted uranium contained in industrial products or devices for the purpose of providing a concentrated mass in a small volume of the product or device.

(b) The general license in subsection (4)(a) of this rule applies only to industrial products or devices which have been manufactured either in accordance with a specific license issued to the manufacturer of the products or devices pursuant to ARM 16-2.12(3)-S12312(13) or in accordance with a specific license issued to the manufacturer by the U.S. Nuclear Regulatory Commission or an agreement state which authorizes manufacture of the products or devices for distribution to persons generally licensed by the U.S. Nuclear Regulatory Commission or an agreement state.

(c) (i) Persons who receive, acquire, possess, or use depleted uranium pursuant to the general license established by subsection (4)(a) of this rule shall file department form MRH-12, "Registration Certificate - Use of Depleted Uranium Under General License", with the department. The form shall be submitted within 30 days after the first receipt or acquisition of such depleted uranium. The registrant shall furnish on department form MRH-12 the following information and such other information as may be required by that form:

(A) name and address of the registrant;

(B) a statement that the registrant has developed and will maintain procedures designed to establish physical control over the depleted uranium described in subsection (4)(a) of this rule and designed to prevent transfer of such depleted uranium in any form, including metal scrap, to persons not authorized to receive the depleted uranium; and

(C) name and/or title, address, and telephone number of the individual duly authorized to act for and on behalf of the registrant in supervising the procedures identified in sub-

section (4)(c)(i)(B) of this rule.

(ii) The registrant possessing or using depleted uranium under the general license established by subsection(4)(a) of this rule shall report in writing to the department any changes in information furnished by him in department form MRH-12, "Registration Certificate - Use of Depleted Uranium Under General License." The report shall be submitted within 30 days after the effective date of such change.

(d) A person who receives, acquires, possesses, or uses depleted uranium pursuant to the general license established by subsection (4)(a) of this rule:

(i) Shall not introduce such depleted uranium, in any form, into a chemical, physical, or metallurgical treatment or process, except a treatment or process for repair or restoration of any plating or other covering of the depleted uranium.

(ii) Shall not abandon such depleted uranium.

(iii) Shall transfer or dispose of such depleted uranium only by transfer in accordance with the provisions of ARM 16-2.12(3)-S12321. In the case where the transferee receives the depleted uranium pursuant to the general license established by subsection (4)(a) of this rule, the transferor shall furnish the transferee a copy of this rule and a copy of department form MRH-12. In the case where the transferee receives the depleted uranium pursuant to a general license contained in the U.S. Nuclear Regulatory Commission's or agreement state's regulation equivalent to subsection(4)(a) of this rule, the transferor shall furnish the transferee a copy of this rule and a copy of department form MRH-12 accompanied by a note explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or agreement state under requirements substantially the same as those in this rule.

(iv) Within 30 days of any transfer, shall report in writing to the department the name and address of the person receiving the depleted uranium pursuant to such transfer.

(v) Shall not export such depleted uranium except in accordance with a license issued by the U.S. Nuclear Regulatory Commission pursuant to 10 C.F.R. Part 110.

(e) Any person receiving, acquiring, possessing, using, or transferring depleted uranium pursuant to the general license established by subsection(4)(a) of this rule is exempt from the requirements of Title 16, Chapter 12, subchapters (4) and (10), ARM, with respect to the depleted uranium covered by that general license.

16-2.12(3)-S12306 GENERAL LICENSES -- RADIOACTIVE MATERIAL OTHER THAN SOURCE MATERIAL (1) A general license is hereby issued to transfer, receive, acquire, possess, and use

radioactive material incorporated in the following devices or equipment which have been manufactured, tested and labeled by the manufacturer in accordance with a specific license issued to the manufacturer by the U.S. Nuclear Regulatory Commission for use pursuant to Section 31.3 of 10 C.F.R. Part 31. This general license is subject to the provisions of rules 16-2.12(1)-S12104—16-2.12(1)-S12107, 16-2.12(3)-S12303(1)(b), 16-2.12(3)-S12314, 16-2.13(3)-S12321, 16-2.12(3)-S12322, 16-2.12(3)-S12324, and Title 16, Chapter 12, sub-chapters (4) and (10), ARM.

(a) Static elimination device. Devices designed for use as static eliminators which contain, as a sealed source or sources, radioactive material consisting of a total of not more than 500 microcuries of polonium-210 per device.

(b) Ion generating tube. Devices designed for ionization of air which contain, as a sealed source or sources, radioactive material consisting of a total of not more than 500 microcuries of polonium-210 per device or a total of not more than 50 millicuries of hydrogen-3 (tritium) per device.

(2) [reserved]

(3) [reserved]

(4) Certain measuring, gauging or controlling devices.

(a) A general license is hereby issued to commercial and industrial firms and to research, educational and medical institutions, individuals in the conduct of their business, and state or local government agencies to receive, acquire, possess, use, or transfer in accordance with the provisions of subsections(4)(b), (c) and (d) of this rule, radioactive material, excluding special nuclear material, contained in devices designed and manufactured for the purpose of detecting, measuring, gauging or controlling thickness, density, level, interface location, radiation, leakage, or qualitative or quantitative chemical composition, or for producing light or an ionized atmosphere.

(b) The general license in subsection (4)(a) of this rule applies only to radioactive material contained in devices which have been manufactured and labeled in accordance with the specifications contained in a specific license issued by the department pursuant to ARM 16-2.12(3)-S12312(4) or in accordance with the specifications contained in a specific license issued by the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state, which authorizes distribution of devices to persons generally licensed by the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state.

(c) Any person who receives, acquires, possesses, uses, or transfers radioactive material in a device pursuant to the general license in subsection (4)(a) of this rule:

(i) shall assure that all labels affixed to the device

at the time of receipt, and bearing a statement that removal of the label is prohibited, are maintained thereon and shall comply with all instructions and precautions provided by such labels;

(ii) shall assure that the device is tested for leakage of radioactive material and proper operation of the on-off mechanism and indicator, if any, at no longer than 6-month intervals or at such other intervals as are specified in the label, however,

(A) devices containing only krypton need not be tested for leakage of radioactive material, and

(B) devices containing only tritium or not more than 100 microcuries of other beta and/or gamma emitting material or 10 microcuries of alpha emitting material and devices held in storage in the original shipping container prior to initial installation need not be tested for any purpose;

(iii) shall assure that the tests required by subsection (4)(c)(ii) of this rule and other testing, installation, servicing, and removal from installation involving the radioactive materials, its shielding or containment, are performed:

(A) in accordance with the instructions provided by the labels, or

(B) by a person holding an applicable specific license from the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state to perform such activities;

(iv) shall maintain records showing compliance with the requirements of subsections (4)(c)(ii) and (iii) of this rule. The records shall show the results of tests. The records also shall show the dates of performance of, and the names of persons performing, testing, installing, servicing, and removing from installation concerning the radioactive material, its shielding or containment. Records of tests for leakage of radioactive material required by subsection (4)(c)(ii) of this rule shall be maintained for one year after the next required leak test is performed or until the sealed source is transferred or disposed of. Records of tests of the on/off mechanism and indicator required by subsection (4)(c)(ii) of this rule shall be maintained for one year after the next required test of the on/off mechanism and indicator is performed or until the sealed source is transferred or disposed of. Records which are required by subsection (4)(c)(iii) of this rule shall be maintained for a period of 2 years from the date of the recorded event or until the device is transferred or disposed of;

(v) upon the occurrence of a failure of or damage to, or any indication of a possible failure of or damage to, the shielding of the radioactive material or the on/off mechanism or indicator, or upon the detection of 0.005 microcurie or more removable radioactive material, shall immediately suspend

operation of the device until it has been repaired by the manufacturer or other person holding an applicable specific license from the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state to repair such devices, or disposed of by transfer to a person authorized by an applicable specific license to receive the radioactive material contained in the device and, within 30 days, furnish to the department a report containing a brief description of the event and the remedial action taken;

(vi) shall not abandon the device containing radioactive material;

(vii) except as provided in subsection (4)(c)(viii) of this rule, shall transfer or dispose of the device containing radioactive material only by transfer to a specific licensee of the department, the U.S. Nuclear Regulatory Commission, an agreement state, or a licensing state whose specific license authorizes him to receive the device and within 30 days after transfer of a device to a specific licensee shall furnish to the department a report containing identification of the device by manufacturer's name and model number and the name and address of the person receiving the device. No report is required if the device is transferred to the specific licensee in order to obtain a replacement device;

(viii) shall transfer the device to another general licensee

(A) where the device remains in use at a particular location. In such case the transferor shall give the transferee a copy of this rule and any safety documents identified in the label on the device and within 30 days of the transfer, report to the department the manufacturer's name and model number of device transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the department and the transferee; or

(B) where the device is held in storage in the original shipping container at its intended location of use prior to initial use by a general licensee; and

(ix) shall comply with the provisions of rules 16-2.12(4)-S12422 and 16-2.12(4)-S12423, ARM, for reporting radiation incidents, theft, or loss of licensed material, but shall be exempt from the other requirements of Title 16, Chapter 12, sub-chapters (4) and (10), ARM.

(d) The general license in subsection (4)(a) of this rule does not authorize the manufacture of devices containing radioactive material.

(e) The general license provided in subsection (4)(a) of this rule is subject to the provisions of rules 16-2.12(1)-S12104 through 16-2.12(1)-S12107 and rules 16-2.12(3)-S12314, 16-2.12(3)-S12321, 16-2.12(3)-S12322 and 16-2.12(3)-S12324, ARM.

(5) Luminous safety devices for aircraft.

(a) A general license is hereby issued to receive, acquire, possess, and use tritium or promethium-147 contained in luminous safety devices for use in aircraft, provided:

(i) each device contains not more than 10 curies of tritium or 300 millicuries of promethium-147; and

(ii) each device has been manufactured, assembled or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, or each device has been manufactured or assembled in accordance with the specifications contained in a specific license issued by the department or any agreement state to the manufacturer or assembler of such device.

(b) Persons who receive, acquire, possess, or use luminous safety devices pursuant to the general license in subsection (5)(a) of this rule are exempt from the requirements of Title 16, Chapter 12, sub-chapters (4) and (10), ARM except that they shall comply with the provisions of ARM 16-2.12(4)-S12422 and 16-2.12(4)-S12423.

(c) This general license does not authorize the manufacture, assembly, or repair of luminous safety devices containing tritium or promethium-147.

(d) This general license does not authorize the ownership, receipt, acquisition, possession or use of promethium-147 contained in instrument dials.

(e) This general license is subject to the provisions of 16-2.12(1)-S12104 through 16-2.12(1)-S12107, 16-2.12(3)-S12314, 16-2.12(3)-S12321, 16-2.12(3)-S12322, and 16-2.12(3)-S12324, ARM.

(6) A general license is hereby issued to own radioactive material without regard to quantity. Notwithstanding any other provisions of this sub-chapter, this general license does not authorize the manufacture, production, transfer, receipt, possession or use of radioactive material.

(7) (a) A general license is hereby issued to those persons listed below to receive, acquire, possess, use, and transfer, in accordance with the provisions of subsections (7)(d) and (e) of this rule, americium-241 in the form of calibration or reference sources:

(i) any person who holds a specific license issued by the department which authorizes him to receive, possess, use, and transfer radioactive material; and

(ii) any person who holds a specific license issued by the U.S. Nuclear Regulatory Commission which authorizes him to receive, possess, use, and transfer special nuclear material.

(b) A general license is hereby issued to receive, possess, use, and transfer plutonium in the form of calibration or reference sources in accordance with the provisions of subsections (7)(d) and (e) of this rule to any person who

holds a specific license issued by the department which authorizes him to receive, possess, use, and transfer radioactive material.

(c) A general license is hereby issued to receive, possess, use, and transfer radium-226 in the form of calibration or reference sources in accordance with the provisions of subsections (7)(d) and (e) of this rule to any person who holds a specific license issued by the department which authorizes him to receive, possess, use, and transfer radioactive material.

(d) The general licenses in subsections (7)(a), (b) and (c) of this rule apply only to calibration or reference sources which have been manufactured in accordance with the specifications contained in a specific license issued to the manufacturer or importer of the sources by the U.S. Nuclear Regulatory Commission or which have been manufactured in accordance with the specification contained in a specific license issued to the manufacturer by the department, any agreement state or licensing state.

(e) The general licenses provided in subsections (7)(a), (b), and (c) of this rule are subject to the provisions of ARM 16-2.12(1)-S12104 through 16-2.12(1)-S12107, 16-2.12(3)-S12314, 16-2.12(3)-S12321, 16-2.12(3)-S12322, 16-2.12(3)-S12324 and Title 16, Chapter 12, sub-chapters (4) and (10). In addition, persons who receive, acquire, possess, use, or transfer one or more calibration or reference sources pursuant to these general licenses:

(i) shall not possess at any one time, at any one location of storage or use, more than 5 microcuries of americium-241, 5 microcuries of plutonium, or 5 microcuries of radium-226 in such sources;

(ii) shall not receive, possess, use, or transfer such source unless the source, or the storage container, bears a label which includes one of the following statements, as appropriate, or a substantially similar statement which contains the information called for in one of the following statements, as appropriate:

(A) The receipt, possession, use and transfer of this source, Model _____, Serial No. _____, are subject to a general license and the regulations of the U.S. Nuclear Regulatory Commission or of a state with which the commission has entered into an agreement for the exercise of regulatory authority. Do not remove this label.

CAUTION - RADIOACTIVE MATERIAL - THIS SOURCE CONTAINS _____ (AMERICIUM-241 or PLUTONIUM - show only the name of the appropriate material.) DO NOT TOUCH RADIOACTIVE PORTION OF THIS SOURCE.

_____
Name of manufacturer of importer

(B) The receipt, possession, use and transfer of this source, Model _____, Serial No. _____, are subject to a general license and the regulations of any licensing state. Do not remove this label.
CAUTION - RADIOACTIVE MATERIAL - THIS SOURCE CONTAINS RADIUM-226. DO NOT TOUCH RADIOACTIVE PORTION OF THIS SOURCE.

_____
Name of manufacturer or importer

(iii) shall not transfer, abandon, or dispose of such source except by transfer to a person authorized by a license from the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state to receive the source;

(iv) shall store such source, except when the source is being used, in a closed container adequately designed and constructed to contain americium-241, plutonium, or radium-226 which might otherwise escape during storage; and

(v) shall not use such source for any purpose other than the calibration of radiation detectors or the standardization of other sources.

(f) These general licenses do not authorize the manufacture of calibration or reference sources containing americium-241, plutonium, or radium-226.

(8) (a) A general license is hereby issued to any physician to receive, possess, transfer, or use radioactive material set forth below for the stated diagnostic uses, provided, however, that the use is in accordance with the provision of subsections(8)(b), (c) and (d) of this rule, the radioactive material is in the form of capsules, disposable syringes, or other prepackaged individual doses; and the radioactive material has been manufactured in accordance with a specific license issued by the department pursuant to ARM 16-2.12(3)-S12312(7), or by the U.S. Nuclear Regulatory Commission, any agreement state or a licensing state pursuant to equivalent regulations authorizing distribution to persons generally licensed pursuant to subsection (8) of this rule or its equivalent:

(i) Iodine-131 as sodium iodide ($Na^{131}I$) for measurement of thyroid uptake;

(ii) iodine-131 as iodinated human serum albumin (IHSA) for determinations of blood and blood plasma volume;

(iii) iodine-125 as iodinated human serum albumin (IHSA) for determinations of blood and blood plasma volume;

(iv) cobalt-57 for the measurement of intestinal absorption of cyanocobalamin:

(v) cobalt-58 for the measurement of intestinal absorption of cyanocobalamin;

(vi) cobalt-60 for the measurement of intestinal absorption of cyanocobalamin; and

(vii) chromium-51 as sodium radiochromate for determina-

tion of red blood cell volumes and studies of red blood cell survival time.

(b) No physician shall receive, possess, use, or transfer radioactive material pursuant to the general license established by subsection (8)(a) of this rule until he has filed department form MRH-10, "Certificate - Medical Use of Radioactive Material Under General License" with the department and received from the department a validated copy of the department form MRH-10 with certification number assigned. The generally licensed physician shall furnish on department form MRH-10 the following information and such other information as may be required by that form:

(i) name and address of the generally licensed physician;

(ii) a statement that the generally licensed physician is a duly licensed physician (authorized to dispense drugs) in the practice of medicine in Montana; and

(iii) a statement that the generally licensed physician has appropriate radiation measuring instruments to carry out the diagnostic procedures for which he proposes to use radioactive material under the general license of subsection (8) of this rule and that he is competent in the use of such instruments.

(c) A physician who receives, possesses, or uses a pharmaceutical containing radioactive material pursuant to the general license established by subsection (8)(a) of this rule shall comply with the following:

(i) He shall not possess at any one time, pursuant to the general license in subsection (8)(a) of this rule more than

(A) 200 microcuries of iodine-131,
(B) 200 microcuries of iodine-125,
(C) 5 microcuries of cobalt-57,
(D) 5 microcuries of cobalt-58,
(E) 5 microcuries of cobalt-60, and
(F) 200 microcuries of chromium-51;

(ii) he shall store the pharmaceutical in the original shipping container, or a container providing equivalent radiation protection until administered;

(iii) he shall use the pharmaceutical only for the uses authorized by subsection (8)(a) of this rule;

(iv) he shall not administer the pharmaceutical to a woman with confirmed pregnancy or to a person under 18 years of age; and

(v) he shall not transfer the radioactive material to a person who is not authorized to receive it pursuant to a license issued by the department, the U.S. Nuclear Regulatory Commission, any agreement state or licensing state, or in any manner other than in the unopened, labeled shipping container

as received from the supplier, except by administering it to a patient.

(d) The generally licensed physician possessing or using radioactive material under the general license of subsection (8)(a) of this rule shall report in duplicateto the department, any changes in the information furnished by him in the "Certificate - Medical Use of Radioactive Material Under General License", department form MRH-10. The report shall be submitted within 30 days after the effective date of such change.

(e) Any person using radioactive material pursuant to the general license of subsection (8)(a) of this rule is exempt from the requirements of Title 16, Chapter 12, subchapters (4) and (10), ARM, with respect to the radioactive material covered by the general license.

(9) (a) A general license is hereby issued to any physician, clinical laboratory or hospital to receive, acquire, possess, transfer, or use, for any of the following stated tests, in accordance with the provisions of subsections (9)(b), (c), (d), (e), and (f) of this rule, the following radioactive materials in prepackaged units:

(i) Iodine-125, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(ii) Iodine-131, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(iii) Carbon-14, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(iv) Hydrogen-3 (tritium), in units not exceeding 50 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(v) Iron-59, in units not exceeding 20 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(vi) Cobalt-57, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(vii) Selenium-75, in units not to exceed 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(viii) Mock Iodine-125 reference or calibration sources, in units not exceeding 0.05 microcurie of iodine-129 and 0.005 microcurie of americium-241 each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to human beings or animals.

(b) No person shall receive, acquire, possess, use or transfer radioactive material pursuant to the general license established by subsection (9)(a) of this rule until he has filed department form MRH-11, "Certificate - In Vitro Testing with Radioactive Material Under General License", with the department and received from the department a validated copy of department form MRH-11 with certification number assigned, or until he has been authorized pursuant to ARM 16-2.12(3)-S12310(3)(c) to use radioactive material under the general license in subsection (9) of this rule. The physician, clinical laboratory or hospital shall furnish on department form MRH-11 the following information and such other information as may be required by that form:

(i) name and address of the physician, clinical laboratory or hospital;

(ii) the location of use; and

(iii) a statement that the physician, clinical laboratory or hospital has appropriate radiation measuring instruments to carry out in vitro clinical or laboratory tests with radioactive material as authorized under the general license in subsection (9)(a) of this rule and that such tests will be performed only by personnel competent in the use of such instruments and in the handling of the radioactive material.

(c) A person who receives, acquires, possesses or uses radioactive material pursuant to the general license established by subsection (9)(a) of this rule shall comply with the following:

(i) The general licensee shall not possess at any one time, pursuant to the general license in subsection (9)(a) of this rule, at any one location of storage or use, a total amount of iodine-125, iodine-131, selenium-75, iron-59, and/or cobalt-57 in excess of 200 microcuries.

(ii) The general licensee shall store the radioactive material, until used, in the original shipping container or in a container providing equivalent radiation protection.

(iii) The general licensee shall use the radioactive material only for the uses authorized by subsection (9)(a) of this rule.

(iv) The general licensee shall not transfer the radioactive material to a person who is not authorized to receive it pursuant to a license issued by the department, the U.S. Nuclear Regulatory Commission, any agreement state or licensing state, nor transfer the radioactive material in any manner other than in the unopened, labeled shipping container as received from the supplier.

(v) The general licensee shall dispose of the Mock Iodine-125 reference or calibration sources described in subsection (9)(a)(viii) of this rule as required by ARM 16-2.12(4)-S12416.

(d) The general licensee shall not receive, acquire, possess, or use radioactive material pursuant to subsection (9)(a) of this rule:

(i) Except as prepackaged units which are labeled in accordance with the provisions of an applicable specific license issued pursuant to ARM 16-2.12(3)-S12312(8) in accordance with the provisions of a specific license issued by the U.S. Nuclear Regulatory Commission, any agreement state or licensing state which authorizes the manufacture and distribution of iodine-125, iodine-131, carbon-14, hydrogen-3 (tritium), iron-59, selenium-75, cobalt-57, or Mock Iodine-125 to persons generally licensed under subsection (9) of this rule or its equivalent, and

(ii) unless one of the following statements, as appropriate, or a substantially similar statement which contains the information called for in one of the following statements, appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure which accompanies the package:

(A) This radioactive material shall be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use, and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the commission has entered into an agreement for the exercise of regulatory authority.

_____
Name of manufacturer

(B) This radioactive material shall be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use and transfer are subject to the regulations and a general license of a licensing state.

_____
Name of manufacturer

(e) The physician, clinical laboratory or hospital possessing or using radioactive material under the general license of subsection (9)(a) of this rule shall report in writing to the department, any changes in the information furnished by him in the "Certificate - In Vitro Testing with Radioactive Material Under General License", department form MRH-11. The report shall be furnished within 30 days after the effective date of such change.

(f) Any person using radioactive material pursuant to the general license of subsection (9)(a) of this rule is exempt from the requirements of Title 16, Chapter 12, sub-chapters (4) and (10), ARM, with respect to radioactive material covered by that general license, except that such persons using the Mock Iodine-125 described in subsection (9)(a)(viii) of this rule shall comply with the provisions of ARM 16-2.12(4)-S12416, 16-2.12(4)-S12422 and 16-2.12(4)-S12423.

(10) (a) A general license is hereby issued to receive, acquire, possess, use, and transfer strontium-90 contained in ice detection devices, provided each device contains not more than 50 microcuries of strontium-90 and each device has been manufactured or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission or each device has been manufactured in accordance with the specifications contained in a specific license issued by the department or any agreement state to the manufacturer of such device.

(b) Persons who receive, acquire, possess, use, or transfer strontium-90 contained in ice detection devices pursuant to the general license in (10)(a) of this rule:

(i) shall, upon occurrence of visually observable damage, such as a bend or crack or discoloration from overheating to the device, discontinue use of the device until it has been inspected, tested for leakage and repaired by a person holding a specific license from the U.S. Nuclear Regulatory Commission or an agreement state to manufacture or service such devices; or shall dispose of the device pursuant to the provisions of ARM 16-2.12(4)-S12416.

(ii) shall assure that all labels affixed to the device at the time of receipt, and which bear a statement which prohibits removal of the labels, are maintained thereon; and

(iii) are exempt from the requirements of Title 16, Chapter 12, sub-chapters (4) and (10), ARM, except that such persons shall comply with the provisions of ARM 16-2.12(4)-S12416, 16-2.12(4)-S12422 and 16-2.12(4)-S12423.

(c) This general license does not authorize the manufacture, assembly, disassembly or repair of strontium-90 in ice detection devices.

(d) This general license is subject to the provisions of ARM 16-2.12(1)-S12104 through 16-2.12(1)-S12107, 16-2.12(3)-S12314, 16-2.12(3)-S12321, 16-2.12(3)-S12322, and 16-2.12(3)-S12324.

16-2.12(3)-S12307 GENERAL LICENSES - INTRASTATE TRANSPORTATION OF RADIOACTIVE MATERIAL (1) A general license is hereby issued to any common or contract carrier to transport and store radioactive material in the regular course of their carriage for another or storage incident thereto, provided the transportation and storage is in accordance with the applicable requirements of the regulations, appropriate to the mode of transport, of the U.S. Department of Transportation insofar as such regulations relate to the loading and storage of packages, placarding of the transporting vehicle, and incident reporting. Any notification of incidents referred to in those requirements shall be filed with, or made to, the department. Persons who transport and store radioactive material pursuant to the general license in this paragraph are exempt from the requirements of Title 16, Chapter 12, sub-chapters (4) and (10), ARM.

(2) A general license is hereby issued to any private carrier to transport radioactive material, provided the transportation is in accordance with the applicable requirements of the regulations, appropriate to the mode of transport, of the U.S. Department of Transportation insofar as such regulations relate to the loading and storage of packages, placarding of the transporting vehicle, and incident reporting. Any notification of incidents referred to in those requirements shall be filed with, or made to, the department.

(a) Persons who transport radioactive material pursuant to the general license in subsection(2) of this rule are exempt from the requirements of Title 16, Chapter 12, sub-chapters (4) and (10), ARM, to the extent that they transport radioactive material.

(b) Physicians, as defined in ARM 16-2.12(1)-S12102 are exempt from the requirements of subsection (2) of this rule to the extent that they transport radioactive material for use in the practice of medicine.

16-2.12(3)-S12308 SPECIFIC LICENSES - FILING APPLICATION FOR SPECIFIC LICENSES (1) Applications for specific licenses shall be filed on a form prescribed by the department.

(2) The department may at any time after the filing of the original application, and before the expiration of the license, require further statements in order to enable the department to determine whether the application should be granted or denied or whether a license should be modified or revoked.

(3) Each application shall be signed by the applicant or licensee or a person duly authorized to act for and on his behalf.

(4) An application for a license may include a request for a license authorizing one or more activities.

(5) In his application, the applicant may incorporate by reference information contained in previous applications,

statements, or reports filed with the department provided such references are clear and specific.

16-2.12(3)-S12309 SPECIFIC LICENSES - GENERAL REQUIREMENTS FOR THE ISSUANCE OF SPECIFIC LICENSES A license application will be approved if the department determines that:

(1) the applicant is qualified by reason of training and experience to use the material in question for the purpose requested in accordance with this chapter in such a manner as to minimize danger to public health and safety or property;

(2) the applicant's proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or property;

(3) the issuance of the license will not be inimical to the health and safety of the public; and

(4) the applicant satisfies any applicable special requirements in ARM 16-2.12(3)-S12310, 16-2.12(3)-S12311, or 16-2.12(3)-S12312.

16-2.12(3)-S12310 SPECIFIC LICENSES - SPECIAL REQUIREMENTS FOR ISSUANCE OF CERTAIN SPECIFIC LICENSES FOR RADIOACTIVE MATERIAL (1) In addition to the requirements set forth in ARM 16-2.12(3)-S12309, a specific license for human use of radioactive material in institutions will be issued if:

(a) the applicant has appointed a medical isotopes committee of at least 3 members to evaluate all proposals for research, diagnostic, and therapeutic use of radioactive material within that institution. Membership of the committee should include physicians expert in internal medicine, hematology, therapeutic radiology, and a person experienced in assay of radioactive material and protection against radiation;

(b) the applicant possesses adequate facilities for the clinical care of patients;

(c) the physician designated on the application as the individual user has substantial experience in the handling and administration of radioactive material and, where applicable, the clinical management of radioactive patients; and

(d) if the application is for a license to use unspecified quantities or multiple types of radioactive material, the applicant's staff has substantial experience in the use of a variety of radioactive materials for a variety of human uses.

(2) (a) An application by an individual physician or group of physicians for a specific license for human use of radioactive material will be approved if:

(i) the applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309;

(ii) the application is for use in the applicant's practice in an office outside a medical institution;

(iii) the applicant has access to a hospital possessing adequate facilities to hospitalize and monitor the applicant's radioactive patients whenever it is advisable; and

(iv) the applicant has extensive experience in the proposed use, the handling and administration of radionuclides, and where applicable, the clinical management of radioactive patients.

(b) The department will not approve an application by an individual physician or group of physicians for a specific license to receive, possess, or use radioactive material on the premises of a medical institution unless:

(i) the use of radioactive material is limited to:

(A) the administration of radiopharmaceuticals for diagnostic or therapeutic purposes,

(B) the performance of diagnostic studies on patients to whom a radiopharmaceutical has been administered,

(C) the performance of in vitro diagnostic studies, or

(D) the calibration and quality control checks of radioactive assay instrumentation, radiation safety instrumentation and diagnostic instrumentation;

(ii) the physician brings the radioactive material with him and removes the radioactive material when he departs. (The institution cannot receive, possess, or store radioactive material other than the amount of material remaining in the patient); and

(iii) the medical institution does not hold a radioactive material license under subsection (1) of this rule.

(3) (a) Subject to the provisions of subsections (3)(b), (c), and (d) of this rule, an application for a specific license pursuant to subsections (1), (2), or (4) of this rule for any medical use or uses of radioactive material specified in one or more of Groups I to VI, inclusive, of Schedule C of this sub-chapter will be approved for all of the uses within the group or groups which include the use or uses specified in the application if:

(i) the applicant satisfies the requirements of subsections (1), (2), or (4) of this rule;

(ii) the applicant, or the physician designated in the application as the individual user, has adequate clinical experience in the types of uses included in the group or groups;

(iii) the applicant, or the physicians and all other personnel who will be involved in the preparation and use of the radioactive material, have adequate training and experience in the handling of radioactive material appropriate to their participation in the uses included in the group or groups;

(iv) the applicant's radiation detection and measuring instrumentation is adequate for conducting the procedures involved in the uses included in the group or groups; and

(v) the applicant's radiation safety operating procedures are adequate for handling and disposal of the radioactive material involved in the uses included in the group or groups.

(b) Any licensee or registrant who is authorized to use radioactive material pursuant to one or more groups in subsection (3)(a) of this rule and Schedule C of this sub-chapter is subject to the following conditions:

(i) For groups I, II, IV, and V, no licensee or registrant shall receive, possess, or use radioactive material except as a radiopharmaceutical manufactured in the form to be administered to the patient, labeled, packaged, and distributed in accordance with a specific license issued by the department pursuant to 16-2.12(3)-S12312(10), ARM, a specific license issued by the U.S. Nuclear Regulatory Commission, or a specific license issued by an agreement state or a licensing state pursuant to equivalent regulations.

(ii) For Group III, no licensee or registrant shall receive, possess, or use generators or reagent kits containing radioactive material or shall use reagent kits that do not contain radioactive material to prepare radiopharmaceuticals containing radioactive material, except:

(A) reagent kits not containing radioactive material that are approved by the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state for use by persons licensed pursuant to subsection(3) of this rule and Schedule C of this sub-chapter or equivalent regulations; or

(B) generators or reagent kits containing radioactive material that are manufactured, labeled, packaged, and distributed in accordance with a specific license issued by the department pursuant to ARM 16-2.12(3)-S12312(11), a specific license issued by the U.S. Nuclear Regulatory Commission, or a specific license issued by an agreement state or a licensing state pursuant to equivalent regulations.

(iii) For Group VI, no licensee or registrant shall receive, possess, or use radioactive material except as contained in a source or device that has been manufactured, labeled, packaged, and distributed in accordance with a specific license issued by the department pursuant to ARM 16-2.12(3)-S12312(12), a specific license issued by the U.S. Nuclear Regulatory Commission, or a specific license issued to the manufacturer by an agreement state or a licensing state pursuant to equivalent regulations.

(iv) For Group III, any licensee or registrant who uses generators or reagent kits shall elute the generator or process radioactive material with the reagent kit in accordance with instructions which are approved by the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state and are furnished by the manufacturer on the

label attached to or in the leaflet or brochure which accompanies the generator or reagent kit.

(v) For Group VI any licensee who possesses and uses sources or devices containing radioactive material shall:

(A) cause each source or device containing more than 100 microcuries of radioactive material with a half-life greater than 30 days, except iridium-192 seeds encased in nylon ribbon, to be tested for contamination and/or leakage at intervals not to exceed 6 months or at such other intervals as are approved by the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state and described by the manufacturer on the label attached to the source, device, or permanent container thereof, or in the leaflet or brochure which accompanies the source or device. Each source or device shall be so tested prior to its first use unless the supplier furnishes a certificate that the source or device has been so tested within 6 months prior to the transfer;

(B) assure that the test required by subsection (3)(b)(v)(A) of this rule shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample or in the case of radium, the escape of radon at the rate of 0.001 microcurie per 24 hours. The test sample shall be taken from the source or from the surfaces of the device in which the source is permanently or semi-permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the department;

(C) if the test required by subsection (3)(b)(v)(A) of this rule reveals the presence of 0.005 microcurie or more of removable contamination or in the case of radium, the escape of radon at the rate of 0.001 microcurie per 24 hours, immediately withdraw the source from use and cause it to be decontaminated and repaired or to be disposed of in accordance with department rules. A report shall be filed within 5 days of the test with the department, describing the equipment involved, the test results, and the corrective action taken;

(D) follow the radiation safety and handling instructions approved by the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state and furnished by the manufacturer on the label attached to the source, device or permanent container thereof, or in the leaflet or brochure which accompanies the source or device, and maintain such instruction in a legible and conveniently available form;

(E) conduct a quarterly physical inventory to account for all sources and devices received and possessed. Records of the inventories shall be maintained for inspection by the department and shall include the quantities and kinds of radioactive material, location of sources and devices, and

the date of the inventory;

(F) assure that needles or standard medical applicator cells containing radium-226, or cobalt-60 as wire are not opened while in the licensee's possession unless specifically authorized by a license issued to him by the department; and

(G) assure that patients containing cobalt-60, cesium-137, iridium-192 and/or radium-226 implants shall remain hospitalized until the implants are removed.

(c) Any licensee who is licensed pursuant to subsection (3)(a) of this rule for one or more of the medical use groups in Schedule C of this sub-chapter also is authorized to use radioactive material under the general license in ARM 16-2.12(3)-S12306(9) for the specified in vitro uses without filing department form MRH-11 as required in ARM 16-2.12(3)-S12306(9)(b); provided, that the licensee is subject to the other provisions of ARM 16-2.12(3)-S12306(9).

(d) Any licensee who is licensed pursuant to subsection (3)(a) of this rule for one or more of the medical use groups in Schedule C of this sub-chapter also is authorized, subject to the provisions of subsections (3)(d) and (e) of this rule, to receive, possess, and use for calibration and reference standards:

(i) any radioactive material listed in Group I, Group II, or Group III of Schedule C of this sub-chapter with a half-life not longer than 100 days, in amounts not to exceed 15 millicuries total;

(ii) any radioactive material listed in Group I, Group II, or Group III of Schedule C of this sub-chapter with half-life greater than 100 days in amounts not to exceed 200 microcuries total;

(iii) technetium-99m in amounts not to exceed 30 millicuries; and

(iv) any radioactive material, in amounts not to exceed 3 millicuries per source, contained in calibration or reference sources that have been manufactured, labeled, packaged, and distributed in accordance with a specific license issued by the department pursuant to ARM 16-2.12(3)-S12312(12), a specific license issued by the U.S. Nuclear Regulatory Commission, or a specific license issued to the manufacturer by an agreement state or a licensing state pursuant to equivalent regulations.

(e) (i) Any licensee or registrant who possesses sealed sources as calibration or reference sources pursuant to subsection (3)(d) of this rule shall cause each sealed source containing radioactive material, other than hydrogen-3, with a half-life greater than 30 days in any form other than gas to be tested for leakage and/or contamination at intervals not to exceed 6 months. In the absence of a certificate from

a transferor indicating that a test has been made within 6 months prior to the transfer, the sealed sources should not be used until tested, provided, however, that no leak tests are required when:

(A) the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material, or

(B) the sealed source is stored and is not being used; such sources shall, however, be tested for leakage prior to any use or transfer unless they have been leak tested within 6 months prior to the date of use or transfer.

(ii) The leak test shall be capable of detecting the presence of 0.005 microcuries of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is mounted or stored on which contamination might be expected to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the department.

(iii) If the leak test reveals the presence of 0.005 microcuries or more of removable contamination, the licensee or registrant shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Title 16, Chapter 12, sub-chapters (3) and (4), ARM. A report shall be filed within 5 days of the test with the department describing the equipment involved, the test results, and the corrective action taken.

(f) Any licensee or registrant who possesses and uses calibration and reference sources pursuant to subsection (3)(d)(iv) of this rule shall:

(i) follow the radiation safety and handling instructions approved by the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state and furnished by the manufacturer on the label attached to the source, or permanent container thereof, or in the leaflet or brochure that accompanies the source, and maintain such instruction in a legible and conveniently available form; and

(ii) conduct a quarterly physical inventory to account for all sources received and possessed. Records of the inventories shall be maintained for inspection by the department and shall include the quantities and kinds of radioactive material, location of sources, and the date of the inventory.

(4) In addition to the requirements set forth in ARM 16-2.12(3)-S12309, a specific license for human use of sealed sources will be issued only if the applicant or, if the application is made by an institution, the individual user:

(a) has specialized training in the diagnostic or therapeutic use of the sealed source considered, or has experience equivalent to such training, and

(b) is a physician.

(5) In addition to the requirements set forth in ARM 16-2.12(3)-S12309, a specific license for use of sealed sources in industrial radiography will be issued if:

(a) the applicant will have an adequate program for training radiographers and radiographer's assistants and submits to the department a schedule or description of such program which specifies the:

(i) initial training,

(ii) periodic training,

(iii) on-the-job training,

(iv) means to be used by the licensee to determine the radiographer's knowledge and understanding of an ability to comply with department rules and licensing requirements, and the operating and emergency procedures of the applicant, and

(v) means to be used by the licensee to determine the radiographer's assistant's knowledge and understanding of and ability to comply with the operating and emergency procedures of the applicant;

(b) the applicant has established and submits to the department satisfactory written operating and emergency procedures;

(c) the applicant will have an adequate internal inspection system, or other management control, to assure that license provisions, rules, and the applicant's operating and emergency procedures are followed by radiographers and radiographer's assistants;

(d) the applicant submits to the department a description of his overall organizational structure pertaining to the industrial radiography program, including specified delegations of authority and responsibility for operation of the program;

(e) the applicant who desires to conduct his own leak tests has established adequate procedures to be followed in leak testing sealed sources for possible leakage and contamination and submits to the department a description of such procedures including:

(i) instrumentation to be used,

(ii) method of performing tests, e.g., points on equipment to be smeared and method of taking smear, and

(iii) pertinent experience of the person who will perform the test; and

(f) the licensee shall conduct a program for inspection and maintenance of radiographic exposure devices and storage containers to assure proper functioning of components important to safety.

16-2.12(3)-S12311 SPECIFIC LICENSES - SPECIAL REQUIREMENTS FOR SPECIFIC LICENSES OF BROAD SCOPE (1) This rule prescribes requirements for the issuance of specific licenses of broad scope for radioactive material ("broad licenses") and certain rules governing holders of such licenses. Authority to transfer possession of control by the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing by-product material whose subsequent possession, use, transfer, and disposal by all other persons are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

(2) The different types of broad licenses are set forth below:

(a) A "Type A specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of the radioactive material specified in the license, but not exceeding quantities specified in the license, for any authorized purposes. The quantities specified are usually in the multi-curie range.

(b) A "Type B specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of radioactive material specified in Schedule D of this subchapter, for any authorized purposes. The possession limit for a Type B broad license, if only one radionuclide is possessed thereunder, is the quantity specified for that radionuclide in Schedule D, Column I. If two or more radionuclides are possessed thereunder, the possession limit for each is determined as follows: For each radionuclide, determine the ratio of the quantity possessed to the applicable quantity specified in Schedule D, Column I, for that radionuclide. The sum of the ratios for all radionuclides possessed under the license shall not exceed unity.

(c) A "Type C specific license of broad scope" is a specific license authorizing receipt, acquisition, ownership, possession, use and transfer of any chemical or physical form of radioactive material specified in Schedule D of this subchapter, for any authorized purpose. The possession limit for a Type C broad license, if only one radionuclide is possessed thereunder, is the quantity specified for that radionuclide in Schedule D, Column II. If two or more radionuclides are possessed thereunder, the possession limit is determined for each as follows: For each radionuclide determine the ratio of the quantity possessed to the applicable quantity specified in Schedule D, Column II for that radionuclide. The sum of the ratios for all radionuclides possessed under the license shall not exceed unity.

(3) An application for a Type A specific license of broad scope will be approved if:

(a) the applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309;

(b) the applicant has engaged in a reasonable number of activities involving the use of radioactive material; and

(c) the applicant has established administrative controls and provisions relating to organization and management, procedures, record keeping, material control and accounting, and management review that are necessary to assure safe operations, including:

(i) the establishment of a radiation safety committee composed of such persons as a radiation safety officer, a representative of management, and persons trained and experienced in the safe use of radioactive material;

(ii) the appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters; and

(iii) the establishment of appropriate administrative procedures to assure:

(A) control of procurement and use of radioactive material;

(B) completion of safety evaluations of proposed uses of radioactive material which take into consideration such matters as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures; and

(C) review, approval, and recording by the radiation safety committee of safety evaluations of proposed uses prepared in accordance with subsection (3)(c)(iii)(B) of this rule prior to use of the radioactive material.

(4) An application for a Type B specific license of broad scope will be approved if:

(a) the applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309; and

(b) the applicant has established administrative controls and provisions relating to organization and management, procedures, record keeping, material control and accounting, and management review that are necessary to assure safe operations, including:

(i) the appointment of a radiation safety officer who is qualified by training and experience in radiation protection, and who is available for advice and assistance on radiation safety matters, and

(ii) the establishment of appropriate administrative procedures to assure:

(A) control of procurement and use of radioactive material,

(B) completion of safety evaluations of proposed uses of radioactive material which take into consideration such matters as the adequacy of facilities and equipment, training and experience of the user, and the operating or handling procedures, and

(C) review, approval, and recording by the radiation safety officer of safety evaluations of proposed uses prepared in accordance with subsection (4)(b)(ii)(B) of this rule prior to use of the radioactive material.

(5) An application for a Type C specific license of broad scope will be approved if:

(a) the applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309;

(b) the applicant submits a statement that radioactive material will be used only by, or under the direct supervision of, individuals who have received:

(i) a college degree at the bachelor level, or equivalent training and experience, in the physical or biological sciences or in engineering, and

(ii) at least 40 hours of training and experience in the safe handling of radioactive material, and in the characteristics of ionizing radiation, units of radiation dose and quantities, radiation detection instrumentation, and biological hazards of exposure to radiation appropriate to the type and forms of radioactive material to be used; and

(c) the applicant has established administrative controls and provisions relating to procurement of radioactive material, procedures, record keeping, material control and accounting, and management review necessary to assure safe operations.

(6) Specific licenses of broad scope are subject to the following conditions:

(a) Unless specifically authorized, persons licensed pursuant to this rule shall not:

(i) conduct tracer studies in the environment involving direct release of radioactive material;

(ii) receive, acquire, own, possess, use or transfer devices containing 100,000 curies or more of radioactive material in sealed sources used for irradiation of materials;

(iii) conduct activities for which a specific license issued by the deprtment under ARM 16-2.12(3)-S12310 or 16-2.12(3)-S12312 is required; or

(iv) add or cause the addition of radioactive material to any food, beverage, cosmetic, drug, or other product designed for ingestion or inhalation by, or application to, a human being.

(b) Each Type A specific license of broad scope issued under this sub-chapter shall be subject to the condition that radioactive material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety committee.

(c) Each Type B specific license of broad scope issued under this sub-chapter shall be subject to the condition that radioactive material possessed under the license may only be used by, or under the direct supervision of, individuals approved by the licensee's radiation safety officer.

(d) Each Type C specific license of broad scope issued under this sub-chapter shall be subject to the condition that radioactive material possessed under the license may only be used by, or under the direct supervision of, individuals who satisfy the requirements of subsection (5) of this rule.

16-2.12(3)-S12312 SPECIFIC LICENSES - SPECIAL REQUIREMENTS FOR A SPECIFIC LICENSE TO MANUFACTURE, ASSEMBLE, REPAIR, OR DISTRIBUTE COMMODITIES, PRODUCTS, OR DEVICES WHICH CONTAIN RADIOACTIVE MATERIAL (1) (a) In addition to the requirements set forth in ARM 16-2.12(3)-S12309, a specific license authorizing the introduction of radioactive material into a product or material owned by or in the possession of the licensee or another to be transferred to persons exempt under ARM 16-2.12(3)-S12303(1)(b) will be issued if:

(i) the applicant submits a description of the product or material into which the radioactive material will be introduced, intended use of the radioactive material and the product or material into which it is introduced, method of introduction, initial concentration of the radioactive material in the product or material, control methods to assure that no more than the specified concentration is introduced into the product or material, estimated time interval between introduction and transfer of the product or material, and estimated concentration of the radioactive material in the product or material at the time of transfer; and

(ii) the applicant provides reasonable assurance that the concentrations of radioactive material at the time of transfer will not exceed the concentrations in Schedule A of this sub-chapter, that reconcentration of the radioactive material in concentrations exceeding those in Schedule A is not likely, that use of lower concentrations is not feasible, and that the product or material is not likely to be incorporated in any food, beverage, cosmetic, drug or other commodity or product designed for ingestion or inhalation by, or application to, a human being.

(b) Each person licensed under subsection (1) of this rule shall file an annual report with the department which shall identify the type and quantity of each product or material into which radioactive material has been introduced during the reporting period; name and address of the person who owned or possessed the product or material, into which radioactive material has been introduced, at the time of introduction; the type and quantity of radionuclide

introduced into each such product or material; and the initial concentrations of the radionuclide in the product or material at time of transfer of the radioactive material by the licensee. If no transfers of radioactive material have been made pursuant to subsection (1) of this rule during the reporting period, the report shall so indicate. The report shall cover the year ending June 30, and shall be filed within 30 days thereafter.

(2) Authority to transfer possession or control by the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing by-product material whose subsequent possession, use, transfer, and disposal by all other persons are exempted from regulatory requirements may be obtained only from the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

(a) An application for a specific license to distribute naturally-occurring and accelerator-produced radioactive materials (NARM) to persons exempted from this sub-chapter pursuant to ARM 16-2.12(3)-S12303(2) will be approved if:

(i) the radioactive material is not contained in any food, beverage, cosmetic, drug, or other commodity designed for ingestion or inhalation by, or application to, a human being;

(ii) the radioactive material is in the form of processed chemical elements, compounds, or mixtures, tissue samples, bioassay samples, counting standards, plated or encapsulated sources, or similar substances, identified as radioactive and to be used for its radioactive properties, but is not incorporated into any manufactured or assembled commodity, product, or device intended for commercial distribution; and

(iii) the applicant submits copies of prototype labels and brochures and the department approves such labels and brochures.

(b) The license issued under subsection (2)(a) of this rule is subject to the following conditions:

(i) No more than 10 exempt quantities shall be sold or transferred in any single transaction. However, an exempt quantity may be composed of fractional parts of one or more of the exempt quantity provided the sum of the fractions shall not exceed unity.

(ii) Each exempt quantity shall be separately and individually packaged. No more than 10 such packaged exempt quantities shall be contained in any outer package for transfer to persons exempt pursuant to ARM 16-2.12(3)-S12303(2). The outer package shall be such that the dose rate at the external surface of the package does not exceed 0.5 millirem per hour.

(iii) The immediate container of each quantity or separately packaged fractional quantity of radioactive material shall bear a durable, legible label which:

(A) identifies the radionuclide and the quantity of radioactivity, and

(B) bears the words "Radioactive Material".

(iv) In addition to the labeling information required by subsection (2)(b)(iii) of this rule, the label affixed to the immediate container, or an accompanying brochure, shall:

(A) state that the contents are exempt from licensing state requirements,

(B) bear the words "Radioactive Material--Not for Human Use--Introduction into Foods, Beverages, Cosmetics, Drugs, or Medicinals, or into Products Manufactured for Commercial Distribution is Prohibited--Exempt Quantities should not be Combined", and

(C) set forth appropriate additional radiation safety precautions and instructions relating to the handling, use, storage, and disposal of the radioactive material.

(c) Each person licensed under subsection (2) of this rule shall maintain records identifying, by name and address, each person to whom radioactive material is transferred for use under ARM 16-2.12(3)-S12303(2) or the equivalent regulations of a licensing state, and stating the kinds and quantities of radioactive material transferred. An annual summary report stating the total quantity of each radionuclide transferred under the specific license shall be filed with the department. Each report shall cover the year ending June 20, and shall be filed within 30 days thereafter. If no transfers of radioactive material have been made pursuant to subsection (2) of this rule during the reporting period, the report shall so indicate.

(3) An application for a specific license authorizing the incorporation of NARM into gas and aerosol detectors to be distributed to persons exempt under ARM 16-2.12(3)-S12303(3)(c) will be approved if the application satisfies requirements equivalent to those contained in section 32.26 of 10 C.F.R. Part 32.

(4) (a) An application for a specific license to manufacture or distribute devices containing radioactive material, excluding special nuclear material, to persons generally licensed under ARM 16-2.12(3)-S12306(4) or equivalent regulations of the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state will be approved if:

(i) the applicant satisfies the general requirements of ARM 16-2.12(3)-S12309;

(ii) the applicant submits sufficient information relating to the design, manufacture, prototype testing, quality

control, labels, proposed uses, installation, servicing, leak testing, operating and safety instructions, and potential hazards of the device to provide reasonable assurance that:

(A) the device can be safely operated by persons not having training in radiological protection,

(B) under ordinary conditions of handling, storage, and use of the device, the radioactive material contained in the device will not be released or inadvertently removed from the device, and it is unlikely that any person will receive in any period of one calendar quarter a dose in excess of 10% of the limits specified in the table in ARM 16-2.12(4)-S12402(1), and

(C) under accident conditions (such as fire and explosion) associated with handling, storage, and use of the device, it is unlikely that any person would receive an external radiation dose or dose commitment in excess of the following organ doses:

Whole body; head and trunk; active blood-forming organs; gonads; or lens of eye	15 rems
Hands and forearms; feet and ankles; localized areas of skin averaged over areas no larger than one square centimeter	200 rems
Other organs	50 rems

(iii) each device bears a durable, legible, clearly visible label or labels approved by the department, which contain in a clearly identified and separate statement:

(A) instructions and precautions necessary to assure safe installation, operation, and servicing of the device (documents such as operating and service manuals may be identified in the label and used to provide this information),

(B) the requirement, or lack of requirement, for leak testing, or for testing any on/off mechanism and indicator, including the maximum time interval for such testing, and the identification of radioactive material by isotope, quantity of radioactivity, and date of determination of the quantity, and

(C) the information called for in one of the following statements, as appropriate, in the same or substantially similar form:

(I) The receipt, possession, use and transfer of this device, Model _____, Serial No. _____, are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or a state with which the

U. S. Nuclear Regulatory Commission has entered into an agreement for the exercise of regulatory authority. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited.

CAUTION - RADIOACTIVE MATERIAL

_____
(Name of manufacturer or distributor)

(II) The receipt, possession, use, and transfer of this device, Model _____, Serial No. _____, are subject to a general license or the equivalent, and the regulations of a licensing state. This label shall be maintained on the device in a legible condition. Removal of this label is prohibited.

CAUTION - RADIOACTIVE MATERIAL

_____
(Name of manufacturer or distributor)

(D) The model, serial number, and name of the manufacturer or distributor may be omitted from the foregoing label provided the information is elsewhere specified in labeling affixed to the device.

(b) In the event the applicant desires that the device be required to be tested at intervals longer than 6 months, either for proper operation of the on/off mechanism and indicator, if any, or for leakage of radioactive material or for both, he shall include in his application sufficient information to demonstrate that such longer interval is justified by performance characteristics of the device or similar devices and by design features which have a significant bearing on the probability or consequences of leakage of radioactive material from the device or failure of the on/off mechanism and indicator. In determining the acceptable interval for the test for leakage of radioactive material, the department will consider information which includes, but is not limited to:

(i) primary containment (source capsule);

(ii) protection of primary containment;

(iii) method of sealing containment;

(iv) containment construction material;

(v) form of contained radioactive material;

(vi) maximum temperature withstood during prototype tests;

(vii) maximum pressure withstood during prototype tests;

(viii) maximum quantity of contained radioactive material;

(ix) radiotoxicity of contained radioactive material; and

(x) operating experience with identical devices or similarly designed and constructed devices.

(c) In the event the applicant desires that the general license under ARM 16-2.12(3)-S12306(4) or under equivalent

regulations of the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state be authorized to install the device, collect the sample to be analyzed by a specific licensee for leakage of radioactive material, service the device, test the on/off mechanism and indicator, or remove the device from installation, he shall include in his application written instructions to be followed by the general licensee, estimated calendar quarter doses associated with such activity or activities, and bases for such estimates. The submitted information shall demonstrate that performance of such activity or activities by an individual untrained in radiological protection, in addition to other handling, storage, and use of devices under the general license, is unlikely to cause that individual to receive a calendar quarter dose in excess of 10% of the limits specified in the table in ARM 16-2.12(4)-S12402(2).

(d) Each person licensed under subsection (4) of this rule to distribute devices to generally licensed persons shall:

(i) Furnish a copy of the general license contained in ARM 16-2.12(3)-S12306(4) to each person to whom he directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license contained in ARM 16-2.12(3)-S12306(4).

(ii) Furnish a copy of the general license contained in the U.S. Nuclear Regulatory Commission's, agreement state's or licensing state's regulation equivalent to ARM 16-2.12(3)-S12306(4), or alternatively, furnish a copy of the general license contained in ARM 16-2.12(3)-S12306(4), to each person to whom he directly or through an intermediate person transfers radioactive material in a device for use pursuant to the general license of the U.S. Nuclear Regulatory Commission, the agreement or the licensing state. If a copy of the general license in ARM 16-2.12(3)-S12306(4) is furnished to such person, it shall be accompanied by a note explaining that the use of the device is regulated by the U.S. Nuclear Regulatory Commission, agreement state or licensing state under requirements substantially the same as those in ARM 16-2.12(3)-S12306(4).

(iii) Report to the department all transfers of such devices to persons for use under the general license in ARM 16-2.12(3)-S12306(4). Such report shall identify each general licensee by name and address, an individual by name and/or position who may constitute a point of contact between the department and the general licensee, the type and model number of device transferred, and the quantity and type of radioactive material contained in the device. If one or more intermediate persons will temporarily possess the device at

the intended place of use prior to its possession by the user, the report shall include identification of each intermediate person by name, address, contact, and relationship to the intended user. If no transfers have been made to persons generally licensed under ARM 16-2.12(3)-S12306(4) during the reporting period, the report shall so indicate. The report shall cover each calendar quarter and shall be filed within 30 days thereafter.

(iv) Reports to other agencies.

(A) Report to the U.S. Nuclear Regulatory Commission all transfers of such devices to persons for use under the U.S. Nuclear Regulatory Commission general license.

(B) Report to the responsible state agency all transfers of devices manufactured and distributed pursuant to ARM 16-2.12(3)-S12312(4) for use under a general license in that state's regulations equivalent to ARM 16-2.12(3)-S12306(4).

(C) Such reports shall identify each general licensee by name and address, an individual by name and/or position who may constitute a point of contact between the department and the general licensee, the type and model of the device transferred, and the quantity and type of radioactive material contained in the device. If one or more intermediate persons will temporarily possess the device at the intended place of use prior to its possession by the user, the report shall include identification of each intermediate person by name, address, contact, and relationship to the intended user. The report shall be submitted within 30 days after the end of each calendar quarter in which such a device is transferred to the generally licensed person.

(D) If no transfers have been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission.

(E) If no transfers have been made to general licensees within a particular state during the reporting period, this information shall be reported to the responsible state agency upon request of the agency.

(5) An application for a specific license to manufacture, assemble, or repair luminous safety devices containing tritium or promethium-147 for use in aircraft, for distribution to persons generally licensed under ARM 16-2.12(3)-S12306 (5) will be approved subject to the following conditions:

(a) The applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309, and

(b) the applicant satisfies the requirements of sections 32.53, 32.54, 32.55, 32.56, 32.101 of 10 C.F.R. Part 32 or their equivalent.

(6) An application for a specific license to manufacture calibration and reference sources containing americium-241, plutonium or radium-226 to persons generally licensed under ARM 16-2.12(3)-S12306(7) will be approved subject to the following conditions:

(a) The applicant satisfies the general requirement of ARM 16-2.12(3)-S12309 and

(b) the applicant satisfies the requirements of sections 32.57, 32.58, 32.59, 32.102 of 10 C.F.R. Part 32 and section 70.39 of 10 C.F.R. Part 70 or their equivalent.

(7) In addition to requirements set forth in ARM 16-2.12(3)-S12309, a specific license authorizing the distribution of radioactive material for use by physicians under the general license in ARM 16-2.12(3)-S12306(8) will be issued if:

(a) the applicant submits evidence that the radioactive material is to be manufactured, labeled, and packaged in accordance with a new drug application which the commissioner of food and drugs, Food and Drug Administration, has approved, or in accordance with a license for a biologic product issued by the secretary, Department of Health, Education, and Welfare; and

(b) one of the following statements, as appropriate, or a substantially similar statement which contains the information called for in one of the following statements, appears on the label affixed to the container or appears in the leaflet or brochure which accompanies the package:

(i) This radioactive drug may be received, possessed, and used only by physicians licensed in the practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and a general license or its equivalent of the U.S. Nuclear Regulatory Commission or of a state with which the commission has entered into an agreement for the exercise of regulatory authority.

_____
(Name of manufacturer)

(ii) This radioactive drug may be received, possessed, and used only by physicians licensed in the practice of medicine. Its receipt, possession, use and transfer are subject to the regulations and a general license or its equivalent of a licensing state.

_____
(Name of manufacturer)

(8) An application for a specific license to manufacture or distribute radioactive material for use under the general license of ARM 16-2.12(3)-S12306(9) will be approved if:

(a) The applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309.

(b) The radioactive material is to be prepared for distribution in prepackaged units of:

(i) Iodine-125 in units not exceeding 10 microcuries each.

(ii) Iodine-131 in units not exceeding 10 microcuries each.

(iii) Carbon-14 in units not exceeding 10 microcuries each.

(iv) Hydrogen-3 (tritium) in units not exceeding 50 microcuries each.

(v) Iron-59 in units not exceeding 20 microcuries each.

(vi) Cobalt-57 in units not exceeding 10 microcuries each.

(vii) Selenium-75 in units not exceeding 10 microcuries each.

(viii) Mock Iodine-125 in units not exceeding 0.05 microcurie of iodine-129 and 0.005 microcurie of americium-241 each.

(c) Each prepackaged unit bears a durable, clearly visible label:

(i) Identifying the radioactive contents as to chemical form and radionuclide and indicating that the amount of radioactivity does not exceed 10 microcuries of iodine-125, iodine-131, carbon-14, cobalt-57, or selenium-75; 50 microcuries of hydrogen-3 (tritium); 20 microcuries of iron-59; or Mock Iodine-125 in units not exceeding 0.05 microcurie of iodine-129 and 0.005 microcurie of americium-241 each; and

(ii) displaying the radiation caution symbol described in ARM 16-2.12(4)-S12411(1)(a) and the words, "CAUTION - RADIOACTIVE MATERIAL", and "Not for Internal or External Use in Humans or Animals".

(d) One of the following statements, as appropriate, or a substantially similar statement which contains the information called for in one of the following statements, appears on a label affixed to each prepackaged unit or appears in a leaflet or brochure which accompanies the package:

(i) This radioactive material may be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use, and transfer are subject to the regulations and a general license of the U.S. Nuclear Regulatory Commission or of a state with which the commission has entered into an agreement for the exercise of regulatory authority.

_____
(Name of manufacturer)

(ii) This radioactive material may be received, acquired, possessed, and used only by physicians, clinical laboratories or hospitals and only for in vitro clinical or laboratory tests not involving internal or external administration of the material, or the radiation therefrom, to human beings or animals. Its receipt, acquisition, possession, use, and transfer are subject to the regulations and a general license of a licensing state.

_____
(Name of manufacturer)

(e) The label affixed to the unit, or the leaflet or brochure which accompanies the package, contains adequate information as to the precautions to be observed in handling and storing such radioactive material. In the case of the Mock Iodine-125 reference or calibration source, the information accompanying the source must also contain directions to the licensee regarding the waste disposal requirements set out in ARM 16-2.12(4)-S12416.

(9) An application for a specific license to manufacture and distribute ice detection devices to persons generally licensed under ARM 16-2.12(3)-S12306(10) will be approved subject to the following conditions:

(a) the applicant satisfies the general requirements of ARM 16-2.12(3)-S12309, and

(b) the criteria of sections 32.61, 32.62, 32.103 of 10 C.F.R. Part 32 are met.

(10) An application for a specific license to manufacture and distribute radiopharmaceuticals containing radioactive material for use by persons licensed pursuant to ARM 16-2.12(3)-S12310(3) for the uses listed in Group I, Group II, IV, or V of Schedule C of this sub-chapter will be approved if:

(a) The applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309;

(b) The applicant submits evidence that:

(i) the radiopharmaceutical containing radioactive material will be manufactured, labeled, and packaged in accordance with the Federal Food, Drug and Cosmetic Act or the Public Health Service Act, such as a new drug application (NDA) approved by the Food and Drug Administration (FDA), a biologic product license issued by FDA or a "Notice of claimed investigational exemption for a new drug" (IND) that has been accepted by the FDA, or

(ii) the manufacture and distribution of the radiopharmaceutical containing radioactive material is not subject to the Federal Food, Drug and Cosmetic Act and the Public Health Service Act;

(c) The applicant submits information on the radionuclide, chemical and physical form, packaging including maximum activity per package, and shielding provided by the

packaging of the radioactive material which is appropriate for safe handling and storage of radiopharmaceuticals by group licensees; and

(d) (i) The label affixed to each package of the radiopharmaceutical contains information on the radionuclide, quantity, and date of assay and the label affixed to each package, or the leaflet or brochure which accompanies each package, contains a statement that the radiopharmaceutical is licensed by the department for distribution to persons licensed pursuant to ARM 16-2.12(3)-S12310(3) and Schedule C, Group I, Group II, Group IV, and Group V of this sub-chapter, as appropriate, or under equivalent licenses of the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state.

(ii) The labels, leaflets or brochures required by subsection (10)(d)(i) of this rule are in addition to the labeling required by the Food and Drug Administration (FDA) and they may be separate from or, with the approval of FDA, may be combined with the labeling required by FDA.

(11) An application for a specific license to manufacture and distribute generators or reagent kits containing radioactive material for preparation of radiopharmaceuticals by persons licensed pursuant to ARM 16-2.12(3)-S12310(3) for the uses listed in Group III of Schedule C of this sub-chapter will be approved if:

(a) The applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309;

(b) the applicant submits evidence that:

(i) the generator or reagent kit is to be manufactured, labeled and packaged in accordance with the Federal Food, Drug and Cosmetic Act or the Public Health Service Act, such as a new drug application (NDA) approved by the Food and Drug Administration (FDA), a biologic product license issued by FDA, or a "Notice of claimed investigational exemption for a new drug" (IND) that has been accepted by the FDA, or

(ii) the manufacture and distribution of the generator or reagent kit are not subject to the Federal Food, Drug and Cosmetic Act and the Public Health Service Act;

(c) the applicant submits information on the radionuclide, chemical and physical form, packaging including maximum activity per package, and shielding provided by the packaging of the radioactive material contained in the generator of the reagent kit;

(d) the label affixed to the generator or reagent kit contains information on the radionuclide, quantity, and date of assay; and

(e) the label affixed to the generator or reagent kit, or the leaflet or brochure which accompanies the generator or reagent kit, contains:

(i) adequate information, from a radiation safety standpoint, on the procedures to be followed and the equipment and shielding to be used in eluting the generator or processing radioactive material with the reagent kit, and

(ii) a statement that this generator or reagent kit (as appropriate) is approved for use by persons licensed by the department pursuant to ARM 16-2.12(3)-S12310(3) and Schedule C, Group III of this sub-chapter or under equivalent licenses of the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state. The labels, leaflets or brochures required by subsection (11) of this rule are in addition to the labeling required by FDA and they may be separate from or, with the approval of FDA, may be combined with the labeling required by FDA.

NOTE: Although the department does not regulate the manufacture and distribution of reagent kits that do not contain radioactive material, it does regulate the use of such reagent kits for the preparation of radiopharmaceuticals containing radioactive material as part of its licensing and regulation of the users of radioactive material. Any manufacturer of reagent kits that do not contain radioactive material who desires to have his reagent kits approved by the department for use by persons licensed pursuant to ARM 16-2.12(3)-S12310(3) and Group III of Schedule C of this subchapter may submit the pertinent information specified in subsection (11) of this rule.

(12) An application for a specific license to manufacture and distribute sources and devices containing radioactive material to persons licensed pursuant to ARM 16-2.12(3)-S12310(3) for use as a calibration or reference source or for the uses listed in Group VI of Schedule C of this sub-chapter will be approved if:

(a) The applicant satisfies the general requirements in ARM 16-2.12(3)-S12309.

(b) The applicant submits sufficient information regarding each type of source or device pertinent to an evaluation of its radiation safety, including:

(i) the radioactive material contained, its chemical and physical form, and amount,

(ii) details of design and construction of the source or device,

(iii) procedures for, and results of, prototype tests to demonstrate that the source or device will maintain its integrity under stresses likely to be encountered in normal use and accidents,

(iv) for devices containing radioactive material, the radiation profile of a prototype device,

(v) details of quality control procedures to assure that production sources and devices meet the standards of

the design and prototype tests,

(vi) procedures and standards for calibrating sources and devices,

(vii) legend and methods for labeling sources and devices as to their radioactive content, and

(viii) instructions for handling and storing the source or device from the radiation safety standpoint; these instructions are to be included on a durable label attached to the source or device or attached to a permanent storage container for the source or device; provided, that instructions which are too lengthy for such label may be summarized on the label and printed in detail on a brochure which is referenced on the label.

(c) The label affixed to the source or device, or to the permanent storage container for the source or device, contains information on the radionuclide, quantity, and date of assay, and a statement that the name of source or device is licensed by the department for distribution to persons licensed pursuant to ARM 16-2.12(3)-S12310(3) and Schedule C, Group VI of this sub-chapter or under equivalent licenses of the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state, provided, that such labeling for sources which do not require long term storage (e.g., gold-198 seeds) may be on a leaflet or brochure which accompanies the source.

(d) In the event the applicant desires that the source or device be required to be tested for leakage of radioactive material at intervals longer than 6 months, he shall include in his application sufficient information to demonstrate that such longer interval is justified by performance characteristics of the source or device or similar sources or devices and by design features that have a significant bearing on the probability or consequences of leakage of radioactive material from the source.

(e) In determining the acceptable interval for test of leakage of radioactive material, the department will consider information that includes, but is not limited to:

(i) primary containment (source capsule),

(ii) protection of primary containment,

(iii) method of sealing containment,

(iv) containment construction materials,

(v) form of contained radioactive material,

(vi) maximum temperature withstood during prototype tests,

(vii) maximum pressure withstood during prototype tests,

(viii) maximum quantity of contained radioactive material,

(ix) radiotoxicity of contained radioactive material, and

(x) operating experience with identical sources or devices or similarly designed and constructed sources or

devices.

(13) Requirements for license to manufacture and distribute industrial products containing depleted uranium for mass-volume applications.

(a) An application for a specific license to manufacture industrial products and devices containing depleted uranium for use pursuant to ARM 16-2.12(3)-S12305(4) or equivalent regulations of the U.S. Nuclear Regulatory Commission or an agreement state will be approved if:

(i) the applicant satisfies the general requirements specified in ARM 16-2.12(3)-S12309;

(ii) the applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling or marking, proposed uses, and potential hazards of the industrial product or device to provide reasonable assurance that possession, use, or transfer of the depleted uranium in the product or device is not likely to cause any individual to receive in any period of one calendar quarter a radiation dose in excess of 10% of the limits specified in ARM 16-2.12(4)-S12402(2); and

(iii) the applicant submits sufficient information regarding the industrial product or device and the presence of depleted uranium for a mass-volume application in the product or device to provide reasonable assurance that unique benefits will accrue to the public because of the usefulness of the product or device.

(b) In the case of an industrial product or device whose unique benefits are questionable, the department will approve an application for a specific license under subsection (13) of this rule only if the product or device is found to combine a high degree of utility and low probability of uncontrolled disposal and dispersal of significant quantities of depleted uranium into the environment.

(c) The department may deny any application for a specific license under subsection (13) of this rule if the end use(s) of the industrial product or device cannot be reasonably foreseen.

(d) Each person licensed pursuant to subsection (13)(a) of this rule shall:

(i) maintain the level of quality control required by the license in the manufacture of the industrial product or device, and in the installation of the depleted uranium into the product or device;

(ii) label or mark each unit to:

(A) identify the manufacturer of the product or device and the number of the license under which the product or device was manufactured, the fact that the product or device contains depleted uranium, and the quantity of depleted uranium in each product or device; and

(B) state that the receipt, possession, use, and transfer of the product or device are subject to a general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or of an agreement state;

(iii) assure that the depleted uranium before being installed in each product or device has been impressed with the following legend clearly legible through any plating or other covering: "Depleted Uranium";

(iv) (A) furnish a copy of the general license contained in ARM 16-2.12(3)-S12305(4) and a copy of department form MRH-12 to each person to whom he transfers depleted uranium in a product or device for use pursuant to the general license contained in ARM 16-2.12(3)-S12305(4), or

(B) furnish a copy of the general license contained in the U.S. Nuclear Regulatory Commission's or agreement state's regulation equivalent to ARM 16-2.12(3)-S12305(4) and a copy of the U.S. Nuclear Regulatory Commission's or agreement state's certificate, or alternatively, furnish a copy of the general license contained in ARM 16-2.12(3)-S12305(4) and a copy of department form MRH-12 to each person to whom he transfers depleted uranium in a product or device for use pursuant to the general license of the U.S. Nuclear Regulatory Commission or an agreement state, with a note explaining that use of the product or device is regulated by the U.S. Nuclear Regulatory Commission or an agreement state under requirements substantially the same as those in ARM 16-2.12(3)-S12305(4);

(v) report to the department all transfers of industrial products or devices to persons for use under the general license in ARM 16-2.12(3)-S12305(4). Such report shall identify each general licensee by name and address, an individual by name and/or position who may constitute a point of contact between the department and the general licensee, the type and model number of device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within 30 days after the end of each calendar quarter in which such a product or device is transferred to the generally licensed person. If no transfers have been made to persons generally licensed under ARM 16-2.12(3)-S12305(4) during the reporting period, the report shall so indicate;

(vi) (A) report to the U.S. Nuclear Regulatory Commission all transfers of industrial products or devices to persons for use under the U.S. Nuclear Regulatory Commission general license,

(B) report to the responsible state agency all transfers of devices manufactured and distributed pursuant to subsection (13) of this rule for use under a general license in that state's regulations equivalent to ARM 16-2.12(3)-S12305(4),

(C) such report shall identify each general licensee by

name and address, an individual by name and/or position who may constitute a point of contact between the agency and the general licensee, the type and model number of the device transferred, and the quantity of depleted uranium contained in the product or device. The report shall be submitted within 30 days after the end of each calendar quarter in which such product or device is transferred to the generally licensed person,

(D) if no transfers have been made to U.S. Nuclear Regulatory Commission licensees during the reporting period, this information shall be reported to the U.S. Nuclear Regulatory Commission,

(E) if no transfers have been made to general licensees within a particular agreement state during the reporting period, this information shall be reported to the responsible agreement state agency; and

(vii) keep records showing the name, address, and point of contact for each general licensee to whom he transfers depleted uranium in industrial products or devices for use pursuant to the general license provided in ARM 16-2.12(3)-S12305(4) or equivalent regulations of the U.S. Nuclear Regulatory Commission or of an agreement state. The records shall be maintained for a period of two years and shall show the date of each transfer, the quantity of depleted uranium in each product or device transferred, and compliance with the report requirements of this sub-chapter.

16-2.12(3)-S12313 SPECIFIC LICENSES - ISSUANCE OF

(1) Upon a determination that an application meets the requirements of the act and the rules of the department, the department will issue a specific license authorizing the proposed activity in such form and containing such conditions and limitations as it deems appropriate or necessary.

(2) The department may incorporate in any license at the time of issuance, or thereafter by appropriate rule, regulation, or order, such additional requirements and conditions with respect to the licensee's receipt, possession, use, and transfer of radioactive material subject to this sub-chapter as it deems appropriate or necessary in order to:

(a) minimize danger to public health and safety or property;

(b) require such reports and the keeping of such records, and to provide for such inspections of activities under the license as may be appropriate or necessary; and

(c) prevent loss or theft of material subject to this sub-chapter.

16-2.12(3)-S12314 SPECIFIC LICENSES - SPECIFIC TERMS AND CONDITIONS OF LICENSE (1) Each license issued pursuant to this sub-chapter shall be subject to all the provisions of the act, now or hereafter in effect, and to all rules, regulations, and orders of the department.

(2) No license issued or granted under this sub-chapter and no right to possess or utilize radioactive material granted by any license issued pursuant to this sub-chapter shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of any license to any person unless the department shall, after securing full information find that the transfer is in accordance with the provisions of the act, and shall give its consent in writing.

(3) Each person licensed by the department pursuant to this sub-chapter shall confine his use and possession of the material licensed to the locations and purposes authorized in the license.

16-2.12(3)-S12315 SPECIFIC LICENSES - EXPIRATION OF LICENSES Except as provided in ARM 16-2.12(3)-S12316(2), each specific license shall expire at the end of the day, in the month and year stated therein.

16-2.12(3)-S12316 SPECIFIC LICENSES - RENEWAL OF LICENSE (1) Applications for renewal of specific licenses shall be filed in accordance with ARM 16-2.12(3)-S12308.

(2) In any case in which a licensee, not less than 30 days prior to expiration of his existing license, has filed an application in proper form for renewal or for a new license authorizing the same activities, such existing license shall not expire until the application has been finally determined by the department.

16-2.12(3)-S12317 SPECIFIC LICENSES - AMENDMENT OF LICENSES AT REQUEST OF LICENSEE Applications for amendment of a license shall be filed in accordance with ARM 16-2.12(3)-S12308 and shall specify the respects in which the licensee desires his license to be amended and the grounds for such amendment.

16-2.12(3)-S12318 SPECIFIC LICENSES - DEPARTMENT ACTION ON APPLICATIONS TO RENEW AND AMEND In considering an application by a licensee to renew or amend his license, the department will apply the criteria set forth in ARM 16-2.12(3)-S12309, 16-2.12(3)-S12310, 16-2.12(3)-S12311, or 16-2.12(3)-S12312 as applicable.

16-2.12(3)-S12319 SPECIFIC LICENSES - PERSONS POSSESSING A LICENSE FOR SOURCE, BYPRODUCT, OR SPECIAL NUCLEAR MATERIAL IN QUANTITIES NOT SUFFICIENT TO FORM A CRITICAL MASS Any

person who, on the effective date of this chapter, possesses a general or specific license for source, byproduct, or special nuclear material in quantities not sufficient to form a critical mass, issued by the U.S. Nuclear Regulatory Commission, shall be deemed to possess a like license issued under this sub-chapter and the act, such license to expire either 90 days after receipt from the department of a notice of expiration of such license, or on the date of expiration specified in the U.S. Nuclear Regulatory Commission license, whichever is earlier.

16-2.12(3)-S12320 EXISTING SPECIFIC LICENSES - NARM

Any person who, on the effective date of this chapter, possesses NARM for which a specific license is required by the act or this sub-chapter shall be deemed to possess such a license issued under the act and this sub-chapter. Such license shall expire 90 days after the effective date of this chapter; provided, however, that if within the 90 days the person possessing such material files an application in proper form for a license, such existing license shall not expire until the application has been finally determined by the department.

16-2.12(3)-S12321 SPECIFIC LICENSES - TRANSFER OF MATERIAL

(1) No licensee shall transfer radioactive material except as authorized pursuant to this rule.

(2) Except as otherwise provided in his license and subject to the provisions of subsections (3) and (4) of this rule, any licensee may transfer radioactive material:

(a) to the department. A licensee may transfer material to the department only after receiving prior approval from the department;

(b) to the U.S. Department of Energy;

(c) to any person exempt from the provisions of this sub-chapter to the extent permitted under such exemption;

(d) to any person authorized to receive such material under terms of a general license or its equivalent, or a specific license or equivalent licensing document, issued by the department, the U.S. Nuclear Regulatory Commission, any agreement state or any licensing state, or to any person otherwise authorized to receive such material by the federal government or any agency thereof, the department, any agreement state or any licensing state; or

(e) as otherwise authorized by the department in writing.

(3) Before transferring radioactive material to a specific licensee of the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state, or to a general licensee who is required to register with the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state prior to receipt of the radio-

active material, the licensee transferring the material shall verify that the transferee's license authorizes the receipt of the type, form, and quantity of radioactive material to be transferred.

(4) The following methods for the verification required by subsection(3) of this rule are acceptable:

(a) The transferor may have in his possession, and read, a current copy of the transferee's specific license or registration certificate;

(b) the transferor may have in his possession a written certification by the transferee that he is authorized by license or registration certificate to receive the type, form and quantity of radioactive material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date;

(c) for emergency shipments the transferor may accept oral certification by the transferee that he is authorized by license or registration certificate to receive the type, form, and quantity of radioactive material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date; provided, that the oral certification is confirmed in writing within 10 days;

(d) the transferor may obtain other sources of information compiled by a reporting service from official records of the department, the U.S. Nuclear Regulatory Commission, the licensing agency of an agreement state or a licensing state as to the identity of licensees and the scope and expiration dates of licenses and registration; or

(e) when none of the methods of verification described in subsection (4)(a), (b), (c), or (d) of this rule are readily available or when a transferor desires to verify that information received by one of such methods is correct or up-to-date, the transferor may obtain and record confirmation from the department, the U.S. Nuclear Regulatory Commission, or the licensing agency of an agreement state or a licensing state that the transferee is licensed to receive the radioactive material.

(5) Preparation for shipment and transport of radioactive material shall be in accordance with the provisions of ARM 16-2.12(3)-S12324.

16-2.12(3)-S12322 SPECIFIC LICENSES - MODIFICATION, REVOCATION, AND TERMINATION (1) The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to the act, or by reason of rules and orders issued by the department.

(2) Any license may be revoked, suspended, or modified, in whole or in part, for any material false statement in the

application or any statement of fact required under provisions of the act, or because of conditions revealed by such application or statement of fact or any report, record, or inspection or other means which would warrant the department to refuse to grant a license on an original application, or for violation of, or failure to observe any of the terms and conditions of the act, or of the license, or of any rule or order of the department.

(3) Except in cases of willfulness or those in which the public health, interest or safety requires otherwise, no license shall be modified, suspended, or revoked unless, prior to the institution of proceedings therefor, facts or conduct which may warrant such action shall have been called to the attention of the licensee in writing and the licensee shall have been afforded an opportunity to demonstrate or achieve compliance with all lawful requirements.

(4) The department may terminate a specific license upon request submitted by the licensee to the department in writing.

16-2.12(3)-S12323 RECIPROCITY (1) Subject to this chapter, any person who holds a specific license from the U.S. Nuclear Regulatory Commission or any agreement state or licensing state, and issued by the agency having jurisdiction where the licensee maintains an office for directing the licensed activity and at which radiation safety records are normally maintained, is hereby granted a general license to conduct the activities authorized in such licensing document within this state for a period not in excess of 180 days in any calendar year provided that:

(a) the licensing document does not limit the activity authorized by such document to specified installations or locations;

(b) the out-of-state licensee notifies the department in writing at least 3 days prior to engaging in such activity. Such notification shall indicate the location, period, and type of proposed possession and use within the state, and shall be accompanied by a copy of the pertinent licensing document. If, for a specific case, the 3-day period would impose an undue hardship on the out-of-state licensee, he may, upon application to the department, obtain permission to proceed sooner. The department may waive the requirement for filing additional written notifications during the remainder of the calendar year following the receipt of the initial notification from a person engaging in activities under the general license provided in subsection (1) of this rule.

(c) the out-of-state licensee complies with all applicable rules of the department and with all the terms and

conditions of his licensing document, except any such terms and conditions which may be inconsistent with applicable rules of the department;

(d) the out-of-state licensee supplies such other information as the department may request; and

(e) the out-of-state licensee shall not transfer or dispose of radioactive material possessed or used under the general license provided in subsection (1) of this rule except by transfer to a person:

(i) specifically licensed by the department or by the U.S. Nuclear Regulatory Commission to receive such material, or

(ii) exempt from the requirements for a license for such material under ARM 16-2.12(3)-S12303(1).

(2) Notwithstanding the provisions of subsection (1) of this rule, any person who holds a specific license issued by the U.S. Nuclear Regulatory Commission or an agreement state authorizing the holder to manufacture, transfer, install, or service a device described in ARM 16-2.12(3)-S12306(4)(a) within areas subject to the jurisdiction of the licensing body is hereby granted a general license to install, transfer, demonstrate or service such a device in this state provided that:

(a) such person shall file a report with the department within 30 days after the end of each calendar quarter in which any device is tranferred to or installed in this state. Each such report shall identify each general licensee to whom such device is transferred by name and address, the type of device transferred, and the quantity and type of radioactive material contained in the device;

(b) the device has been manufactured, labeled, installed, and serviced in accordance with applicable provisions of the specific license issued to such person by the U.S. Nuclear Regulatory Commission or an agreement state;

(c) such person shall assure that any labels required to be affixed to the device under regulations of the authority which licensed manufacture of the device bear a statement that "Removal of this label is prohibited"; and

(d) the holder of the specific license shall furnish to each general licensee to whom he transfers such device or on whose premises he installs such device a copy of the general license contained in ARM 16-2.12(3)-S12306(4).

(3) The department may withdraw, limit, or qualify its acceptance of any specific license or equivalent licensing document issued by another agency, or any product distributed pursuant to such licensing document, upon determining that such action is necessary in order to prevent undue hazard to public health and safety or property.

16-2.12(3)-S12324 TRANSPORTATION - PREPARATION OF MATERIAL

(1) For the purposes of this rule, a licensee who transports his own licensed material as a private carrier is considered to have delivered such material to a carrier for transport.

(2) No licensee shall deliver any radioactive material to a carrier for transport, unless:

(a) the licensee complies with the applicable requirements of the regulations, appropriate to the mode of transport, of the U.S. Department of Transportation insofar as such regulations relate to the packaging of radioactive material, and to the monitoring, marking and labeling of those packages;

(b) the licensee has established procedures for opening and closing packages in which radioactive material is transported to provide safety and to assure that, prior to the delivery to a carrier for transport, each package is properly closed for transport; and

(c) prior to delivery of a package to a carrier for transport, the licensee shall assure that any special instructions needed to safely open the package are sent to or have been available to the consignee.

(3) Subsection (2) of this rule shall not apply to the transportation of licensed material, or to the delivery of licensed material to a carrier for transport, where such transportation is subject to the regulations of the U.S. Department of Transportation or the U.S. Postal Service.

SCHEDULE A

EXEMPT CONCENTRATIONS

Element (atomic number)	Isotope	Column I Gas concentration μCi/ml 1/	Column II Liquid and solid concentration μCi/ml 2/
Antimony (51)	Sb-122		$3X10^{-4}$
	Sb-124		$2X10^{-4}$
	Sb-125		$1X10^{-3}$
Argon (18)	Ar-37	$1X10^{-3}$	
	Ar-41	$4X10^{-7}$	
Arsenic (33)	As-73		$5X10^{-3}$
	As-74		$5X10^{-4}$
	As-76		$2X10^{-4}$
	As-77		$8X10^{-4}$
Barium (56)	Ba-131		$2X10^{-3}$
	Ba-140		$3X10^{-4}$
Beryllium (4)	Be-7		$2X10^{-2}$
Bismuth (83)	Bi-206		$4X10^{-4}$
Bromine (35)	Br-82	$4X10^{-7}$	$3X10^{-3}$
Cadmium (48)	Cd-109		$2X10^{-3}$
	Cd-115m		$3X10^{-4}$
	Cd-115		$3X10^{-4}$
Calcium (20)	Ca-45		$9X10^{-5}$
	Ca-47		$5X10^{-4}$
Carbon (6)	C-14	$1X10^{-6}$	$8X10^{-3}$
Cerium (58)	Ce-141		$9X10^{-4}$
	Ce-143		$4X10^{-4}$
	Ce-144		$1X10^{-4}$
Cesium (55)	Cs-131		$2X10^{-2}$
	Cs-134m		$6X10^{-2}$
	Cs-134		$9X10^{-5}$
Chlorine (17)	Cl-38	$9X10^{-7}$	$4X10^{-3}$
Chromium (24)	Cr-51		$2X10^{-2}$
Cobalt (27)	Co-57		$5X10^{-3}$
	Co-58		$1X10^{-3}$
	Co-60		$5X10^{-4}$

1/ Values are given in Column I only for those materials normally used as gases.

2/ μCi/gm for solids.

Element (atomic number)	Isotope	Column I Gas concentration µCi/ml 1/	Column II Liquid and solid concentration µCi/ml 2/
Copper (29)	Cu-64		$3X10^{-3}$
Dysprosium (66)	Dy-165		$4X10^{-3}$
	Dy-166		$4X10^{-4}$
Erbium (68)	Er-169		$9X10^{-4}$
	Er-171		$1X10^{-3}$
Europium (63)	Eu-152 (Tr=9.2 h)		$6X10^{-4}$
	Eu-155		$2X10^{-3}$
Fluorine (9)	F-18	$2X10^{-6}$	$8X10^{-3}$
Gadolinium (64)	Gd-153		$2X10^{-3}$
	Gd-159		$8X10^{-4}$
Gallium (31)	Ga-72		$4X10^{-4}$
Germanium (32)	Ge-71		$2X10^{-2}$
Gold (79)	Au-196		$2X10^{-3}$
	Au-198		$5X10^{-4}$
	Au-199		$2X10^{-3}$
Hafnium (72)	Hf-181		$7X10^{-4}$
Hydrogen (1)	H-3	$5X10^{-6}$	$3X10^{-2}$
Indium (49)	In-113m		$1X10^{-2}$
	In-114m		$2X10^{-4}$
Iodine (53)	I-126	$3X10^{-9}$	$2X10^{-5}$
	I-131	$3X10^{-9}$	$2X10^{-5}$
	I-132	$8X10^{-8}$	$6X10^{-4}$
	I-133	$1X10^{-8}$	$7X10^{-5}$
	I-134	$2X10^{-7}$	$1X10^{-3}$
Iridium (77)	Ir-190		$2X10^{-3}$
	Ir-192		$4X10^{-4}$
	Ir-194		$3X10^{-4}$
Iron (26)	Fe-55		$8X10^{-3}$
	Fe-59		$6X10^{-4}$
Krypton (36)	Kr-85m	$1X10^{-6}$	
	Kr-85	$3X10^{-6}$	
Lanthanum (57)	La-140		$2X10^{-4}$
Lead (82)	Pb-203		$4X10^{-3}$
Lutetium (71)	Lu-177		$1X10^{-3}$

1/ Values are given in Column I only for those materials normally used as gases.

2/ µCi/gm for solids.

Element (atomic number)	Isotope	Column I Gas concentration μCi/m 1/	Column II Liquid and solid concentration μCi/m 2/
Manganese (25)	Mn-52		$3X10^{-4}$
	Mn-54		$1X10^{-3}$
	Mn-56		$1X10^{-3}$
Mercury (80)	Hg-197m		$2X10^{-3}$
	Hg-197		$3X10^{-3}$
	Hg-203		$2X10^{-4}$
Molybdenum (42)	Mo-99		$2X10^{-3}$
Neodymium (60)	Nd-147		$6X10^{-4}$
	Nd-149		$3X10^{-3}$
Nickel (28)	Ni-65		$1X10^{-3}$
Niobium (Columbium) (41)	Nb-95		$1X10^{-3}$
	Nb-97		$9X10^{-3}$
Osmium (76)	Os-185		$7X10^{-4}$
	Os-191m		$3X10^{-2}$
	Os-191		$2X10^{-3}$
	Os-193		$6X10^{-4}$
Palladium (46)	Pd-103		$3X10^{-3}$
	Pd-109		$9X10^{-4}$
Phosphorus (15)	P-32		$2X10^{-4}$
Platinum (78)	Pt-191		$1X10^{-3}$
	Pt-193m		$1X10^{-2}$
	Pt-197m		$1X10^{-2}$
	Pt-197		$1X10^{-3}$
Potassium (19)	K-42		$3X10^{-3}$
Praseodymium (59)	Pr-142		$3X10^{-4}$
	Pr-143		$5X10^{-4}$
Promethium (61)	Pm-147		$2X10^{-3}$
	Pm-149		$4X10^{-4}$
Rhenium (75)	Re-183		$6X10^{-3}$
	Re-186		$9X10^{-4}$
	Re-188		$6X10^{-4}$
Rhodium (45)	Rh-103m		$1X10^{-1}$
	Rh-105		$1X10^{-3}$

1/ Values are given in Column I only for those materials normally used as gases.

2/ μCi/gm for solids.

Element (atomic number)	Isotope	Column I Gas concentration µCi/ml 1/	Column II Liquid and solid concentration µCi/ml 2/
Rubidium (37)	Rb-86		$7X10^{-4}$
Ruthenium (44)	Ru-97		$4X10^{-3}$
	Ru-103		$8X10^{-4}$
	Ru-105		$1X10^{-3}$
	Ru-106		$1X10^{-4}$
Samarium (62)	Sm-153		$8X10^{-4}$
Scandium (21)	Sc-46		$4X10^{-4}$
	Sc-47		$9X10^{-4}$
	Sc-48		$3X10^{-4}$
Selenium (34)	Se-75		$3X10^{-3}$
Silicon (14)	Si-31		$9X10^{-3}$
Silver (47)	Ag-105		$1X10^{-3}$
	Ag-110m		$3X10^{-4}$
	Ag-111		$4X10^{-4}$
Sodium (11)	Na-24		$2X10^{-3}$
Strontium (38)	Sr-85		$1X10^{-3}$
	Sr-89		$1X10^{-4}$
	Sr-91		$7X10^{-4}$
	Sr-92		$7X10^{-4}$
Sulfur (16)	S-35	$9X10^{-8}$	$6X10^{-4}$
Tantalum (73)	Ta-182		$4X10^{-4}$
Technetium (43)	Tc-95m		$1X10^{-1}$
	Tc-96		$1X10^{-3}$
Tellurium (52)	Te-125m		$2X10^{-3}$
	Te-127m		$6X10^{-4}$
	Te-127		$3X10^{-3}$
	Te-129m		$3X10^{-4}$
	Te-131m		$6X10^{-4}$
	Te-132		$3X10^{-4}$
Terbium (65)	Tb-160		$4X10^{-4}$
Thallium (81)	Tl-200		$4X10^{-3}$
	Tl-201		$3X10^{-3}$
	Tl-202		$1X10^{-3}$
	Tl-204		$1X10^{-3}$
Thulium (69)	Tm-170		$5X10^{-4}$
	Tm-171		$5X10^{-3}$

1/ Values are given in Column I only for those materials normally used as gases.

2/ µCi/gm for solids.

Element (atomic number)	Isotope	Column I Gas concentration μCi/ml 1/	Column II Liquid and solid concentration μCi/ml 2/
Tin (50)	Sn-113		$9X10^{-4}$
	Sn-125		$2X10^{-4}$
Tungsten (Wolfram) (74)	W-181		$4X10^{-3}$
	W-187		$7X10^{-4}$
Vanadium (23)	V-48		$3X10^{-4}$
Xenon (54)	Xe-131m	$4X10^{-6}$	
	Xe-133	$3X10^{-6}$	
	Xe-135	$1X10^{-6}$	
Ytterbium (70)	Yb-175		$1X10^{-3}$
Yttrium (39)	Y-90		$2X10^{-4}$
	Y-91m		$3X10^{-2}$
	Y-91		$3X10^{-4}$
	Y-92		$6X10^{-4}$
	Y-93		$3X10^{-4}$
Zinc (30)	Zn-65		$1X10^{-3}$
	Zn-69m		$7X10^{-4}$
	Zn-69		$2X10^{-2}$
Zirconium (40)	Zr-95		$6X10^{-4}$
	Zr-97		$2X10^{-4}$
Beta and/or gamma emitting radioactive material not listed above with half-life less than 3 years.		$1X10^{-10}$	$1X10^{-6}$

NOTE 1: Many radioisotopes disintegrate into isotopes which are also radioactive. In expressing the concentrations in Schedule A the activity stated is that of the parent isotope and takes into account the daughters.
NOTE 2: For purposes of ARM 16-2.12(3)-S12303 where there is involved a combination of isotopes, the limit for the combination should be derived as follows: Determine for each isotope in the product the ratio between the concentration present in the product and the exempt concentration established in Schedule A for the specific isotope when not in combination. The sum of such ratios may not exceed "1" (i.e., unity).

EXAMPLE: $\frac{\text{Concentration of Isotope A in Product}}{\text{Exempt concentration of Isotope A}} + \frac{\text{Concentration of Isotope B in Product}}{\text{Exempt concentration of Isotope B}} \leq 1$

1/ Values are given in Column I only for those materials normally used as gases.
2/ μCi/gm for solids.

SCHEDULE B

EXEMPT QUANTITIES

Radioactive Material	Micro-curies
Antimony-122 (Sb 122)	100
Antimony-124 (Sb 124)	10
Antimony-125 (Sb 125)	10
Arsenic-73 (As 73)	100
Arsenic-74 (As 74)	10
Arsenic-76 (As 76)	10
Arsenic-77 (As 77)	100
Barium-131 (Ba 131)	10
Barium-133 (Ba 133)	10
Barium-140 (Ba 140)	10
Bismuth-210 (Bi 210)	1
Bromine-82 (Br 82)	10
Cadmium-109 (Cd 109)	10
Cadmium-115m (Cd 115m)	10
Cadmium-115 (Cd 115)	100
Calcium-45 (Ca 45)	10
Calcium-47 (Ca 47)	10
Carbon-14 (C 14)	100
Cerium-141 (Ce 141)	100
Cerium-143 (Ce 143)	100
Cerium-144 (Ce 144)	1
Cesium-129 (Cs 129)	100
Cesium-131 (Cs 131)	1,000
Cesium-134m (Cs 134m)	100
Cesium-134 (Cs 134)	1
Cesium-135 (Cs 135)	10
Cesium-136 (Cs 136)	10
Cesium-137 (Cs 137)	10
Chlorine-36 (Cl 36)	10
Chlorine-38 (Cl 38)	10
Chromium-51 (Cr 51)	1,000
Cobalt-57 (Co 57)	100
Cobalt-58m (Co 58m)	10
Cobalt-58 (Co 58)	10
Cobalt-60 (Co 60)	1
Copper-64 (Cu 64)	100
Dysprosium-165 (Dy 165)	10
Dysprosium-166 (Dy 166)	100
Erbium-169 (Er 169)	100
Erbium-171 (Er 171)	100
Europium-152 (Eu 152)9.2h	100
Europium-152 (Eu 152)13 yr	1
Europium-154 (Eu 154)	1

Radioactive Material	Micro-curies
Europium-155 (Eu 155)	10
Fluorine-18 (F 18)	1,000
Gadolinium-153 (Gd 153)	10
Gadolinium-159 (Gd 159)	100
Gallium-67 (Ga 67)	100
Gallium-72 (Ga 72)	10
Germanium-71 (Ge 71)	100
Gold-198 (Au 198)	100
Gold-199 (Au 199)	100
Hafnium-181 (Hf 181)	10
Holmium-166 (Ho 166)	100
Hydrogen-3 (H 3)	1,000
Indium-111 (In 111)	100
Indium-113m (In 113m)	100
Indium-114m (In 114m)	10
Indium-115m (In 115m)	100
Indium-115 (In 115)	10
Iodine-123 (I 123)	100
Iodine-125 (I 125)	1
Iodine-126 (I 126)	1
Iodine-129 (I 129)	0.1
Iodine-131 (I 131)	1
Iodine-132 (I 132)	10
Iodine-133 (I 133)	1
Iodine-134 (I 134)	10
Iodine-135 (I 135)	10
Iridium-192 (Ir 192)	10
Iridium-194 (Ir 194)	100
Iron-52 (Fe 52)	10
Iron-55 (Fe 55)	100
Iron-59 (Fe 59)	10
Krypton-85 (Kr 85)	100
Krypton-87 (Kr 87)	10
Lanthanum-140 (La 140)	10
Lutetium-177 (Lu 177)	100
Manganese-52 (Mn 52)	10
Manganese-54 (Mn 54)	10
Manganese-56 (Mn 56)	10
Mercury-197m (Hg 197m)	100
Mercury-197 (Hg 197)	100
Mercury-203 (Hg 203)	10
Molybdenum-99 (Mo 99)	100
Neodymium-147 (Nd 147)	100
Neodymium-149 (Nd 149)	100
Nickel-59 (Ni 59)	100

Radioactive Material	Micro-curies
Nickel-62 (Ni 63)	10
Nickel-65 (Ni 65)	100
Niobium-93m (Nb 93m)	10
Niobium-95 (Nb 95)	10
Niobium-97 (Nb 97)	10
Osmium-185 (Os 185)	10
Osmium-191m (Os 191m)	100
Osmium-191 (Os 191)	100
Osmium-193 (Os 193)	100
Palladium-103 (Pd 103)	100
Palladium-109 (Pd 109)	100
Phosphorus-32 (P 32)	10
Platinum-191 (Pt 191)	100
Platinum-193m (Pt 193m)	100
Platinum-193 (Pt 193)	100
Platinum-197m (Pt 197m)	100
Platinum-197 (Pt 197)	100
Polonium-210 (Po 210)	0.1
Potassium-42 (K 42)	10
Potassium-43 (K 43)	10
Praseodymium-142 (Pr 142)	100
Praseodymium-143 (Pr 143)	100
Promethium-147 (Pm 147)	10
Promethium-149 (Pm 149)	10
Radium-226 (Ra 226)	0.1
Rhenium-186 (Re 186)	100
Rhenium-188 (Re 188)	100
Rhodium-103m (Rh 103m)	100
Rhodium-105 (Rh 105)	100
Rubidium-81 (Rb 81)	10
Rubidium-86 (Rb 86)	10
Rubidium-87 (Rb 87)	10
Ruthenium-97 (Ru 97)	100
Ruthenium-103 (Ru 103)	10
Ruthenium-105 (Ru 105)	10
Ruthenium-106 (Ru 106)	1
Samarium-151 (Sm 151)	10
Samarium-153 (Sm 153)	100
Scandium-46 (Sc 46)	10
Scandium-47 (Sc 47)	100
Scandium-48 (Sc 48)	10
Selenium-75 (Se 75)	10
Silicon-31 (Si 31)	100
Silver-105 (Ag 105)	10
Silver-110m (Ag 110m)	1
Silver-111 (Ag 111)	100
Sodium-22 (Na 22)	10

Radioactive Material	Micro-curies
Sodium-24 (Na 24)	10
Strontium-85 (Sr 85)	10
Strontium-89 (Sr 89)	1
Strontium-90 (Sr 90)	0.1
Strontium-91 (Sr 91)	10
Strontium-92 (Sr 92)	10
Sulphur-35 (S 35)	100
Tantalum-182 (Ta 182)	10
Technetium-96 (Tc 96)	10
Technetium-97m (Tc 97m)	100
Technetium-97 (Tc 97)	100
Technetium-99m (Tc 99m)	100
Technetium-99 (Tc 99)	10
Tellurium-125m (Te 125m)	10
Tellurium-127m (Te 127m)	10
Tellurium-127 (Te 127)	100
Tellurium-129m (Te 129m)	10
Tellurium-129 (Te 129)	100
Tellurium-131m (Te 131m)	10
Tellurium-132 (Te 132)	10
Terbium-160 (Tb 160)	10
Thallium-200 (Tl 200)	100
Thallium-201 (Tl 201)	100
Thallium-202 (Tl 202)	100
Thallium-204 (Tl 204)	10
Thulium-170 (Tm 170)	10
Thulium-171 (Tm 171)	10
Tin-113 (Sn 113)	10
Tin-125 (Sn 125)	10
Tungsten-181 (W 181)	10
Tungsten-185 (W 185)	10
Tungsten-187 (W 187)	100
Vanadium-48 (V 48)	10
Xenon-131m (Xe 131m)	1,000
Xenon-133 (Xe 133)	100
Xenon-135 (Xe 135)	100
Ytterbium-175 (Yb 175)	100
Yttrium-87 (Y 87)	10
Yttrium-90 (Y 90)	10
Yttrium-91 (Y 91)	10
Yttrium-92 (Y 92)	100
Yttrium-93 (Y 93)	100
Zinc-65 (Zn 65)	10
Zinc-69m (Zn 69m)	100
Zinc-69 (Zn 69)	1,000
Zirconium-93 (Zr 93)	10

Radioactive Material	Micro-curies
Zirconium-95 (Zr 95)	10
Zirconium-97 (Zr 97)	10
Any radioactive material not listed above other than alpha emitting radioactive material	0.1

Note 1: For purposes of ARM 16-2.12(3)-S12309 where there is involved a combination of isotopes, the limit for the combination should be derived as follows:

Determine the amount of each isotope possessed and 1,000 times the amount in Schedule B for each of those isotopes when not in combination. The sum of the ratios of those quantities may not exceed one (i.e., unity).

Example:

$$\frac{\text{Amt. of Isotope A possessed}}{1000 \times \text{Schedule B quantity for Isotope A}} + \frac{\text{Amt. of Isotope B possessed}}{1000 \times \text{Schedule B quantity for Isotope B}} \leq 1$$

SCHEDULE C

GROUPS OF MEDICAL USES OF RADIOACTIVE MATERIAL

Group I. Use of prepared radiopharmaceuticals for certain diagnostic studies involving measurements of uptake, dilution and excretion (does not include uses involving imaging and tumor localizations).

(1) Iodine-131 as sodium iodide ($Na^{131}I$) for measurement of thyroid uptake.

(2) Iodine-125 as sodium iodide ($Na^{125}I$) for measurement of thyroid uptake.

(3) Iodine-131 as iodinated human serum albumin (IHSA) for determination of blood and blood plasma volume and for studies of cardiovascular function and protein turnover.

(4) Iodine-125 as iodinated human serum albumin (IHSA) for determination of blood and blood plasma volume and for studies of cardiovascular function and protein turnover.

(5) Iodine-131 as labeled rose bengal for liver function studies.

(6) Iodine-125 as labeled rose bengal for liver function studies.

(7) Iodine-131 as labeled fats or fatty acids for fat absorption studies.

(8) Iodine-125 as labeled fats or fatty acids for fat absorption studies.

(9) Iodine-131 as labeled iodopyracet, sodium iodohippurate, sodium diatrizoate, diatrizoate methylglucamine, sodium diprotrizoate, sodium acetrizoate, or sodium iothalamate for kidney function studies.

(10) Iodine-125 as labeled iodopyracet, sodium iodohippurate, sodium diatrizoate, diatrizoate methylglucamine, sodium diprotrizoate, sodium acetrizoate, or sodium iothalamate for kidney function studies.

(11) Cobalt-57 as labeled cyanocobalamin for intestinal absorption studies.

(12) Cobalt-58 as labeled cyanocobalamin for intestinal absorption studies.

(13) Cobalt-60 as labeled cyanocobalamin for intestinal absorption studies.

(14) Chromium-51 as sodium chromate for determination of red blood cell volume and studies of red blood cell survival time and gastrointestinal blood loss.

(15) Chromium-51 as labeled human serum albumin for gastrointestinal protein loss studies.

(16) Iron-59 as chloride, citrate, or sulfate for iron turnover studies.

(17) Potassium-42 as chloride for potassium space determinations.

(18) Sodium-24 as chloride for sodium space determinations.

(19) Technetium-99m as pertechnetate for blood flow studies.

(20) Mercury as chlormerodrin for kidney function studies.

(21) Any radioactive material in a radiopharmaceutical and for a diagnostic use involving measurements of uptake, dilution, or excretion for which a "Notice of Claimed Investigational Exemption for a New Drug" (IND) has been accepted by the Food and Drug Administration (FDA).

(22) Iodine-123 as sodium iodide (NaI) for measurement of thyroid uptake.

Group II. Use of prepared radiopharmaceuticals for diagnostic studies involving imaging and tumor localizations

(1) Iodine-131 as sodium iodide for thyroid imaging.

(2) Iodine-125 as sodium iodide for thyroid imaging.

(3) Iodine-131 as iodinated human serum albumin (IHSA) for brain tumor localizations and cardiac imaging.

(4) Iodine-131 as macroaggregated iodinated human serum albumin for for lung imaging.

(5) Iodine-131 as colloidal (microaggregated) iodinated human serum albumin for liver imaging.

(6) Iodine-131 as labeled rose bengal for liver imaging.

(7) Iodine-131 as iodopyracet, sodium iodohippurate, sodium diatrizoate, diatrizoate methylglucamine, sodium diprotrizoate, or sodium acetrizoate for kidney imaging.

(8) Iodine-131 as sodium iodipamide for cardiac imaging.

(9) Iodine-131 as iodinated human serum albumin (IHSA) for placenta localization.

(10) Chromium-51 as sodium chromate for spleen imaging.

(11) Chromium-51 as labeled human serum albumin for placenta localization.

(12) Gold-198 in colloidal form for liver imaging.

(13) Mercury-197 as labeled chlormerodrin for kidney and brain imaging.

(14) Mercury-203 as labeled chlormerodrin for brain imaging.

(15) Selenium-75 as labeled selenomethionine for pancreas imaging.

(16) Strontium-85 as nitrate or chloride for bone imaging in patients with suspected or diagnosed cancer.

(17) Technetium-99m as pertechnetate for brain imaging.

(18) Technetium-99m as pertechnetate for thyroid imaging.

(19) Technetium-99m as pertechnetate for salivary gland imaging.

(20) Technetium-99m as pertechnetate for blood pool imaging, including placenta localization.

(21) Technetium-99m as labeled sulfur colloid for liver, spleen, and bone marrow imaging.

(22) Technetium-99m as labeled macroaggregated human serum albumin for lung imaging.

(23) Any radioactive material in a radiopharmaceutical prepared from a reagent kit listed in (4) of Group III.

(24) Any radioactive material in a radiopharmaceutical and for a diagnostic use involving imaging for which a "Notice of Claimed Investigational Exemption for a New Drug" (IND) has been accepted by the Food and Drug Administration (FDA).

(25) Fluorine-18 in solution for bone imaging.

(26) Strontium-87m for bone imaging.

(27) Iodine-125 as fibrinogen for detection and monitoring of developing deep vein thrombosis.

(28) Ytterbium-169 as labeled diethylenetriaminepentaacetic acid (DTPA) for cisternography.

(29) Iodine-123 as sodium iodide (Na^+) for thyroid imaging.

(30) Indium-113m as chloride for blood pool imaging, including placenta localization.

Group III. Use of generators and reagent kits for the preparation and use of radiopharmaceuticals containing radioactive material for certain diagnostic uses

(1) Molybdenum-99/technetium-99m generators for the elution of technetium-99m as pertechnetate for:

(i) brain imaging;

(ii) thyroid imaging;

(iii) salivary gland imaging;

(iv) blood pool imaging including placenta localization;

(v) blood flow studies; and

(vi) use with reagent kits for preparation and use of radiopharmaceuticals containing technetium-99m as provided in (4) and (5) of this group.

(2) Yttrium-87/strontium-87m generators for the elution of strontium-87m for bone imaging.

(3) Technetium-99m as pertechnetate for use with reagent kits for preparation and use of radiopharmaceuticals containing technetium-99m as provided in (4) and (5) of this group.

(4) Reagent kits for preparation of technetium-99m labeled:

(i) sulfur colloid for liver, spleen, and bone marrow imaging;

(ii) iron-ascorbate-diethylenetriaminepentaacetic acid complex for kidney imaging;

(iii) diethylenetriaminepentaacetic acid (Sn) for kidney imaging and kidney function studies;

(iv) diethylenetriaminepentaacetic acid (Sn) for brain imaging;

(v) human serum albumin microspheres for lung imaging;

(vi) polyphosphates for bone imaging;

(vii) macroaggregated human serum albumin for lung imaging;

(viii) distannous etidronate complex for bone imaging;

(ix) stannous pyrophosphate for bone and cardiac imaging;

(x) human serum albumin for heart blood pool imaging; and

(xi) medronate sodium for bone imaging.

(5) Any generator or reagent kit for preparation and diagnostic use of a radiopharmaceutical containing radioactive material for which generator or reagent kit a "Notice of Claimed Investigational Exemption for a New Drug" (IND) has been accepted by the Food and Drug Administration (FDA).

(b) Tin-113/indium-113m generators for the elution of indium-113m as chloride for:

(i) blood pool imaging including placenta localization.

Group IV. Use of prepared radiopharmaceuticals for certain therapeutic uses that do not normally require hospitalization for purposes of radiation safety

(1) Iodine-131 as iodide for treatment of hyperthyroidism and cardiac dysfunction.

(2) Phosphorus-32 as soluble phosphate for treatment of polycythemia vera, leukemia, and bone metastases.

(3) Phosphorus-32 as colloidal chromic phosphate for intracavitary treatment of malignant effusions.

(4) Any radioactive material in a radiopharmaceutical and for a therapeutic use not normally requiring hospitalization for purposes of radiation safety for which a "Notice of Claimed Investigational Exemption for a New Drug" (IND) has been accepted by the Food and Drug Administration (FDA).

Group V. Use of prepared radiopharmaceuticals for certain therapeutic uses that normally require hospitalization for purposes of radiation safety

(1) Gold-198 as colloid for intracavitary treatment of malignant effusions.

(2) Iodine-131 as iodide for treatment of thyroid carcinoma.

(3) Any radioactive material in a radiopharmaceutical and for a therapeutic use normally requiring hospitalization for radiation safety reasons for which a "Notice of Claimed Investigational

Exemption for a New Drug" (IND) has been accepted by the Food and Drug Administration (FDA).

Group VI. Use of sources and devices containing radioactive material for certain medical uses

(1) Americium-241 as a sealed source in a device for bone mineral analysis.

(2) Cesium-137 encased in needles and applicator cells for topical, interstitial, and intracavitary treatment of cancer.

(3) Cobalt-60 encased in needles and applicator cells for topical, interstitial, and intracavitary treatment of cancer.

(4) Gold-198 as seeds for interstitial treatment of cancer.

(5) Iodine-125 as a sealed source in a device for bone mineral analysis.

(6) Iridium-192 as seeds encased in nylon ribbon for interstitial treatment of cancer.

(7) Strontium-90 sealed in an applicator for treatment of superficial eye conditions.

(8) Radon-222 as seeds for topical, interstitial, and intracavitary treatment of cancer.

(9) Radium-226 as a sealed source for topical, interstitial, and intracavitary treatment of cancer.

(10) Iodine-125 as seeds for interstitial treatment of cancer.

SCHEDULE D

Limits for Broad Licenses

Radioactive Material	Col. I curies	Col. II curies
Antimony-122	1	0.01
Antimony-124	1	0.01
Antimony-125	1	0.01
Arsenic-73	10	0.1
Arsenic-74	1	0.01
Arsenic-76	1	0.01
Arsenic-77	10	0.1
Barium-131	10	0.1
Barium-140	1	0.01
Beryllium-7	10	0.1
Bismuth-210	0.1	0.001
Bromine-82	10	0.1
Cadmium-109	1	0.01
Cadmium-115m	1	0.01
Cadmium-115	10	0.1
Calcium-45	1	0.01
Calcium-47	10	0.1
Carbon-14	100	1.
Cerium-141	10	0.1
Cerium-143	10	0.1
Cesium-134	0.1	0.001
Cesium-131	100	1.
Cesium-134m	100	1.
Cesium-134	0.1	0.001
Cesium-135	1	0.01
Cesium-136	10	0.1
Cesium-137	0.1	0.001
Chlorine-36	1	0.01
Chlorine-38	100	1.
Chromium-51	100	1.
Cobalt-57	10	0.1
Cobalt-58m	100	1.
Cobalt-58	1	0.01
Cobalt-60	0.1	0.001
Copper-64	10	0.1
Dysprosium-165	100	1.
Dysprosium-166	10	0.1
Erbium-169	10	0.1
Erbium-171	10	0.1

Radioactive Material	Col. I curies	Col. II curies
Europium-152 (9.2 h)	10	0.1
Europium-152 (13 y)	0.1	0.001
Europium-154	0.1	0.001
Europium-155	1	0.01
Fluorine-18	100	1.
Gadolinium-153	1	0.01
Gadolinium-159	10	0.1
Gallium-72	10	0.1
Germanium-71	100	1.
Gold-198	10	0.1
Gold-199	10	0.1
Hafnium-181	1	0.01
Holmium-166	10	0.1
Hydrogen-3	100	1.
Indium-113m	100	1.
Indium-114m	1	0.01
Indium-115m	100	1.
Indium-115	1	0.01
Iodine-125	0.1	0.001
Iodine-126	0.1	0.001
Iodine-129	0.1	0.001
Iodine-131	0.1	0.001
Iodine-132	10	0.1
Iodine-133	1	0.01
Iodine-134	10	0.1
Iodine-135	1	0.01
Iridium-192	1	0.01
Iridium-194	10	0.1
Iron-55	10	0.1
Iron-59	1	0.01
Krypton-85	100	1.
Krypton-87	10	0.1
Lanthanum-140	1	0.01
Lutetium-177	10	0.1
Manganese-52	1	0.01
Manganese-54	1	0.01
Manganese-56	10	0.1
Mercury-197m	10	0.1
Mercury-197	10	0.1
Mercury-203	1	0.01
Molybdenum-99	10	0.1
Neodymium-147	10	0.1
Neodymium-149	10	0.1
Nickel-59	10	0.1
Nickel-63	1	0.01
Nickel-65	10	0.1

Radioactive Material	Col. I curies	Col. II curies
Niobium-93m	1	0.01
Niobium-95	1	0.01
Niobium-97	100	1.
Osmium-185	1	0.01
Osmium-191m	100	1.
Osmium-191	10	0.1
Osmium-193	10	0.1
Palladium-103	10	0.1
Palladium-109	10	0.1
Phosphorus-32	1	0.01
Platinum-191	10	0.1
Platinum-193m	100	1.
Platinum-193	10	0.1
Platinum-197m	100	1.
Platinum-197	10	0.1
Polonium-210	0.01	0.0001
Potassium-42	1	0.01
Praseodymium-142	10	0.1
Praseodymium-143	10	0.1
Promethium-147	1	0.01
Promethium-149	10	0.1
Radium-226	0.01	0.0001
Rhenium-186	10	0.1
Rhenium-188	10	0.1
Rhodium-103m	1,000	10.
Rhodium-105	10	0.1
Rubidium-86	1	0.01
Rubidium-87	1	0.01
Ruthenium-97	100	1.
Ruthenium-103	1	0.01
Ruthenium-105	10	0.1
Ruthenium-106	0.1	0.001
Samarium-151	1	0.01
Samarium-153	10	0.1
Scandium-46	1	0.01
Scandium-47	10	0.1
Scandium-48	1	0.01
Selenium-75	1	0.01
Silicon-31	10	0.1
Silver-105	1	0.01
Silver-110m	0.1	0.001
Silver-111	10	0.1
Sodium-22	0.1	0.001
Sodium-24	1	0.01
Strontium-85m	1,000	10.
Strontium-85	1	0.01

Radioactive Material	Col. I curies	Col. II curies
Strontium-89	1	0.01
Strontium-90	0.01	0.0001
Strontium-91	10	0.1
Strontium-92	10	0.1
Sulphur-35	10	0.1
Tantalum-182	1	0.01
Technetium-96	10	0.1
Technetium-97m	10	0.1
Technetium-97	10	0.1
Technetium-99m	100	1.
Technetium-99	1	0.01
Tellurium-125m	1	0.01
Tellurium-127m	1	0.01
Tellurium-127	10	0.1
Tellurium-129m	1	0.01
Tellurium-129	100	1.
Tellurium-131m	10	0.1
Tellurium-132	1	0.01
Terbium-160	1	0.01
Thallium-200	10	0.1
Thallium-201	10	0.1
Thallium-202	10	0.1
Thallium-204	1	0.01
Thulium-170	1	0.01
Thulium-171	1	0.01
Tin-113	1	0.01
Tin-125	1	0.01
Tungsten-181	1	0.01
Tungsten-185	1	0.01
Tungsten-187	10	0.1
Vanadium-48	1	0.01
Xenon-131m	1,000	10.
Xenon-133	100	1.
Xenon-135	100	1.
Ytterbium-175	10	0.1
Yttrium-90	1	0.01
Yttrium-91	1	0.01
Yttrium-92	10	0.1
Yttrium-93	1	0.01
Zinc-65	1	0.01
Zinc-69m	10	0.1
Zinc-69	100	1.
Zirconium-93	1	0.01
Zirconium-95	1	0.01
Zirconium-97	1	0.01

Radioactive Material	Col. I curies	Col. II curies
Any radioactive material other than source material, special nuclear material, or alpha emitting radioactive material not listed above.	0.1	0.001

Sub-Chapter 4

Standards for Protection against Radiation

16-2.12(4)-S12401 PURPOSE AND SCOPE (1) This sub-chapter establishes standards for protection against radiation hazards. Except as otherwise specifically provided, this sub-chapter applies to all licensees or registrants. Nothing in this sub-chapter shall be interpreted as limiting the intentional exposure of patients to radiation for the purpose of medical diagnosis or therapy.

(2) In addition to complying with the requirements set forth in this sub-chapter, every reasonable effort should be made to maintain radiation exposures, and releases of radioactive material in effluents to unrestricted areas, as low as is reasonably achievable. The term "as low as is reasonably achievable" means as low as is reasonably achievable taking into account the state of technology, and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to the utilization of ionizing radiation in the public interest.

16-2.12(4)-S12402 PERMISSIBLE DOSES, LEVELS AND CONCENTRATIONS - RADIATION DOSE TO INDIVIDUALS IN RESTRICTED AREAS (1) For determining the doses specified in this rule, a dose from X or gamma rays up to 10 MeV may be assumed to be equivalent to the exposure measured by a properly calibrated appropriate instrument in air at or near the body surface in the region of the highest dose rate.

(2) Except as provided in subsection (3) of this rule, no licensee or registrant shall possess, use, receive, or transfer sources of radiation in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter from all sources of radiation in the licensee's or registrant's possession a dose in excess of the limits specified in the following table:

	Rems per calendar quarter
Whole body; head and trunk; active blood-forming organs; lens of eyes; or gonads	1 1/4
Hands and forearms; feet and ankles	18 3/4
Skin of whole body	7 1/2

(3) A licensee or registrant may permit an individual in a restricted area to receive a dose to the whole body greater than that permitted under subsection (2) of this rule, provided:

(a) during any calendar quarter the dose to the whole

body from sources of radiation in the licensee's or registrant's possession shall not exceed 3 rems;

(b) the dose to the whole body, when added to the accumulated occupational dose to the whole body, shall not exceed 5(N-18) rems where "N" equals the individual's age in years at his last birthday; and

(c) the licensee or registrant has determined the individual's accumulated occupational dose to the whole body on department form MRH-30 or on a clear and legible record containing all the information required in that form and has otherwise complied with the requirements of ARM 16-2.12(4)-S12403. As used in subsection (3) of this rule, "dose to the whole body" shall be deemed to include any dose to the whole body, gonads, active blood-forming organs, head and trunk, or lens of eye.

16-2.12(4)-S12403 PERMISSIBLE DOSES, LEVELS, AND CONCENTRATIONS - DETERMINATION OF ACCUMULATED DOSE (1) This rule contains requirements which must be satisfied by licensees or registrants who propose, pursuant to ARM 16-2.12(4)-S12402(3) to permit individuals in a restricted area to receive exposure to radiation in excess of the limits specified in ARM 16-2.12(4)-S12402(2).

(2) Before permitting any individual in a restricted area to be exposed to radiation in excess of the limits specified in ARM 16-2.12(4)-S12402(2), each licensee or registrant shall:

(a) obtain a certificate on department form MRH-30 or on a clear and legible record containing all the information required in that form, signed by the individual, showing each period of time after the individual attained the age of 18 in which the individual received an occupational dose of radiation; and

(b) calculate on department form MRH-30, in accordance with the instructions appearing therein, or on a clear and legible record containing all the information required in that form, the previously accumulated occupational dose received by the individual and the additional dose allowed for that individual under ARM 16-2.12(4)-S12402(3).

(c) In the preparation of department form MRH-30, or a clear and legible record containing all the information required in that form, the licensee or registrant shall make a reasonable effort to obtain reports of the individual's previously accumulated occupational dose. For each period for which the licensee or registrant obtains such reports, he shall use the dose shown in the report in preparing the form. In any case where a licensee or registrant is unable to obtain reports of the individual's occupational dose for a previous complete calendar quarter, it shall be assumed

that the individual has received the occupational dose specified in whichever of the following columns apply:

Part of Body	Column 1 Assumed Dose in Rems for Calendar Quarters Prior to January 1, 1961	Column 2 Assumed dose in Rems for Calendar Quarters Beginning on or after January 1, 1961
Whole body, gonads, active blood-forming organs, head and trunk, lens of eye	3 3/4	1 1/4

(d) The licensee or registrant shall retain and preserve records used in preparing department form MRH-30 until the department authorizes their disposition. If calculation of the individual's accumulated occupational dose for all periods prior to January 1, 1961, yields a result higher than the applicable accumulated dose value for the individual as of that date, as specified in ARM 16-2 12(4)-S12402(3)(b), the excess may be disregarded.

16-2.12(4)-S12404 PERMISSIBLE DOSES, LEVELS, AND CONCENTRATIONS - EXPOSURE OF INDIVIDUALS TO CONCENTRATIONS OF RADIOACTIVE MATERIAL IN AIR IN RESTRICTED AREAS (1) No licensee shall possess, use, or transfer radioactive material in such a manner as to permit any individual in a restricted area to inhale a quantity of radioactive material in any period of one calendar quarter greater than the quantity which would result from inhalation for 40 hours per week for 13 weeks at uniform concentrations of radioactive material in air specified in Appendix A, Table I, Column 1 of this sub-chapter. If the radioactive material is of such form that intake by absorption through the skin is likely, individual exposures to radioactive material shall be controlled so that the uptake of radioactive material by any organ from either inhalation or absorption or both routes of intake in any calendar quarter does not exceed that which would result from inhaling such radioactive material for 40 hours per week for 13 weeks at uniform concentrations specified in Appendix A, Table 1, Column 1 of this sub-chapter.

(a) Since the concentration specified for tritium oxide vapor assumes equal intakes by skin absorption and inhalation, the total intake permitted is twice that which would result from inhalation alone at the concentration specified for H-3(S) in Appendix A, Table I, Column 1 of this sub-chapter for 40 hours per week for 13 weeks.

(b) For radon-222, the limiting quantity is that inhaled in a period of one calendar year. For radioactive material designated "Sub" in the "Isotope" column of Table I, Appendix A

of this sub-chapter, the concentration value specified is based upon exposure to the material as an external radiation source. Individual exposures to these materials may be accounted for as part of the limitation on individual dose in ARM 16-2.12(4)-S12402. These nuclides shall be subject to the precautionary procedures required by ARM 16-2.12(4)-S12404(4)(a).

(c) Multiply the concentration values specified in Appendix A, Table I, Column 1 of this sub-chapter by 6.3×10^{8} ml to obtain the quarterly quantity limit. Multiply the concentration value specified in Appendix A, Table I, Column 1 of this sub-chapter by 2.5×10^{9} ml to obtain the annual quantity limit for Rn-222.

(d) Significant intake by ingestion or injection is presumed to occur only as a result of circumstances such as accident, inadvertence, poor procedure, or similar special conditions. Such intakes must be evaluated and accounted for by techniques and procedures as may be appropriate to the circumstances of the occurrence. Exposures so evaluated shall be included in determining whether the limitation on individual exposures in ARM 16-2.12(4)-S12404(1) has been exceeded.

(e) Regulatory guidance on assessment of individual intakes of radioactive material is given in Regulatory Guide 8.9, "Acceptable Concepts, Models, Equations and Assumptions for a Bioassay Program." Single copies of Regulatory Guide 8.9 are available from the Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, upon written request.

(2) No licensee shall possess, use, or transfer mixtures of U-234, U-235, and U-238 in soluble form in such a manner as to permit any individual in a restricted area to inhale a quantity of such material in excess of the intake limits specified in Appendix A, Table I, Column 1 of this sub-chapter. If such soluble uranium is of a form such that absorption through the skin is likely, individual exposures to such material shall be controlled so that the uptake of such material by any organ from either inhalation or absorption or both routes of intake does not exceed that which would result from inhaling such material at the limits specified in Appendix A, Table I, Column 1 of this sub-chapter and subsection (1)(c) of this rule.

(3) For purposes of determining compliance with the requirements of this rule, the licensee shall use suitable measurements of concentrations of radioactive materials in air for detecting and evaluating airborne radioactivity in restricted areas and in addition, as appropriate, shall use measurements of radioactivity in the body, measurements of radioactivity excreted from the body, or any combination of such measurements as may be necessary for timely detection

and assessment of individual intakes of radioactivity by exposed individuals. It is assumed that an individual inhales radioactive material at the airborne concentration in which he is present unless he uses respiratory protective equipment. When assessment of a particular individual's intake of radioactive material is necessary, intakes less than those which would result from inhalation for 2 hours in any one day or for 10 hours in any one week at uniform concentrations specified in Appendix A, Table I, Column 1 of this sub-chapter need not be included in such assessment, provided that for any assessment in excess of these amounts the entire amount is included.

(4) The licensee shall, as a precautionary procedure, use process or other engineering controls, to the extent practicable, to limit concentrations of radioactive materials in air to levels below those which delimit an airborne radioactivity area.

16-2.12(4)-S12405 PERMISSIBLE DOSES, LEVELS, AND CONCENTRATIONS - EXPOSURE OF MINORS (1) For determining the doses specified in this rule, a dose from X or gamma rays up to 10 MeV may be assumed to be equivalent to the exposure measured by a properly calibrated appropriate instrument in air at or near the body surface in the region of the highest dose rate.

(2) No licensee or registrant shall possess, use, or transfer sources of radiation in such a manner as to cause any individual within a restricted area, who is under 18 years of age, to receive in any period of one calendar quarter from all sources of radiation in such licensee's or registrant's possession a dose in excess of 10% of the limits specified in the table in ARM 16-2.12(4)-S12402(2).

(3) No licensee shall possess, use, or transfer radioactive material in such a manner as to cause any individual within a restricted area, who is under 18 years of age, to be exposed to airborne radioactive material in an average concentration in excess of the limits specified in Appendix A, Table II, of this sub-chapter. For purposes of this subsection, concentrations may be averaged over periods not greater than a week.

(4) The provisions of ARM 16-2.12(4)-S12404(4)(b) and (5) shall apply to exposures subject to subsection (3) of this rule except that the references in ARM 16-2.12(4)-S12404(4)(b) and (5) to Appendix A, Table I, Column 1 of this sub-chapter shall be deemed to be references to Appendix A, Table II, Column 1 of this sub-chapter.

16-2.12(4)-S12406 PERMISSIBLE DOSES, LEVELS, AND CONCENTRATIONS - EXTERNAL SOURCES IN UNRESTRICTED AREAS (1) It is the intent of this rule to limit radiation levels so that it is unlikely that individuals in unrestricted areas would receive a dose to the whole body in excess of 0.5 rem in any one

year. If, in specific instances, it is determined by the department that this intent is not met, the department may, pursuant to ARM 16-2.12(1)-S12107, impose such additional requirements on the licensee or registrant as may be necessary to meet the intent.

(2) Except as authorized by the department pursuant to subsection (3) of this rule, no licensee or registrant shall possess, use, or transfer sources of radiation in such a manner as to create in any unrestricted area from such sources of radiation in his possession:

(a) radiation levels which, if an individual were continuously present in the area, could result in his receiving a dose in excess of 2 millirems in any one hour; or

(b) radiation levels which, if an individual were continuously present in the area could result in his receiving a dose in excess of 100 millirems in any 7 consecutive days.

(3) Any person may apply to the department for proposed limits upon levels of radiation in unrestricted areas in excess of those specified in subsection (2) of this rule resulting from the applicant's possession or use of sources of radiation. Such applications should include information as to anticipated average radiation levels and anticipated occupancy times for each unrestricted area involved. The department will approve the proposed limits if the applicant demonstrates to the satisfaction of the department that the proposed limits are not likely to cause any individual to receive a dose to the whole body in any period of one calendar year in excess of 0.5 rem.

16-2.12(4)-S12407 PERMISSIBLE DOSES, LEVELS, AND CONCENTRATIONS - RADIOACTIVITY IN EFFLUENTS TO UNRESTRICTED AREAS

(1) A licensee shall not possess, use, or transfer licensed material so as to release to an unrestricted area radioactive material in concentrations which exceed the limits specified in Appendix A, Table II of this sub-chapter except as authorized pursuant to ARM 16-2.12(4)-S12417 or subsection (2) of this rule. For purposes of this rule, concentrations may be averaged over a period not greater than one year.

(2) An application for a license or amendment may include proposed limits higher than those specified in subsection (1) of this rule. The department will approve the proposed limits if the applicant demonstrates:

(a) that the applicant has made a reasonable effort to minimize the radioactivity contained in effluents to unrestricted areas; and

(b) that it is not likely that radioactive material discharged in the effluent would result in the exposure of an individual to concentrations of radioactive material in air or water exceeding the limits specified in Appendix A, Table II of this sub-chapter.

(3) An application for higher limits pursuant to subsection (2) of this rule shall include information demonstrating that the applicant has made a reasonable effort to minimize the radioactivity discharged in effluents to unrestricted areas, and shall include, as pertinent:

(a) information as to flow rates, total volume of effluent, peak concentration of each radionuclide in the effluent, and concentration of each radionuclide in the effluent averaged over a period of one year at the point where the effluent leaves a stack, tube, pipe, or similar conduit;

(b) a description of the properties of the effluents, including:

(i) chemical composition.

(ii) physical characteristics, including suspended solids content in liquid effluents, and nature of gas or aerosol for air effluents,

(iii) the hydrogen ion concentrations (pH) of liquid effluents, and

(iv) the size range of particulates in effluents released into air;

(c) a description of the anticipated human occupancy in the unrestricted area where the highest concentration of radioactive material from the effluent is expected, and, in the case of a river or stream, a description of water uses downstream from the point of release of the effluent;

(d) information as to the highest concentration of each radionuclide in an unrestricted area, including anticipated concentrations averaged over a period of one year:

(i) in air at any point of human occupancy, or

(ii) in water at points of use downstream from the point of release of the effluent;

(e) the background concentration of radionuclides in the receiving river or stream prior to the release of liquid effluent;

(f) a description of the environmental monitoring equipment, including sensitivity of the system, and procedures and calculations to determine concentrations of radionuclides in the unrestricted area and possible reconcentrations of radionuclides; and

(g) a description of the waste treatment facilities and procedures used to reduce the concentration of radionuclides in effluents prior to their release.

(4) For the purposes of this rule, the concentration limits in Appendix A, Table II of this sub-chapter shall apply at the boundary of the restricted area. The concentration of radioactive material discharged through a stack, pipe or similar conduit may be determined with respect to the point where the material leaves the conduit. If the conduit discharges within the restricted area the concentration at the

boundary may be determined by applying appropriate factors for dilution, dispersion, or decay between the point of discharge and the boundary.

(5) In addition to limiting concentrations in effluent streams, the department may limit quantities of radioactive material released in air or water during a specified period of time if it appears that the daily intake of radioactive material from air, water, or food by a suitable sample of an exposed population group, averaged over a period not exceeding one year, would otherwise exceed the daily intake resulting from continuous exposure to air or water containing one-third the concentration of radioactive material specified in Appendix A, Table II of this sub-chapter.

(6) The provisions of this rule do not apply to disposal of radioactive material into sanitary sewerage systems, which is governed by ARM 16-2.12(4)-S12418.

16-2.12(4)-S12408 PERMISSIBLE DOSES, LEVELS AND CONCENTRATIONS - ORDERS REQUIRING FURNISHING OF BIOASSAY SERVICES Where necessary or desirable in order to aid in determining the extent of an individual's exposure to concentrations of radioactive material, the department may incorporate license provisions or issue an order requiring a licensee or registrant to make available to the individual appropriate bioassay services and to furnish a copy of the reports of such services to the department.

16-2.12(4)-S12409 PRECAUTIONARY PROCEDURES - SURVEYS Each licensee or registrant shall make or cause to be made such surveys as may be necessary for him to establish compliance with this sub-chapter.

16-2.12(4)-S12410 PRECAUTIONARY PROCEDURES - PERSONNEL MONITORING (1) Each licensee or registrant shall supply appropriate personnel monitoring equipment to, and shall require the use of such equipment by:

(a) Each individual who enters a restricted area under such circumstances that he receives, or is likely to receive, a dose in any calendar quarter in excess of 25% of the applicable value specified in ARM 16-2.12(4)-S12402(2).

(b) Each individual under 18 years of age who enters a restricted area under such circumstances that he receives, or is likely to receive, a dose in any calendar quarter in excess of 5% of the applicable value specified in ARM 16-2 12(4)-S12402(2).

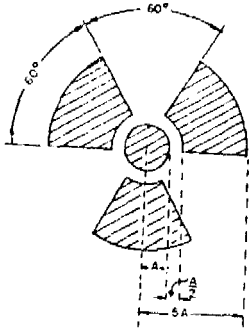
(c) Each individual who enters a high radiation area.

(d) Licensees or registrants who use personnel dosimeters to satisfy a requirement of this sub-chapter shall utilize personnel dosimetry services approved by the department

16-2.12(4)-S12411 PRECAUTIONARY PROCEDURES - CAUTION SIGNS, LABELS, AND SIGNALS (1) Except as otherwise authorized by the department, symbols prescribed by this rule shall use the conventional radiation caution colors: magenta or purple on yellow background.

(a) The symbol prescribed by this rule is the conventional three-blade design:

Cross-hatch area is to be magenta or purple.
Background is to be yellow.
To put this symbol in perspective, "A" represents the radius of the center circle.



(b) In addition to the contents of signs and labels prescribed in this rule, a licensee or registrant may provide on or near such signs and labels any additional information which may be appropriate in aiding individuals to minimize exposure to radiation.

(2) Each radiation area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

CAUTION
RADIATION AREA

OR

DANGER
RADIATION AREA

(3) High radiation areas shall be distinguished as follows:

(a) Each high radiation area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

CAUTION
HIGH RADIATION AREA

OR

DANGER
HIGH RADIATION AREA

(b) Each entrance or access point to a high radiation area shall be:

(i) equipped with a control device which shall cause the level of radiation to be reduced below that at which an individual might receive a dose of 100 millirems in one hour upon entry into the area; or

(ii) equipped with a control device which shall energize a conspicuous visible or audible alarm signal in such a manner that the individual entering the high radiation area and the licensee or a supervisor of the activity are made aware of the entry; or

(iii) maintained locked except during periods when access to the area is required, with positive control over each individual entry.

(c) The controls required by subsection (3)(b) of this rule shall be established in such a way that no individual will be prevented from leaving a high radiation area.

(d) In the case of a high radiation area established for a period of 30 days or less, direct surveillance to prevent unauthorized entry may be substituted for the controls required by subsection (3)(b) of this rule.

(e) Any licensee or registrant may apply to the department for approval of methods not included in subsections (3)(b) and (3)(d) of this rule for controlling access to high radiation areas. The department will approve the proposed alternatives if the licensee or registrant demonstrates that the alternative methods of control will prevent unauthorized entry into a high radiation area, and that the requirement of subsection (3)(c) of this rule is met.

(4) Each airborne radioactivity area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

CAUTION DANGER

OR

AIRBORNE RADIOACTIVITY AREA AIRBORNE RADIOACTIVITY AREA

(5) Additional requirements for radioactivity areas are that:

(a) Each area or room in which any radioactive material, other than natural uranium or thorium, is used or stored in an amount exceeding 10 times the quantity of radioactive material specified in Appendix B of this sub-chapter shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

CAUTION DANGER

OR

RADIOACTIVE MATERIAL RADIOACTIVE MATERIAL

(b) Each area or room in which natural uranium or thorium is used or stored in an amount exceeding 100 times the quantity specified in Appendix B of this sub-chapter shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

CAUTION DANGER

OR

RADIOACTIVE MATERIAL RADIOACTIVE MATERIAL

(6) Containers of radioactive material shall meet the following requirements:

(a) Except as provided in subsection (6)(c) of this rule, each container of radioactive material shall bear a durable, clearly visible label identifying the radioactive contents.

(b) A label required pursuant to subsection (6)(a) of this rule shall bear the radiation caution symbol and the words:

CAUTION DANGER

OR

RADIOACTIVE MATERIAL RADIOACTIVE MATERIAL

(i) It shall also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof, to take precautions to avoid or minimize exposures. This information, as appropriate, will include radiation levels, kinds of material, estimate of activity, date for which activity is estimated, etc.

(c) Notwithstanding the provisions of subsection (6)(a) of this rule, labeling is not required:

(i) for containers that do not contain radioactive material in quantities greater than the applicable quantities listed in Appendix B of this sub-chapter;

(ii) for containers containing only natural uranium or thorium in quantities no greater than 10 times the applicable quantities listed in Appendix B of this sub-chapter;

(iii) for containers that do not contain radioactive material in concentrations greater than the applicable concentrations listed in Column 2, Table I, Appendix A of this sub-chapter;

(iv) for containers when they are attended by an individual who takes the precautions necessary to prevent the exposure of any individual to radiation or radioactive material in excess of the limits established by this sub-chapter.

(v) for containers when they are in transport and packaged and labeled in accordance with regulations published by the U.S. Department of Transportation.

(vi) for containers which are accessible only to individuals authorized to handle or use them (for example, containers in locations such as water-filled canals, storage vaults, or hot cells) or to work in the vicinity thereof,

provided that the contents are identified to such individuals by a readily available written record; and

(vii) for manufacturing and process equipment such as piping and tanks.

(7) All radiation machines shall be labeled in a manner which cautions individuals that radiation is produced when the machine is being operated.

16-2.12(4)-S12412 PRECAUTIONARY PROCEDURES - EXCEPTIONS FROM POSTING AND LABELING REQUIREMENTS (1) Notwithstanding the provisions of ARM 16-2.12(4)-S12411:

(a) A room or area is not required to be posted with a caution sign because of the presence of a sealed source, provided the radiation level 12 inches from the surface of the source container or housing does not exceed 5 millirems per hour.

(b) Rooms or other areas in hospitals are not required to be posted with caution signs and control of entrance or access thereto pursuant to ARM 16-2.12(4)-S12411 is not required, because of the presence of patients containing radioactive material provided that there are personnel in attendance who will take the precautions necessary to prevent the exposure of any individual to radiation or radioactive material in excess of the limits established in this sub-chapter.

(c) Caution signs are not required to be posted in areas or rooms containing radioactive material for periods of less than 8 hours provided that:

(i) the material is constantly attended during such periods by an individual who shall take the precautions neces sary to prevent the exposure of any individual to radiation or radioactive material in excess of the limits established in this sub-chapter, and

(ii) such area or room is subject to the licensee's or registrant's control.

(d) A room or other area is not required to be posted with a caution sign, and control is not required for each entrance or access point to a room or other area which is a high radiation area solely because of the presence of radioactive material prepared for transport and packaged and labeled in accordance with regulations of the U.S. Department of Transportation.

16-2.12(4)-S12413 PRECAUTIONARY PROCEDURES - INSTRUCTION OF PERSONNEL Instructions required for individuals working in or frequenting any portion of a restricted area are specified in ARM 16-2.12(10)-S121003.

16-2.12(4)-S12414 PRECAUTIONARY PROCEDURES - STORAGE AND CONTROL OF SOURCES OF RADIATION (1) Sources of radiation shall be secured against unauthorized removal from the place

of storage.

(2) Sources of radiation in an unrestricted area and not in storage shall be tended under the constant surveillance and immediate control of the licensee or registrant.

16-2.12(4)-S12415 PRECAUTIONARY PROCEDURES - PROCEDURES FOR PICKING UP, RECEIVING, AND OPENING PACKAGES (1) Each licensee or registrant who expects to receive a package containing quantities of radioactive material in excess of the Type A quantities specified in the table following subsection (4) of this rule shall:

(a) if the package is to be delivered to the licensee's or registrant's facility by the carrier, make arrangements to receive the package when it is offered for delivery by the carrier; or

(b) if the package is to be picked up by the licensee or registrant at the carrier's terminal, make arrangements to receive notification from the carrier of the arrival of the package, at the time of arrival.

(2) Each licensee or registrant who picks up a package of radioactive material from a carrier's terminal shall pick up the package expeditiously upon receipt of notification from the carrier of its arrival.

(3) Each licensee or registrant, upon receipt of a package of radioactive material, shall monitor the external surfaces of the package for radioactive contamination caused by leakage of the radioactive contents. The monitoring shall be performed as soon as practicable after receipt but no later than 3 hours after the package is received at the licensee's facility if received during the licensee's normal working hours or 18 hours if received after normal working hours. Such monitoring need not be performed on:

(a) packages containing no more than the exempt quantity specified in the table following subsection (4) of this rule;

(b) packages containing no more than 10 millicuries of radioactive material consisting solely of tritium, carbon-14 sulfur-35 or iodine-125;

(c) packages containing only radioactive material as gases or in special form;

(d) packages containing only radioactive material in other than liquid form (including Mo-99/Tc-99m generators) and not exceeding the Type A quantity limit specified in the table following subsection (4) of this rule; and

(e) packages containing only radionuclides with half-lives of less than 30 days and a total quantity of no more than 100 millicuries.

(4) If removable radioactive contamination in excess of 0.01 microcurie (22,200 disintegrations per minute) per 100 square centimeters of package surface is found on the

external surface of the package, the licensee or registrant shall immediately notify, by telephone and telegraph, the final delivering carrier and the department.

Transport Group	Exempt Quantity Limit (in millicuries)	Type A Quantity Limit (in curies)
I	0.01	0.001
II	0.1	0.05
III	1	3
IV	1	20
V	1	20
VI	1	1,000
VII	25,000	1,000
Special form	1	20

(5) Each licensee or registrant, upon receipt of a package containing quantities of radioactive material in excess of the Type A quantities specified in the table following subsection (4) of this rule, other than those transported by exclusive use vehicle, shall monitor the radiation levels external to the package.

(a) The package shall be monitored as soon as practicable after receipt, but no later than 3 hours after the package is received at the licensee's facility if received during the licensee's normal working hours, or 18 hours if received after normal working hours.

(b) If radiation levels are found on the external surface of the package in excess of 200 millirems per hour, or in excess of 10 millirems per hour at 3 feet from the external surface of the package, the licensee or registrant shall immediately notify, by telephone and telegraph, the final delivering carrier and the department.

(6) Each licensee or registrant shall establish and maintain procedures for safely opening packages in which radioactive material is received, and shall assure that such procedures are followed and that due consideration is given to special instructions for the type of package being opened.

16-2.12(4)-S12416 WASTE DISPOSAL - GENERAL REQUIREMENT (1) No licensee shall dispose of any radioactive material except:

(a) by transfer to an authorized recipient as provided in ARM 16-2.12(3)-S12321, or

(b) as authorized pursuant to ARM 16-2.12(4)-S12407, 16-2.12(4)-S12417, 16-2.12(4)-S12418 or 16-2.12(4)-S12419.

16-2.12(4)-S12417 WASTE DISPOSAL - METHOD OF OBTAINING APPROVAL OF PROPOSED DISPOSAL PROCEDURES (1) Any person may apply to the department for approval of proposed procedures to dispose of radioactive material in a manner not otherwise authorized in this sub-chapter. Each application shall include a description of the radioactive material, including the quantities and kinds of radioactive material and levels of radioactivity involved, and the proposed manner and conditions of disposal. The application, where appropriate, should also include an analysis and evaluation of pertinent information as to the nature of the environment, including topographical, geological, meteorological, and hydrological characteristics; usage of ground and surface waters in the general area; the nature and location of other potentially affected facilities; and procedures to be observed to minimize the risk of unexpected or hazardous exposures.

(2) The department will not approve any application for a license to receive radioactive material from other persons for disposal on land not owned by the state or the federal government.

16-2.12(4)-S12418 WASTE DISPOSAL - DISPOSAL BY RELEASE INTO SANITARY SEWERAGE SYSTEMS (1) No licensee shall discharge radioactive material into a sanitary sewerage system unless:

(a) it is readily soluble or dispersible in water; and

(b) the quantity of any radioactive material released into the system by the licensee in any one day does not exceed the larger of:

(i) the quantity which, if diluted by the average daily quantity of sewage released into the sewer by the licensee, will result in an average concentration equal to the limits specified in Appendix A, Table I, Column 2, of this sub-chapter, or

(ii) ten times the quantity of such material specified in Appendix B of this sub-chapter; and

(c) the quantity of any radioactive material released in any one month, if diluted by the average monthly quantity of water released by the licensee, will not result in an average concentration exceeding the limits specified in Appendix A, Table I, Column 2, of this sub-chapter; and

(d) the gross quantity of radioactive material released into the sewerage system by the licensee does not exceed one curie per year.

(2) Excreta from individuals undergoing medical diagnosis or therapy with radioactive material shall be exempt from any limitations contained in this rule.

16-2.12(4)-S12419 WASTE DISPOSAL - DISPOSAL BY BURIAL IN SOIL (1) No licensee shall dispose of radioactive material by burial in soil unless:

(a) the total quantity of radioactive material buried at any one location and time does not exceed, at the time of burial, 1,000 times the amount specified in Appendix B of this sub-chapter;

(b) burial is at a minimum of 4 feet; and

(c) successive burials are separated by distances of at least 6 feet and not more than 12 burials are made in any year.

16-2.12(4)-S12420 WASTE DISPOSAL - DISPOSAL BY INCINERATION (1) No licensee shall incinerate radioactive material for the purpose of disposal or preparation for disposal except as specifically approved by the department pursuant to ARM 16-2.12(4)-S12407 and 16-2.12(4)-S12417.

16-2.12(4)-S12421 RECORDS, REPORTS AND NOTIFICATION - SURVEYS, RADIATION MONITORING, DISPOSAL (1) Each licensee or registrant shall maintain records showing the radiation exposures of all individuals for whom personnel monitoring is required under ARM 16-2.12(4)-S12410. Such records shall be kept on department form MRH-31, in accordance with the instructions contained in that form, or on clear and legible records containing all the information required by department form MRH-31. The doses entered on the forms or records shall be for periods of time not exceeding one calendar quarter.

(2) Each licensee or registrant shall maintain records in the same units used in this sub-chapter, showing the results of surveys required by ARM 16-2.12(4)-S12409, monitoring required by ARM 16-2.12(4)-S12415(3), (4), and (5) and disposals made under ARM 16-2.12(4)-S12417, 16-2.12(4)-S12418, and 16-2.12(4)-S12419.

(3) Records required by this sub-chapter shall be maintained for the following periods:

(a) Records of individual exposure to radiation and to radioactive material which must be maintained pursuant to the provisions of subsection (1) of this rule and records of bioassays, including results of whole body counting examinations, made pursuant to ARM 16-2.12(4)-S12408 shall be preserved until the department authorizes disposition.

(b) Records of the results of surveys and monitoring which must be maintained pursuant to subsection (2) of this rule shall be preserved for 2 years after completion of the survey except that the following records shall be maintained until the department authorizes their disposition:

(i) Records of the results of surveys to determine compliance with ARM 16-2.12(4)-S12404(1).

(ii) In the absence of personnel monitoring data, records of the results of surveys to determine external radiation dose.

(iii) Records of the results of surveys used to evaluate the release of radioactive effluents to the environment.

(c) Records of disposal of licensed material made pursuant to ARM 16-2.12(4)-S12417, 16-2.12(4)-S12418 and 16-2.12(4)-S12419 shall be maintained until the department authorizes their disposition.

(d) Records which must be maintained pursuant to this sub-chapter may be the original or a reproduced copy or microform if such reproduced copy or microform is duly authenticated by authorized personnel and the microform is capable of producing a clear and legible copy after storage for the period specified by department rules.

(e) If there is a conflict pertaining to the retention period for the same type of record, the retention period specified in this sub-chapter for such records shall apply unless the department, pursuant to ARM 16-2.12(1)-S12103(1) has granted a specific exemption from the record retention requirements specified in this sub-chapter.

(4) The discontinuance of or curtailment of activities, does not relieve the licensee or registrant of responsibility for retaining all records required by this rule. A licensee or registrant may, however, request the department to accept such records. The acceptance of the records by the department relieves the licensee or registrant of subsequent responsibility only in respect to their preservation as required by this rule.

16-2.12(4)-S12422 RECORDS, REPORTS, AND NOTIFICATION - REPORTS OF THEFT OR LOSS OF SOURCES OF RADIATION (1) Each licensee or registrant shall report by telephone and telegraph to the department the theft or loss of any source of radiation immediately after such occurrence becomes known.

16-2.12(4)-S12423 RECORDS, REPORTS, AND NOTIFICATION - NOTIFICATION OF INCIDENTS (1) Each licensee or registrant shall immediately notify the department by telephone and telegraph of any incident involving any source of radiation possessed by him and which may have caused or threatens to cause:

(a) a dose to the whole body of any individual of 25 rems or more of radiation; a dose to the skin of the whole body of any individual of 150 rems or more of radiation; or a dose to the feet, ankles, hands, or forearms of any individual of 375 rems or more of radiation; or

(b) the release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 5,000 times the limits specified for such materials in Appendix A, Table II of this sub-chapter; or

(c) a loss of one working week or more of the operation of any facilities affected; or

(d) damage to property in excess of $200,000.

(2) Each licensee or registrant shall within 24 hours notify the department by telephone and telegraph of any incident involving any source of radiation possessed by him and which may have caused or threatens to cause:

(a) a dose to the whole body of any individual of 5 rems or more of radiation; a dose to the skin of the whole body of any individual of 30 rems or more of radiation; or a dose to the feet, ankles, hands, or forearms of 75 rems or more of radiation; or

(b) the release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 500 times the limits specified for such materials in Appendix A, Table II of this sub-chapter; or

(c) a loss of one day or more of the operation of any facilities affected; or

(d) damage to property in excess of $2,000.

(3) Any report filed with the department pursuant to this rule shall be prepared in such a manner that names of individuals who have received excessive doses will be stated in a separate part of the report.

16-2.12(4)-S12424 RECORDS, REPORTS, AND NOTIFICATION - REPORTS OF OVEREXPOSURES AND EXCESSIVE LEVELS AND CONCENTRATIONS (1) In addition to any notification required by ARM 16-2.12(4)-S12423, each licensee or registrant shall make a report in writing within 30 days to the department of:

(a) each exposure of an individual to radiation in excess of the applicable limits in ARM 16-2.12(4)-S12402 or 16-2.12(4)-S12405(2) or the license;

(b) Each exposure of an individual to radioactive material in excess of the applicable limits in ARM 16-2.12(4)-S12404(1), (2) or 16-2.12(4)-S12405(3), or the license;

(c) levels of radiation or concentrations of radioactive material in a restricted area in excess of any other applicable limit in the license;

(d) any incident for which notification is required by ARM 16-2.12(4)-S12423; and

(e) levels of radiation or concentrations of radioactive material, whether or not involving excessive exposure of any individual, in an unrestricted area in excess of 10 times any applicable limit set forth in this sub-chapter or in the license.

(2) Each report required under subsection (1) of this rule shall describe the extent of exposure of individuals to radiation or to radioactive material, including estimates of each individual's exposure as required by subsection (3) of this rule; levels of radiation and concentrations of radioactive material involved; the cause of the exposure, levels or concentrations; and corrective steps taken or planned to assure against a recurrence.

(3) Any report filed with the department pursuant to this rule shall include for each individual exposed the name, social security number, and date of birth, and an estimate of the individual's dose. The report shall be prepared so that this information is stated in a separate part of the report.

16-2.12(4)-S12425 RECORDS, REPORTS, AND NOTIFICATION - VACATING PREMISES Each specific licensee shall no less than 30 days before vacating or relinquishing possession or control of premises which may have been contaminated with radioactive material as a result of his activities, notify the department in writing of intent to vacate. When deemed necessary by the department, the licensee shall decontaminate the premises in such a manner as the department may specify.

16-2.12(4)-S12426 RECORDS, REPORTS, AND NOTIFICATION - NOTIFICATIONS AND REPORTS TO INDIVIDUALS (1) Requirements for notification and reports to individuals of exposure to radiation or radioactive material are specified in ARM 16-2.12(10)-S121004.

(2) When a licensee or registrant is required pursuant to ARM 16-2.12(4)-S12424 to report to the department any exposure of an individual to radiation or radioactive material, the licensee or registrant shall also notify the individual. Such notice shall be transmitted at a time not later than the transmittal to the department and shall comply with the provisions of ARM 16-2.12(10)-S121004(1).

APPENDIX A

CONCENTRATIONS IN AIR AND WATER ABOVE NATURAL BACKGROUND

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Actinium (89)	Ac-227	S	$2X10^{-12}$	$6X10^{-5}$	$8X10^{-14}$	$2X10^{-6}$
		I	$3X10^{-11}$	$9X10^{-3}$	$9X10^{-13}$	$3X10^{-4}$
	Ac-228	S	$8X10^{-8}$	$3X10^{-3}$	$3X10^{-9}$	$9X10^{-5}$
		I	$2X10^{-8}$	$3X10^{-3}$	$6X10^{-10}$	$9X10^{-5}$
Americium (95)	Am-241	S	$6X10^{-12}$	$1X10^{-4}$	$2X10^{-13}$	$4X10^{-6}$
		I	$1X10^{-10}$	$8X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	Am-242m	S	$6X10^{-12}$	$1X10^{-4}$	$2X10^{-13}$	$4X10^{-6}$
		I	$3X10^{-10}$	$3X10^{-3}$	$9X10^{-12}$	$9X10^{-5}$
	Am-242	S	$4X10^{-8}$	$4X10^{-3}$	$1X10^{-9}$	$1X10^{-4}$
		I	$5X10^{-8}$	$4X10^{-3}$	$2X10^{-9}$	$1X10^{-4}$
	Am-243	S	$6X10^{-12}$	$1X10^{-4}$	$2X10^{-13}$	$4X10^{-6}$
		I	$1X10^{-10}$	$8X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	Am-244	S	$4X10^{-6}$	$1X10^{-1}$	$1X10^{-7}$	$5X10^{-3}$
		I	$2X10^{-5}$	$1X10^{-1}$	$8X10^{-7}$	$5X10^{-3}$
Antimony (51)	Sb-122	S	$2X10^{-7}$	$8X10^{-4}$	$6X10^{-9}$	$3X10^{-5}$
		I	$1X10^{-7}$	$8X10^{-4}$	$5X10^{-9}$	$3X10^{-5}$
	Sb-124	S	$2X10^{-7}$	$7X10^{-4}$	$5X10^{-9}$	$2X10^{-5}$
		I	$2X10^{-8}$	$7X10^{-4}$	$7X10^{-10}$	2X1
	Sb-125	S	$5X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
		I	$3X10^{-8}$	$3X10^{-3}$	$9X10^{-10}$	$1X10^{-4}$
Argon (18)	Ar-37 Sub 2/		$6X10^{-3}$	------	$1X10^{-4}$	------
	Ar-41 Sub		$2X10^{-6}$	------	$4X10^{-8}$	------
Arsenic (33)	As-73	S	$2X10^{-6}$	$1X10^{-2}$	$7X10^{-8}$	$5X10^{-4}$
		I	$4X10^{-7}$	$1X10^{-2}$	$1X10^{-8}$	$5X10^{-4}$
	As-74	S	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$5X10^{-5}$
		I	$1X10^{-7}$	$2X10^{-3}$	$4X10^{-9}$	$5X10^{-5}$
	As-76	S	$1X10^{-7}$	$6X10^{-4}$	$4X10^{-9}$	$2X10^{-5}$
		I	$1X10^{-7}$	$6X10^{-4}$	$3X10^{-9}$	$2X10^{-5}$
	As-77	S	$5X10^{-7}$	$2X10^{-3}$	$2X10^{-8}$	$8X10^{-5}$
		I	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$8X10^{-5}$
Astatine (85)	At-211	S	$7X10^{-9}$	$5X10^{-5}$	$2X10^{-10}$	$2X10^{-6}$
		I	$3X10^{-8}$	$2X10^{-3}$	$1X10^{-9}$	$7X10^{-5}$
Barium (56)	Ba-131	S	$1X10^{-6}$	$5X10^{-3}$	$4X10^{-8}$	$2X10^{-4}$
		I	$4X10^{-7}$	$5X10^{-3}$	$1X10^{-8}$	$2X10^{-4}$
	Ba-140	S	$1X10^{-7}$	$8X10^{-4}$	$4X10^{-9}$	$3X10^{-5}$
		I	$4X10^{-8}$	$7X10^{-4}$	$1X10^{-9}$	$2X10^{-5}$

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Berkelium (97)	Bk-249	S	9X10-10	2X10-2	3X10-11	6X10-4
		I	1X10-7	2X10-2	4X10-9	6X10-4
	Bk-250	S	1X10-7	6X10-3	5X10-9	2X10-4
		I	1X10-6	6X10-3	4X10-8	2X10-4
Beryllium (4)	Be-7	S	6X10-6	5X10-2	2X10-7	2X10-3
		I	1X10-6	5X10-2	4X10-8	2X10-3
Bismuth (83)	Bi-206	S	2X10-7	1X10-3	6X10-9	4X10-5
		I	1X10-7	1X10-3	5X10-9	4X10-5
	Bi-207	S	2X10-7	2X10-3	6X10-9	6X10-5
		I	1X10-8	2X10-3	5X10-10	6X10-5
	Bi-210	S	6X10-9	1X10-3	2X10-10	4X10-5
		I	6X10-9	1X10-3	2X10-10	4X10-5
	Bi-212	S	1X10-7	1X10-2	3X10-9	4X10-4
		I	2X10-7	1X10-2	7X10-9	4X10-4
Bromine (35)	Br-82	S	1X10-6	8X10-3	4X10-8	3X10-4
		I	2X10-7	1X10-3	6X10-9	4X10-5
Cadmium (48)	Cd-109	S	5X10-8	5X10-3	2X10-9	2X10-4
		I	7X10-8	5X10-3	3X10-9	2X10-4
	Cd-115m	S	4X10-8	7X10-4	1X10-9	3X10-5
		I	4X10-8	7X10-4	1X10-9	3X10-5
	Cd-115	S	2X10-7	1X10-3	8X10-9	3X10-5
		I	2X10-7	1X10-3	6X10-9	4X10-5
Calcium (20)	Ca-45	S	3X10-8	3X10-4	1X10-9	9X10-6
		I	1X10-7	5X10-3	4X10-9	2X10-4
	Ca-47	S	2X10-7	1X10-3	6X10-9	5X10-5
		I	2X10-7	1X10-3	6X10-9	3X10-5
Californium (98)	Cf-249	S	2X10-12	1X10-4	5X10-14	4X10-6
		I	1X10-10	7X10-4	3X10-12	2X10-5
	Cf-250	S	5X10-12	4X10-4	2X10-13	1X10-5
		I	1X10-10	7X10-4	3X10-12	3X10-5
	Cf-251	S	2X10-12	1X10-4	6X10-14	4X10-6
		I	1X10-10	8X10-4	3X10-12	3X10-5
	Cf-252	S	6X10-12	2X10-4	2X10-13	7X10-6
		I	3X10-11	2X10-4	1X10-12	7X10-6
	Cf-253	S	8X10-10	4X10-3	3X10-11	1X10-4
		I	8X10-10	4X10-3	3X10-11	1X10-4
	Cf-254	S	5X10-12	4X10-6	2X10-13	1X10-7
		I	5X10-12	4X10-6	2X10-13	1X10-7

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Carbon (6)	C-14	S	$4X10^{-6}$	$2X10^{-2}$	$1X10^{-7}$	$8X10^{-4}$
	(CO_2)	Sub 2/	$5X10^{-5}$	------	$1X10^{-6}$	-----
Cerium (58)	Ce-141	S	$4X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$9X10^{-5}$
		I	$2X10^{-7}$	$3X10^{-3}$	$5X10^{-9}$	$9X10^{-5}$
	Ce-143	S	$3X10^{-7}$	$1X10^{-3}$	$9X10^{-9}$	$4X10^{-5}$
		I	$2X10^{-7}$	$1X10^{-3}$	$7X10^{-9}$	$4X10^{-5}$
	Ce-144	S	$1X10^{-8}$	$3X10^{-4}$	$3X10^{-10}$	$1X10^{-5}$
		I	$6X10^{-9}$	$3X10^{-4}$	$2X10^{-10}$	$1X10^{-5}$
Cesium (55)	Cs-131	S	$1X10^{-5}$	$7X10^{-2}$	$4X10^{-7}$	$2X10^{-3}$
		I	$3X10^{-6}$	$3X10^{-2}$	$1X10^{-7}$	$9X10^{-4}$
	Cs-134m	S	$4X10^{-5}$	$2X10^{-1}$	$1X10^{-6}$	$6X10^{-3}$
		I	$6X10^{-6}$	$3X10^{-2}$	$2X10^{-7}$	$1X10^{-3}$
	Cs-134	S	$4X10^{-8}$	$3X10^{-4}$	$1X10^{-9}$	$9X10^{-6}$
		I	$1X10^{-8}$	$1X10^{-3}$	$4X10^{-10}$	$4X10^{-5}$
	Cs-135	S	$5X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
		I	$9X10^{-8}$	$7X10^{-3}$	$3X10^{-9}$	$2X10^{-4}$
	Cs-136	S	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$9X10^{-5}$
		I	$2X10^{-7}$	$2X10^{-3}$	$6X10^{-9}$	$6X10^{-5}$
	Cs-137	S	$6X10^{-8}$	$4X10^{-4}$	$2X10^{-9}$	$2X10^{-5}$
		I	$1X10^{-8}$	$1X10^{-3}$	$5X10^{-10}$	$4X10^{-5}$
Chlorine (17)	Cl-36	S	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$8X10^{-5}$
		I	$2X10^{-8}$	$2X10^{-3}$	$8X10^{-10}$	$6X10^{-5}$
	Cl-38	S	$3X10^{-6}$	$1X10^{-2}$	$9X10^{-8}$	$4X10^{-4}$
		I	$2X10^{-6}$	$1X10^{-2}$	$7X10^{-8}$	$4X10^{-4}$
Chromium (24)	Cr-51	S	$1X10^{-5}$	$5X10^{-2}$	$4X10^{-7}$	$2X10^{-3}$
		I	$2X10^{-6}$	$5X10^{-2}$	$8X10^{-8}$	$2X10^{-3}$
Cobalt (27)	Co-57	S	$3X10^{-6}$	$2X10^{-2}$	$1X10^{-7}$	$5X10^{-4}$
		I	$2X10^{-7}$	$1X10^{-2}$	$6X10^{-9}$	$4X10^{-4}$
	Co-58m	S	$2X10^{-5}$	$8X10^{-2}$	$6X10^{-7}$	$3X10^{-3}$
		I	$9X10^{-6}$	$6X10^{-2}$	$3X10^{-7}$	$2X10^{-3}$
	Co-58	S	$8X10^{-7}$	$4X10^{-3}$	$3X10^{-8}$	$1X10^{-4}$
		I	$5X10^{-8}$	$3X10^{-3}$	$2X10^{-9}$	$9X10^{-5}$
	Co-60	S	$3X10^{-7}$	$1X10^{-3}$	$1X10^{-8}$	$5X10^{-5}$
		I	$9X10^{-9}$	$1X10^{-3}$	$3X10^{-10}$	$3X10^{-5}$
Copper (29)	Cu-64	S	$2X10^{-6}$	$1X10^{-2}$	$7X10^{-8}$	$3X10^{-4}$
		I	$1X10^{-6}$	$6X10^{-3}$	$4X10^{-8}$	$2X10^{-4}$

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Curium (96)	Cm-242	S	$1X10^{-10}$	$7X10^{-4}$	$4X10^{-12}$	$2X10^{-5}$
		I	$2X10^{-10}$	$7X10^{-4}$	$6X10^{-12}$	$2X10^{-5}$
	Cm-243	S	$6X10^{-12}$	$1X10^{-4}$	$2X10^{-13}$	$5X10^{-6}$
		I	$1X10^{-10}$	$7X10^{-4}$	$3X10^{-12}$	$2X10^{-5}$
	Cm-244	S	$9X10^{-12}$	$2X10^{-4}$	$3X10^{-13}$	$7X10^{-6}$
		I	$1X10^{-10}$	$8X10^{-4}$	$3X10^{-12}$	$3X10^{-5}$
	Cm-245	S	$5X10^{-12}$	$1X10^{-4}$	$2X10^{-13}$	$4X10^{-6}$
		I	$1X10^{-10}$	$8X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	Cm-246	S	$5X10^{-12}$	$1X10^{-4}$	$2X10^{-13}$	$4X10^{-6}$
		I	$1X10^{-10}$	$8X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	Cm-247	S	$5X10^{-12}$	$1X10^{-4}$	$2X10^{-13}$	$4X10^{-6}$
		I	$1X10^{-10}$	$6X10^{-4}$	$4X10^{-12}$	$2X10^{-5}$
	Cm-248	S	$6X10^{-13}$	$1X10^{-5}$	$2X10^{-14}$	$4X10^{-7}$
		I	$1X10^{-11}$	$4X10^{-5}$	$4X10^{-13}$	$1X10^{-6}$
	Cm-249	S	$1X10^{-5}$	$6X10^{-2}$	$4X10^{-7}$	$2X10^{-3}$
		I	$1X10^{-5}$	$6X10^{-2}$	$4X10^{-7}$	$2X10^{-3}$
Dysprosium (66)	Dy-165	S	$3X10^{-6}$	$1X10^{-2}$	$9X10^{-8}$	$4X10^{-4}$
		I	$2X10^{-6}$	$1X10^{-2}$	$7X10^{-8}$	$4X10^{-4}$
	Dy-166	S	$2X10^{-7}$	$1X10^{-3}$	$8X10^{-9}$	$4X10^{-5}$
		I	$2X10^{-7}$	$1X10^{-3}$	$7X10^{-9}$	$4X10^{-5}$
Einsteinium (99)	Es-253	S	$8X10^{-10}$	$7X10^{-4}$	$3X10^{-11}$	$2X10^{-5}$
		I	$6X10^{-10}$	$7X10^{-4}$	$2X10^{-11}$	$2X10^{-5}$
	Es-254m	S	$5X10^{-9}$	$5X10^{-4}$	$2X10^{-10}$	$2X10^{-5}$
		I	$6X10^{-9}$	$5X10^{-4}$	$2X10^{-10}$	$2X10^{-5}$
	Es-254	S	$2X10^{-11}$	$4X10^{-4}$	$6X10^{-13}$	$1X10^{-5}$
		I	$1X10^{-10}$	$4X10^{-4}$	$4X10^{-12}$	$1X10^{-5}$
	Es-255	S	$5X10^{-10}$	$8X10^{-4}$	$2X10^{-11}$	$3X10^{-5}$
		I	$4X10^{-10}$	$8X10^{-4}$	$1X10^{-11}$	$3X10^{-5}$
Erbium (68)	Er-169	S	$6X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$9X10^{-5}$
	Er-169	I	$4X10^{-7}$	$3X10^{-3}$	$1X10^{-8}$	$9X10^{-5}$
	Er-171	S	$7X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
		I	$6X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
Europium (63)	Eu-152	S	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
(T_r=9.2 hrs)		I	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
	Eu-152	S	$1X10^{-8}$	$2X10^{-3}$	$4X10^{-10}$	$8X10^{-5}$
(T_r=13 yrs)		I	$2X10^{-8}$	$2X10^{-3}$	$6X10^{-10}$	$8X10^{-5}$
	Eu-154	S	$4X10^{-9}$	$6X10^{-4}$	$1X10^{-10}$	$2X10^{-5}$
		I	$7X10^{-9}$	$6X10^{-4}$	$2X10^{-10}$	$2X10^{-5}$
	Eu-155	S	$9X10^{-8}$	$6X10^{-3}$	$3X10^{-9}$	$2X10^{-4}$
		I	$7X10^{-8}$	$6X10^{-3}$	$3X10^{-9}$	$2X10^{-4}$

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Fermium (100)	Fm-254	S	$6X10^{-8}$	$4X10^{-3}$	$2X10^{-9}$	$1X10^{-4}$
		I	$7X10^{-8}$	$4X10^{-3}$	$2X10^{-9}$	$1X10^{-4}$
	Fm-255	S	$2X10^{-8}$	$1X10^{-3}$	$6X10^{-10}$	$3X10^{-5}$
		I	$1X10^{-8}$	$1X10^{-3}$	$4X10^{-10}$	$3X10^{-5}$
	Fm-256	S	$3X10^{-9}$	$3X10^{-5}$	$1X10^{-10}$	$9X10^{-7}$
		I	$2X10^{-9}$	$3X10^{-5}$	$6X10^{-11}$	$9X10^{-7}$
Fluorine (9)	F-18	S	$5X10^{-6}$	$2X10^{-2}$	$2X10^{-7}$	$8X10^{-4}$
		I	$3X10^{-6}$	$1X10^{-2}$	$9X10^{-8}$	$5X10^{-4}$
Gadolinium (64)	Gd-153	S	$2X10^{-7}$	$6X10^{-3}$	$8X10^{-9}$	$2X10^{-4}$
		I	$9X10^{-8}$	$6X10^{-3}$	$3X10^{-9}$	$2X10^{-4}$
	Gd-159	S	$5X10^{-7}$	$2X10^{-3}$	$2X10^{-8}$	$8X10^{-5}$
		I	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$8X10^{-5}$
Gallium (31)	Ga-72	S	$2X10^{-7}$	$1X10^{-3}$	$8X10^{-9}$	$4X10^{-5}$
		I	$2X10^{-7}$	$1X10^{-3}$	$6X10^{-9}$	$4X10^{-5}$
Germanium (32)	Ge-71	S	$1X10^{-5}$	$5X10^{-2}$	$4X10^{-7}$	$2X10^{-3}$
		I	$6X10^{-6}$	$5X10^{-2}$	$2X10^{-7}$	$2X10^{-3}$
Gold (79)	Au-196	S	$1X10^{-6}$	$5X10^{-3}$	$4X10^{-8}$	$2X10^{-4}$
		I	$6X10^{-7}$	$4X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
	Au-198	S	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$5X10^{-5}$
		I	$2X10^{-7}$	$1X10^{-3}$	$8X10^{-9}$	$5X10^{-5}$
	Au-199	S	$1X10^{-6}$	$5X10^{-3}$	$4X10^{-8}$	$2X10^{-4}$
		I	$8X10^{-7}$	$4X10^{-3}$	$3X10^{-8}$	$2X10^{-4}$
Hafnium (72)	Hf-181	S	$4X10^{-8}$	$2X10^{-3}$	$1X10^{-9}$	$7X10^{-5}$
		I	$7X10^{-8}$	$2X10^{-3}$	$3X10^{-9}$	$7X10^{-5}$
Holmium (67)	Ho-166	S	$2X10^{-7}$	$9X10^{-4}$	$7X10^{-9}$	$3X10^{-5}$
		I	$2X10^{-7}$	$9X10^{-4}$	$6X10^{-9}$	$3X10^{-5}$
Hydrogen (1)	H-3	S	$5X10^{-6}$	$1X10^{-1}$	$2X10^{-7}$	$3X10^{-3}$
		I	$5X10^{-6}$	$1X10^{-1}$	$2X10^{-7}$	$3X10^{-3}$
		Sub 2/	$2X10^{-3}$	------	$4X10^{-5}$	------
Indium (49)	In-113m	S	$8X10^{-6}$	$4X10^{-2}$	$3X10^{-7}$	$1X10^{-3}$
		I	$7X10^{-6}$	$4X10^{-2}$	$2X10^{-7}$	$1X10^{-3}$
	In-114m	S	$1X10^{-7}$	$5X10^{-4}$	$4X10^{-9}$	$2X10^{-5}$
		I	$2X10^{-8}$	$5X10^{-4}$	$7X10^{-10}$	$2X10^{-5}$
	In-115m	S	$2X10^{-6}$	$1X10^{-2}$	$8X10^{-8}$	$4X10^{-4}$
		I	$2X10^{-6}$	$1X10^{-2}$	$6X10^{-8}$	$4X10^{-4}$
	In-115	S	$2X10^{-7}$	$3X10^{-3}$	$9X10^{-9}$	$9X10^{-5}$
		I	$3X10^{-8}$	$3X10^{-3}$	$1X10^{-9}$	$9X10^{-5}$

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Iodine (53)	I-125	S	$5X10^{-9}$	$4X10^{-5}$	$8X10^{-11}$	$2X10^{-7}$
		I	$2X10^{-7}$	$6X10^{-3}$	$6X10^{-9}$	$2X10^{-4}$
	I-126	S	$8X10^{-9}$	$5X10^{-5}$	$9X10^{-11}$	$3X10^{-7}$
		I	$3X10^{-7}$	$3X10^{-3}$	$1X10^{-8}$	$9X10^{-5}$
	I-129	S	$2X10^{-9}$	$1X10^{-5}$	$2X10^{-11}$	$6X10^{-8}$
		I	$7X10^{-8}$	$6X10^{-3}$	$2X10^{-9}$	$2X10^{-4}$
	I-131	S	$9X10^{-9}$	$6X10^{-5}$	$1X10^{-10}$	$3X10^{-7}$
		I	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
	I-132	S	$2X10^{-7}$	$2X10^{-3}$	$3X10^{-9}$	$8X10^{-6}$
		I	$9X10^{-7}$	$5X10^{-3}$	$3X10^{-8}$	$2X10^{-4}$
	I-133	S	$3X10^{-8}$	$2X10^{-4}$	$4X10^{-10}$	$1X10^{-6}$
		I	$2X10^{-7}$	$1X10^{-3}$	$7X10^{-9}$	$4X10^{-5}$
	I-134	S	$5X10^{-7}$	$4X10^{-3}$	$6X10^{-9}$	$2X10^{-5}$
		I	$3X10^{-6}$	$2X10^{-2}$	$1X10^{-7}$	$6X10^{-4}$
	I-135	S	$1X10^{-7}$	$7X10^{-4}$	$1X10^{-9}$	$4X10^{-6}$
		I	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$7X10^{-5}$
Iridium (77)	Ir-190	S	$1X10^{-6}$	$6X10^{-3}$	$4X10^{-8}$	$2X10^{-4}$
		I	$4X10^{-7}$	$5X10^{-3}$	$1X10^{-8}$	$2X10^{-4}$
	Ir-192	S	$1X10^{-7}$	$1X10^{-3}$	$4X10^{-9}$	$4X10^{-5}$
		I	$3X10^{-8}$	$1X10^{-3}$	$9X10^{-10}$	$4X10^{-5}$
	Ir-194	S	$2X10^{-7}$	$1X10^{-3}$	$8X10^{-9}$	$3X10^{-5}$
		I	$2X10^{-7}$	$9X10^{-4}$	$5X10^{-9}$	$3X10^{-5}$
Iron (26)	Fe-55	S	$9X10^{-7}$	$2X10^{-2}$	$3X10^{-8}$	$8X10^{-4}$
		I	$1X10^{-6}$	$7X10^{-2}$	$3X10^{-8}$	$2X10^{-3}$
	Fe-59	S	$1X10^{-7}$	$2X10^{-3}$	$5X10^{-9}$	$6X10^{-5}$
		I	$5X10^{-8}$	$2X10^{-3}$	$2X10^{-9}$	$5X10^{-5}$
Krypton (36)	Kr-85m	Sub2/	$6X10^{-6}$	------	$1X10^{-7}$	------
	Kr-85	Sub	$1X10^{-5}$	------	$3X10^{-7}$	------
	Kr-87	Sub	$1X10^{-6}$	------	$2X10^{-8}$	------
	Kr-88	Sub	$1X10^{-6}$	------	$2X10^{-8}$	------
Lanthanum (57)	La-140	S	$2X10^{-7}$	$7X10^{-4}$	$5X10^{-9}$	$2X10^{-5}$
		I	$1X10^{-7}$	$7X10^{-4}$	$4X10^{-9}$	$2X10^{-5}$
Lead (82)	Pb-203	S	$3X10^{-6}$	$1X10^{-2}$	$9X10^{-8}$	$4X10^{-4}$
		I	$2X10^{-6}$	$1X10^{-2}$	$6X10^{-8}$	$4X10^{-4}$
	Pb-210	S	$1X10^{-10}$	$4X10^{-6}$	$4X10^{-12}$	$1X10^{-7}$
		I	$2X10^{-10}$	$5X10^{-3}$	$8X10^{-12}$	$2X10^{-4}$
	Pb-212	S	$2X10^{-8}$	$6X10^{-4}$	$6X10^{-10}$	$2X10^{-5}$

(See notes at end of appendix)

Element (atomic number)	Isotope	1/	Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
		I	$2X10^{-8}$	$5X10^{-4}$	$7X10^{-10}$	$2X10^{-5}$
Lutetium (71)	Lu-177	S	$6X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
		I	$5X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
Manganese (25)	Mn-52	S	$2X10^{-7}$	$1X10^{-3}$	$7X10^{-9}$	$3X10^{-5}$
		I	$1X10^{-7}$	$9X10^{-4}$	$5X10^{-9}$	$3X10^{-5}$
	Mn-54	S	$4X10^{-7}$	$4X10^{-3}$	$1X10^{-8}$	$1X10^{-4}$
		I	$4X10^{-8}$	$3X10^{-3}$	$1X10^{-9}$	$1X10^{-4}$
	Mn-56	S	$8X10^{-7}$	$4X10^{-3}$	$3X10^{-8}$	$1X10^{-4}$
		I	$5X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
Mercury (80)	Hg-197m	S	$7X10^{-7}$	$6X10^{-3}$	$3X10^{-8}$	$2X10^{-4}$
		I	$8X10^{-7}$	$5X10^{-3}$	$3X10^{-8}$	$2X10^{-4}$
	Hg-197	S	$1X10^{-6}$	$9X10^{-3}$	$4X10^{-8}$	$3X10^{-4}$
		I	$3X10^{-6}$	$1X10^{-2}$	$9X10^{-8}$	$5X10^{-4}$
	Hg-203	S	$7X10^{-8}$	$5X10^{-4}$	$2X10^{-9}$	$2X10^{-5}$
		I	$1X10^{-7}$	$3X10^{-3}$	$4X10^{-9}$	$1X10^{-4}$
Molybdenum (42)	Mo-99	S	$7X10^{-7}$	$5X10^{-3}$	$3X10^{-8}$	$2X10^{-4}$
		I	$2X10^{-7}$	$1X10^{-3}$	$7X10^{-9}$	$4X10^{-5}$
Neodymium (60)	Nd-144	S	$8X10^{-11}$	$2X10^{-3}$	$3X10^{-12}$	$7X10^{-5}$
		I	$3X10^{-10}$	$2X10^{-3}$	$1X10^{-11}$	$8X10^{-5}$
	Nd-147	S	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
		I	$2X10^{-7}$	$2X10^{-3}$	$8X10^{-9}$	$6X10^{-5}$
	Nd-149	S	$2X10^{-6}$	$8X10^{-3}$	$6X10^{-8}$	$3X10^{-4}$
		I	$1X10^{-6}$	$8X10^{-3}$	$5X10^{-8}$	$3X10^{-4}$
Neptunium (93)	Np-237	S	$4X10^{-12}$	$9X10^{-5}$	$1X10^{-13}$	$3X10^{-6}$
		I	$1X10^{-10}$	$9X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	Np-239	S	$8X10^{-7}$	$4X10^{-3}$	$3X10^{-8}$	$1X10^{-4}$
		I	$7X10^{-7}$	$4X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
Nickel (28)	Ni-59	S	$5X10^{-7}$	$6X10^{-3}$	$2X10^{-8}$	$2X10^{-4}$
		I	$8X10^{-7}$	$6X10^{-2}$	$3X10^{-8}$	$2X10^{-3}$
	Ni-63	S	$6X10^{-8}$	$8X10^{-4}$	$2X10^{-9}$	$3X10^{-5}$
		I	$3X10^{-7}$	$2X10^{-2}$	$1X10^{-8}$	$7X10^{-4}$
	Ni-65	S	$9X10^{-7}$	$4X10^{-3}$	$3X10^{-8}$	$1X10^{-4}$
		I	$5X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
Niobium (41)	Nb-93m	S	$1X10^{-7}$	$1X10^{-2}$	$4X10^{-9}$	$4X10^{-4}$
		I	$2X10^{-7}$	$1X10^{-2}$	$5X10^{-9}$	$4X10^{-4}$

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
	Nb-95	S	5X10-7	3X10-3	2X10-8	1X10-4
		I	1X10-7	3X10-3	3X10-9	1X10-4
	Nb-97	S	6X10-6	3X10-2	2X10-7	9X10-4
		I	5X10-6	3X10-2	2X10-7	9X10-4
Osmium (76)	Os-185	S	5X10-7	2X10-3	2X10-8	7X10-5
		I	5X10-8	2X10-3	2X10-9	7X10-5
	Os-191m	S	2X10-5	7X10-2	6X10-7	3X10-3
		I	9X10-6	7X10-2	3X10-7	2X10-3
	Os-191	S	1X10-6	5X10-3	4X10-8	2X10-4
		I	4X10-7	5X10-3	1X10-8	2X10-4
	Os-193	S	4X10-7	2X10-3	1X10-8	6X10-5
		I	3X10-7	2X10-3	9X10-9	5X10-5
Palladium (46)	Pd-103	S	1X10-6	1X10-2	5X10-8	3X10-4
		I	7X10-7	8X10-3	3X10-8	3X10-4
	Pd-109	S	6X10-7	3X10-3	2X10-8	9X10-5
		I	4X10-7	2X10-3	1X10-8	7X10-5
Phosphorus (15)	P-32	S	7X10-8	5X10-4	2X10-9	2X10-5
		I	8X10-8	7X10-4	3X10-9	2X10-5
Platinum (78)	Pt-191	S	8X10-7	4X10-3	3X10-8	1X10-4
		I	6X10-7	3X10-3	2X10-8	1X10-4
	Pt-193m	S	7X10-6	3X10-2	2X10-7	1X10-3
		I	5X10-6	3X10-2	2X10-7	1X10-3
	Pt-193	S	1X10-6	3X10-2	4X10-8	9X10-4
		I	3X10-7	5X10-2	1X10-8	2X10-3
	Pt-197m	S	6X10-6	3X10-2	2X10-7	1X10-3
		I	5X10-6	3X10-2	2X10-7	9X10-4
	Pt-197	S	8X10-7	4X10-3	3X10-8	1X10-4
		I	6X10-7	3X10-3	2X10-8	1X10-4
Plutonium (94)	Pu-238	S	2X10-12	1X10-4	7X10-14	5X10-6
		I	3X10-11	8X10-4	1X10-12	3X10-5
	Pu-239	S	2X10-12	1X10-4	6X10-14	5X10-6
		I	4X10-11	8X10-4	1X10-12	3X10-5
	Pu-240	S	2X10-12	1X10-4	6X10-14	5X10-6
		I	4X10-11	8X10-4	1X10-12	3X10-5
	Pu-241	S	9X10-11	7X10-3	3X10-12	2X10-4
		I	4X10-8	4X10-2	1X10-9	1X10-3
	Pu-242	S	2X10-12	1X10-4	6X10-14	5X10-6
		I	4X10-11	9X10-4	1X10-12	3X10-5

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
	Pu-243	S	2X10-6	1X10-2	6X10-8	3X10-4
		I	2X10-6	1X10-2	8X10-8	3X10-4
	Pu-244	S	2X10-12	1X10-4	6X10-14	4X10-6
		I	3X10-11	3X10-4	1X10-12	1X10-5
Polonium (84)	Po-210	S	5X10-10	2X10-5	2X10-11	7X10-7
		I	2X10-10	8X10-4	7X10-12	3X10-5
Potassium (19)	K-42	S	2X10-6	9X10-3	7X10-8	3X10-4
		I	1X10-7	6X10-4	4X10-9	2X10-5
Praseodymium (59)	Pr-142	S	2X10-7	9X10-4	7X10-9	3X10-5
		I	2X10-7	9X10-4	5X10-9	3X10-5
	Pr-143	S	3X10-7	1X10-3	1X10-8	5X10-5
		I	2X10-7	1X10-3	6X10-9	5X10-5
Promethium (61)	Pm-147	S	6X10-8	6X10-3	2X10-9	2X10-4
		I	1X10-7	6X10-3	3X10-9	2X10-4
	Pm-149	S	3X10-7	1X10-3	1X10-8	4X10-5
		I	2X10-7	1X10-3	8X10-9	4X10-5
Protactinium (91)	Pa-230	S	2X10-9	7X10-3	6X10-11	2X10-4
		I	8X10-10	7X10-3	3X10-11	2X10-4
	Pa-231	S	1X10-12	3X10-5	4X10-14	9X10-7
		I	1X10-10	8X10-4	4X10-12	2X10-5
	Pa-233	S	6X10-7	4X10-3	2X10-8	1X10-4
		I	2X10-7	3X10-3	6X10-9	1X10-4
Radium (88)	Ra-223	S	2X10-9	2X10-5	6X10-11	7X10-7
		I	2X10-10	1X10-4	8X10-12	4X10-6
	Ra-224	S	5X10-9	7X10-5	2X10-10	2X10-6
		I	7X10-10	2X10-4	2X10-11	5X10-6
	Ra-226	S	3X10-11	4X10-7	3X10-12	3X10-8
		I	5X10-11	9X10-4	2X10-12	3X10-5
	Ra-228	S	7X10-11	8X10-7	2X10-12	3X10-8
		I	4X10-11	7X10-4	1X10-12	3X10-5
Radon (86)	Rn-220	S	3X10-7	------	1X10-8	------
	Rn-222 3/	S	3X10-8	------	3X10-9	------
Rhenium (75)	Re-183	S	3X10-6	2X10-2	9X10-8	6X10-4
		I	2X10-7	8X10-3	5X10-9	3X10-4
	Re-186	S	6X10-7	3X10-3	2X10-8	9X10-5

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
		I	2X10-7	1X10-3	8X10-9	5X10-5
	Re-187	S	9X10-6	7X10-2	3X10-7	3X10-3
		I	5X10-7	4X10-2	2X10-8	2X10-3
	Re-188	S	4X10-7	2X10-3	1X10-8	6X10-5
		I	2X10-7	9X10-4	6X10-9	3X10-5
Rhodium (45)	Rh-103m	S	8X10-5	4X10-1	3X10-6	1X10-2
		I	6X10-5	3X10-1	2X10-6	1X10-2
	Rh-105	S	8X10-7	4X10-3	3X10-8	1X10-4
		I	5X10-7	3X10-3	2X10-8	1X10-4
Rubidium (37)	Rb-86	S	3X10-7	2X10-3	1X10-8	7X10-5
		I	7X10-8	7X10-4	2X10-9	2X10-5
	Rb-87	S	5X10-7	3X10-3	2X10-8	1X10-4
		I	7X10-8	5X10-3	2X10-9	2X10-4
Ruthenium (44)	Ru-97	S	2X10-6	1X10-2	8X10-8	4X10-4
		I	2X10-6	1X10-2	6X10-8	3X10-4
	Ru-103	S	5X10-7	2X10-3	2X10-8	8X10-5
		I	8X10-8	2X10-3	3X10-9	8X10-5
	Ru-105	S	7X10-7	3X10-3	2X10-8	1X10-4
		I	5X10-7	3X10-3	2X10-8	1X10-4
	Ru-106	S	8X10-8	4X10-4	3X10-9	1X10-5
		I	6X10-9	3X10-4	2X10-10	1X10-5
Samarium (62)	Sm-147	S	7X10-11	2X10-3	2X10-12	6X10-5
		I	3X10-10	2X10-3	9X10-12	7X10-5
	Sm-151	S	6X10-8	1X10-2	2X10-9	4X10-4
		I	1X10-7	1X10-2	5X10-9	4X10-4
	Sm-153	S	5X10-7	2X10-3	2X10-8	8X10-5
		I	4X10-7	2X10-3	1X10-8	8X10-5
Scandium (21)	Sc-46	S	2X10-7	1X10-3	8X10-9	4X10-5
		I	2X10-8	1X10-3	8X10-10	4X10-5
	Sc-47	S	6X10-7	3X10-3	2X10-8	9X10-5
		I	5X10-7	3X10-3	2X10-8	9X10-5
	Sc-48	S	2X10-7	8X10-4	6X10-9	3X10-5
		I	1X10-7	8X10-4	5X10-9	3X10-5
Selenium (34)	Se-75	S	1X10-6	9X10-3	4X10-8	3X10-4
		I	1X10-7	8X10-3	4X10-9	3X10-4
Silicon (14)	Si-31	S	6X10-6	3X10-2	2X10-7	9X10-4
		I	1X10-6	6X10-3	3X10-8	2X10-4

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Silver (47)	Ag-105	S	$6X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
		I	$8X10^{-8}$	$3X10^{-3}$	$3X10^{-9}$	$1X10^{-4}$
	Ag-110m	S	$2X10^{-7}$	$9X10^{-4}$	$7X10^{-9}$	$3X10^{-5}$
		I	$1X10^{-8}$	$9X10^{-4}$	$3X10^{-10}$	$3X10^{-5}$
	Ag-111	S	$3X10^{-7}$	$1X10^{-3}$	$1X10^{-8}$	$4X10^{-5}$
		I	$2X10^{-7}$	$1X10^{-3}$	$8X10^{-9}$	$4X10^{-5}$
Sodium (11)	Na-22	S	$2X10^{-7}$	$1X10^{-3}$	$6X10^{-9}$	$4X10^{-5}$
		I	$9X10^{-9}$	$9X10^{-4}$	$3X10^{-10}$	$3X10^{-5}$
	Na-24	S	$1X10^{-6}$	$6X10^{-3}$	$4X10^{-8}$	$2X10^{-4}$
		I	$1X10^{-7}$	$8X10^{-4}$	$5X10^{-9}$	$3X10^{-5}$
Strontium (38)	Sr-85m	S	$4X10^{-5}$	$2X10^{-1}$	$1X10^{-6}$	$7X10^{-3}$
		I	$3X10^{-5}$	$2X10^{-1}$	$1X10^{-6}$	$7X10^{-3}$
	Sr-85	S	$2X10^{-7}$	$3X10^{-3}$	$8X10^{-9}$	$1X10^{-4}$
		I	$1X10^{-7}$	$5X10^{-3}$	$4X10^{-9}$	$2X10^{-4}$
	Sr-89	S	$3X10^{-8}$	$3X10^{-4}$	$3X10^{-10}$	$3X10^{-6}$
		I	$4X10^{-8}$	$8X10^{-4}$	$1X10^{-9}$	$3X10^{-6}$
	Sr-90	S	$1X10^{-9}$	$1X10^{-5}$	$3X10^{-11}$	$3X10^{-7}$
		I	$5X10^{-9}$	$1X10^{-3}$	$2X10^{-10}$	$4X10^{-5}$
	Sr-91	S	$4X10^{-7}$	$2X10^{-3}$	$2X10^{-8}$	$7X10^{-5}$
		I	$3X10^{-7}$	$1X10^{-3}$	$9X10^{-9}$	$5X10^{-5}$
	Sr-92	S	$4X10^{-7}$	$2X10^{-3}$	$2X10^{-8}$	$7X10^{-5}$
		I	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
Sulfur (16)	S-35	S	$3X10^{-7}$	$2X10^{-3}$	$9X10^{-9}$	$6X10^{-5}$
		I	$3X10^{-7}$	$8X10^{-3}$	$9X10^{-9}$	$3X10^{-4}$
Tantalum (73)	Ta-182	S	$4X10^{-8}$	$1X10^{-3}$	$1X10^{-9}$	$4X10^{-5}$
		I	$2X10^{-8}$	$1X10^{-3}$	$7X10^{-10}$	$4X10^{-5}$
Technetium (43)	Tc-96m	S	$8X10^{-5}$	$4X10^{-1}$	$3X10^{-6}$	$1X10^{-2}$
		I	$3X10^{-5}$	$3X10^{-1}$	$1X10^{-6}$	$1X10^{-2}$
	Tc-96	S	$6X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
		I	$2X10^{-7}$	$1X10^{-3}$	$8X10^{-9}$	$5X10^{-5}$
	Tc-97m	S	$2X10^{-6}$	$1X10^{-2}$	$8X10^{-8}$	$4X10^{-4}$
		I	$2X10^{-7}$	$5X10^{-3}$	$5X10^{-9}$	$2X10^{-4}$
	Tc-97	S	$1X10^{-5}$	$5X10^{-2}$	$4X10^{-7}$	$2X10^{-3}$
		I	$3X10^{-7}$	$2X10^{-2}$	$1X10^{-8}$	$8X10^{-4}$
	Tc-99m	S	$4X10^{-5}$	$2X10^{-1}$	$1X10^{-6}$	$6X10^{-3}$
		I	$1X10^{-5}$	$8X10^{-2}$	$5X10^{-7}$	$3X10^{-3}$

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
	Te-99	S	2X10-6	1X10-2	7X10-8	3X10-4
		I	6X10-8	5X10-3	2X10-9	2X10-4
Tellurium (52)	Te-125m	S	4X10-7	5X10-3	1X10-8	2X10-4
		I	1X10-7	3X10-3	4X10-9	1X10-4
	Te-127m	S	1X10-7	2X10-3	5X10-9	6X10-5
		I	4X10-8	2X10-3	1X10-9	5X10-5
	Te-127	S	2X10-6	8X10-3	6X10-8	3X10-4
		I	9X10-7	5X10-3	3X10-8	2X10-4
	Te-129m	S	8X10-8	1X10-3	3X10-9	3X10-5
		I	3X10-8	6X10-4	1X10-9	2X10-5
	Te-129	S	5X10-6	2X10-2	2X10-7	8X10-4
		I	4X10-6	2X10-2	1X10-7	8X10-4
	Te-131m	S	4X10-7	2X10-3	1X10-8	6X10-5
		I	2X10-7	1X10-3	6X10-9	4X10-5
	Te-132	S	2X10-7	9X10-4	7X10-9	3X10-5
		I	1X10-7	6X10-4	4X10-9	2X10-5
Terbium (65)	Tb-160	S	1X10-7	1X10-3	3X10-9	4X10-5
		I	3X10-8	1X10-3	1X10-9	4X10-5
Thallium (81)	Tl-200	S	3X10-6	1X10-2	9X10-8	4X10-4
		I	1X10-6	7X10-3	4X10-8	2X10-4
	Tl-201	S	2X10-6	9X10-3	7X10-8	3X10-4
		I	9X10-7	5X10-3	3X10-8	2X10-4
	Tl-202	S	8X10-7	4X10-3	3X10-8	1X10-4
		I	2X10-7	2X10-3	8X10-9	7X10-5
	Tl-204	S	6X10-7	3X10-3	2X10-8	1X10-4
		I	3X10-8	2X10-3	9X10-10	6X10-5
Thorium (90)	Th-227	S	3X10-10	5X10-4	1X10-11	2X10-5
		I	2X10-10	5X10-4	6X10-12	2X10-5
	Th-228	S	9X10-12	2X10-4	3X10-13	7X10-6
		I	6X10-12	4X10-4	2X10-13	1X10-5
	Th-230	S	2X10-12	5X10-5	8X10-14	2X10-6
		I	1X10-11	9X10-4	3X10-13	3X10-5
	Th-231	S	1X10-6	7X10-3	5X10-8	2X10-4
		I	1X10-6	7X10-3	4X10-8	2X10-4
	Th-232	S	3X10-11	5X10-5	1X10-12	2X10-6
		I	3X10-11	1X10-3	1X10-12	4X10-5
	Th-natural	S	6X10-11	6X10-5	2X10-12	2X10-6
		I	6X10-11	6X10-4	2X10-12	2X10-5

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
	Th-234	S	$6X10^{-8}$	$5X10^{-4}$	$2X10^{-9}$	$2X10^{-5}$
		I	$3X10^{-8}$	$5X10^{-4}$	$1X10^{-9}$	$2X10^{-5}$
Thulium (69)	Tm-170	S	$4X10^{-8}$	$1X10^{-3}$	$1X10^{-9}$	$5X10^{-5}$
		I	$3X10^{-8}$	$1X10^{-3}$	$1X10^{-9}$	$5X10^{-5}$
	Tm-171	S	$1X10^{-7}$	$1X10^{-2}$	$4X10^{-9}$	$5X10^{-4}$
		I	$2X10^{-7}$	$1X10^{-2}$	$8X10^{-9}$	$5X10^{-4}$
Tin (50)	Sn-113	S	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$9X10^{-5}$
		I	$5X10^{-8}$	$2X10^{-3}$	$2X10^{-9}$	$8X10^{-5}$
	Sn-125	S	$1X10^{-7}$	$5X10^{-4}$	$4X10^{-9}$	$2X10^{-5}$
		I	$8X10^{-8}$	$5X10^{-4}$	$3X10^{-9}$	$2X10^{-5}$
Tungsten (74)	W-181	S	$2X10^{-6}$	$1X10^{-2}$	$8X10^{-8}$	$4X10^{-4}$
		I	$1X10^{-7}$	$1X10^{-2}$	$4X10^{-9}$	$3X10^{-4}$
	W-185	S	$8X10^{-7}$	$4X10^{-3}$	$3X10^{-8}$	$1X10^{-4}$
		I	$1X10^{-7}$	$3X10^{-3}$	$4X10^{-9}$	$1X10^{-4}$
	W-187	S	$4X10^{-7}$	$2X10^{-3}$	$2X10^{-8}$	$7X10^{-5}$
		I	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
Uranium (92)	U-230	S	$3X10^{-10}$	$1X10^{-4}$	$1X10^{-11}$	$5X10^{-6}$
		I	$1X10^{-10}$	$1X10^{-4}$	$4X10^{-12}$	$5X10^{-6}$
	U-232	S	$1X10^{-10}$	$8X10^{-4}$	$3X10^{-12}$	$3X10^{-5}$
		I	$3X10^{-11}$	$8X10^{-4}$	$9X10^{-13}$	$3X10^{-5}$
	U-233	S	$5X10^{-10}$	$9X10^{-4}$	$2X10^{-11}$	$3X10^{-5}$
		I	$1X10^{-10}$	$9X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	U-234	S 4/	$6X10^{-10}$	$9X10^{-4}$	$2X10^{-11}$	$3X10^{-5}$
		I	$1X10^{-10}$	$9X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	U-235	S 4/	$5X10^{-10}$	$8X10^{-4}$	$2X10^{-11}$	$3X10^{-5}$
		I	$1X10^{-10}$	$8X10^{-4}$	$4X10^{-12}$	$3X10^{-5}$
	U-236	S	$6X10^{-10}$	$1X10^{-3}$	$2X10^{-11}$	$3X10^{-5}$
		I	$1X10^{-10}$	$1X10^{-3}$	$4X10^{-12}$	$3X10^{-5}$
	U-238	S 4/	$7X10^{-11}$	$1X10^{-3}$	$3X10^{-12}$	$4X10^{-5}$
		I	$1X10^{-10}$	$1X10^{-3}$	$5X10^{-12}$	$4X10^{-5}$
	U-240	S	$2X10^{-7}$	$1X10^{-3}$	$8X10^{-9}$	$3X10^{-5}$
		I	$2X10^{-7}$	$1X10^{-3}$	$6X10^{-9}$	$3X10^{-5}$
	U-natural	S 4/	$1X10^{-10}$	$1X10^{-3}$	$5X10^{-12}$	$3X10^{-5}$
		I	$1X10^{-10}$	$1X10^{-3}$	$5X10^{-12}$	$3X10^{-5}$
Vanadium (23)	V-48	S	$2X10^{-7}$	$9X10^{-4}$	$6X10^{-9}$	$3X10^{-5}$
		I	$6X10^{-8}$	$8X10^{-4}$	$2X10^{-9}$	$3X10^{-5}$

(See notes at end of appendix)

Element (atomic number)	Isotope 1/		Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Xenon (54)	Xe-131mSub2/		$2X10^{-5}$	------	$4X10^{-7}$	------
	Xe-133mSub		$1X10^{-5}$	------	$3X10^{-7}$	------
	Xe-133 Sub		$1X10^{-5}$	------	$3X10^{-7}$	------
	Xe-135 Sub		$4X10^{-6}$	------	$1X10^{-7}$	------
Ytterbium (70)	Yb-175	S	$7X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
		I	$6X10^{-7}$	$3X10^{-3}$	$2X10^{-8}$	$1X10^{-4}$
Yttrium (39)	Y-90	S	$1X10^{-7}$	$6X10^{-4}$	$4X10^{-9}$	$2X10^{-5}$
		I	$1X10^{-7}$	$6X10^{-4}$	$3X10^{-9}$	$2X10^{-5}$
	Y-91m	S	$2X10^{-5}$	$1X10^{-1}$	$8X10^{-7}$	$3X10^{-3}$
		I	$2X10^{-5}$	$1X10^{-1}$	$6X10^{-7}$	$3X10^{-3}$
	Y-91	S	$4X10^{-8}$	$8X10^{-4}$	$1X10^{-9}$	$3X10^{-5}$
		I	$3X10^{-8}$	$8X10^{-4}$	$1X10^{-9}$	$3X10^{-5}$
	Y-92	S	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
		I	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
	Y-93	S	$2X10^{-7}$	$8X10^{-4}$	$6X10^{-9}$	$3X10^{-5}$
		I	$1X10^{-7}$	$8X10^{-4}$	$5X10^{-9}$	$3X10^{-5}$
Zinc (30)	Zn-65	S	$1X10^{-7}$	$3X10^{-3}$	$4X10^{-9}$	$1X10^{-4}$
		I	$6X10^{-8}$	$5X10^{-3}$	$2X10^{-9}$	$2X10^{-4}$
	Zn-69m	S	$4X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$7X10^{-5}$
		I	$3X10^{-7}$	$2X10^{-3}$	$1X10^{-8}$	$6X10^{-5}$
	Zn-69	S	$7X10^{-6}$	$5X10^{-2}$	$2X10^{-7}$	$2X10^{-3}$
		I	$9X10^{-6}$	$5X10^{-2}$	$3X10^{-7}$	$2X10^{-3}$
Zirconium (40)	Zr-93	S	$1X10^{-7}$	$2X10^{-2}$	$4X10^{-9}$	$8X10^{-4}$
		I	$3X10^{-7}$	$2X10^{-2}$	$1X10^{-8}$	$8X10^{-4}$
	Zr-95	S	$1X10^{-7}$	$2X10^{-3}$	$4X10^{-9}$	$6X10^{-5}$
		I	$3X10^{-8}$	$2X10^{-3}$	$1X10^{-9}$	$6X10^{-5}$
	Zr-97	S	$1X10^{-7}$	$5X10^{-4}$	$4X10^{-9}$	$2X10^{-5}$
		I	$9X10^{-8}$	$5X10^{-4}$	$3X10^{-9}$	$2X10^{-5}$
Any single radionuclide not listed above with decay mode other than alpha emission or spontaneous fission and with radioactive half-life less than 2 hours.	Sub 2/		$1X10^{-6}$	------	$3X10^{-8}$	------

(See notes at end of appendix)

Element (atomic number)	Isotope 1/	Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
Any single radionuclide not listed above with decay mode other than alpha emission or spontaneous fission and with radioactive half-life greater than 2 hours.		$3X10^{-9}$	$9X10^{-5}$	$1X10^{-10}$	$3X10^{-6}$
Any single radionuclide not listed above, which decays by alpha emission or spontaneous fission.		$6X10^{-13}$	$4X10^{-7}$	$2X10^{-14}$	$3X10^{-8}$

1/ Soluble (S); Insoluble (I).

2/ "Sub" means that values given are for submersion in a semi-spherical infinite cloud of airborne material.

3/ These radon concentrations are appropriate for protection from radon-222 combined with its short-lived daughters. Alternatively, the value in Table I may be replaced by one-third (1/3) "working level." (A "working level" is defined as any combination of short-lived radon-222 daughters, polonium-218, lead-214, bismuth-214, and polonium-214, in one liter of air, without regard to the degree of equilibrium, that will result in the ultimate emission of 1.3×10^5 MeV of alpha particle energy.) The Table II value may be replaced by one-thirtieth (1/30) of a "working level". The limit on radon-222 concentrations in restricted areas may be based on an annual average.

4/ For soluble mixtures of U-238, U-234 and U-235 in air chemical toxicity may be the limiting factor. If the percent by weight (enrichment) of U-235 is less than 5, the concentration value for a 40-hour workweek, Table I, is 0.2 milligrams uranium per cubic meter of air average. For any enrichment, the product of the average concentration and time of exposure during a 40-hour workweek shall not exceed 8×10^{-3} SA mCi-hr/ml, where SA is the specific activity of the uranium inhaled. The concentration value for Table II is 0.007 milligrams uranium per cubic meter of air. The specific activity for natural uranium is 6.77×10^{-7} curies per gram uranium. The specific activity for other mixtures of U-238, U-235 and U-234, if not known, shall be:

$SA = 3.6 \times 10^{-7}$ curies/gram U — U-depleted

$SA = (0.4 + 0.38\ E + 0.0034\ E^2)\ 10^{-6}$ — $E \geq 0.72$

where E is the percentage by weight of U-235, expressed as percent.

(See notes at end of appendix)

APPENDIX A

Note: In any case where there is a mixture in air or water of more than one radionuclide, the limiting values for purposes of this Appendix should be determined as follows:

1. If the identity and concentration of each radionuclide in the mixture are known, the limiting values should be derived as follows: Determine, for each radionuclide in the mixture, the ratio between the quantity present in the mixture and the limit otherwise established in Appendix A for the specific radionuclide when not in a mixture. The sum of such ratios for all the radionuclides in the mixture may not exceed "1" (i.e., "unity"). Example: If radionuclides a, b, and c are present in concentrations C_a, C_b, and C_c, and if the applicable MPC's are MPC_a, MPC_b, and MPC_c respectively, then the concentrations shall be limited so that the following relationship exists:

$$\frac{C_a}{MPC_a} + \frac{C_b}{MPC_b} + \frac{C_c}{MPC_c} \leq 1$$

2. If either the identity or the concentration of any radionuclide in the mixture is not known, the limiting values for purposes of Appendix A shall be:

a. For purposes of Table I, Col. 1 - 6×10^{-13}

b. For purposes of Table I, Col. 2 - 4×10^{-7}

c. For purposes of Table II, Col. 1 - 2×10^{-14}

d. For purposes of Table II, Col. 2 - 3×10^{-8}

3. If any of the conditions specified below are met, the corresponding values specified below may be used in lieu of those specified in paragraph 2 above.

a. If the identity of each radionuclide in the mixture is known but the concentration of one or more of the radionuclides in the mixture is not known, the concentration limit for the mixture is the limit specified in Appendix A for the radionuclide in the mixture having the lowest concentration limit; or

b. If the identity of each radionuclide in the mixture is not known, but it is known that certain radionuclides specified in Appendix A are not present in the mixture, the concentration limit for the mixture is the lowest concentration limit specified in Appendix A for any radionuclide which is not known to be absent from the mixture; or

c. Radionuclide	Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
If it is known that Sr-90, I-125, I-126, I-129, I-131, (I-133 Table II only), Pb-210, Po-210, At-211, Ra-223, Ra-224, Ra-226, Ac-227, Ra-228, Th-230, Pa-231, Th-232, Th-nat, Cm-248, Cf-254, and Fm-256 are not present	------	$9X10^{-5}$	------	$3X10^{-6}$
If it is known that Sr-90, I-125, I-126, I-129, (I-131, I-133, Table II only), Pb-210, Po-210, Ra-223, Ra-226, Ra-228, Pa-231, Th-nat, Cm-248, Cf-254, and Fm-256 are not present	------	$6X10^{-5}$	------	$2X10^{-6}$

c. Radionuclide	Table I Column 1 Air (μCi/ml)	Table I Column 2 Water (μCi/ml)	Table II Column 1 Air (μCi/ml)	Table II Column 2 Water (μCi/ml)
If it is known that Sr-90, I-129, (I-125, I-126, I-131, Table II only), Pb-210, Ra-226, Ra-228, Cm-248, and Cf-254 are not present	------	$2X10^{-5}$	------	$6X10^{-7}$
If it is known that (I-129, Table II only), Ra-226, and Ra-228 are not present	------	$3X10^{-6}$	------	$1X10^{-7}$
If it is known that alpha-emitters and Sr-90, I-129, Pb-210, Ac-227, Ra-228, Pa-230, Pu-241, and Bk-249 are not present	$3X10^{-9}$	------	$1X10^{-10}$	------
If it is known that alpha-emitters and Pb-210, Ac-227, Ra-228, and Pu-241 are not present	$3X10^{-10}$	------	$11X10^{-11}$	------
If it is known that alpha-emitters and Ac-227 are not present	$3X10^{-12}$	------	$11X10^{-12}$	------
If it is known that Ac-227, Th-230, Pa-231, Pu-238, Pu-239, Pu-240, Pu-242, Pu-244, Cm-248, Cf-249 and Cf-251 are not present	$3X10^{-12}$	------	$1X10^{-13}$	------

4. If a mixture of radionuclides consists of uranium and its daughters in ore dust prior to chemical separation of the uranium from the ore, the values specified below may be used for uranium and its daughters through radium-226, instead of those from paragraph 1, 2, or 3 above.

a. For purposes of Table I, Column 1, 1×10^{-10} µCi/ml gross alpha activity; or 5×10^{-11} µCi/ml natural uranium; or 75 micrograms per cubic meter of air natural uranium.

b. For purposes of Table II, Column 1, 3×10^{-12} µCi/ml gross alpha activity; 2×10^{-12} µCi/ml natural uranium; or 3 micrograms per cubic meter of air natural uranium.

5. For purposes of this note, a radionuclide may be considered as not present in a mixture if (a) the ratio of the concentration of that radionuclide in the mixture (C_a) to the concentration limit for that radionuclide specified in Table II of Appendix A (MPC_a) does not exceed 1/10, (i.e., $C_a/MPC_a \leq 1/10$) and (b) the sum of such ratios for all radionuclides considered as not present in the mixture does not exceed 1/4, (i.e., $C_a/MPC_a + C_b/MPC_b + \ldots\ldots \leq 1/4$).

APPENDIX B

(For use in 16.12.104, subsections (11), (18), and (19).

Material	Microcuries
Americium-241	0.01
Antimony-122	100
Antimony-124	10
Antimony-125	10
Arsenic-73	100
Arsenic-74	10
Arsenic-76	10
Arsenic-77	100
Barium-131	10
Barium-133	10
Barium-140	10
Bismuth-210	1
Bromine-82	10
Cadmium-109	10
Cadmium-115m	10
Cadmium-115	100
Calcium-45	10
Calcium-47	10
Carbon-14	100
Cerium-141	100
Cerium-143	100
Cerium-144	1
Cesium-131	1,000
Cesium-134m	100
Cesium-134	1
Cesium-135	10
Cesium-136	10
Cesium-137	10
Chlorine-36	10
Chlorine-38	10
Chromium-51	1,000
Cobalt-58m	10
Cobalt-58	10
Cobalt-60	1
Copper-64	100
Dysprosium-165	10
Dysprosium-166	100
Erbium-169	100
Erbium-171	100
Europium-152 (9.2 h)	100
Europium-152 (13 yr)	1

Material	Microcuries
Europium-154	1
Europium-155	10
Fluorine-18	1,000
Gadolinium-153	10
Gadolinium-159	100
Gallium-72	10
Germanium-71	100
Gold-198	100
Gold-199	100
Hafnium-181	10
Holmium-166	100
Hydrogen-3	1,000
Indium-113m	100
Indium-114m	10
Indium-115m	100
Indium-115	10
Iodine-125	1
Iodine-126	1
Iodine-129	0.1
Iodine-131	1
Iodine-132	10
Iodine-133	1
Iodine-134	10
Iodine-135	10
Iridium-192	10
Iridium-194	100
Iron-55	100
Iron-59	10
Krypton-85	100
Krypton-87	10
Lanthanum-140	10
Lutetium-177	100
Manganese-52	10
Manganese-54	10
Manganese-56	10
Mercury-197m	100
Mercury-197	100
Mercury-203	10
Molybdenum-99	100
Neodymium-147	100
Neodymium-149	100
Nickel-59	100
Nickel-63	10
Nickel-65	100
Niobium-93m	10
Niobium-95	10
Niobium-97	10
Osmium-185	10

Material	Microcuries
Osmium-191m	100
Osmium-191	100
Osmium-193	100
Palladium-103	100
Palladium-109	100
Phosphorus-32	10
Platinum-191	100
Platinum-193m	100
Platinum-193	100
Platinum-197m	100
Platinum-197	100
Plutonium-239	0.01
Polonium-210	0.1
Potassium-42	10
Praseodymium-142	100
Praseodymium-143	100
Promethium-147	10
Promethium-149	10
Radium-226	0.01
Rhenium-186	100
Rhenium-188	100
Rhodium-103m	100
Rhodium-105	100
Rubidium-86	10
Rubidium-87	10
Ruthenium-97	100
Ruthenium-103	10
Ruthenium-105	10
Ruthenium-106	1
Samarium-151	10
Samarium-153	100
Scandium-46	10
Scandium-47	100
Scandium-48	10
Selenium-75	10
Silicon-31	100
Silver-105	10
Silver-110m	1
Silver-111	100
Sodium-22	10
Sodium-24	10
Strontium-85	10
Strontium-89	1
Strontium-90	0.1
Strontium-91	10
Strontium-92	10
Sulphur-35	100
Tantalum-182	10
Technetium-96	10

Material	Microcuries
Technetium-97m	100
Technetium-97	100
Technetium-99m	100
Technetium-99	10
Tellurium-125m	10
Tellurium-127m	10
Tellurium-127	100
Tellurium-129m	10
Tellurium-129	100
Tellurium-131m	10
Tellurium-132	10
Terbium-160	10
Thallium-200	100
Thallium-201	100
Thallium-202	100
Thallium-204	10
Thorium (natural) 1/	100
Thulium-170	10
Thulium-171	10
Tin-113	10
Tin-125	10
Tungsten-181	10
Tungsten-185	10
Tungsten-187	100
Uranium (natural) 2/	100
Uranium-233	0.01
Uranium-234	
Uranium-235	0.01
Vanadium-48	10
Xenon-131m	1,000
Xenon-133	100
Xenon-135	100
Ytterbium-175	100
Yttrium-90	10
Yttrium-91	10
Yttrium-92	100
Yttrium-93	100
Zinc-65	10
Zinc-69m	100
Zinc-69	1,000
Zirconium-93	10
Zirconium-95	10
Zirconium-97	10

1/ Based on alpha disintegration rate of Th-232, Th-230 and their daughter products.

2/ Based on alpha disintegration rate of U-238, U-234, and U-235.

Material	Microcuries
Any alpha emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition	0.01
Any radionuclide other than alpha emitting radionuclides, not listed above or mixtures of beta emitters of unknown composition	0.1

NOTE: For purposes of ARM 16-2.12(4)-S12411, 16-2.12(4)-S12418 and 16-2.12(4)-S12419, where there is involved a combination of isotopes in known amounts, the limit for the combination should be derived as follows: Determine, for each isotope in the combination, the ratio between the quantity present in the combination and the limit otherwise established for the specific isotope when not in combination may not exceed "1" (i.e., "unity"). Example: For purposes of ARM 16-2.12(4)-S12419, if a particular batch contains 20,000 uCi of Au-198 and 50,000 µCi of C-14, it may also include not more than 300 µCi of I-131. This limit was determined as follows:

20,000 µCi Au-198/100,000 µCi + 50,000 µCi C-14/100,000 µCi

+ 300 uCi I-131/1,000 µCi = 1

The denominator in each of the above ratios was obtained by multiplying the figure in the table by 1,000 as provided in ARM 16-2.12(4)-S12419.

Sub-Chapter 5

Radiation Safety Requirements
for Industrial Radiographic Operations

16-2.12(5)-S12501 PURPOSE This sub-chapter establishes radiation safety requirements for persons utilizing sources of radiation for industrial radiography. The requirements of this sub-chapter are in addition to and not in substitution for other applicable requirements of this chapter.

16-2.12(5)-S12502 SCOPE This sub-chapter applies to all licensees or registrants who use sources of radiation for industrial radiography. Except for those sections of this sub-chapter clearly applicable only to sealed radioactive sources, both radiation machines and sealed radioactive sources are covered by this sub-chapter.

16-2.12(5)-S12503 DEFINITIONS (1) As used in this sub-chapter, the following definitions apply:

(a) "Enclosed radiography" means industrial radiography conducted in an enclosed cabinet or room and includes cabinet radiography and shielded room radiography.

(i) "Cabinet radiography" means industrial radiography conducted in an enclosure or cabinet so shielded that every location on the exterior meets the conditions specified in ARM 16-2.12(4)-S12407.

(A) "Cabinet X-ray system" means an X-ray system with the X-ray tube installed in an enclosure (hereinafter termed "cabinet") which, independently of existing architectural structures except the floor on which it may be placed, is intended to contain at least that portion of a material being irradiated, provide radiation attenuation, and exclude personnel from its interior during generation of X radiation. Included are all X-ray systems designed primarily for the inspection of carry-on baggage at airline, railroad, and bus terminals, and in similar facilities. An X-ray tube used within a shielded part of a building, or X-ray equipment which may temporarily or occasionally incorporate portable shielding is not considered a cabinet X-ray system.

(B) "Certified cabinet X-ray system" means an X-ray system which has been certified in accordance with 21 C.F.R. 1010.2 as being manufactured and assembled pursuant to the provisions of 21 C.F.R. 1020,40.

(ii) "Shielded-room radiography" means industrial radiography conducted in a room so shielded that every location on the exterior meets the conditions specified in ARM 16-2.12(4)-S12406.

(b) "Industrial radiography" means the examination of the macroscopic structure of materials by nondestructive methods utilizing sources of radiation.

(c) "Personal supervision" means supervision such that the supervisor is physically present at the radiography site and in such proximity that contact can be maintained and immediate assistance given as required.

(d) "Radiographer" means any individual who performs, or provides personal supervision of, industrial radiographic operations and who is responsible to the licensee or registrant for assuring compliance with the requirements of this chapter and all license and/or certificate of registration conditions.

(e) "Radiographer's assistant" means any individual who, under the personal supervision of a radiographer, uses sources of radiation, related handling tools, or radiation survey instruments in industrial radiography.

(f) "Radiographic exposure device" means any instrument containing a sealed source fastened or contained therein, in which the sealed source or shielding thereof may be moved, or otherwise changed, from a shielded to unshielded position for purposes of making a radiographic exposure.

(g) "Shielded position" means the location within the radiographic exposure device or storage container which, by manufacturer's design, is the proper location for storage of the sealed source.

(h) "Storage container" means a device in which sealed sources are transported or stored.

16-2.12(5)-S12504 EQUIPMENT CONTROL - LIMITS ON LEVELS OF RADIATION (1) Radiographic exposure devices measuring less than 4 inches (10 centimeters) from the sealed source storage position to any exterior surface of the device shall have no radiation level in excess of 50 milliroentgens per hour at 6 inches (15 centimeters) from any exterior surface of the device. Radiographic exposure devices measuring a minimum of 4 inches (10 centimeters) from the sealed source storage position to any exterior surface of the device, and all storage containers for sealed sources or outer containers for radiographic exposure devices, shall have no radiation level in excess of 200 milliroentgens per hour at any exterior surface, and 10 milliroentgens per hour at one meter from any exterior surface. The radiation levels specified are with the sealed source in the shielded (i.e., "off") position.

16-2.12(5)-S12505 EQUIPMENT CONTROL - LOCKING OF SOURCES OF RADIATION (1) Each source of radiation shall be provided with a lock or lockable outer container designed to prevent unauthorized or accidental production of radiation or removal

or exposure of a sealed source and shall be kept locked at all times except when under the direct surveillance of a radiographer or radiographer's assistant, or as may be otherwise authorized pursuant to ARM 16-2.12(5)-S12516 Each storage container likewise shall be provided with a lock and shall be kept locked when containing sealed sources except when the container is under the direct surveillance of a radiographer or radiographer's assistant.

(2) Radiographic exposure devices and storage containers, prior to being moved from one location to another and also prior to being secured at a given location, shall be locked and surveyed to assure that the sealed source is in the shielded position.

16-2.12(5)-S12506 EQUIPMENT CONTROL - STORAGE PRECAUTIONS (1) Locked radiographic exposure devices, storage containers, and radiation machines shall be physically secured to prevent tampering or removal by unauthorized personnel.

16-2.12(5)-S12507 EQUIPMENT CONTROL - RADIATION SURVEY INSTRUMENTS (1) The licensee or registrant shall maintain sufficient calibrated and operable radiation survey instruments to make physical radiation surveys as required by this subchapter and ARM 16-2.12(4)-S12409. Instrumentation required by this rule shall have a range such that 2 milliroentgens per hour through one roentgen per hour can be measured.

(2) Each radiation survey instrument shall be calibrated:

(a) at energies appropriate for use and at intervals not to exceed 3 months and after each instrument servicing;

(b) such that accuracy within ± 20 percent can be demonstrated; and

(c) at 2 or more widely separated points, other than zero, on each scale.

(3) Records shall be kept of these calibrations for 2 years after the calibration date and maintained for inspection by the department.

16-2.12(5)-S12508 EQUIPMENT CONTROL - LEAK TESTING, REPAIR, TAGGING, OPENING, MODIFICATION, AND REPLACEMENT OF SEALED SOURCES (1) The replacement of any sealed source fastened to or contained in a radiographic exposure device and leak testing, repair, tagging, opening, or any other modification of any sealed source shall be performed only by persons specifically authorized to do so by the department, the U.S. Nuclear Regulatory Commission, or any agreement state.

(2) Each sealed source shall be tested for leakage at intervals not to exceed 6 months. In the absence of a certificate from a transferor that a test has been made within the 6 month period prior to the transfer, the sealed

source shall not be put into use until tested.

(3) The leak test shall be capable of detecting the presence of 0.005 microcurie of removable contamination on the sealed source. An acceptable leak test for sealed sources in the possession of a radiography licensee would be to test at the nearest accessible point to the sealed source storage position, or other appropriate measuring point, by a procedure to be approved pursuant to ARM 16-2.12(3)-S12310(5)(e). Records of leak test results shall be kept in units of microcuries and maintained for inspection by the department for 6 months after the next required leak test is performed or until the sealed source is transferred or disposed of.

(4) Any test conducted pursuant to subsections (2) and (3) of this rule which reveals the presence of 0.005 microcurie or more of removable radioactive material shall be considered evidence that the sealed source is leaking. The licensee shall immediately withdraw the equipment involved from use and shall cause it to be decontaminated and repaired or to be disposed of, in accordance with rules of the department. Within 5 days after obtaining results of the test, the licensee shall file a report with the department describing the equipment involved, the test results, and the corrective action taken.

(5) A sealed source which is not fastened to or contained in a radiographic exposure device shall have permanently attached to it a durable tag at least one inch square bearing the prescribed radiation caution symbol in conventional colors, magenta or purple on a yellow background, and at least the instructions:

DANGER
RADIOACTIVE MATERIAL
DO NOT HANDLE
NOTIFY CIVIL AUTHORITIES IF FOUND

16-2.12(5)-S12509 EQUIPMENT CONTROL - QUARTERLY INVENTORY

(1) Each licensee shall conduct a quarterly physical inventory to account for all sealed sources received or possessed by him.

(2) The records of the inventories shall be maintained for inspection by the department for 2 years from the date of the inventory and shall include the quantities and kinds of radioactive material, the location of sealed sources and the date of the inventory.

16-2.12(5)-S12510 EQUIPMENT CONTROL - UTILIZATION LOGS

(1) Each licensee or registrant shall maintain current logs, which shall be kept available for inspection by the department for 2 years from the date of the recorded event.

(2) These logs shall show for each source of radiation the following information:

(a) A description, or make and model number, of each source of radiation or storage container in which the sealed source is located.

(b) The identity of the radiographer to whom assigned.

(c) Locations where used and dates of use.

16-2.12(5)-S12511 EQUIPMENT CONTROL - INSPECTION AND MAINTENANCE - RADIOGRAPHIC EXPOSURE DEVICES AND STORAGE CONTAINERS (1) Each licensee shall conduct a program of at least quarterly inspection and maintenance of radiographic exposure devices and storage containers to assure proper functioning of components important to safety. All appropriate parts shall be maintained in accordance with manufacturer's specification.

(2) Records of inspection and maintenance shall be maintained for inspection by the department until it authorizes their disposal.

(3) If any inspection conducted pursuant to this rule reveals damage to components critical to radiation safety, the device shall be removed from service until repairs have been made.

16-2.12(5)-S12512 EQUIPMENT CONTROL - INSPECTION AND MAINTENANCE - HIGH RADIATION AREA CONTROL DEVICES OR ALARM SYSTEMS (1) For any high radiation area equipped with a control device or alarm system as described in ARM 16-2.12(4)-S12411(3)(b), the control device or alarm system shall be tested for proper operation at the beginning of each period of use.

(2) Records of such tests shall be maintained for inspection by the department until it authorizes their disposal.

16-2.12(5)-S12513 PERSONAL RADIATION SAFETY REQUIREMENTS FOR RADIOGRAPHERS AND RADIOGRAPHERS' ASSISTANTS - LIMITATIONS (1) No licensee or registrant shall permit any individual to act as a radiographer as defined in this sub-chapter until such individual:

(a) has been instructed in the subjects outlined in Appendix A of this sub-chapter and shall have demonstrated understanding thereof;

(b) has received copies of and instruction in this sub-chapter and the applicable rules of Title 16, Chapter 12, sub-chapters (4) and (10) and the appropriate license, and the licensee's or registrant's operating and emergency procedures, and shall have demonstrated understanding thereof; and

(c) has demonstrated competence to use the source of radiation, radiographic exposure device, related handling

tools, and radiation survey instruments which will be employed in his assignment.

(2) No licensee or registrant shall permit any individual to act as a radiographer's assistant as defined in ARM 16-2.12(5)-S12503(1)(e) until such individual:

(a) has received copies of and instruction in the licensee's or registrant's operating and emergency procedures, and shall have demonstrated understanding thereof; and

(b) has demonstrated competence to use, under the personal supervision of the radiographer, the sources of radiation, radiographic exposure device, related handling tools, and radiation survey instruments which will be employed in his assignment.

(3) Each licensee or registrant shall maintain, for inspection by the department until it authorizes their disposal, records of training and testing which demonstrate that the requirements of this rule are met.

16-2.12(5)-S12514 PERSONAL RADIATION SAFETY REQUIREMENTS FOR RADIOGRAPHERS AND RADIOGRAPHERS' ASSISTANTS - OPERATING AND EMERGENCY PROCEDURES (1) The licensee's or registrant's operating and emergency procedures shall include instructions in at least the following:

(a) The handling and use of sources of radiation to be employed such that no individual is likely to be exposed to radiation doses in excess of the limits established in ARM Title 16, Chapter 12, Sub-chapter (4).

(b) Methods and occasions for conducting radiation surveys.

(c) Methods for controlling access to radiographic areas.

(d) Methods and occasions for locking and securing sources of radiation.

(e) Personnel monitoring and the use of personnel monitoring equipment.

(f) Transportation to field locations, including packing of sources of radiation in the vehicles, posting of vehicles, and control of sources of radiation during transportation.

(g) Minimizing exposure of individuals in the event of an accident.

(h) The procedure for notifying proper personnel in the event of an accident.

(i) Maintenance of records.

(j) The inspection and maintenance of radiographic exposure devices and storage containers, and radiation machines.

16-2.12(5)-S12515 PERSONAL RADIATION SAFETY REQUIREMENTS FOR RADIOGRAPHERS AND RADIOGRAPHERS' ASSISTANTS - PERSONNEL MONITORING CONTROL (1) No licensee or registrant shall permit any individual to act as a radiographer or as a radiographer's assistant unless, at all times during radiographic operations, each such individual wears a direct reading pocket dosimeter and either a film badge or a thermoluminescent dosimeter. Pocket dosimeters shall have a range from zero to at least 200 milliroentgens and shall be recharged daily or at the start of each shift. Each film badge or thermoluminescent dosimeter shall be assigned to and worn by only one individual.

(2) Pocket dosimeters shall be read and exposure recorded daily. An individual's film badge or thermoluminescent dosimeter shall be immediately processed if his pocket dosimeter is discharged beyond its range. Reports received from the film badge or thermoluminescent dosimeter processor and records of the pocket dosimeter readings shall be maintained for inspection by the department until it authorizes their disposal.

16-2.12(5)-S12516 PRECAUTIONARY PROCEDURES IN RADIOGRAPHIC OPERATIONS - SECURITY (1) During each radiographic operation, the radiographer or radiographer's assistant shall maintain a direct surveillance of the operation to protect against unauthorized entry into a high radiation area, as defined in Title 16, Chapter 12, sub-chapter (1), ARM, except:

(a) where the high radiation area is equipped with a control device or alarm system as described in ARM 16-2.12(4)-S12411(3)(b), or

(b) where the high radiation area is locked to protect against unauthorized or accidental entry.

16-2.12(5)-S12517 PRECAUTIONARY PROCEDURES IN RADIOGRAPHIC OPERATIONS - POSTING (1) Notwithstanding any provisions in ARM 16-2.12(4)-S12412(1)(c), areas in which radiography is being performed shall be conspicuously posted as required by ARM 16-2.12(4)-S12411(2) and 16-2.12(4)-S12411(3)(a).

16-2.12(5)-S12518 PRECAUTIONARY PROCEDURES IN RADIOGRAPHIC OPERATIONS - RADIATION SURVEYS AND SURVEY RECORDS (1) No radiographic operation shall be conducted unless calibrated and operable radiation survey instrumentation as described in ARM 16-2.12(5)-S12507 is available and used at each site where radiographic exposures are made.

(2) A physical radiation survey shall be made after each radiographic exposure utilizing radiographic exposure devices or sealed sources of radioactive material to determine that the sealed source has been returned to its shielded position.

(3) A physical radiation survey shall be made to determine that each sealed source is in its shielded position prior

to securing the radiographic exposure device or storage container as specified in ARM 16-2.12(5)-S12505.

(4) Records shall be kept of the surveys required by subsection (3) of this rule. Such records shall be maintained for inspection by the department for 2 years after completion of the survey. If the survey was used to determine an individual's exposure, however, the records of the survey shall be maintained until the department authorizes their disposition.

16-2.12(5)-S12519 PRECAUTIONARY PROCEDURES IN RADIOGRAPHIC OPERATIONS - RECORDS REQUIRED AT TEMPORARY JOB SITES (1) Each licensee or registrant conducting industrial radiography at a temporary site shall have the following records available at that site for inspection by the department:

(a) Appropriate license or equivalent document.

(b) Operating and emergency procedures.

(c) Applicable regulations.

(d) Survey records required pursuant to ARM 16-2.12(5)-S12518 for the period of operation at the site.

(e) Daily pocket dosimeter records for the period of operation at the site.

(f) The latest instrument calibration and leak test record for specific devices in use at the site.

16-2.12(5)-S12520 PRECAUTIONARY PROCEDURES IN RADIOGRAPHIC OPERATIONS - SPECIAL REQUIREMENTS AND EXEMPTIONS FOR ENCLOSED RADIOGRAPHY (1) Systems for enclosed radiography designed to allow admittance of individuals shall:

(a) Comply with all applicable requirements of this sub-chapter and ARM 16-2.12(4)-S12407. If such a system is a certified cabinet X-ray system, it shall comply with all applicable requirements of this sub-chapter and 21 C.F.R. 1020.40.

(b) Be evaluated at intervals not to exceed one year to assure compliance with the applicable requirements as specified in subsection (1)(a) of this rule.

(i) Records of these evaluations shall be maintained for inspection by the department for a period of 2 years after the evaluation.

(2) Cabinet X-ray systems designed to exclude individuals are exempt from the requirements of this sub-chapter except that:

(a) Operating personnel must be provided with either a film badge or a thermoluminescent dosimeter and reports of the results must be maintained for inspection by the department.

(b) No registrant shall permit any individual to operate a cabinet X-ray system until such individual has received a copy of and instruction in the operating procedures for the unit and has demonstrated competence in its use. Records which demonstrate compliance with this subsection shall be maintained for inspection by the department until disposition is authorized

by the department.

(c) Tests for proper operation of high radiation area control devices or alarm systems where applicable, must be conducted and recorded in accordance with ARM 16-2.12(5)-S12512.

(d) The registrant shall perform an evaluation at intervals not to exceed one year, to determine conformance with ARM 16-2.12(4)-S12407. If such a system is a certified cabinet X-ray system, it shall be evaluated at intervals not to exceed one year to determine conformance with 21 C.F.R. 1020.40.

(i) Records of these evaluations shall be maintained for inspection by the department for a period of 2 years after the evaluation.

(3) Certified cabinet X-ray systems shall be maintained in compliance with 21 CFR 1020.40 unless prior approval has been granted by the department pursuant to ARM 16-2.12(1)-S12103.

APPENDIX A

Subjects to be covered during the instruction of radiographers

I. Fundamentals of Radiation Safety
   A. Characteristics of radiation
   B. Units of radiation dose (mrem) and quantity of radioactivity (curie)
   C. Significance of radiation dose
      1. Radiation protection standards
      2. Biological effects of radiation dose
   D. Levels of radiation from sources of radiation
   E. Methods of controlling radiation dose
      1. Working time
      2. Working distances
      3. Shielding

II. Radiation Detection Instrumentation to be Used
   A. Use of radiation survey instruments
      1. Operation
      2. Calibration
      3. Limitations
   B. Survey techniques
   C. Use of personnel monitoring equipment
      1. Film badges
      2. Thermoluminescent dosimeters
      3. Pocket dosimeters

III. Radiographic Equipment to be Used
   A. Remote handling equipment
   B. Radiographic exposure devices and sealed sources
   C. Storage containers
   D. Operation and control of X-ray equipment

IV. The Requirements of Pertinent Federal and State Regulations

V. The Licensee's or Registrant's Written Operating and Emergency Procedures

Sub-Chapter 6

X-Rays in the Healing Arts

16-2.12(6)-S12601 SCOPE (1) This sub-chapter establishes requirements for use of X-ray producing devices in the healing arts by a practitioner licensed by law to use or direct the use of such devices in the course of his professional practice or upon a prescription or other order lawfully issued in the course of his professional practice. The provisions of this sub-chapter are in addition to, and not in substitution for, other applicable provisions of this chapter.

16-2.12(6)-S12602 DEFINITIONS (1) As used in this sub-chapter:

(a) "Aluminum equivalent" means the thickness of aluminum affording the same attenuation, under specified conditions, as the material in question.

(b) "Dead-man switch" means a switch so constructed that a circuit closing contact can only be maintained by continuous pressure by the operator.

(c) "Diagnostic-type tube housing" means an X-ray tube housing so constructed that leakage radiation at a distance of one meter from the target cannot exceed 100 milliroentgens in one hour when the tube is operated at any of its specified ratings.

(d) "Filter" means material placed in the useful beam to absorb preferentially the less penetrating radiations.

(e) "Half-value layer (hvl)" means the thickness of an absorber required to reduce a beam of radiation to one-half its incident exposure rate.

(f) "Inherent filtration" means the filtration in the useful beam due to the window of the X-ray tube and any permanent tube enclosure.

(g) "Interlock" means a device for precluding access to an area of radiation hazard either by preventing entry or by automatically removing the hazard.

(h) "Kilovolts peak (kVp)" means the crest value in kilovolts of the potential of a pulsating potential generator. When only one-half of the wave is used, the value refers to the useful half of the wave.

(i) "Lead equivalent" means the thickness of lead affording the same attenuation, under specified conditions, as the material in question.

(j) "Leakage radiation" means all radiation coming from within the tube housing except the useful beam.

(k) "Primary protective barrier" means a barrier sufficient to attenuate the useful beam to the required degree.

(l) "Protective apron" means an apron made of attenuating materials used to reduce radiation exposure.

(m) "Protective barrier" means a barrier of attenuating materials used to reduce radiation exposure.

(n) "Protective glove" means a glove made of attenuating materials used to reduce radiation exposure.

(o) "Scattered radiation" means radiation that, during passage through matter, has been deviated in direction.

(p) "Secondary protective barrier" means a barrier sufficient to attenuate stray radiation to the required degree.

(q) "Shutter" means a device, generally of lead, fixed to an X-ray tube housing to intercept the useful beam.

(r) "Stray radiation" means radiation not serving any useful purpose. It includes leakage and secondary radiation.

(s) "Therapeutic-type tube housing" means an X-ray tube housing so constructed that the leakage radiation at a distance of one meter from the target cannot exceed one roentgen in one hour; and at a distance of 5 centimeters from any point on the surface of the housing accessible to the patient cannot exceed 30 roentgens in one hour when the tube is operated at any of its specified ratings.

(t) "Useful beam" means that part of the radiation which passes through the window, aperture, cone, or other collimating device of the tube housing.

16-2.12(6)-S12603 GENERAL SAFETY PROVISIONS (1) Diagnostic X-ray systems, for use on humans, and their associated components certified pursuant to the federal diagnostic X-ray standard shall be maintained in compliance with applicable requirements of such standard in Title 21, Code of Federal Regulations, Chapter I, Subchapter J. The department may waive compliance with the specific requirements of this subchapter by an existing machine or installation if the registrant demonstrates, to the department's satisfaction, achievement through other means of radiation protection equivalent to that required by this chapter.

(2) No person shall make, sell, lease, transfer, lend or install X-ray equipment or the supplies used in connection with such equipment unless such supplies and equipment, when properly placed in operation and properly used, will meet the requirements of this chapter. This includes responsibility for the delivery of cones or collimators, diaphragms and adjustable diaphragms, filters, adequate timers, and fluoroscopic shutters, where applicable.

(3) Personnel monitoring shall be performed in controlled areas for each occupationally exposed individual for a minimum of a 13-week period starting each January. When a protective apron is worn, the monitoring device shall be worn at the collar outside of the apron.

(4) Safety requirements concerning the use of radiation sources are that:

(a) The registrant shall be responsible for radiation safety. He is responsible for assuring that radiation sources under his jurisdiction are used only by persons competent to use them. He is responsible for providing the instruction of personnel in safe operating procedures.

(b) A radiation safety officer, who may be the registrant himself, shall be designated for every installation and shall be approved by the department as per ARM 16-2.12(2)-S12204(1)(b), if other than a licensed member of the healing arts.

(c) The radiation safety officer shall:

(i) establish and supervise operating procedures and review them periodically to assure their conformity with this chapter.

(ii) provide personnel with instruction on proper radiation protection practices;

(iii) conduct radiation surveys and source leak tests where indicated and keep records of such surveys and tests, including summaries of corrective measures recommended and/or instituted;

(iv) assure that personal monitoring devices are used where indicated and that records are kept of the results of such monitoring;

(v) assure that interlock switches and warning signals are functioning and that signs are properly located; and

(vi) investigate each known or suspected case of excessive or abnormal exposure to determine the cause and to take steps to prevent its recurrence.

(d) The registrant shall provide safety rules to each individual operating X-ray equipment under his control, including any restrictions of the operating technique required for the safe operation of the particular X-ray apparatus, and require that the operators demonstrate familiarity with these safety rules.

(e) Deliberate exposure of an individual to the useful beam for training or demonstration purposes shall not be permitted unless there is also a medical or dental indication for the exposure and the exposure is prescribed by a practitioner of the healing arts.

(5) The shielding safety requirements are as follows:

(a) Each installation shall be provided with such primary protective barriers and/or secondary protective barriers as are necessary to assure compliance with ARM 16-2.12(4)-S12402, S12405, and S12406. This requirement shall be deemed to be met if the thickness of such barriers are equivalent to those as computed in accordance with Appendix C of this sub-chapter, National Bureau of Standards

Handbook 76: "Medical X-ray Protection Up to Three Million Volts."

(b) Lead barriers shall be mounted in such a manner that they will not sag or cold-flow because of their own weight and shall be protected against mechanical damage. Lead shielding less than 1 mm thick shall be bonded to panels of some rigid supporting material.

(c) Joints between different kinds of protective materials shall be so designed that the overall protection afforded by the barrier is not impaired.

(d) Joints at the floor and ceiling shall be so designed that the overall protection is not impaired.

(e) Windows, window frames, doors, and door frames shall have the same lead equivalent as that required of the adjacent wall.

(f) Holes in protective barriers shall be covered so that overall protection is not impaired.

16-2.12(6)-S12604 PROHIBITED USE (1) No registrant shall operate or permit the operation of X-ray equipment unless the equipment and installation meet the applicable requirements of this chapter.

16-2.12(6)-S12605 FLUOROSCOPIC INSTALLATIONS (1) The equipment used in fluoroscopic installations shall be as follows:

(a) The tube housing shall be of a diagnostic type.

(b) During fluoroscopy and cinefluorography, the kV and the mA shall be continuously indicated.

(c) The source to skin distance shall not be less than:

(i) 38 centimeters on stationary fluoroscopes installed after the effective date of this chapter.

(ii) 35.5 centimeters on stationary fluoroscopes which are in operation prior to the effective date of this chapter.

(iii) 30 centimeters on all mobile fluoroscopes; and

(iv) 20 centimeters for image intensified fluoroscopes used for specific surgical application. The users operating manual must provide precautionary measures to be adhered to during the use of this device.

(d) The total filtration permanently in the useful beam shall be at least 2.5 millimeters aluminum equivalent.

(e) The equipment shall be so constructed that, under conditions of normal use, the entire cross section of the useful beam is attenuated by a primary protective barrier, permanently incorporated into the equipment and the exposure shall automatically terminate when the barrier is removed from the useful beam.

(i) The lead equivalent of the barrier of conventional fluoroscopes shall be at least 1.5 millimeters for equipment

capable of operating up to 100 kVp, at least 1.8 millimeters for equipment capable of operating between 100 kVp and 125 kVp, and at least 2 millimeters for equipment capable of operating between 125 kVp and 150 kVp.

(ii) With the fluorescent screen 14 inches (35 cm) from the panel or table top, the exposure rate 2 inches (5 cm) beyond the viewing surface of the screen shall not exceed 30 mR/hr. for each R per minute at the table top with the screen in the useful beam without a patient and with the fluoroscope operating at its highest possible potential.

(iii) A collimator shall be provided to restrict the size of the useful beam to less than the area of the barrier. The X-ray tube and collimating system shall be linked with the fluorescent screen assembly so that the useful beam at the fluorescent screen is confined within the barrier irrespective of the panel-screen distance. For all new fluoroscopic units with image intensifiers sold in Montana after July 1, 1969, the useful beam shall be centered on the input phosphor and during fluoroscopy or cine recording shall not exceed the diameter of the input phosphor.

(iv) When the adjustable diaphragm is opened to its fullest extent, an unilluminated margin shall exist at all edges of the fluorescent screen when the screen is 14 inches (35 cm) from the panel surface or table top or at the fixed screen position in equipment such as orthodiascopes. In equipment used solely for image intensified fluoroscopy, the shutter shall restrict the useful beam within the diameter of the input phosphor.

(v) Collimators, adjustable diaphragms and shutters shall provide the same degree of attenuation as is required of the tube housing.

(f) The fluoroscopic exposure switch shall be a dead-man switch type.

(g) A shielding device of at least 0.25 millimeters lead equivalent for covering the Bucky slot during fluoroscopy shall be provided on all new units sold in Montana after July 1, 1969.

(h) A shield of at least 0.25 millimeters lead equivalent such as overlapping protective drapes or hinged or sliding panels shall be provided on all new units sold in Montana after July 1, 1969, to intercept scattered radiation which would otherwise reach the fluoroscopist and others near the machine.

(i) A cumulative timing device activated by the fluoroscope exposure switch shall be provided. It shall indicate the passage of a predetermined period of irradiation either by an audible signal or by temporary interruption of the irradiation when the increment of exposure time reaches a predetermined limit not exceeding 5 minutes.

(j) Image intensification shall always be provided on mobile fluoroscopic equipment. It shall be impossible to operate mobile fluoroscopic equipment unless the useful beam is intercepted by the image intensifier.

(k) Provision shall be made to intercept the scattered X-rays from the undersurface of the table top and other structures under the table. The shielding shall provide the same degree of attenuation as is required of the tube housing, with the incident angle of the useful beam taken into consideration.

(l) Equipment to be operated in areas where explosive gases may be used shall have the approval of Underwriters Laboratory for such use.

(2) Ordinarily, only secondary protective barriers shall be required for shielding in fluoroscopic installations except for combined fluoroscopic-radiographic installations.

(3) The operating procedures for fluoroscopic installation areas are as follows:

(a) The allowable limits for entrance exposure rates are as follows:

(i) The exposure measured at the point where the center of the useful beam enters the patient shall not exceed 10 roentgens per minute, except during recording of fluoroscopic images or when provided with optional high level control.

(ii) When provided with optional high level control, the equipment shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 5 roentgens per minute at the point where the center of the useful beam enters the patient unless the high level control is activated.

(A) Special means of activation of high level controls shall be required. The high level control shall only be operable when continuous manual activation is provided by the operator.

(B) A continuous signal audible to the fluoroscopist shall indicate that the high level control is being employed.

(iii) In addition to the other requirements, equipment which does not incorporate an automatic exposure control shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 5 roentgens per minute at the point where the center of the beam enters the patient except during recording of fluoroscopic images or when provided with an optional high level control.

(iv) Compliance with the requirements of subsection (3)(a) of this rule shall be determined as follows:

(A) Movable grids and compression devices shall be removed from the useful beam during the measurement.

(B) If the source is below the table, exposure rate shall be measured one centimeter above the table top or cradle.

(C) If the source is above the table, the exposure rate shall be measured at 30 centimeters above the table top with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement.

(D) In a C-arm type of fluoroscope, the exposure rate shall be measured 30 centimeters from the input surface of the fluoroscopic imaging assembly.

(b) The fluoroscopist's eyes shall be sufficiently dark adapted (20 minutes) for the visual task required before commencing fluoroscopy.

(c) Extraneous light that interferes with the fluoroscopic examination shall be eliminated.

(d) Protective aprons of at least 0.25 millimeters lead equivalent shall be worn in the fluoroscopy room by each person except the patient.

(e) Only persons whose presence is necessary shall be in the fluoroscopy room during X-ray exposures.

(f) Fluoroscopy shall not be used as a substitute for radiography but shall be reserved for the study of dynamics or spatial relationships or for guidance in spot-film recording of critical details.

(g) Special precautions, consistent with clinical needs, shall be taken to minimize exposure of the gonads of potentially procreative patients and exposure of the embryo or fetus in patients known to be or suspected of being pregnant.

(h) Notwithstanding ARM 16-2.12(4)-S12410, personnel monitoring is required for each individual who enters a controlled area.

16-2.12(6)-S12606 DENTAL RADIOGRAPHIC INSTALLATIONS

(1) The equipment used in dental radiographic installations shall be as follows:

(a) The tube housing shall be of diagnostic type.

(b) Diaphragms or cones shall be used for collimating the useful beam and provide the same degree of protection as the housing The diameter of the useful beam at the cone tip shall not be more than 2-3/4 inches for intra-oral radiography.

(c) A cone or spacer frame shall provide a target-to-skin distance of not less than 7 inches with apparatus operating above 50 kVp or 4 inches with apparatus operating at 50 kVp or below.

(d) For equipment capable of operating up to no more than 70 kVp, the total filtration permanently in the useful beam shall be equivalent to at least 1.5 mm of aluminum. This requirement may be assumed to have been met if the

half-value layer is not less than 1.5 mm aluminum at maximum possible operating voltages.

(e) For equipment capable of operating above 70 kVp, the total filtration permanently in the useful beam shall be equivalent to at least 2.5 mm of aluminum. This requirement may be assumed to have been met if the half-value layer is not less than 2.5 mm aluminum at the maximum possible operating voltage.

(f) Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor. In addition:

(i) It shall not be possible to make an exposure when the timer is set to a "zero" or "off" position if either position is provided.

(ii) With a timer setting of 0.5 seconds or less, the average exposure period ($\bar{T}$) shall be greater than or equal to 5 times the maximum exposure period (T_{max}) minus the minimum exposure period (T_{min}) when 4 timer tests are performed, i.e.,

$$\bar{T} \geq 5(T_{max} - T_{min}).$$

(g) An X-ray control shall be incorporated into each X-ray system such that an exposure can be terminated by the operator at any time, except for exposure of one-half second or less.

(h) Each installation shall be provided with a protective barrier for the operator or shall be so arranged that the operator can stand at least 12 feet from the useful beam. Stationary X-ray systems installed after July 1, 1980, shall be required to have the X-ray control permanently mounted in a protected area, e.g., corridor outside the room, so that the operator is required to remain in that protected area during the entire exposure.

(2) The structural shielding requirements for dental radiographic installations shall be as follows:

(a) Dental rooms containing X-ray machines shall be provided with primary protective barriers at all areas struck by the useful beam. Consideration shall be given to the attenuation provided by the patient and the building materials in partitions.

(b) When dental X-ray units are installed in adjacent rooms or areas, protective barriers shall be provided between the rooms or areas. Consideration of the effects of the separating wall(s) shall be given in the evaluation of this protection.

(3) The operating procedures applicable to dental radiographic installations shall be as follows:

(a) Neither the dentist nor his assistant shall be permitted to hold patients or films during exposure, nor shall

any individual be regularly used for this service.

(b) During each exposure, the operator shall stand at least 12 feet from the patient or behind a protective barrier.

(c) Only the patient shall be in the useful beam.

(d) Neither the tube housing nor the pointer cone shall be hand-held during exposure.

(e) Fluoroscopy shall not be used in dental examinations.

(f) Personnel monitoring shall be performed in controlled areas for each occupationally exposed individual beyond the required 13-week period, for whom there is a reasonable possibility of receiving a dose exceeding one-fourth the applicable maximum permissible dose.

16-2.12(6)-S12607 VETERINARY MEDICINE RADIOGRAPHIC INSTALLATIONS (1) The equipment used in veterinary medicine radiographic installations shall be as follows:

(a) The tube housing shall be of diagnostic type.

(b) Diaphragms or cones shall be provided for collimating the useful beam to the area of clinical interest and shall provide the same degree of protection as is required of the housing. X-ray equipment acquired after July 1, 1980, shall be equipped with a variable rectangular collimator fitted with a light field that defines the entire area covered by the beam.

(c) Except when contraindicated for a particular radiographic purpose, the total filtration permanently in the useful beam shall not be less than 1.5 millimeters aluminum-equivalent for machines capable of operating up to no more than 70 kVp and 2.5 millimeters aluminum-equivalent for machines capable of operating in excess of 70 kVp.

(d) A device shall be provided to terminate the exposure after a preset time or exposure.

(e) A type of dead-man switch for an exposure switch shall be provided, together with an electrical cord of sufficient length so that the operator can stand out of the useful beam and at least 6 feet from the animal during all X-ray exposures.

(2) All wall, ceiling, and floor areas shall be equivalent to or provided with applicable protective barriers or shielding as required in ARM 16-2.12(4)-S12402, S12405, and S12406.

(3) The operating procedures applicable to veterinary medicine radiographic installations shall be as follows:

(a) The operator shall stand at least 6 feet from the tube housing and the animal during radiographic exposures. Provisions shall be made so that the operator will not be required to stand in the useful beam.

(b) Hand-held fluoroscopic screens shall not be used.

(c) The tube housing shall not be held by the operator.

(d) No individual other than the operator shall be in the X-ray room while exposures are being made unless such individual's assistance is required.

(e) In any application in which the operator or other assisting individual is not located behind a protective barrier, clothing consisting of a protective apron having a lead-equivalent of not less than 0.5 millimeter shall be worn by the operator and any other individuals in the room during exposures.

(f) No individual shall be regularly employed to hold or support animals, or hold film during radiation exposures. Operating personnel shall not perform this service except in cases in which no other method is available. Any individual holding or supporting an animal during radiation exposure shall wear protective gloves and apron having a lead-equivalent of not less than 0.5 millimeter.

(g) Personnel monitoring shall be performed in controlled areas for each occupationally exposed individual beyond the required 13-week period, for whom there is a reasonable possibility of receiving a dose exceeding one-fourth the applicable maximum permissible dose.

16-2.12(6)-S12608 RADIOGRAPHIC INSTALLATIONS OTHER THAN DENTAL AND VETERINARY MEDICINE (1) The equipment used in radiographic installations in other than dental and veterinary medicine shall be as follows:

(a) The tube housing will be of diagnostic type.

(b) Suitable devices (diaphragms, cones, adjustable collimators), capable of restricting the useful beam to the area of clinical interest shall be provided to define the beam and shall provide the same degree of attenuation as that required of the tube housing. Such devices shall be calibrated in terms of the size of the projected useful beam at specified source-film distances. For chest photofluorographic equipment, the collimator shall restrict the beam to dimensions no greater than those of the fluorographic screen and shall confine the beam to the screen.

(c) Radiographic equipment, including multipurpose machines sold in Montana after July 1, 1969, shall be equipped with adjustable rectangular collimators containing light localizers that define the entire field. Equipment installed prior to the effective date of this chapter utilizing circular collimators which have met or will meet established standards will be acceptable. The field size indication on adjustable collimators shall be accurate with a tolerance not exceeding one inch for a source-film distance of 72 inches, the light field shall align with the X-ray field with the same degree of accuracy.

(d) The size of the X-ray beam projected by fixed aperture cones and collimators, except those used for stereo-radiography, should not exceed the minimum dimensions of the X-ray film by more than 2 inches (one inch border) for a source-film distance of 72 inches or one inch (1/2 inch border) for a source-film distance of 36 inches.

(e) Except when contraindicated for a particular radiographic purpose, the aluminum equivalent of the total filtration in the primary beam shall not be less than 0.5 millimeters aluminum for machines capable of operating not over 50 kVp, 1.5 millimeters for those capable of operating between 50-70 kVp and 2.5 millimeters for those capable of operating above 70 kVp.

(f) A device shall be provided which terminates the exposure at a preset time interval or exposure. The operator shall be able to terminate the exposure at any time.

(g) A type of dead-man switch for an exposure switch, except for those used in conjunction with "spot-film," shall be required and so arranged that it cannot be operated outside a shielded area.

(h) The control panel shall include a device such as a milliammeter or equivalent to give positive indication of the production of X-rays whenever the X-ray tube is energized.

(i) The control panel shall include devices, (labeled control settings and/or meters) indicating the physical factors (such as kVp, mA, exposure time, or whether timing is automatic) used for the exposure.

(j) Machines equipped with beryllium window X-ray tubes shall contain keyed filter interlock switches in the tube housing and suitable indication on the control panel of the added filter in the useful beam if the total filtration permanently in the useful beam is less than 0.5 mm aluminum equivalent. The total filtration permanently in the useful beam shall be clearly indicated on the tube housing.

(k) Beryllium window X-ray tubes shall not be used on multipurpose radiographic equipment.

(l) Gonadal shielding shall be used for the patient when appropriate.

(m) When a patient must be held in position for radiography, mechanical supporting or restraining devices shall be used whenever possible. If the patient must be held by an individual, that individual shall be protected with appropriate shielding devices such as protective gloves and apron and he shall be so positioned that no part of his body will be struck by the useful beam and that his body is as far as possible from the edge of the useful beam.

(n) Only persons whose presence is necessary shall be in the radiographic room during exposure. All such persons shall be protected.

(2) The structural shielding of radiographic equipment in other than dental or veterinary medicine shall be as follows:

(a) All wall, floor, and ceiling areas exposed to the useful beam shall have primary barriers. Primary barriers in walls shall extend to a minimum height of 84 inches above the floor.

(b) Secondary barriers shall be provided in all wall, floor, and ceiling areas not having primary barriers or where the primary barrier requirements are lower than the secondary barrier requirements.

(c) The operator's station at the control shall be behind a protective barrier, either in a separate room, in a protected booth, or behind a shield which will intercept the useful beam and any radiation which has been scattered only once.

(d) A window of lead-equivalent glass equal to that required by the adjacent barrier or a mirror system shall be provided large enough and so placed that the operator can see the patient without having to leave the protected area during exposure.

(3) The operating procedures applicable to radiographic installations other than in dental or veterinary medicine shall be as follows:

(a) Personnel monitoring shall be performed in controlled areas for each occupationally exposed individual beyond the required 13-week period, for whom there is a reasonable possibility of receiving a dose exceeding one-fourth the applicable maximum permissible dose.

(b) No individual occupationally exposed to radiation shall be permitted to hold patients during exposures except during emergencies, nor shall any individual be regularly used for this service.

(c) Only individuals required for the radiographic procedure shall be in the radiographic room during exposure; and, except for the patient, no unprotected parts of their bodies shall be in the useful beam.

(d) The useful beam shall be restricted to the area of clinical interest.

16-2.12(6)-S12609 SPECIAL REQUIREMENTS FOR MOBILE DIAGNOSTIC RADIOGRAPHIC EQUIPMENT (1) The equipment used in mobile diagnostic radiography shall be as follows:

(a) All requirements of ARM 16-2.12(6)-S12608(1) shall be satisfied except subsection (g).

(b) A type of dead-man switch for an exposure switch shall be provided, together with electrical cord of sufficient length so that the operator can stand at least 6 feet from the useful beam.

(2) When a mobile unit is used routinely in one location, it shall be considered a fixed installation subject to the

shielding requirements specified in ARM 16-2.12(6)-S12603(5) and S12608(2).

(3) The operating procedures applicable to mobile diagnostic radiographic equipment are as follows:

(a) All provisions of ARM 16-2.12(6)-S12608(3) apply.

(b) The target-to-skin distance shall not be less than 15 inches.

(c) Personnel monitoring shall be required for all persons associated with the operation of mobile X-ray equipment.

(d) Mobile X-ray equipment shall not be used for photofluoroscopy unless it meets the requirements for mobile fluoroscopes in ARM 16-2.12(6)-S12605.

(e) The operator shall wear a protective apron or stand behind a suitable shield.

16-2.12(6)-S12610 SPECIAL REQUIREMENTS FOR CHEST PHOTOFLUOROGRAPHIC INSTALLATIONS (1) The equipment used in chest photofluorographic installations shall be as follows:

(a) All requirements of ARM 16-2.12(6)-S12608(1) shall be satisfied.

(b) A collimator shall restrict the useful beam to the area of the photofluorographic screen.

(2) All requirements of ARM 16-2.13(6)-S12603(5) and S12608(2) concerning structural shielding shall be satisfied.

(3) The operating procedures applicable to chest photofluorographic installations shall be as follows:

(a) All requirements of ARM 16-2.12(6)-S12608(3) shall be satisfied.

(b) All individuals except the patient being examined shall be in shielded positions during exposures.

(c) Personnel monitoring shall be required for all individuals associated with the operation of the equipment.

16-2.12(6)-S12611 THERAPEUTIC X-RAY INSTALLATIONS (1) The equipment used in therapeutic X-ray installations shall be as follows:

(a) The tube housing shall be of therapeutic type. Contact therapy machines shall meet the additional requirement that the leakage radiation at 2 inches from the surface of the housing not exceed 0.1 R/h.

(b) Permanent diaphragms or cones used for collimating the useful beam shall afford the same degree of protection as the tube housing. Adjustable or removable beam-defining diaphragms or cones shall transmit not more than 5 percent of the useful beam obtained at the maximum possible kilovoltage and with maximum treatment filter.

(c) The filter system shall be so arranged as to minimize the possibility of error in filter selection and

alignment. The filter slot shall be so constructed that the radiation escaping through it does not produce an exposure exceeding one roentgen per hour at one meter, or, if the radiation from the slot is accessible to the patient, 30 roentgens per hour at 2 inches from the external opening. Each removable filter shall be marked with its thickness and material.

(d) A filter indication system shall be used on all therapy machines using changeable filters. It shall indicate from the control panel the presence or absence of any filter and it shall be designed to permit easy recognition of the filter in place.

(e) The X-ray tube shall be so mounted that it cannot turn or slide with respect to the aperture. A mark on the housing should show the location of the focal spot.

(f) Means shall be provided to immobilize the tube housing during stationary portal treatment.

(g) There shall be on the control panel an easily discernible indicator which will give positive information as to whether or not the X-ray tube is energized.

(h) A suitable exposure control device shall be provided to terminate the exposure after a preset exposure or dose limit. It shall be designed to preserve its accumulated response in the event of equipment failure during patient treatment. If a timer is used, it should permit accurate presetting and determination of exposure times as short as one second.

(i) Unless it is possible to bring the X-ray exposure rate to the prescribed value within 5 seconds after the X-ray "on" switch is energized, the tube housing on machines operating below 500 kVp shall be fitted with an "ON-OFF" shutter operated from the control panel and of lead equivalent not less than that of the tube housing. The "ON-OFF" positions of the shutter shall be indicated at the control panel.

(j) Mechanical or electrical stops shall be provided on X-ray machines capable of operating at 150 kVp or above to insure that the useful beam is oriented only toward primary barriers.

(k) Interlocks shall be provided for X-ray therapy equipment capable of operating above 75 kVp so that when any door to the treatment room is opened, either the machine will be shut off automatically or the radiation level within the room will be reduced to an average of not more than 2 mR/hr and a maximum of 10 mR/hr at a distance of one meter in any direction from the source. After such a shutoff or reduction in exposure rate, it shall be possible to restore the machine to full operation only from the control panel.

(l) The X-ray control circuit shall be so designed that it is not possible to energize the X-ray tube without resetting the X-ray "on" switch at the control panel.

(m) X-ray therapy machines shall be provided with a locking device to prevent unauthorized use.

(n) When a beam interceptor is provided, it shall transmit not more than 0.1 percent of the useful beam under any operating conditions. It shall also reduce by the same factor the radiation scattered by the patient through an angle up to 30 degrees from the central ray.

(o) When the relationship between the beam interceptor and the useful beam is not permanently fixed, mechanical or electrical stops shall be provided to insure that the beam is oriented only toward primary barriers.

(p) Special consideration shall be given to the safety design of X-ray machines with electron beam extraction capability such as linear accelerators.

(2) Therapeutic X-ray machines shall be structurally shielded as follows:

(a) All wall, floor, and ceiling areas that can be struck by the useful beam, plus a border of one foot, shall be provided with primary protective barriers.

(b) All wall, floor, and ceiling areas that, because of restrictions in the orientation of the useful beam, cannot be struck by the useful beam shall be provided with secondary protective barriers.

(c) With equipment capable of operation above 75 kVp, the control station shall be outside the treatment room.

(3) The operating procedures applicable to therapeutic X-ray installations shall be as follows:

(a) A radiation protection survey of all new installations and existing installations not previously surveyed shall be made by, or under the direction of, a qualified expert. A re-survey shall be made after every change in equipment, workload, or operating conditions which might significantly increase the probability of persons receiving more than the MPD. If, as a result of a radiation survey, supplementary shielding is installed, another survey shall be made in order to confirm the adequacy of the shielding after the modification.

(b) The qualified expert shall report his findings in writing, including recommendations for any required corrective measures, to the person in charge of the installation, a copy of which shall be sent to the department. The report shall indicate if a further survey is necessary after corrections have been made.

(c) The installation shall be operated in compliance with any limitations indicated by the protection survey.

(d) An X-ray therapy machine shall be calibrated by a qualified expert before use for the treatment of patients.

(e) X-ray therapy equipment capable of operating above 75 kVp shall not be operated routinely until the radiation safety of the installation has been established.

(f) Both the control panel and the patient shall be kept under observation during exposure.

(g) When a patient must be held in position for radiation therapy, mechanical supporting or restraining devices shall be used.

(h) No person other than the patient shall be in the treatment room where the tube is operated at potentials exceeding 75 kVp.

(i) If the X-ray tube of a contact therapy machine is hand-held during irradiation, the operator shall wear protective gloves and apron. A cap of at least 0.5 mm lead equivalent shall cover the aperture window of the tube housing of such apparatus when the apparatus is not being used.

(j) Lead, lead rubber, lead foil, etc., used for limiting the field, shall not transmit more than 5 percent of the useful beam (see Table I).

(k) Notwithstanding ARM 16-2.12(4)-S12410, personnel monitoring shall be required for all persons who enter a controlled area.

TABLE I

Thickness of lead required to reduce useful beam to 5 percent*

Beam Quality		Required Lead Thickness millimeters
Potential	Half Value Layer millimeters	
60 kVp	1.2 Al	0.10
100 kVp	1.0 Al	0.16
100 kVp	2.0 Al	0.25
100 kVp	3.0 Al	0.35
140 kVp	0.5 Cu	0.7
200 kVp	1.0 Cu	1.0
250 kVp	3.0 Cu	1.7
400 kVp	4.0 Cu	2.3
1000 kVp	3.2 Pb	20.5
2000 kVp	6.0 Pb	43.0
2000 kVcp	14.5 Pb	63.0
3000 kVcp	16.2 Pb	70.0
6000 kV	17.0 Pb	74.0
8000 kV	15.5 Pb	67.0
Cobalt 60	10.4 Pb	47.0

*Approximate values for broad beams. The third column refers to lead or to the required equivalent lead thickness of lead-containing materials (e.g., lead, rubber, lead glass, etc.).

Sub-Chapter 7

Use of Sealed Radioactive Sources
in the Healing Arts

16-2.12(7)-S12701 SCOPE (1) The provisions of this sub-chapter apply to all licensees who use sealed sources in the healing arts and are in addition to, and not in substitution for, other applicable provisions of this chapter.

16-2.12(7)-S12702 INTERSTITIAL, INTRACAVITARY AND SUPERFICIAL APPLICATIONS (1) Sealed sources shall be accounted for, stored and transported as follows:

(a) Except as otherwise specifically authorized by the department, each licensee shall provide accountability of sealed sources and shall keep a record of the issue and return of all sealed sources. A physical inventory shall be made at least every 6 months and a written record of the inventory maintained.

(b) When not in use, sealed sources and applicators containing sealed sources shall be kept in a protective enclosure of such material and wall thickness as may be necessary to assure compliance with the provisions of ARM 16-2.12(4)-S12402, 16-2.12(4)-S12405 and 16-2.12(4)-S12406.

(2) Sealed sources shall be tested for leakage and contamination as follows:

(a) All sealed sources with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination prior to initial use and at intervals not to exceed 6 months, unless otherwise specified. If there is reason to suspect that a sealed source might have been damaged, or might be leaking, it shall be tested for leakage before further use.

(b) Leak tests shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample or, in the case of radium, the escape of radon at the rate of 0.001 microcurie per 24 hours. Any test conducted pursuant to subsection (2)(a) of this rule which reveals the presence of 0.005 microcurie or more of removable contamination or, in the case of radium, the escape of radon at the rate of 0.001 microcurie or more per 24 hours, shall be considered evidence that the sealed source is leaking. The licensee shall immediately withdraw the source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with applicable provisions of ARM Title 16, Chapter 12, sub-chapter (4).

(c) Leak test results shall be recorded in units of microcuries and maintained for inspection by the department.

(3) Radiation surveys shall be conducted as follows:

(a) The maximum radiation level at a distance of one meter from the patient in whom brachytherapy sources have been inserted shall be determined by measurement or calculation. This radiation level shall be entered on the patient's chart and other signs as required under subsection (4) of this rule.

(b) The radiation levels in the patient's room and the surrounding area shall be determined, recorded, and maintained for inspection by the department.

(4) Signs and records shall be maintained as follows:

(a) In addition to the requirements of ARM 16-2.12(4)-S12411, the bed, cubicle, or room of the hospital brachytherapy patient shall be marked with a sign indicating the presence of brachytherapy sources. This sign shall incorporate the radiation symbol and specify the radionuclide, the activity, date and the individual to contact for radiation safety instructions. The sign is not required provided the exception in ARM 16-2.12(4)-S12412(2) is met.

(b) The following information shall be included in the patient's chart:

(i) the radionuclide administered, number of sources, activity in millicuries and time and date of administration;

(ii) the exposure rate at one meter, the time the determination was made, and by whom;

(iii) the radiation symbol; and

(iv) the precautionary instructions necessary to assure that the exposure of individuals does not exceed that permitted under ARM 16-2.12(4)-S12402.

16-2.12(7)-S12703 TELETHERAPY (1) The equipment used in teletherapy shall be as follows:

(a) The housing shall be so constructed that, at one meter from the source, the maximum exposure rate does not exceed 10 milliroentgens per hour when the beam control mechanism is in the "off" position. The average exposure rate measured at a representative number of points about the housing, each one meter from the source, shall not exceed 2 milliroentgens per hour.

(b) For teletherapy equipment installed after the effective date of this chapter, the leakage radiation measured at one meter from the source when the beam control mechanism is in the "on" position shall not exceed 0.1 percent of the useful beam exposure rate.

(c) Adjustable or removable beam-defining diaphragms shall allow transmission of not more than 5 percent of the useful beam.

(d) The beam control mechanism shall be of a positive design capable of acting in any orientation of the housing for which it is designed to be used. In addition to an automatic closing device, the mechanism shall be designed so that it can be manually returned to the "off" position with a minimum risk of exposure.

(e) The closing device shall be so designed as to return automatically to the "off" position in the event of any breakdown or interruption of the activating force and shall stay in the "off" position until activated from the control panel.

(f) When any door to the treatment room is opened, the beam control mechanism shall automatically and rapidly restore the unit to the "off" position and cause it to remain there until the unit is reactivated from the control panel.

(g) There shall be at the housing and at the control panel a warning device that plainly indicates whether the beam is "on" or "off".

(h) The equipment shall be provided with a locking device to prevent unauthorized use.

(i) The control panel shall be provided with a timer that automatically terminates the exposure after a pre-set time.

(j) Provision shall be made to permit continuous observation of patients during irradiation.

(2) No individual shall be in the treatment room during irradiation unless that individual is the patient. Mechanical restraining or supporting devices shall be used for positioning the patient, if necessary.

(3) Teletherapy sources shall be tested for leakage and contamination in accordance with the procedures described in ARM 16-2.12(7)-S12402(2). Tests of leakage may be made by wiping accessible surfaces of the housing port or collimator while the source is in the "off" position and measuring these wipes for transferred contamination.

Sub-Chapter 8

Radiation Safety Requirements for Analytical X-Ray Equipment

16-2.12(8)-S12801 SCOPE (1) This sub-chapter provides special requirements for analytical X-ray equipment which are in addition to the applicable requirements of other sub-chapters.

16-2.12(8)-S12802 DEFINITIONS (1) As used in this sub-chapter:

(a) "Analytical X-ray equipment" means equipment used for X-ray diffraction or fluorescence analysis.

(b) "Analytical X-ray system" means a group of components utilizing X-rays to determine the elemental composition or to examine the microstructure of materials.

(c) "Fail-safe characteristics" mean a design feature which causes beam port shutters to close or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.

(d) "Local components" mean part of an analytical X-ray system and include areas that are struck by X rays such as radiation source housings, port and shutter assemblies, collimators, sample holders, cameras, goniometers, detectors and shielding, but do not include power supplies, transformers, amplifiers, readout devices, and control panels.

(e) "Normal operating procedures" mean step-by-step instructions necessary to accomplish the analysis. These procedures shall include sample insertion and manipulation, equipment alignment, routine maintenance by the registrant, and data recording procedures, which are related to radiation safety.

(f) "Open-beam configuration" means an analytical X-ray system in which an individual could accidentally place some part of his body in the primary beam path during normal operation.

(g) "Primary beam" means radiation which passes through an aperture of the source housing by a direct path from the X-ray tube or a radioactive source located in the radiation source housing.

16-2.12(8)-S12803 EQUIPMENT REQUIREMENTS (1) A safety device which prevents the entry of any portion of an individual's body into the primary X-ray beam path or which causes the beam to be shut off upon entry into its path shall be provided on all open-beam configurations.

(a) A registrant may apply to the department for an exemption from this requirement for a safety device. Such ap-

plication shall include:

(i) a description of the various safety devices that have been evaluated;

(ii) the reason each of these devices cannot be used; and

(iii) a description of the alternative methods that will be employed to minimize the possibility of an accidental exposure, including procedures to assure that operators and others in the area will be informed of the absence of safety devices.

(2) Analytical X-ray equipment shall be equipped with the following warning devices:

(a) Open-beam configurations shall be provided with a readily discernible warning device which shall indicate:

(i) whether the X-ray tube is on or off, and which shall be located near the radiation source housing, if the primary beam is controlled in this manner; or

(ii) whether the shutter is open or closed, and which shall be located near each port on the radiation source housing, if the primary beam is controlled in this manner.

(b) Warning devices shall be labeled so that their purpose is easily identified. On equipment installed after July 1, 1980, warning devices shall have fail-safe characteristics.

(3) Unused ports on radiation source housings shall be secured in the closed position in a manner which will prevent casual opening.

(4) All analytical X-ray equipment shall be labeled with a readily discernible sign or signs bearing the radiation symbol and the words:

(a) "CAUTION - HIGH INTENSITY X-RAY BEAM", or words having a similar intent, on the X-ray source housing and

(b) "CAUTION - RADIATION - THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED", or words having a similar intent, near any switch that energizes an X-ray tube if the radiation source is an X-ray tube; or

(c) "CAUTION - RADIOACTIVE MATERIAL", or words having a similar intent, on the source housing if the radiation source is a radionuclide.

(5) On open-beam configurations installed after July 1, 1980, each port on the radiation source housing shall be equipped with a shutter that cannot be opened unless a collimator or a coupling has been connected to the port.

(6) An easily visible warning light labeled with the words "X-RAY ON", or words having a similar intent, shall be located near any switch that energizes an X-ray tube and shall be illuminated only when the tube is energized; or in the case of a radioactive source, near any switch that opens a housing shutter, and shall be illuminated only when

the shutter is open. On equipment installed after July 1, 1980, warning lights shall have fail-safe characteristics.

(7) Each X-ray tube housing shall be so constructed that, with all shutters closed, the leakage radiation measured at a distance of 5 cm from its surface is not capable of producing a dose in excess of 2.5 mrem in one hour at any specified tube rating, and if radioactive sources are used, corresponding dose limits shall not exceed 2 mR per hour.

(8) Each X-ray generator shall be supplied with a protective cabinet which limits leakage radiation measured at a distance of 5 cm from its surface such that it is not capable of producing a dose in excess of 0.25 mrem in one hour.

16-2.12(8)-S12804 AREA REQUIREMENTS (1) The local components of an analytical X-ray system shall be located and arranged and shall include sufficient shielding or access control such that no radiation levels exist in any area surrounding the local component group which could result in a dose to an individual present therein in excess of the dose limits given in ARM 16-2.12(4)-S12406. For systems utilizing X-ray tubes, these levels shall be met at any specified tube rating.

(2) Radiation surveys, as required by ARM 16-2.12(4)-S12406, shall be performed of all analytical X-ray systems sufficient to show compliance with subsection (1) of this rule unless a registrant can demonstrate to the satisfaction of the department compliance in some other manner. These surveys shall be performed:

(a) upon installation of the equipment, and at least once every 12 months thereafter;

(b) following any change in the initial arrangement, number, or type of local components in the system;

(c) following any maintenance requiring the disassembly or removal of a local component in the system;

(d) during the performance of maintenance and alignment procedures if the procedures require the presence of a primary X-ray beam when any local component in the system is disassembled or removed;

(e) any time a visual inspection of the local components in the system reveals an abnormal condition, and

(f) whenever personnel monitoring devices show a significant increase over the previous monitoring period or the readings are approaching the limits specified in ARM 16-2.12(4)-S12402.

(3) Each area or room containing analytical X-ray equipment shall be conspicuously posted with a sign or signs bearing the radiation symbol and the words "CAUTION - X-RAY EQUIPMENT", or words having a similar intent.

16-2.12(8)-S12805 OPERATING REQUIREMENTS (1) Normal operating procedures shall be written and made available to all analytical X-ray equipment workers. No person shall be permitted to operate analytical X-ray equipment in any manner other than that specified in the procedures unless such person has obtained written approval of the radiation safety officer.

(2) No person shall bypass a safety device unless such person has obtained the approval of the radiation safety officer. Such approval, if given, shall be for a specified period of time. When a safety device has been bypassed, a readily discernible sign bearing the words "SAFETY DEVICE NOT WORKING", or words having a similar intent, shall be placed on the radiation source housing.

16-2.12(8)-S12806 PERSONNEL REQUIREMENTS (1) No person shall be permitted to operate or maintain analytical X-ray equipment unless such person has received instruction in and demonstrated competence as to:

(a) identification of radiation hazards associated with the use of the equipment;

(b) significance of the various radiation warning and safety devices incorporated into the equipment, or the reasons they have not been installed on certain pieces of equipment and the extra precautions required in such cases;

(c) proper operating procedures for the equipment;

(d) symptoms of an acute localized exposure; and

(e) proper procedures for reporting an actual or suspected exposure.

(2) Finger or wrist dosimetric devices shall be provided to and shall be used by:

(a) analytical X-ray equipment workers using systems having an open-beam configuration and not equipped with a safety device; and

(b) personnel maintaining analytical X-ray equipment if the maintenance procedures require the presence of a primary X-ray beam when any local component in the analytical X-ray system is disassembled or removed.

(3) Reported dose values shall not be used for the purpose of determining compliance with ARM 16-2.12(4)-S12402 unless evaluated by a qualified expert.

Sub-Chapter 9

Radiation Safety Requirements for Particle Accelerators

16-2.12(9)-S12901 PURPOSE (1) This sub-chapter establishes procedures for the registration and the use of particle accelerators. In addition to the requirements of this sub-chapter, all registrants are subject to the requirements of ARM, Title 16, Chapter 12, sub-chapters (1), (2), (4) and (10). Registrants engaged in industrial radiographic operations are subject to the requirements of ARM Title 16, Chapter 12, sub-chapter (5), and registrants engaged in the healing arts are subject to the requirements of ARM Title 16 Chapter 12, sub-chapters (6) and (7). Registrants engaged in the production of radioactive material are subject to the requirements of ARM Title 16, Chapter 12, sub-chapter (3).

16-2.12(9)-S12902 REGISTRATION PROCEDURES AND REQUIREMENTS (1) No person shall receive, possess, use, transfer, own, or acquire a particle accelerator except as authorized in a registration issued pursuant to this chapter or as otherwise provided for in this chapter. The general procedures for registration of particle accelerator facilities are included in ARM Title 16, Chapter 12, sub-chapter (2).

16-2.12(9)-S12903 GENERAL REGISTRATION PROCEDURE AND REQUIREMENTS (1) In addition to the requirements of ARM Title 16, Chapter 12, sub-chapter (2), a registration application for use of a particle accelerator will be approved only if the department determines that:

(a) the applicant is qualified by reason of training and experience to use the accelerator in question for the purpose requested in accordance with this sub-chapter and sub-chapters (4) and (10), in such a manner as to minimize danger to public health and safety or property;

(b) the applicant's proposed or existing equipment facilities, operating and emergency procedures are adequate to protect health and minimize danger to public health and safety or property;

(c) the issuance of the registration will not be inimical to the health or safety of the public, and the applicant satisfies any applicable special requirement in ARM 16-2.12(9)-S12904;

(d) the applicant has appointed a radiation safety officer;

(e) The applicant or the applicant's staff has substantial experience in the use of particle accelerators and training sufficient for application to its intended uses;

(f) the applicant has established a radiation safety committee to approve, in advance, proposals for uses of particle accelerators, whenever deemed necessary by the department; and

(g) the applicant has an adequate training program for operators of particle accelerators.

16-2.12(9)-S12904 REGISTRATION PROCEDURE - HUMAN USE OF PARTICLE ACCELERATORS (1) In addition to the requirements set forth in ARM Title 16, Chapter 12, sub-chapter (2) a registration for use of a particle accelerator in the healing arts will be issued only if:

(a) the applicant has appointed a medical committee of at least 3 members to evaluate all proposals for research, diagnostic, and therapeutic use of a particle accelerator whenever deemed necessary by the department. Membership of the committee should include physicians expert in internal medicine, hematology, therapeutic radiology, and a person experienced in depth dose calculations and protection against radiation;

(b) the individual designated on the application as the users have substantial training and experience in deep therapy techniques or in the use of particle accelerators to treat humans; and

(c) the individual designated on the application as the user is a physician.

16-2.12(9)-S12905 COMPLIANCE The registrant shall be responsible for assuring that all requirements of this sub-chapter are met.

16-2.12(9)-S12906 LIMITATIONS (1) No registrant shall permit any person to act as an operator of a particle accelerator until such person:

(a) has been instructed in radiation safety and shall have demonstrated an understanding thereof;

(b) has received copies of and instruction in this sub-chapter and the applicable requirements of sub-chapters (4) and (10), pertinent registration conditions and the registrant's operating and emergency procedures, and shall have demonstrated understanding thereof; and

(c) has demonstrated competence to use the particle accelerator, related equipment, and survey instruments which will be employed in his assignment.

(2) Either the radiation safety committee or the radiation safety officer shall have the authority to terminate the operations at a particle accelerator facility if such action is deemed necessary to protect health and minimize danger to public health and safety or property.

16-2.12(9)-S12907 SHIELDING AND SAFETY DESIGN REQUIREMENTS (1) A qualified expert, specifically accepted by the department, shall be consulted in the design of a particle accelerator installation and called upon to perform a radiation survey when the accelerator is first capable of producing radiation.

(2) Each particle accelerator installation shall be provided with such primary or secondary barriers as are necessary to assure compliance with ARM 16-2.12(4)-S12402 and 16-2.12(4)-S12406.

16-2.12(9)-S12908 PARTICLE ACCELERATOR CONTROLS AND INTERLOCK SYSTEMS (1) Instrumentation, readouts and controls on the particle accelerator control console shall be clearly identified and easily discernible.

(2) All entrances into a target room or other high radiation area shall be provided with interlocks that shut down the machine under conditions of barrier penetration.

(3) When an interlock system has been tripped, it shall only be possible to resume operation of the accelerator by manually resetting controls at the position where the interlock has been tripped, and lastly at the main control console.

(4) Each safety interlock shall be on a circuit which shall allow its operation independently of all other safety interlocks.

(5) All safety interlocks shall be designed so that any defect or component failure in the interlock system prevents operation of the accelerator.

(6) A scram button or other emergency power cutoff switch shall be located and easily identifiable in all high radiation areas. Such a cutoff switch shall include a manual reset so that the accelerator cannot be restarted from the accelerator control console without resetting the cutoff switch.

16-2.12(9)-S12909 WARNING DEVICES (1) All locations designated as high radiation areas, and entrances to such locations shall be equipped with easily observable flashing or rotating warning lights that operate when, and only when, radiation is being produced.

(2) Except in facilities designed for human exposure, each high radiation area shall have an audible warning device which shall be activated for 15 seconds prior to the possible creation of such high radiation area. Such warning device shall be clearly discernible in all high radiation areas and all radiation areas.

(3) Barriers, temporary or otherwise, and pathways leading to high radiation areas shall be identified in accordance with ARM 16-2.12(4)-S12411.

16-2.12(9)-S12910 OPERATING PROCEDURES (1) Particle accelerators, when not in operation, shall be secured to prevent unauthorized use.

(2) The safety interlock system shall not be used to turn off the accelerator beam except in an emergency.

(3) All safety and warning devices, including interlocks, shall be checked for proper operability at intervals not to exceed 3 months. Results of such tests shall be maintained at the accelerator facility for inspection by the department.

(4) Electrical circuit diagrams of the accelerator and the associated interlock systems shall be kept current and maintained for inspection by the department and shall be available to the operator at each accelerator facility.

(5) If, for any reason, it is necessary to intentionally bypass a safety interlock or interlocks, such action shall be:

(a) authorized by the radiation safety committee or radiation safety officer;

(b) recorded in a permanent log and a notice posted at the accelerator control console; and

(c) terminated as soon as possible.

(6) A copy of the current operating and the emergency procedures shall be maintained at the accelerator control panel.

16-2.12(9)-S12911 RADIATION MONITORING REQUIREMENTS (1) There shall be available at each particle accelerator facility appropriate portable monitoring equipment which is operable and has been calibrated for the appropriate radiations being produced at the facility Such equipment shall be tested for proper operation daily and calibrated at intervals not to exceed one year and after each servicing and repair.

(2) A radiation protection survey shall be performed and documented by a qualified expert specifically approved by the department when changes have been made in shielding, operation, equipment, or occupancy of adjacent areas.

(3) Radiation levels in all high radiation areas shall be continuously monitored. The monitoring devices shall be electrically independent of the accelerator control and interlock systems and capable of providing a remote and local readout with visual or audible alarms at both the control panel and at entrance to high radiation areas, and other appropriate locations, so that people entering or present become aware of the existence of the hazard.

(4) All area monitors shall be calibrated at intervals not to exceed one year and after each servicing and repair.

(5) Whenever applicable, periodic surveys shall be

made to determine the amount of airborne particulate radioactivity present in areas of airborne hazards.

(6) Whenever applicable, periodic smear surveys shall be made to determine the degree of contamination in target and other pertinent areas.

(7) All area surveys shall be made in accordance with the written procedures established by a qualified expert or the radiation safety officer of the particle accelerator facility.

(8) Records of all radiation protection surveys, calibration results, instrumentation tests, and smear results shall be kept current and on file at each accelerator facility.

16-2.12(9)-S12912 VENTILATION SYSTEMS (1) Means shall be provided to ensure that personnel entering any area where airborne radioactivity may be produced will not be exposed to airborne radioactive material in excess of those limits specified in ARM Title 16, Chapter 12, sub-chapter (4), Appendix A, Table I.

(2) A registrant, as required by ARM 16-2.12(4)-S12406 shall not vent, release or otherwise discharge airborne radioactive material to an uncontrolled area which exceed the limits specified in ARM Title 16, Chapter 12, sub-chapter (4), Appendix A, Table II, except as authorized pursuant to ARM 16-2.12(4)-S12407(2) or 16-2.12(4)-S12417. For purposes of this subsection, concentrations may be averaged over a period not greater than one year. Every reasonable effort should be made to maintain releases of radioactive material to uncontrolled areas as far below these limits as practicable.

Sub-Chapter 10

Notices, Instructions and Reports to Workers; Inspections

16-2.12(10)-S121001 PURPOSE AND SCOPE This sub-chapter establishes requirements for notices, instructions and reports by licensees to individuals engaged in activities under a license and options available to such individuals in connection with department inspections of licensees to ascertain compliance with the provisions of the act and rules, orders and licenses issued thereunder regarding radiological working conditions. The subsections in this sub-chapter apply to all persons who receive, possess, use, own or transfer sources of radiation licensed by the department pursuant to ARM Title 16, Chapter 12, sub-chapters (2) and (3).

16-2.12(10)-S121002 POSTING OF NOTICES TO WORKERS

(1) Each licensee shall post current copies of the following documents:

(a) The rules of this sub-chapter and of sub-chapter (4);

(b) the license, conditions or documents incorporated into the license by reference and amendments thereto;

(c) the operating procedures applicable to activities under the license; and

(d) any notice of violation involving radiological working conditions, proposed imposition of civil penalty, or order issued pursuant to ARM Title 16 Chapter 12, sub-chapter (1), and any response from the licensee.

(2) If posting of a document specified in subsections (1)(a), (b) or(c) of this rule is not practicable, the licensee may post a notice which describes the document and states where it may be examined.

(3) Form MRH-20, "Notice to Employees" shall be posted by each licensee.

(4) Department documents posted pursuant to subsection (1)(d) of this rule shall be posted within 5 working days after receipt of the documents from the department; the licensee's response, if any, shall be posted within 5 working days after dispatch from the licensee or registrant. Such documents shall remain posted for a minimum of 5 working days or until action correcting the violation has been completed, whichever is later.

(5) Documents, notices or forms posted pursuant to this rule shall appear in a sufficient number of places to permit individuals engaged in work under the license to observe them on the way to or from any particular work location to which the document applies, shall be conspicuous, and shall be replaced if defaced or altered.

16-2.12(10)-S121003 INSTRUCTIONS TO WORKERS (1) All individuals working in or frequenting any portion of a restricted area:

(a) shall be kept informed of the storage, transfer, or use of sources of radiation in such portions of the restricted area;

(b) shall be instructed in the health protection problems associated with exposure to radiation or radioactive material, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed;

(c) shall be instructed in, and instructed to observe, to the extent within the worker's control, the applicable provisions of this chapter and licenses for the protection of personnel from exposure to radiation or radioactive material occurring in such areas;

(d) shall be instructed of their responsibility to report promptly to the licensee or registrant any condition which may lead to or cause a violation of the act, this chapter, and licenses or unnecessary exposure to radiation or radioactive material;

(e) shall be instructed in the appropriate response to warnings made in the event of any unusual occurrence or malfunction that may involve exposure to radiation or radioactive material; and

(f) shall be advised as to the radiation exposure reports which workers shall be furnished pursuant to ARM 16-2.12(10)-S121004.

(2) The extent of these instructions shall be commensurate with potential radiological health protection problems in the restricted area.

16-2.12(10)-S121004 NOTIFICATIONS AND REPORTS TO INDIVIDUALS (1) Radiation exposure data for an individual and the results of any measurements, analyses, and calculations of radioactive material deposited or retained in the body of an individual shall be reported to the individual as specified in this rule. The information reported shall include data and results obtained pursuant to this chapter, orders, or license conditions, as shown in records maintained by the licensee or registrant pursuant to this chapter. Each notification and report shall:

(a) be in writing;

(b) include appropriate identifying data such as the name of the licensee or registrant, the name of the individual, and the individual's social security number;

(c) include the individual's exposure information; and

(d) contain the following statement: "This report is furnished to you under the provisions of the Montana Radiation Control Act, ARM Title 16, Chapter 12, sub-chapter (10). You should preserve this report for further reference."

(2) Each licensee or registrant shall advise each worker annually of the worker's exposure to radiation or radioactive material as shown in records maintained by the licensee or registrant pursuant to ARM 16-2.12(4)-S12421(1) and (3).

(3) Each licensee or registrant shall furnish to each worker a report of the worker's exposure to radiation or radioactive material upon termination of employment. Such report shall be furnished within 30 days from the time of termination of employment or within 30 days after the exposure of the individual has been determined by the licensee or registrant, whichever is later. The report shall cover each calendar quarter in which the worker's activities involved exposure to sources of radiation and shall include the dates and locations of work under the license or registration in which the worker participated.

(4) When a licensee or registrant is required pursuant to ARM 16-2.12(4)-S12424 to report to the department any exposure of an individual to radiation or radioactive material, the licensee or the registrant shall also provide the individual a report on the exposure data included therein. Such reports shall be transmitted at a time not later than the transmittal to the department.

16-2.12(10)-S121005 INSPECTION PROCEDURES (1) Each licensee or registrant shall afford to the department at all reasonable times the opportunity to inspect materials, machines, activities, facilities, premises and records pursuant to this chapter.

16-2.12(10)-S121006 CONSULTATION WITH WORKERS DURING INSPECTIONS (1) Agency inspectors may consult privately with workers concerning matters of occupational radiation protection and other matters related to applicable provisions of this chapter and licenses to the extent the inspectors deem necessary for the conduct of an effective and thorough inspection.

(2) During the course of an inspection, any worker may bring privately to the attention of the inspectors, either orally or in writing, any past or present condition which he has reason to believe may have contributed to or caused any violation of the act, this chapter, or license condition, or any unnecessary exposure of an individual to sources of radiation under the licensee's or registrant's control.

Sub-Chapter 11

Stabilization of Mill Tailings Piles

16-2.12(11)-S121101 SCOPE (1) The provisions of this sub-chapter apply to mining, milling or manufacturing operations where wastes, tailings piles, or stockpiled ore which contain radioactive material have accumulated.

16-2.12(11)-S121102 PERMISSIBLE CONCENTRATIONS AND LEVELS OF RADIATION All wastes, tailings, or stockpiled ore containing radioactive material from active or inactive mining, milling, or manufacturing operations shall be kept and maintained in such a manner as not to release to an unrestricted area radioactive material in concentrations which exceed the limits specified in Appendix A, Table II of ARM Title 16, Chapter 12, sub-chapter (4). Permissible levels of radiation in restricted and unrestricted areas are stated in ARM 16-2.12(4)-S12402 and 16-2.12(4)-S12406.

16-2.12(11)-S121103 STABILIZATION OF TAILINGS PILES AND PONDS FROM MILLS (1) Ponds from inactive mills shall be drained and covered with materials or provided with vegetative cover that will prevent wind and water erosion. Water drained from ponds from inactive mills shall be disposed of in a manner approved by the department.

(2) Taking into consideration the types of materials at each site, piles from inactive mills shall be leveled and graded so that there is, insofar as possible, a gradual slope to ensure that there shall be no low places on the pile where water might collect. Side slopes shall be stabilized by riprap, dikes, reduction of grades, vegetation, or any other method or combination of methods that will ensure stabilization.

(3) If pile edges from inactive mills are adjacent to a river, creek, gulch, or other watercourse that might reasonably be expected to erode the edges during periods of high water, the exposed slopes shall be stabilized and the edges shall be diked and riprapped sufficiently to prevent erosion of the pile.

(4) Adequate drainage ditches shall be provided around the pile edges from inactive mills to prevent surface runoff water from neighboring land from reaching and eroding the pile.

(5) Piles shall be stabilized against wind and water erosion. The method of stabilization may consist of vegetation or a cover of soil, soil containing rock or stone, cement or concrete products, petroleum products, or any other soil stabilization material presently recognized or which may be recognized in the future, or any combination of the

foregoing as may be required for proper protection from wind, or water erosion.

(6) Access to a stabilized pile area shall be controlled by the operator or owner and properly posted.

(7) Active and inactive piles shall be maintained in such a manner that excessive erosion of, or environmental hazard from, radioactive materials does not occur.

(8) The owner of a tailings pile site shall give the department written notice 10 days in advance of any contemplated transfer of right, title or interest in such site by deed, lease, or other conveyance. The written notice shall contain the name and address of the proposed purchaser or transferee. Prior written approval of the department shall be obtained before the surface area of the land shall be put to use and it shall have been determined that the radiation dosage to the public resulting from the proposed use does not exceed 0.5 rem per year.

(9) With the exception of use at a mill or for reprocessing at the site or another location, prior written approval of the department must be obtained before any tailing material is removed from any active or inactive mill.

(10) Detailed plans for stabilizing tailings piles shall be submitted to the department for review and approval prior to undertaking stabilization of the pile.

(11) The department may waive individual requirements in regard to stabilization or utilization of tailings material if it can be shown that they are unnecessary or impracticable in specific cases.

5. The new rules are proposed to implement amendments to the United States Nuclear Regulatory Commission's regulations and recommendations of the Conference of Radiation Control Program Directors, to adopt safety requirements for analytical X-ray equipment and particle accelerators, and to facilitate recodification of the rules governing radiation control and nuclear regulation.

6. Interested persons may present their data, views or arguments, either orally or in writing, at the hearing. Written data, views or arguments may also be submitted to Robert L. Solomon, Hearings Officer, Cogswell Building, Capitol Complex, Helena, Montana, 59601, no later than March 3, 1980.

7. Robert L. Solomon has been designated by the director of the department to preside over and conduct the hearing.

8. The authority of the department to repeal rule 16-2.14(6)-S14270 and adopt the rules as proposed above is based on sections 75-3-201, 75-3-202, and 75-3-204, MCA.

A. C. KNIGHT, M.D., Director

By: JOHN W. BARTLETT

Certified to the Secretary of State January 22, 1980

BEFORE THE DEPARTMENT OF HIGHWAYS
OF THE STATE OF MONTANA

IN THE MATTER OF THE REPEAL of Rules 18-2.10(6)-S1020 and 18-2.10(14)-S10110 regarding definitions used in sub-chapters (6) & (14).	)	NOTICE OF PROPOSED REPEAL OF RULE 18-2.10(6)-S1020, DEFINITIONS, and RULE 18-2.10(14)-S10110, DEFINITIONS.
	)	NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to repeal Rules 18-2.10(6)-S1020 and 18-2.10(14)-S10110 which are definitions.

2. The rules proposed to be repealed are on pages 18-112 and 18-134 through 18-137 of the Administrative Rules of Montana.

3. The agency proposes to repeal these rules because the information is merely a repetition of definitions found in Title 61, Chapter 1, MCA.

4. Interested parties may submit their data, views, or arguments concerning the proposed repeal in writing to Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed repeal of Rules 18-2.10(6)-S1020 and 18-2.10(14)-S10110 wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed repeal from either 10% or 25, whichever is less of the persons directly affected; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been estimated to be 21,547 persons based on the number of trucking carriers operating on Montana's highways from January through September 1979.

7. The authority of the department to make the proposed rules is based on section 61-10-101, MCA, and the rules implement sections 61-10-102 through 61-10-148, MCA, and sections 61-10-201 through 61-10-233, MCA.

IN THE MATTER OF THE REPEAL of Rules 18-2.10(6)-S1080, G.V.W. Half Year fees; 18-2.10(6)-S1090, G.V.W. Fees Transferable; and 18-2.10(6)-S10050, S.M. Plates.	)	NOTICE OF PROPOSED REPEAL OF RULES 18-2.10(6)-S1080, G.V.W. HALF YEAR FEES; 18-2.10(6)-S1090, G.V.W. FEES TRANSFERABLE; and 18-2.10(6)-S10050, S.M. PLATES.
	)	NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to repeal Rules 18-2.10(6)-S1080, 18-2.10(6)-S1090, and 18-2.10(6)-S10050 regarding G.V.W. licensing.

2. The rules proposed to be repealed are on pages 18-122 and 18-124 of the Administrative Rules of Montana.

3. The agency proposes to repeal these rules because they are entirely statutory and are not policies. See 61-10-222, 61-10-224, 61-3-431, and 61-1-104, MCA.

4. Interested parties may submit their data, views, or arguments concerning the proposed repeal in writing to Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed repeal of Rules 18-2.10(6)-S1080, 18-2.10(6)-S1090, and 18-2.10(6)-S10050 wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed repeal from either 10% or 25, whichever is less of the persons directly affected; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been estimated to be 21,547 persons based on the number of trucking carriers operating on Montana's highways from January through September 1979.

7. The authority of the department to make the proposed rules is based on section 61-10-201, MCA, and the rules implement sections 61-10-222, 61-10-224, 61-3-431, and 61-1-104, MCA.

IN THE MATTER OF THE REPEAL of Rule 18-2.10(6)-S10020 regarding sales tax on new motor vehicles paid by servicemen and disabled veterans.	NOTICE OF PROPOSED REPEAL OF RULE 18-2.10(6)-S10020, SALES TAX ON NEW MOTOR VEHICLES. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to repeal Rule 18-2.10(6)-S10020 regarding sales tax on new motor vehicles paid by servicemen and disabled veterans.

2. The rule proposed to be repealed is on page 18-123 of the Administrative Rules of Montana.

3. The agency proposes to repeal this rule because the subjects have been addressed by the Attorney General in Volume 33, Opinion 5 and Volume 38, Opinion 21.

4. Interested parties may submit their data, views, or arguments concerning the proposed repeal in writing to Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed repeal of Rule 18-2.10(6)-S10020 wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed repeal from either 10% or 25, whichever is less of the persons directly affected; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 35 persons based on the number of 100%-disabled Montana veterans and 986 persons based on the number of servicemen stationed in Montana. This figure also includes guardsmen.

7. The authority of the department to make the proposed rule is based on section 61-3-502, MCA, and the rule implements section 61-3-502, MCA.

By: Ronald P. Richards
Ronald P. Richards, Director
Department of Highways

Certified to the Secretary of State, January 22, 1980.

BEFORE THE DEPARTMENT OF HIGHWAYS
OF THE STATE OF MONTANA

IN THE MATTER OF THE AMENDMENT of Rule 18-2.10(6)-S10040 regarding combines.	NOTICE OF PROPOSED AMENDMENT OF RULE 18-2.10(6)-S10040, COMBINES.
	NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to amend Rule 18-2.10(6)-S10040 regarding licensing of combines.

2. The rule as proposed to be amended provides as follows:

18-2.10(6)-S10040 COMBINES (1) Combines Owned and Operated by a Farmer. Combines owned and operated by a farmer, used by him on his own lands and incidently moved over the highways from his own lands to his own lands or to a point for service or returned from service, are not subject to license or gross weight fees.

(2) Combines Operated by Implement Dealers. Combines being delivered to a farmer or rancher, or moved from a farm or ranch to a dealer's place of business, or moved from dealer to dealer, are not subject to license of any kind.

(3) "For Hire" or Commercial Combines. ~~Commercial combines used for cutting grain for a fee shall display Special Mobile Equipment Plates (S.M. Plates) when travelling on the highway under their own power or are being towed.~~ Non-residents and residents engaged in the business of custom combining are subject to the provisions of Sections 15-24-301, 15-24-1001, and 15-70-311, M.C.A.

3. The rule is proposed to be amended to make it current with the changes enacted by the Legislature since the initial adoption of this rule.

4. Interested parties may submit their data, views, or arguments concerning the proposed amendments in writing to Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed amendment wishes to his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less of the persons directly affected by the proposed amend-

ment; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 43 persons based on the number of custom combine operators purchasing permits during 1979.

7. The authority of the department to make the proposed amendment is based on section 61-10-214, MCA, and implements sections 15-24-301, 15-24-1001, and 15-70-311, MCA.

IN THE MATTER OF THE AMENDMENT of Rule 18-2.10(6)-S10070 regarding fertilizer vehicles.	NOTICE OF PROPOSED AMENDMENT OF RULE 18-2.10(6)-S10070, FERTILIZER VEHICLES. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to amend Rule 18-2.10(6)-S10070 to make the rule current. It has not been amended since initial adoption in 1972.

2. The rule as proposed to be amended provides as follows:

18-2.10(6)-S10070 FERTILIZER VEHICLES (1) License fertilizer vehicles the same as ~~custom combines~~ S. M. (Special Mobile Equipment) or trailers or trucks , depending on usage.

3. The rule is proposed to be amended to make it current since it has not been amended since its original adoption in 1972.

4. Interested parties may submit their data, views, or arguments concerning the proposed amendments in writing to Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less of the persons directly affected by the proposed amendment; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been estimated to be 2,150 persons based on the number of farms in Montana as advised by the Department of Agriculture.

7. The authority of the department to make the proposed amendment is based on section 61-10-206, MCA and implements section 61-10-206, MCA.

By: 
Ronald P. Richards, Director
Department of Highways

Certified to the Secretary of State, January 22, 1980.

BEFORE THE DEPARTMENT OF HIGHWAYS
OF THE STATE OF MONTANA

IN THE MATTER OF THE AMENDMENT of Rule 18-2.10(6)-S1060 regarding Delivery Zone Permits.	NOTICE OF PROPOSED AMENDMENT OF RULE 18-2.10(6)-S1060, DELIVERY ZONE PERMIT. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to amend Rule 18-2.10(6)-S1060 regarding Delivery Zone Permits.

2. The rule as proposed to be amended provides as follows:

18-2.10(6)-S1060 DELIVERY ZONE PERMIT (1) Delivery Zone Permits are issued to trucks or truck tractors licensed under 61-10-201 (Schedule I Fees) to draw a trailer or semi trailer in the local delivery zone of a specific city when the trailer or semi trailer has entered the State in combination with a truck or truck tractor licensed under 61-10-203 (Schedule III Fees).

(2) Additional fees are not due when the above licensing requirements are met.

(3) Upon completion of an application, which can be obtained from the Gross Vehicle Weight Division, Box 4639, Helena, Montana 59601, a Permit-Cab Card is issued to the truck or truck tractor. This Permit-Cab Card must be carried in the vehicle at all times and is non-transferrable, unless the transfer is requested and is made by the Gross Vehicle Weight Division.

(4) A Delivery Zone Plate is also issued to each truck or truck tractor and must be affixed to the applicable vehicle. The plate has a white background with black lettering. Large letters "DZ" are on the left side of the plate with a number on the right. Underneath this data is a city abbreviation designating the local delivery area in which the vehicle may operate. The Permit-Cab Card and Plate must both be with the proper vehicle at all times.

(5) The permit and identification are issued at no charge and have no expiration date as long as they are used in compliance with these regulations and with section 61-10-203 (4) and (5), MCA.

3. The rule is proposed to be amended for clarification purposes only. The intent of the policy has not been changed. A copy of the existing rule can be obtained by contacting the Gross Vehicle Weight Division, Box 4639, Helena, Montana 59601. This rule is contained on ARM page 18-120.

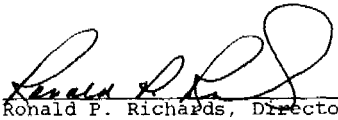
4. Interested parties may submit their data, views or arguments concerning the proposed amendment in writing to

Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less of the persons directly affected by the proposed amendment; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 804 persons based on the number of companies licensed under proportional registration during 1979.

7. The authority of the department to make the proposed amendment is based on section 61-10-203, MCA and implements sections 61-10-203 (4) and (5), MCA.

By: 
Ronald P. Richards, Director
Department of Highways

Certified to the Secretary of State, January 22, 1980.

BEFORE THE DEPARTMENT OF HIGHWAYS
OF THE STATE OF MONTANA

IN THE MATTER OF THE AMENDMENT of Rule 18-2.10(6)-S1050 regarding G.V.W. Validating Identification.	NOTICE OF PROPOSED AMENDMENT OF RULE 18-2.10(6)-S1050, G.V.W. VALIDATING IDENTIFICATION. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to amend Rule 18-2.10(6)-S1050 regarding Gross Vehicle Weight Validating Identification.

2. The rule as proposed to be amended provides as follows:

18-2.10(6)-S1050 G.V.W. VALIDATING IDENTIFICATION

(1) Each truck, truck tractor, trailer, semi trailer or three unit trailer with a gross weight in excess of 24,000 pounds (or non-resident paying a G.V.W. fee ONLY) will be issued a G.V.W. validating decal and cab card showing the expiration of the G.V.W. fees paid. G.V.W. validating plates will no longer be issued. Busses paying G.V.W. fees will also be issued a decal and cab card.

(2) The decal is to be placed in the upper right hand corner of the Montana registration plate. The renewal decal is to be placed over the expired decal.

(3) Decals will be issued in five series: A = 100% G.V.W. Fee; B = 75% G.V.W. Fee; C = 16% G.V.W. Fee (Farm); D = Schedule III Fees (Combined Gross Weight); and E = 55% G.V.W. Fees.

(4) Each decal will have the large figure "1", "2", "3", or "4" in the center which indicates the expiration date of the G.V.W. Fee: "1" = Expires March 31; "2" = Expires June 30; "3" = Expires September 30; and "4" = Expires December 31.

(5) The G.V.W. validating identification will be issued by the G.V.W. Division after the payment of G.V.W. fees.

3. This rule is proposed to be amended to make current the information regarding G.V.W. validating identification. This rule has not been amended since its initial adoption in 1972 and the G.V.W. Division no longer issues validating plates as the rule now states. The meaning and intent of the rule has not been changed. It may be found on ARM pages 18-119 and 18-120. A copy of the existing rule can be obtained by contacting the Gross Vehicle Weight Division, Box 4639, Helena, Montana 59601.

4. Interested parties may submit their data, views or arguments concerning the proposed amendments in writing to Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less of the persons directly affected by the proposed amendment; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 1,800 persons based on the number of estimated operators of vehicles in excess of 24,000 pounds travelling Montana's highways in 1979.

7. The authority of the department to make the proposed amendment is based on section 61-10-209, MCA and implemented by 61-10-201 through 61-10-209, MCA, and 61-12-205, MCA.

By: 
Ronald P. Richards, Director
Department of Highways

Certified to the Secretary of State, January 22, 1980.

BEFORE THE DEPARTMENT OF HIGHWAYS
OF THE STATE OF MONTANA

IN THE MATTER OF THE AMENDMENT of Rule 18-2.10(1)-S1000 regarding Highway Department G.V.W. enforcement officers.	NOTICE OF PROPOSED AMENDMENT OF RULE 18-2.10(1)-S1000, DIVISION EMPLOYEES AS PEACE OFFICERS. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 3, 1980, the Department of Highways proposes to amend Rule 18-2.10(1)-S1000 regarding Highway Department G.V.W. enforcement officers.

2. The rule as proposed to be amended provides as follows:

18-2.10(1)-S1000 DIVISION EMPLOYEES AS PEACE OFFICERS

(1) Training for G.V.W. Personnel as Peace Officers

(a) Each employee shall be of good moral character and integrity.

(b) Each employee shall, unless he has previous acceptable law enforcement experience, complete the basic law enforcement academy training course at Bozeman and, in addition, shall serve a ninety (90) day apprenticeship as a G.V.W. Enforcement Officer before he is authorized to make the arrests provided for in 61-12-206, MCA.

(2) Official Uniform for G.V.W. Personnel Authorized to Arrest

(a) Summer Uniform. A shirt and trousers of military ~~suntan~~ style, with insignia upon both shoulders stating "Department of Highways - G.V.W. Division".

(b) A silver six pointed star, which contains the words "Department of Highways", official title of officer, and badge number shall be worn upon the left side of the shirt above the breast pocket.

(c) In addition, a name plate designating the officer's name shall be worn upon the ~~left~~ right side of the shirt.

~~(b)~~ (d) Winter Uniform. Shirt, trousers, and jacket of military style with insignia, badge, and name plate similar to summer uniform.

(3) Forms Used. G.V.W. Form 8, "Notice to Appear", and G.V.W. Form 161, "G.V.W. Weighing Station Report", are both issued to the public.

3. This rule is proposed to be amended to delete the word "suntan" in reference to the style of uniform because there is some confusion whether this refers to color or style. It was intended to refer to style only. The uniforms have been blue in color for many years. Also, the name plate designating the officer's name is being moved from the left side of the shirt to the right side. When the badge and nameplate are

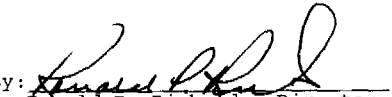
both worn on the left side, the badge strikes the top of the nameplate. Moving the nameplate to the right side of the shirt will alleviate this problem.

4. Interested parties may submit their data, views or arguments concerning the proposed amendment in writing to Ronald P. Richards, Director, Department of Highways, 2701 Prospect Avenue, Helena, Montana 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit that request along with any written comments he has to Ronald P. Richards, Director, Department of Highways, 2701 Prospect, Helena, Montana 59601, no later than February 28, 1980.

6. If the Agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less of the persons directly affected by the proposed amendment; from the Administrative Code Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 21,547 persons based on the number of estimated carriers operating on Montana's highways from January to September 1979.

7. The authority of the department to make the proposed amendment is based on section 61-12-201, MCA and implements sections by 61-12-201 through 61-12-208, MCA.

By: 
Ronald P. Richards, Director
Department of Highways

Certified to the Secretary of State, January 22, 1980.

BEFORE THE BOARD OF LIVESTOCK
STATE OF MONTANA

In the matter of the amendment of rule 32-2.6A(22)-S6010 relating to brands and earmarks.	)	NOTICE OF PROPOSED AMENDMENT OF RULE 32-2.6A(22)-S6010 (Brands And Earmarks) NO PUBLIC HEARING CONTEMPLATED

TO: ALL INTERESTED PERSONS

1. On or after March 3, 1980 the Board of Livestock proposes to amend rule 32-2.6A(22)-S6010 BRANDS AND EARMARKS to add additional brands recorded to the department for disease control purposes.

2. The rule as proposed to be amended will read: (new material underlined)

32-2.6A(22)-S6010 BRANDS AND EARMARKS (1) The following brands and earmarks owned and registered in the name of the Department of Livestock, Animal Health Division shall be used only for the purpose herein designated and shall not be used on livestock by anyone other than an official representative of the Montana Department of Livestock, Animal Health Division.

(a) Brands and earmarks for cattle:

(i) "T" on right or left jaw designates reactors to the tuberculin test and animals otherwise determined to be affected with tuberculosis.

(ii) "B" on right or left jaw designates reactors to the blood test for brucellosis and cattle otherwise determined to be affected with brucellosis.

(iii) "U" out of bottom of each ear designates calves officially vaccinated with Brucella abortus vaccine.

(iv) "0 - 9" inclusive on right side of neck of calves designating the year in which calves are officially vaccinated with Brucella abortus vaccine. (For example - 8 for 1958, 4 for 1964.)

(v) "O" (hole) in either ear designates adult cattle officially vaccinated with Brucella abortus vaccine.

(vi) "F" on left shoulder designated feeder cattle in a quarantined feedlot.

(vii) "S" on right or left side of neck designated officially spayed heifers.

(viii) "S" on left jaw to designate animals going to slaughter or quarantine feedlot because of exposure to brucellosis.

(b) Brands and earmarks for sheep:

(i) "S" on right back designates quarantined sheep (imported or quarantined for any purpose.)

(c) Brands and earmarks for horses:

(i) "C" on left jaw designated reactors to the blood test for dourine and animals otherwise determined to be

affected with dourine.

(ii) "G" on right jaw designated reactors to the mallein test and animals otherwise determined to be affected with glanders.

(iii) "81A" on left neck or left shoulder, to be used with marks "0 to 99".

(iv) "0 to 99" in left neck to be used with "81A".

3. The rule is proposed to be amended because it does not in its present form contain all of the brands and marks recorded to the department for disease control purposes.

4. Interested persons may submit their data, views, or arguments concerning the proposed amendment in writing to James W. Glosser, D.V.M., Administrator & State Veterinarian, Animal Health Division, Department of Livestock, Capitol Station, Helena, Montana, 59601 no later than March 3, 1980.

5. If any person who is directly affected by the proposed amendment wishes to express his data, views, or arguments orally or in writing at a public hearing he must make written request for a hearing and submit this request along with any written comments he has to Dr. Glosser, at the address given in paragraph 4 of this notice, no later than March 3, 1980.

6. The department having determined that more than 250 persons directly affected by this rule, if requests are received from 25 or more persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register.

7. The authority of the department to make these proposed rule changes is based on section 81-2-102 MCA, and the rule implements that same section.

ROBERT G. BARTHELMESS
Chairman, Board of Livestock

By: JAMES W. GLOSSER, D.V.M.
Administrator & State Veterinarian

Certified to the Secretary of State January 22, 1980.

BEFORE THE BOARD OF LIVESTOCK
STATE OF MONTANA

In the matter of the amendment of rules 32-2.6A(26)-S6020, 32-2.6A(26)-S6025, 32-2.6A(26)-S6032, 32-2.6A(26)-S6040, 32-2.6A(26)-S6050, 32-2.6A(26)-S6070, 32-2.6A(26)-S6105 relating to brucellosis control.	NOTICE OF PROPOSED AMENDMENT OF RULES 32-2.6A(26)-S6020, 32-2.6A(26)-S6025, 32-2.6A(26)-S6032, 32-2.6A(26)-S6040, 32-2.6A(26)-S6050, 32-2.6A(26)-S6070, AND 32-2.6A(26)-S6105 (Brucellosis Control) NO PUBLIC HEARING CONTEMPATED

TO: All Interested Persons

1. On or after March 3, 1980 the Board of Livestock proposes to amend rules 32-2.6A(26)-S6020 DEFINITION OF TERMS USED, 32-2.6A(26)-S6025 TESTING OF ANIMALS, 32-2.6A(26)-S6032 MEMORANDUM OF UNDERSTANDING, 32-2.6A(26)-S6040 IDENTIFICATION OF TESTED, REACTOR AND OTHER ANIMALS, 32-2.6A(26)-S6050 MOVEMENT OF QUARANTINED ANIMALS, 32-2.6A(26)-S6070 REMOVAL OF HERD QUARANTINE, and 32-2.6A(26)-S6105 BRUCELLOSIS TESTS OF SWINE by relating to brucellosis control.

2. The rules proposed to be amended are as follows: (new material underlined; material to be removed interlined)

32-2.6A(26)-S6020 DEFINITIONS OF TERMS USED (1) An "animal" is any quadruped of a species which can become infected with brucellosis. The term includes, but is not limited to a member of the bovine, porcine, canine, ovine, bison, caprine, or feline, ~~wapiti, or cervidae species~~, the genus cervidae.

(2) "Brucellosis" is an infectious, transmissible disease of animals and man caused by Brucella abortus, Brucella suis or Brucella melitensis, which are referred to in these rules collectively as "Brucella organisms" or individually as a "Brucella organism".

(3) An "approved antigen" is a standardized suspension of Brucella organism approved by the United States Department of Agriculture used for testing for brucellosis.

(4) An "official test" is a test by a deputy state veterinarian or other person specifically trained to conduct such test approved by the state veterinarian, performed on animal blood, sera, secretions, excretions, discharges, tissues, fetal membranes, or fetuses designed to indicate the presence of brucellosis utilizing one or more of the following procedures: the standard plate test (SPT), the standard tube test (STT), the card test (CT), the rivanol test, the complement fixation (CF) test, the mercaptoethanol (ME) tube test, the rapid screening test (RST), brucellosis ring test (BRT), the heat inactivation test (HIT), the hemoagglutination (HA) test, or any other isolation test or procedure recommended for use in the diagnosis of brucellosis

by the United States Department of Agriculture. To be considered official the procedure is to be performed in a facility approved by the Department unless otherwise authorized by the state veterinarian. The determination of whether an animal is a reactor animal, a suspect animal or a negative animal shall be made from the official test by a veterinarian who is in the employ of the Department or is a designated brucellosis epidemiologist. Test results shall be recorded on the official forms of the Department for the recording of brucellosis test results.

(5) An "official vaccination" is the subcutaneous inoculation of a female bovine with a Brucella abortus vaccine licensed by the Veterinary Biologics Division, United States Department of Agriculture, by a deputy state veterinarian, or other persons approved by the state veterinarian. The female bovine animal of a dairy breed shall be ~~two (2) to~~ through ~~eight (8)~~ 6 months (60 to ~~239~~ 179 days) of age or the female bovine animal of a beef breed shall be ~~two (2) to~~ through ~~ten(10)~~ months (60 to 299 days) of age at the time of vaccination with licensed Brucella abortus vaccine. An official vaccination shall include proper permanent identification of the animal at the time of vaccination and the issuance of a completed SV-64.

(6) An "official vaccinate" is a animal, which has received an official vaccination, bearing proper permanent identification with a report of the official vaccination filed with the Department.

(7) "Proper permanent identification" of officially vaccinated animals shall include the following forms of identification recorded on form SV-64.

(a) The United States registered "Shield and V" applied in the right ear of the animal. The "Shield and V" shall be preceded by a numeral indicating the quarter of the year and followed by the last digit of the year in which the official vaccination was performed; and

(b) The U.S.D.A. approved metal vaccination eartag placed in the right ear, ~~and/or where the vaccination eartag is considered unsatisfactory as secondary identification, then the U notch underbit shall be used in the right ear.~~; or

(c) the breed registration ~~tattoo~~ applied in the left ear if the animal is officially registered as a member of a recognized breed.

~~(c)~~ (d) In the event that the right ear is of insufficient size to accomodate the tattoo and eartag, because of injury or identification ear marking, they may be placed in the left ear.

(8) A "reactor animal" is:

(a) An official vaccinate ~~of a dairy cattle breed twenty (20) months of age and over as evidenced by the presence of~~ in which the first pair of permanent incisor teeth has erupted, or, not having the first pair of permanent incisor teeth, ~~less than twenty (20) months of age~~ that is in the last trimester of pregnancy, parturient or post

parturient that discloses sufficient reaction to an official test to indicate the presence of Brucella organisms, or which is found to be infected with Brucella organisms by other diagnostic procedures; or

~~(b) An official vaccinate of a beef cattle breed twenty four (24) months of age and over as evidenced by the presence of the first pair of permanent incisor teeth; or under twenty four (24) months of age that is in the last trimester of pregnancy; parturient or post parturient that disclose sufficient reaction to an official test to indicate the presence of Brucella organisms; or which is found to be infected with Brucella organisms by other diagnostic procedures; or~~

~~(c)~~ Any other animal that discloses sufficient reaction to an official test to indicate the presence of Brucella organisms, or which is found to be infected with Brucella organisms by other diagnostic procedures.

(9) "Suspect animal" is:

(a) An official vaccinate ~~of a dairy cattle breed twenty (20) months of age or over as evidenced by the presence of~~ in which the first pair of permanent incisor teeth has erupted, or, not having the first pair of permanent incisor teeth, ~~under twenty (20) months of age~~ that is in the last trimester of pregnancy, parturient or post parturient that is displaying equivocal results to an official test; or

~~(b) An official vaccinate of a beef cattle breed twenty four (24) months of age and over as evidenced by the presence of the first pair of permanent incisor teeth; or under twenty four (24) months of age that is in the last trimester of pregnancy; parturient or post parturient that is displaying equivocal results to an official test; or~~

~~(c)~~ Any other animal disclosing equivocal results to an official test.

An "equivocal result" is one in which there is a reaction to an official test indicating the possible presence of Brucella organisms but which is insufficient to justify designating the tested animal as a reactor.

(10) A "negative animal" is:

(a) An official vaccinate ~~of a dairy cattle breed twenty (20) months of age or over as evidenced by the presence of~~ in which the first pair of permanent incisor teeth has erupted, or, not having the first pair of permanent incisor teeth, ~~less than twenty (20) months of age~~ that is in the last trimester of pregnancy, parturient or post parturient that displays negative results to an official test; or

~~(b) An official vaccinate of a beef cattle breed twenty four (24) months of age or over as evidenced by the presence of the first pair of permanent incisor or less than twenty four (24) months of age that is in the last trimester of pregnancy; parturient or post parturient that displays negative results to official test; or~~

~~(e)~~ Any other animal which displays negative results to an official test.

(11) An "exposed animal" is any animal that is a part of a herd with brucellosis reactors, or an animal that has been in contact with brucellosis reactors on farms, ranches, in feedlots, in marketing channels or elsewhere for periods of time sufficient for transmission of the Brucella organism.

(12) A "herd" is:

(a) ~~More than one~~ One or more animals ~~animal~~ of the same species owned or supervised by one or more persons and kept in a location that permits easy intermingling of animals unhindered by man-made or natural barriers; or

(b) Two or more groups of one or more animals ~~than one animal~~ of the same species kept geographically separated, but under common ownership or supervision in which there is an interchange or movement of animals between or among such groups without regard to health status.

(13) A "contact herd" is a herd of animals that is shown through epidemiological investigation to have come in contact with herds of known reactor animals, or exposed herds or animals through direct contact or through being in proximity to possible modes of transmission of the Brucella organisms.

(14) A "herd test" is an official test of all swine over ~~six (6)~~ months of age in a herd, or an official test of all cattle in a herd over ~~eight (8)~~ months of age, except steers, spayed heifers, official vaccinates ~~of dairy breeds less than twenty (20) months of age and official vaccinates of beef breeds less than twenty-four (24) months of age.~~ in which the first pair of permanent incisor teeth has not erupted, or, that are not in the third trimester, parturient or post parturient.

(15) "Department" is the Montana Department of Livestock Animal Health Division.

(16) "Person" is an individual, partnership, corporation, trust or any other entity capable of owning livestock.

(17) "Investment service" is a person who purchases and manages cattle for five or more separate persons whose primary occupations are not the production of livestock.

32-2.6A(26)-S6025 TESTING OF ANIMALS (1) The Department may order the official testing or retesting of animals for the presence of brucellosis.

(a) An owner of exposed animals or a contact herd, or his agent, shall present the exposed animals or contact herd to the department for an initial official test for the presence of brucellosis within 15 days of the date of an order issued by the department directing such test of such exposed animals or contact herd for the presence of brucellosis. The time allowed the owner of exposed animals or a contact herd or his agent to present the exposed animals or contact herd for an initial test for the presence of brucellosis, as specified herein may be enlarged or extended by the state

veterinarian for good cause shown.

(b) An owner of animals quarantined or identified as suspects as the result of an initial official test for the presence of brucellosis shall present the animals quarantined or identified as suspects for an official retest for the presence of brucellosis within 15 days of the date of any order of the department directing such official retest. The time allowed the owner of animals quarantined or identified as suspects or his agent, to present the animals quarantined or identified as suspects for official retest for the presence of brucellosis, as specified herein, may be enlarged or extended by the state veterinarian for good cause shown.

(c) An owner, or his agent, presenting exposed animals or a contact herd for an initial official test for the presence of brucellosis or presenting animals quarantined or identified as suspects for purposes of official retest for the presence of brucellosis shall provide manpower, equipment and facilities sufficient to restrain the animals for purposes of accomplishing such an initial test or retest.

(d) The expense of bleeding and serologic tests performed under this section will be met by the department except as provided by section 46-230, R.C.M. 1947.

(2) The department may order the official testing of animals for brucellosis when such a test is required under the terms of sections (3) or (4) of this rule and has not been performed at the time the change of ownership or when the change of premises occurred. The expense of bleeding shall be met by the person in possession of the livestock at the time the test is ordered.

(3) Any cattle, bison or elk under domestication, capable of breeding in which the eruption of the first pair of permanent incisor teeth has occurred, or which are in the third trimester of the first pregnancy and female swine and boars 6 months of age and over not consigned for immediate slaughter or to an out-of-state destination which change ownership, shall

(a) Be determined to be negative as the result of an official test for brucellosis performed not more than 30 days prior to the date sold or moved, as evidenced by an official brucellosis test form of the department showing the results of that test; or

(b) Be from bovine herds certified to be brucellosis-free under the provisions of Rule 32-2.6A(26)-S6100 or porcine herds validated as brucellosis-free under the provisions of Rule 32-2.6A(26)-S6110.

(c) Animals otherwise required to be tested under this section which were not tested because they were consigned for immediate slaughter or to an out-of-state destination shall not be diverted from those destinations unless and until such animals are found negative to an official test for brucellosis evidenced by an official brucellosis test form of the department showing the results of that test, and are not, under this sub-chapter, otherwise determined to be

exposed animals.

(d) Cattle eligible for test under sections (3) or (4) of this rule which were tested as part of a complete herd test within the past 6 months to which no cattle other than breeding bulls and herd progeny have been added and in which no reactors were identified, as evidenced by an official brucellosis test form of the department showing the results of that test, are exempt from the test requirements of sections (3) or (4) of this rule.

(e) Cattle otherwise eligible for test under section (3) of this rule which have changed ownership without changing premises and are part of a herd (i) to which no cattle have been added other than natural increase or herd bulls for at least two years, (ii) which have a history of complete vaccination for all eligible cattle and (iii) which have shown no indication of brucellosis infection, or recent exposure thereto, may be exempted from the requirements of section (3) of this rule by the state veterinarian.

(4) (a) Cattle capable of breeding in which the eruption of the first pair of permanent incisor teeth has occurred, or which are in the third trimester of the first pregnancy owned or managed by an investment service or ~~an out-of-state~~ a corporation the majority of whose shareholders are not primarily engaged in the production of livestock, which are moved from one premise to another noncontiguous premise shall be found negative to an official test for brucellosis made not more than 30 days prior to such a movement. The owner or manager of such cattle may petition the state veterinarian for a waiver of such test requirements. Upon a finding that the interests of animal disease control will not be harmed, the waiver may be granted.

(b) The owner or manager of cattle required to be tested under section (4) of this rule, or his agent, shall be responsible for arranging and paying for the test required by this section.

32-2.6A(26)-S6032 MEMORANDUM OF UNDERSTANDING (1) Using the epidemiological report required by 32-2.6A(26)-S6031 as its basis, a memorandum of understanding must be developed between the owner of the infected herd and the department to establish a disease eradication effort. The memorandum shall cover at least the following points:

(a) Herd management practices that will be employed to facilitate disease eradication.

(b) Any physical facility modification that will be required.

(c) Specific dates for accomplishing the tasks required.

(2) This memorandum of understanding will be developed with the participation of a licensed veterinarian selected by the owner, if the owner so desires.

(3) The memorandum of agreement shall be the basis for management of the quarantined herd until the quarantine is released. Any modifications of the memorandum shall be made

in writing and subscribed by both parties. In the event of emergency circumstances, the Department may take such actions as are lawful and necessary to control the disease, beyond the terms of the memorandum.

(4) The memorandum of understanding shall be considered a binding agreement between the parties having the force of an order as contemplated under Section 81-2-102 MCA. Failure by a quarantined herd owner or his agent to come to an agreement on the memorandum of understanding or to follow its terms shall be considered a violation of orders under that section of the statutes.

32-2.6A(26)-S6040 IDENTIFICATION OF TESTED, REACTOR AND OTHER ANIMALS (1) Reactor animals shall be tagged in the left ear with a serially numbered United States Department of Agriculture or Department brucellosis reactor tag, and shall be permanently branded on the left jaw with the letter "B" not less than two (2) inches high. Tagging and branding of reactors must be accomplished within fifteen (15) days after the date of ~~bleeder sera collection~~ test on the blood or sera collected from the animal. The time allowed to tag and brand reactor animals, as specified herein, may be enlarged or extended by the state veterinarian for good cause shown.

(2) Animals which have been subjected to an official test for brucellosis shall be identified with serially numbered identification ear tags of the United State Department of Agriculture or of the Department, registration tattoos, numbered earmarks, or other definite individual animal identification mark, approved by the Department, and applied under the supervision of the Department.

(3) The United States Department of Agriculture backtag is adopted by the Department as an official animal identification tag for market cattle identification (MCI).

(4) The unauthorized removal of any identification provided for under this rule is prohibited.

32-2.6A(26)-S6050 MOVEMENT AND DISPOSITION OF ANIMALS OTHER THAN REACTORS IN A QUARANTINED HERD Reactor animals shall be moved from a quarantined herd and the quarantined premises and disposed of as provided in Rule 32-2.6A(26)-S6045. Animals in a quarantined herd other than reactor animals may not be moved from the quarantined herd or the quarantined premises, sold, given away, offered for sale, or otherwise disposed of, except as authorized by the Department under written permit of the Department or otherwise in this rule. The Department shall issue a permit for the movement of animals other than reactor animals in a quarantined herd from the quarantined premises as follows:

(1) For suspect and negative animals upon the condition that they are consigned directly to and their immediate destination is:

(a) A slaughtering establishment in this state or in

another state operating under the provisions of the Federal Meat Inspection Act (21 U.S.C. 601 et seq.), or to a slaughtering establishment in this state or another state specifically approved by the United States Department of Agriculture to slaughter brucellosis exposed animals, for immediate slaughter; or

(b) A livestock market licensed under the livestock laws of this state for immediate marketing and slaughter pursuant to and in accordance with the provisions of Section (1), subsection (a) of this rule; or

(c) A livestock market or sale yard in another state specifically approved by the United States Department of Agriculture to receive brucellosis reactors for immediate sale and shipment to a slaughtering establishment operating under the provisions of the Federal Meat Inspection Act (21 U.S.C. 601 et seq.), or to a slaughtering establishment specifically approved by the U. S. Department of Agriculture to slaughter brucellosis exposed animals, for immediate slaughter, or;

(d) A feedlot approved by the State Veterinarian of the State of Montana as a quarantined feedlot under Rule 32-2.6A (10)-S630, or feedlot approved as a quarantined feedlot by the appropriate regulatory authority of another state, to be fed in such quarantined feedlot until removed from such quarantined feedlot for direct consignment to

(i) A slaughtering establishment in this state or in another state operating under the provisions of the Federal Meat Inspection Act (21 U.S.C. 601 et seq.), or to a slaughtering establishment in this state or another state specifically approved by the United States Department of Agriculture to slaughter brucellosis exposed animals, for immediate slaughter; or

(ii) A livestock market licensed under the livestock laws of this state for immediate marketing and slaughter pursuant to and in accordance with the provisions of Section (1) subsection (a) of this rule; or

(iii) A livestock market or sale yard in another state specifically approved by the United States Department of Agriculture to receive brucellosis reactors for immediate sale and shipment to a slaughtering establishment operating under the provisions of the Federal Meat Inspection Act (21 U.S.C. 601 et seq.), or to a slaughtering establishment specifically approved by the United States Department of Agriculture to slaughter brucellosis exposed animals, for immediate slaughter.

(2) Animals moved pursuant to section (1) of this rule must

(a) Be branded on the left jaw with a hot iron "S" brand at least two inches high, or

(b) If moving directly to an approved slaughter destination either from the farm or ranch of origin or from a livestock market approved to receive brucellosis reactors, be transported in a sealed vehicle to which livestock are

neither added, or removed except at the slaughter facility.

(3) The Department also may issue a permit for the movement of negative animals in a quarantined herd from the quarantined premises to other premises approved by the Department, upon such conditions as the state veterinarian may prescribe.

(4) No permit is required for the movement of steers or spayed heifers in a quarantined herd from the quarantined premises to any destination.

(5) A permit may be issued for the movement of calves, of either sex, ~~both heifer and bull, eight (8)~~ 6 months of age and under, from negative dams, within ten (10) days after a negative official test of the dam for brucellosis, to any destination with no requirement that such calves be slaughtered~~, at any time within ten (10) days after a negative official test of the dam for brucellosis upon such conditions as the state veterinarian may prescribe~~.

(6) Animals determined to be suspect or exposed animals as a result of an official test for brucellosis performed at licensed livestock market shall be:

(a) Quarantined at the market and kept separate and apart from all non exposed and reactor animals; and

(b) Disposed of pursuant to and in accordance with the provisions of this rule for the movement and disposition of animals other than reactors in a quarantined herd, and any applicable federal law.

(c) Be returned under written permit issued by the Department to the herd and place of origin for further testing, quarantine and disposition in accordance with the provisions of this sub-chapter relating to brucellosis control.

32-2.6A(26)-S6070 REMOVAL OF HERD QUARANTINE RETEST AND RECORD KEEPING AFTER QUARANTINE-REMOVAL (1) A brucellosis quarantine shall be removed by the Department from a quarantined herd when ~~two~~ (2) consecutive negative herd tests have been performed provided the first negative test is made not less than ~~thirty~~ (30) days after the removal of all reactor animals from the herd and the second negative test is made not less than ~~ninety~~ (90) days after the first negative test.

(2) Upon order of the Department, an owner of a herd released from brucellosis quarantine, or his agent, shall present all animals of the herd so released from quarantine still in his possession, and any animals intermingled with them since the release from quarantine, for an official assurance retest for the presence of brucellosis not sooner than ~~sixty (60) days or more than ninety (90)~~ 180 days after the date of release from brucellosis quarantine.

(3) The owner of a herd released from brucellosis quarantine, or his agent, shall keep and maintain accurate records of the immediate destinations of all animals sold, dispersed or moved from the herd released from quarantine

within ~~ninety (90)~~ 180 days of the date of release from quarantine, and the owner of the herd released from quarantine, or his agent, upon request of the Department, shall produce such records for review by the Department. Such records are to be retained for a period of a least ~~one (1) year~~2 years from and after the date of release of quarantine.

32-2.6A(26)-S6105 BRUCELLOSIS TESTS OF SWINE ~~(1) The Department of Livestock, upon request of representatives of the swine producing industry in Montana, on September 22, 1971 directed that a program of brucellosis testing of swine be inaugurated to attain official validation of the State of Montana as swine brucellosis free under the provisions of the rules contained in Title 32 Chapter 6A.~~

~~(2)~~ (1) All swine herds from which swine are sold for breeding purposes shall qualify for and be validated as free of brucellosis in accordance with the provisions of the rules contained in Title 32 Chapter 6A.

~~(3)~~ (2) Blood samples shall be taken from all sows, stags and boars slaughtered in Montana slaughtering establishments and an official brucellosis test made on each sample taken. All sows, stags and boars sold to be slaughtered shall be identified as to farm of origin and that identity shall be maintained until the blood sample is collected.

3. These amendments are made to clarify brucellosis control procedures. The rationale for each change is as follows: a) 32-2.6A(26)-S6020 (1) clarifies the definition of animals to make it more scientifically accurate. Paragraph (4) allows an epidemiologist not in the employment of the department to determine reactor status. Paragraph (5) is amended to reflect recent changes in the Federal program. Paragraph (7) clarifies the requirements for proper permanent indentification of officially vaccinated animals by providing that breed registration tattoos may be used in addition to the United State Registered Shield. Paragraphs (8), (9), & (10) clarify the age at which a vaccinated animal is subject to test and designation as a reactor, suspect or negative animal respectively. Paragraph (12) is proposed for amendment to allow the repeal of Rule 32-2.6A(26)-S6055 TREATMENT OF INDIVIDUAL ANIMALS NOT PART OF A HERD. b) Rule 32-2.6A(26)-S6025 required a change of pasture test on what amount to investment cattle owned by a corporation a majority of shareholders are not livestock producers. This change deletes the requirement that such a test occur only when the corporation is an out-of-state corporation and will therefore require that test of any corporation. This change is made because the department feels that whether or not a corporation of the type required for testing is in state or out-of-state has little relationship to the disease control needs or reasons for the change of pasture test. c) Rule 32-2.6A(26)-S6032 is amended to clarify that the owner only if he desires

has to have a veterinarian of his choice to assist in drawing up the brucellosis control agreement. d) Rule 32-2.6A(26)-S6040 is modified to clarify that the branding and tagging of reactor animals will occur 2 weeks after the test results have been determined rather than 2 weeks after the blood has been collected. This change is made to give the owner a more reasonable time to gather those animals that should be branded and tagged as a result of being determined to be reactor animals to the brucellosis test. e) Rule 32-2.6A(26)-S6050 clarifies that calves leaving a herd within 10 days of being removed from its negative dam may be no more than 6 months of age. This change is to conform to federal practice. f) The amendment to Rule 32-2.6A(26)-S6070 allows for a longer time following the release of quarantine for the assurance test. g) The amendment to rule 32-2.6A(26)-S6105 is to remove language that is not longer necessary to effectuate the purposes of the rule.

4. Interested persons may submit their data, views, or arguments concerning the proposed adoption in writing to James W. Glosser, Administrator & State Veterinarian, Animal Health Division, Department of Livestock, Capitol Station, Helena, Montana, 59601 no later than March 3, 1980.

5. If any person who is directly affected by the proposed amendment of these rules wishes to express his data, views, or arguments orally or in writing at a public hearing he must make written request for a hearing and submit this request along with any written comments he has to Dr. Glosser, at the address given in paragraph 4 of this notice, no later than March 3, 1980.

6. The department having determined that more than 250 persons are directly affected by this rule, if requests are received from 25 or more persons who are directly affected by the proposed adoption; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register.

7. The authority of the department to make these proposed amendments is based on section 81-2-102 MCA, and the rules implement that same section.

ROBERT G. BARTHELMESS
Chairman, Board of Livestock

By: JAMES W. GLOSSER, D.V.M.
Administrator & State Veterinarian

Certified to the Secretary of State January 22, 1980.

BEFORE THE BOARD OF LIVESTOCK
STATE OF MONTANA

In the matter of the amendment of rule 32-2.6A(30)-S6160 relating to biologics.	)	NOTICE OF PROPOSED AMENDMENT OF RULE 32-2.6A(30)-S6160
	)	(Use of Biologics)
	)	NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On or after March 3, 1980 the Board of Livestock proposes to amend rule 32-2.6A(30)-S6160 CONTROL OF BIOLOGICS by adding a definition of "biologics" and incorporating other language relating to biologics.

2. The rule as amended will read: (new material underlined and deleted material interlined)

32-2.6A(30)-S6160 CONTROL OF BIOLOGICS (1) In this sub-chapter "biologic" means a medicinal preparation made from living organisms and their products. It includes but is not limited to serums, vaccines, bacterins, antigens, and antitoxins.

~~(1)~~ (2) No person shall manufacture for sale, or sell, or offer for sale for use in the State of Montana, any biological product intended for diagnostic, immunizing or therapeutic purposes in animals unless such product is approved by and manufactured under a license issued by the U.S. Department of Agriculture, or unless upon specific permission in writing by the Montana Department of Livestock, Animal Health Division.

~~(2)~~ (3) No person or persons shall sell or offer for sale in the State of Montana any product for use in animals or poultry that contains a living virus or living organism that is pathogenic or disease-producing, except upon specific permission to do so from the Montana Department of Livestock Animal Health Division.

(4) No person may sell, offer for sale, or use brucella antigen of any kind unless specific permission has been given by the state veterinarian's office.

~~(3)~~ (5) No person shall inject into or otherwise administer to poultry or animals which produce milk or other food products, or that are to be used as food for man or for animals, any virus or other substance containing pathogenic or disease producing microorganisms of a kind that is virulent for man, animals, or poultry except upon specific permission to do so from the Montana Department of Livestock, Animal Health Division; provided, however, that the restriction set forth in this paragraph shall not apply to contagious ecthyma vaccine when such product is used in accordance with the recommendations of the manufacturer and the regulations of the Montana Department of Livestock.

~~(4)~~ (6) Manufacturers of contagious ecthyma vaccine manufactured under a license issued by the U.S. Department

of Agriculture may ship contagious ecthyma vaccine to a person, persons or concern in Montana having a blanket permit which bears a serial number issued by the Montana Department of Livestock, Animal Health Division. In all such orders the permittee shall designate the serial number of his permit before such order shall be filled. Permittees shall report (on Form SV-52) to the Montana Department of Livestock, Animal Health Division each month the number of doses of contagious ecthyma vaccine sold during the month and the name, address and signature of the purchaser.

~~(5)~~ (7) ~~Virulent hog cholera virus shall not be shipped into the State of Montana or sold, distributed or used within the State of Montana unless upon specific written permission for each shipment from the Montana Deparement of Livestock, Animal Health Division. Specific written permission for the receipt and use of virulent hog cholera virus will be granted only to accredited, licensed veterinarians.~~ The distribution, sale or the use of virulent hog cholera virus is prohibited.

(8) The distribution, sale or use of viable anthrax vaccines is prohibited except by permit from the State Veterinarian of Montana.

(9) The sale of any rabies biologic except to a licensed veterinarian or public health agency is prohibited.

~~(6)~~ (10) Any person using tuberculin in livestock or poultry shall report immediately the use of that tuberculin, giving the number of animals or poultry injected, time and place, and the name and address of the owner of animals or poultry, and results obtained to the Montana Department of Livestock, Animal Health Division.

~~(7)~~ (11) All serums, viruses, and vaccines and any biologic sold or offered for sale within the State of Montana for use in domestic animals or poultry shall be sold or offered for sale in their original container.

~~(8)~~ (12) All serums, viruses, and vaccines sold or offered for sale in the State of Montana for use in domestic animals shall be kept in a dark place at a temperature of not more than 45° F, and not less than 35° F, until such time as they are sold, and shall not be sold after their expiration date.

3. This amendment is proposed in order to clarify the meaning of the work "biologic" in the rule, and to clarify the uses of biologics particularly in the cases of hog cholera, anthrax, and rabies vaccines.

4. Interested persons may submit their data, views, or arguments concerning the proposed amendment in writing to James W. Glosser, D.V.M., Administrator & State Veterinarian, Animal Health Division, Department of Livestock, Capitol Station, Helena, Montana, 59601 no later than March 3, 1980.

5. If any person who is directly affected by the proposed amendment of this rule wishes to express his data, views, or arguments orally or in writing at a public hearing he must make written request for a hearing and submit this request along with any written comments he has to Dr. Glosser, at the

address given in paragraph 4 of this notice, no later than March 3, 1980.

6. The department having determined that more than 250 persons directly affected by this rule, if requests are received from 25 or more persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register.

7. The authority of the department to make these proposed amendments is based on section 81-2-102 MCA, and the amendments implement that same section.

ROBERT G. BARTHELMESS
Chairman, Board of Livestock

By:
JAMES W. GLOSSER, D.V.M.
Administrator & State Veterinarian

Certified to the Secretary of State January 22, 1980.

BEFORE THE BOARD OF LIVESTOCK
STATE OF MONTANA

In the matter of the repeal of rule 32-2.6A(42)-S6220 and the amendment of rule 32-2.6A(42)-S6230 relating to the disposal of animal carcasses.	NOTICE OF PROPOSED REPEAL OF RULE 32-2.6A(42)-S6220 AND THE AMENDMENT OF RULE 32-2.6A (42)-S6230 (Disposal Of Animal Carcasses) NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On or after March 3, 1980 the Board of Livestock proposes to repeal rule 32-2.6A(42)-S6220 DISPOSAL OF CARCASSAS: OTHER TRANSMISSIBLE DISEASES and amend rule 32-2.6A(42)-S6230 DISPOSAL OF CARCASSES: NON-TRANSMISSIBLE DISEASES relating to the disposal of animal carcasses.

2. The rule to be repealed is found on page 32-68 of the Administrative Rules of Montana.

3. The rule as proposed to be amended reads as follows: (new material underlined, deleted material interlined)

32-2.6A(42)-S6230 DISPOSAL OF CARCASSES: ~~NON-TRANSMISSIBLE DISEASES~~ (1) Carcasses of animals that have died from causes other than anthrax must be ~~transmissible disease or from a disease caused by a non-spore-forming organism must be burned or properly buried or given to a licensed rendering plant within 36 hours after death, or otherwise~~ disposed of in a satisfactory manner so as not to become a public nuisance or a menace to livestock or poultry. Carcasses of dead animals may not be disposed of along public highways, streams, lakes, or rivers, or allowed to remain on the ground surface so as to become a public nuisance or a menace to livestock or poultry.

4. The department is proposing this repeal and amendment in order to clarify the manner in which animal carcasses are to be disposed particularly for those diseases other than anthrax.

5. Interested persons may submit their data, views, or arguments concerning the proposed repeal and amendment in writing to James W. Glosser, D.V.M., Administrator & State Veterinarian, Animal Health Division, Department of Livestock, Capitol Station, Helena, Montana, 59601 no later than March 3, 1980.

6. If any person who is directly affected by the proposed repeal and amendment of these rules wishes to express his data, views, or arguments orally or in writing at a public hearing he must make written request for a hearing and submit this request along with any written comments he has to Dr. Glosser, at the address given in paragraph 4 of this notice, no later than March 3, 1980.

7. The department having determined that more than 250 persons directly affected by this rule, if requests are received from 25 or more persons who are directly affected by the proposed repeal and amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register.

8. The authority of the department to make these proposed rule changes is based on section 81-2-102, and the rule implements that same section.

ROBERT G. BARTHELMESS
Chairman, Board of Livestock

By
JAMES W. GLOSSER, D.V.M.
Administrator & State Veterinarian

Certified to the Secretary of State January 22, 1980.

BEFORE THE BOARD OF LIVESTOCK
STATE OF MONTANA

In the matter of the repeal of ARM 32-2.6C(1)-S610 and the adoption of a new rule relating to animal diagnostic laboratory fees.	NOTICE OF PROPOSED REPEAL OF ARM 32-2.6C(1)-S610 AND ADOPTION OF NEW RULE (Animal Diagnostic Laboratory Fees) NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 3, 1980 the Board of Livestock proposes to repeal rule 32-2.6C(1)-S610 PROCEDURES FOR WHICH FEES WILL BE CHARGED and adopt a new rule on the subject of laboratory fees and procedures at the animal diagnostic laboratory.

2. The rule to be repealed is found on page 32-208.1 of the Administrative Rules of Montana.

3. The rule to be adopted reads as follows:

LABORATORY PROCEDURES AND FEES

(1) Information stating procedures able to be performed and fees for laboratory services may be obtained by writing the diagnostic laboratory at post office box 997, Bozeman, MT, 59715, or calling (406) 586-5952.

(2) Fees will be charged for procedures on livestock which are requested in order to qualify the livestock for show, sale, shipment across state or international lines, artificial insemination purposes, or procedures which are within the capability of the submitting veterinarian to perform in his own facilities.

(3) Fees will not be charged on livestock for specimens which are submitted because of known or suspected exposure to disease or to obtain laboratory data to aid in disease diagnosis of specific animals. Fees will not be charged for procedures performed on nonanimal materials when such are submitted to aid in disease diagnosis involving specific livestock.

(4) Fees will be charged for procedures performed on specimens from nonlivestock animals except when the specimen has been submitted because of a public health reason.

(5) Fees for procedures performed on specimens submitted from out of state may be higher than those for procedures performed on the same specimens coming from livestock or other animals within the state.

4. The Board is proposing these actions because the number and type of procedures able to be performed at the laboratory is constantly changing and the costs of these procedures are seriously affected by the inflationary spiral. If a repeal and adoption is followed, persons seeking information about the types of procedures available

and their costs can do so by contacting the laboratory directly. The rule to be adopted establishes the framework under which fees will be charged so that persons seeking laboratory assistance will have some idea of what kinds of procedures will require fees. Fees are charged for nonlivestock animals, except those submitted for public health reasons, because the laboratory is funded in significant part by levies on livestock. For the same reason fees on livestock animals from out of state may be higher since those animals are not subject to the taxation which assists in the support of the laboratory.

5. Interested parties may submit their data, views, or arguments concerning the proposed repeal and adoption in writing to Dr. James W. Glosser, D.V.M., Administrator & State Veterinarian, Animal Health Division, Department of Livestock, Capitol Station, Helena, Montana, 59601 no later than March 3, 1980.

6. If any person who is directly affected by the proposed repeal and adoption wishes to express his data, views, or argument orally or in writing at a public hearing he must make written request for a hearing and submit this request along with any written comments he has to Dr. Glosser, at the above address, no later than March 3, 1980.

7. The department having determined that more than 250 persons are affected, if the department receives requests for public hearing on the proposed repeal and adoption from 25 or more persons directly affected by the proposed actions; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will published in the Montana Administrative Register.

8. The authority of the department to make the proposed repeal and adoption is based on section 81-2-102 MCA and the rule implements that same section.

Robert G. Barthelmess
ROBERT G. BARTHELMESS
Chairman, Board of Livestock

By: James W. Glosser
JAMES W. GLOSSER, D.V.M.
Administrator & State Veterinarian

Certified to the Secretary of State January 22, 1980

BEFORE THE BOARD OF LIVESTOCK
STATE OF MONTANA

In the matter of the adoption of rules relating to the dating of milk and liquid dairy products containers for freshness.	)))))	NOTICE OF PUBLIC HEARING (Milk Freshness Dating)

TO: All Interested Persons

1. On March 13, 1980, beginning at 10:00 a.m. a hearing will be held in the auditorium of the Scott Hart Building, Sixth Avenue and Roberts Street, Helena, Montana, to consider the adoption of rules relating to the dating of fluid milk and fluid milk products for freshness.

2. The proposed rules do not replace or modify any rules presently contained in the Administrative Rules of Montana.

3. The proposed rules read as follows:

Rule I. SCOPE OF RULES

These rules apply to whole milk, low fat milk, nonfat milk, buttermilk, chocolate milk, whipping cream, half and half and or any other liquid milk product designed to be consumed in the form in which it is packaged. For purposes of [these rules] "milk" means any of the above products.

Rule II. TIME FROM PROCESSING THAT FLUID MILK MAY BE SOLD FOR HUMAN CONSUMPTION

(1) No grade A pasteurized milk may be sold, offered for sale, or otherwise disposed of for human consumption at retail or wholesale more than [8 through 14] days after pasteurization.

(2) No grade A raw milk may be sold, offered for sale, or otherwise disposed of for human consumption at retail or wholesale more than [8 through 14] days after the milk is bottled.

(3) For purposes of this rule [8 through 14] days after pasteurization or bottling means the midnight closest to [192 through 336] hours following the hour that pasteurization or bottling of the milk is completed.

Rule III. LABELING OF MILK CONTAINERS TO SHOW LAST DAY OF LEGAL SALE

(1) Each container into which grade A pasteurized or grade A raw milk is placed for sale for human consumption must be marked with a pull date. The pull date will state in arabic numerals or standard abbreviations for months, the month and day which is the last day the milk may be sold as set forth in rule II.

(2) Language in substance the same as "sell by" or "not to be sold after" must be placed by the date in a

manner which clearly shows that the milk must be sold by the date on the container.

Alternative A, Rule III. LABELING OF MILK CONTAINERS AS TO DATE OF FILL.

(1) Each container into which grade A pasteurized or grade A raw milk is placed for sale for human consumption must be marked with the date the container was filled. The fill date will, in arabic numerals or using standard abbreviations for months, state the month and day the milk was processed and placed in the container.

(2) Language in substance the same as "filled on" must be placed by the date in a manner which clearly shows that the date on the container is the date when the container was filled.

Alternative B, Rule III. LABELING OF MILK CONTAINERS TO SHOW DATE OF FILL AND LAST DATE OF LEGAL SALE

(1) Each container into which grade A pasteurized or grade A raw milk is placed for sale for human consumption must be marked both with a processing date and a pull date. Each date must be stated in arabic numerals or standard abbreviations for months, and show, respectively, the date on which the container was filled and the date which is the last day of legal sale.

(2) Language in substance the same as "filled on" must be placed by the fill date in a manner which clearly shows that date to be the date when the container was filled.

(3) Language in substance the same as "sell by" or "not to be sold after" must be placed by the pull date in a manner which clearly shows that the pull date is the last date by which the milk may be sold.

Rule IV. EXEMPTION FROM LABELING REQUIREMENT

(1) Licensed grade A raw milk dairies are exempt from the labeling requirements imposed by [Rule III or its alternatives] when all milk packaged for human consumption is sold directly to the consumer either at the licensed retail raw dairy or through a delivery route directly operated by the licensed retail raw dairy.

Rule V. MANNER, POSITIONING, AND SIZE OF LABELING

(1) Labels required by [Rule III or its alternatives] must be of a color clearly contrasting with the area immediately surrounding the label. The labels may be put on by printing, stamping, or burning, a combination of any of those methods, or by some other method specifically approved in writing by the department.

(2) Labels placed on "pure paks" or similar containers must be located on the top sealing fin. Labels on molded plastic jugs may be placed anywhere on the upper half of the container (or on the printed product label) except the lid. Labels for containers shall be at least 1/8 inch

in height.

(3) All characters in the labels required by [Rule III or its alternatives] must be at least 1/8 inch in height.

Rule VI. WHEN MILK OFFERED FOR SALE SUBJECT TO SEIZURE

(1) Milk offered for sale contrary to the provisions to [Rule II or III] may be seized and destroyed by agents of the department of livestock.

4. These rules are proposed for adoption to assure that the consumer may determine the freshness of milk or liquid milk products offered for sale by having each container of those products dated as to freshness. The current practice of most dairy plants is to indicate the date after processing by which their products should be removed from the shelves by putting numbers or standard abbreviations for the months and day on the containers. A representative sampling of such containers made by the Milk Control Board of the Department of Business Regulation in June 1979 showed that such dates varied by more than a week, and that in many instances the dates were unreadable because they were illegible or because they were part of a code.

The exemption provided in Rule IV is proposed because retail raw dairies selling directly to consumers frequently use reuseable glass containers to market their products. Because such containers are generally moist on the outside during both the bottling and marketing process, which would cause any stamped or posted label to come loose, and because no middlemen are involved in the type of marketing a retail raw dairy must make to qualify for the exemption, the department believes the labeling requirement in this situation is unnecessary and will not benefit the consumer.

The Department anticipates that if these rules are adopted many dairy plants will need to retool to provide the information required. Persons opposed to the rules for that reason are requested to provide reliable facts and figures showing the costs of such retooling, and facts and figures showing the volume of their products processed and sold.

Among other issues to be considered are the number of days following processing that the products covered by this notice may be exposed to sale; whether the dating should be based on fill date, pull date, or both; whether language to the effect of "filled on" or "sell by" should accompany the date; the nature of penalities to enforce the rules; the positioning of the labels; the manner and size of labeling; and in the alternative, whether these rules are required at all. The scope of this hearing is intended to be broad so that the rules may be modified or totally redrawn to reflect the input received. The department hopes that input will be received from consumers and consumer groups as well as parts of the dairy industry.

5. Interested persons may present their data, views, or arguments either orally or in writing at the hearing.

Written data, views, or arguments may also be submitted to Mike McCarter, Agency Legal Services Bureau, Department of Justice, State Capitol, Helena, Montana, by March 13, 1980.

6. Mike McCarter, Agency Legal Services Bureau, Department of Justice, State Capitol, Helena, Montana, has been designated to preside over and conduct the hearing.

7. The authority of the Department of Livestock to adopt these rules is based on Section 81-2-102 MCA, and the rule implements that section.

ROBERT G. BARTHELMESS
Chairman, Board of Livestock

By: JAMES W. GLOSSER, D.V.M.
Administrator & State Veterinarian

Certified to the Secretary of State January 22, 1980.

BEFORE THE DEPARTMENT OF PUBLIC SERVICE REGULATION
OF THE STATE OF MONTANA

IN THE MATTER of the Proposed Adoption of rules adopting minimum filing standards for railroads.	NOTICE OF PUBLIC HEARING ON NEW RULES ADOPTING MINIMUM FILING STANDARDS FOR RAILROADS

TO: All Interested Persons

1. On March 21, 1980 in the Conference Room of the Montana Public Service Commission Offices at 1227 11th Avenue, Helena, Montana at 10:00 a.m., a public hearing will be held to consider the proposed adoption of rules adopting minimum filing standards to apply in those instances when a railroad files schedules with the Montana Public Service Commission establishing new or increasing existing intrastate rates.

2. The proposed rules do not replace or modify any section currently found in the Administrative Rules of Montana.

3. The proposed rules provide as follows:

Rule I. MINIMUM FILING STANDARDS (1) Any railroad filing with this Commission any schedule or schedules establishing new or increasing existing intrastate rates is required to submit the following supporting exhibits complete with supporting work papers:

(a) Evidence for a proper test year showing its relevant Montana intrastate revenues;

(b) Evidence for the same test year, following an Interstate Commerce Commission cost analysis approach using methods estimating costs and net operating income (loss) on relevant Montana intrastate service (the analysis origin/destination detail shall be made available in Montana to the Commission upon request);

(c) Evidence for the same test year showing the railroad's federal and state income tax rates, capital structure and cost of debt, preferred and common equity capital; and

(d) Evidence for the same test year showing its return on equity from relevant intrastate service, on the basis of net operating income (loss) estimated in subsection (b).

Rule II. SUBMISSION PROCEDURES AND POLICIES (1) The Commission shall require the evidentiary submissions set out in Rule I for any new or increased intrastate rate.

(2) At the time of a filing or at the time of a prior notice of intent to file, a railroad may submit a statement describing the filing or rate and setting forth the reasons why it believes that the evidentiary submissions set out in Rule I would not be useful in the particular case.

(3) In an investigation or hearing, if any rate schedule or schedules supplied in Rule I are not supported by the required evidentiary submissions, or by evidence providing an equally reliable estimate of test year revenues, costs and return on equity from Montana intrastate operations, the Commission may conclude that the railroad has not shown the rate schedule or schedules to be just and reasonable.

Rule III. COST ANALYSES (1) For the purpose of this sub-chapter, a proper test year is the most recent calendar year preceding the year in which a schedule or schedules are filed or a rate is investigated, for which relevant and appropriate unit costs and other statistics can reasonably be calculated.

(2) Costs developed for each of a railroad's units of service should be adjusted to reflect Montana intrastate transportation characteristics of specific commodities, train service and switching service, if such adjustments would be material.

(3) Variable costs shall not include any monetary amounts which do not vary directly with the level of service provided under the rate in question.

(4) Full costs shall be computed by a ratio (percentage markup from variable costs) or any other generally accepted method.

Rule IV. OTHER SUPPORTING EXHIBITS (1) The requirements of this sub-chapter do not limit a railroad's opportunity to submit additional supporting exhibits, including exhibits following an approach or supporting a result different from those developed in evidence required by Rule I.

4. Section 69-14-311, MCA, requires any railroad seeking increased rates or charges to submit supporting testimony and exhibits. Montana case law, Montana Citizen's Freight Association v. Board of Railroad Commissioners of the State of Montana, et al., 128 Mont. 127 (1954), clearly requires that the Commission consider a breakdown of income and costs allocated to Montana prior to granting a rate increase. The minimum filing requirements set out in the proposed rules are necessary to assure that the Commission will have adequate information available to allow it to determine whether an intrastate rate increase is justified.

5. Interested parties may submit their data, views or arguments concerning the proposed adoption at the hearing, or in writing to Calvin Simshaw, Staff Attorney, Montana Public Service Commission, 1227 11th Avenue, Helena, Montana 59601, no later than March 19, 1980.

6. The Montana Consumer Counsel, 34 West Sixth Avenue, Helena, Montana 59601 (telephone 449-2771) is available and may be contacted to represent consumer interests in this matter.

7. The authority of the Commission to make this rule is based on Section 69-14-301, MCA, IMP, Section 69-14-311, MCA.

GORDON E. BOLLINGER, Chairman

CERTIFIED TO THE SECRETARY OF STATE JANUARY 22, 1980.

STATE OF MONTANA
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL LICENSING
BEFORE THE BOARD OF HORSE RACING

IN THE MATTER of the proposed amendments of ARM 40-3.46(6)-S4660 subsections (1)(v) and (1)(v)(i) concerning definitions; 40-3.46(6)-S4680 subsection (20) concerning number of races; 40-3.46(6)-S4690 subsections (7)(f) and (8)(a)(ii) concerning racing officials; 40-3.46(6)-S46010 subsection (6)(b) concerning general conduct of racing; 40-3.46(6)-S46030 subsection (14) concerning corrupt practices and penalties; and 40-3.46(6)-S46040 subsections (2)(p), and (8)(d)(iv) concerning pari-mutuel operations.	NOTICE OF PROPOSED AMENDMENTS OF ARM 40-3.46(6)-S4660 DEFINITIONS; ARM 40-3.46(6)-4680 LICENSES; 40-3.46(6)-4690 RACING OFFICIALS; 40-3.46(6)-S46010 GENERAL CONDUCT OF RACING; 40-3.46(6)-S46030 CORRUPT PRACTICES AND PENALTIES; 40-3.46(6)-S46040 PARI-MUTUEL OPERATIONS NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 1, 1980, the Board of Horse Racing proposes to amend 40-3.46(6)-S4660 subsections (1)(v) and (1)(v)(i) concerning definitions; 40-3.46(6)-S4680 subsection (20) concerning number of races; 40-3.46(6)-S4690 subsections (7)(f) and (8)(a)(ii) concerning racing officials; 40-3.46(6)-S46010 subsection (6)(b) concerning general conduct of racing; 40-3.46(6)-S46030 subsection (14) concerning corrupt practices and penalties; and 40-3.46(6)-S46040 subsections (2)(p) and (8)(d)(iv) concerning pari-mutuel operations.

2. The proposed amendment to 40-3.46(6)-S4660 deletes the current wording in (1)(v) and amends (i) to read as follows: (new matter underlined, deleted matter interlined)

"40-3.46(6)-S4660 DEFINITIONS.....

..(v) ~~Maiden for purposes of eligibility at race meetings whose racing records are recorded in an official chart book or the Daily Racing Form is a horse which at the time of starting has never won a race on the flat in any country at a track whose racing records are recorded in an official chart book or the Daily Racing Form.~~

~~(i)~~ A Maiden for purposes of eligibilty at any race meetings ~~whose racing records are not recorded in an official chart book or the Daily Racing Form~~ is a horse which at the time of starting, has never won a race on the flat in any country.

....."

3. The current rule distinguishes for purposes of eligibility a horse which has won a maiden race at a race track not recorded in an official chart book and allows the horse to then come back and win a maiden race at a race track whose

records are kept in an official chart book.

This rule was adopted several years ago in Montana when the purses at the small tracks were about $50 and $100 and the purses at the Billings and Great Falls tracks were $300 and $400. It seems now that the purses for maiden races are nearly equal in value regardless of the size of the track. Therefore, the reason for the rule no longer exists. In fact, the rule is causing people to bring maidens in from out of state because of the chance to run twice in a maiden race.

Also, it is very confusing to a bettor at the larger race meets to see that the favorite in a maiden race is a horse which has won twice at Miles City and once at Helena.

The rule and proposed change implements section 23-4-104 MCA.

4. The proposed amendment to 40-3.46(6)-S4680 amends subsection (20) and will read as follows: (new matter underlined, deleted matter interlined)

"40-3.46(6)-S4680 LICENSES.....

...(20) The number of races over 12 races per day at at all tracks shall be subject to approval of the board.

....."

5. The current rule enforces no limit. The board feels that given the tendency of long racing days and extended racing cards to work to the detriment of the public interests, the board proposes setting a limit of 12 with special approval for more upon petition. The board also feels that the system of approval will become more efficient when a limit is set. The number 12 was selected as it has been the experience of licensees and the board to be an adequate number of races. The proposed amendment implements section 23-4-104 MCA.

6. The proposed amendment to 40-3.46(6)-S4690 amends subsections (7)(f) and (8)(a)(ii) and will read as follows: (new matter underlined, deleted matter interlined)

"40-3.46(6)-S4690 RACING OFFICIALS.....

..(7)....

(f) The starter shall approve all ~~entries of 2-year olds~~ first time starters before they are allowed to start.

...

(8)..

(a)....

...(ii) The board shall refuse to license as a steward any person not having sufficient training or education to meet the requirements of the office. ~~All stewards shall attend each year the training program conducted by the board.~~

....."

6. The change in subsection (7) is proposed on the advice of the stewards that often times there are horses older than 2 which have not started and therefore for the same reason as 2 years olds must be approved so should all first time

starters. The rule and proposed amendments implements section 23-4-104 MCA.

7. The proposed amendment of 40-3.46(6)-S46010 amends the second paragraph under subsection (6)(b) and will read as follows: (new matter underlined, deleted matter interlined)

"40-3.46(6)-S46010 GENERAL CONDUCT OF RACING

....(6)....

(b) Licensees shall recognize as Montand bred any horse whose registration papers indicate that such horse was foaled in Montana. In the absence of positive identification of where the horse was foaled appearing on the registration papers, the owner must file with the Board satisfactory written evidence showing that the horse was foaled in Montana before the horse may be entered in a Montana bred race, or may claim a breeders allowance or a Montana bred weight allowance.

For the purposes of further encouraging the breeding within the state of valuable purebred registered horses and to increase the market value and saleability of said horses, at least 50 percent of all ~~every~~ maiden races ~~written~~ run at Montana pari-mutuel race ~~tracks~~ meets shall be written with Montana bred maidens preferred.

....."

8. The board proposes that the most equitable solution on the Montana bred preference in maiden races is to divide them equally so that neither Montana breds nor out-of-state bred horses will enjoy an advantage. The board therefore proposes the 50% solution. The rule and proposed amendment implements sections 23-4-104 and 204 MCA.

9. The proposed amendment to 40-3.46(6)-S46030 amends subsection (14) and will read as follows: (new matter underlined, deleted matter interlined)

"40-3.46(6)-S46030 CORRUPT PRACTICES AND PENALTIES

....

(14) All fines, forfeitures and suspensions shall be ~~imposed~~ enforced by the starter with the approval of the stewards, by the stewards, or by the Board. No other racing official shall have the right to impose a fine or suspension although any racing official may recommend to the stewards that disciplinary action be taken against a named person. Each racing official shall report to the stewards any observed violation of the rule of racing.

....."

10. As the board has always vested sole authority in its stewards to enforce fines and suspensions this amendment deletes the authority which the rule purported to give to starters and makes the starters enforcers of the stewards rulings. The rule and proposed changes implements section

23-4-104 MCA.

11. The proposed amendments of 40-3.46(6)-S46040 amends subsection (2)(p) and adds a new section (i) to the same, also amends (8)(d)(iv) and will read as follows: (new matter underlined, deleted matter interlined)

"40-3.46(6)-S46040 PARI-MUTUEL OPERATIONS

....(2)....

(p) The licensee shall submit to the board, statements showing pari-mutuel receipts, percentages retained, and such other informatin as may be required for the proper administration of the law. Said information shall be submitted within ~~thirty (30)~~ 5 days after the close of the meeting. The supervisor of pari-mutuel betting must be given access to the books of the licensee for this purpose.

(i) The horseman's bookkeeper will submit to the board within 5 days after the close of the race meeting, a report showing the total purses paid by the licensee to the horsemen, amount contributed by horsemen, amount due breeders and the amount paid to H.B.P.A. in accordance with HBPA and licensee contract. The forms for obtaining this information will be supplied by the board to each track.

....

(8) ...

(d)..

(iv) Where preprinted pari-mutuel tickets are sold, the licensee shall be charged with hiring sufficient employees to provide for separation and delegation of duties to insure good internal control, i.e., the same person ~~issuing tickets~~ shall not also cash tickets or sell tickets at a window, or supervise the selling of tickets, unless the pari-mutuel equipment is capable of performing both functions at the same time.

....."

12. (2)(p)-As section 23-4-304 MCA requires the 1% of gross receipts payment within 5 days, the board feels that the documentary information which serves to verify the accuracy of the payment and which is the subject of this rule, should also be submitted within the 5 day period.

The proposes new subsection (i) simply requires a report from the licensee which will serve to double check the accuracy of the report of the auditor.

(8)(d)(iv)- The current rule was adopted when the state of technology in pari-mutuel systems did not have equipment which would serve both the selling and cashing of tickets. As said technology now appears to be meeting this demand the board is proposing change of this rule to accommodate this system at such time as its use may be presented.

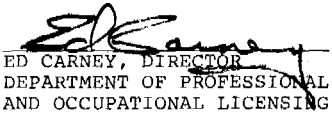
13. Interested parties may submit their data, view or arguments concerning the proposed amendments in writing to the Board of Horse Racing, Lalonde Building, Helena, Montana 59601 no later than February 28, 1980.

14. If a person who is directly affected by the proposed amendments wishes to express his data, views or arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to the Board of Horse Racing, Lalonde Building, Helena, Montana 59601 no later than February 28, 1980.

15. If the board receives requests for a public hearing on the proposed amendments from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendments; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected a hearing will be held at later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected by the proposed amendments has been determined to be 100.

16. The authority of the board to make the proposed amendments is based on section 23-4-202 MCA. The implementing sections are listed after each proposed change.

BOARD OF HORSE RACING
JOSEPH MURPHY, CHAIRMAN

BY: 
ED CARNEY, DIRECTOR
DEPARTMENT OF PROFESSIONAL
AND OCCUPATIONAL LICENSING

Certified to the Secretary of State, January 22, 1980.

STATE OF MONTANA
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL LICENSING
BEFORE THE BOARD OF SPEECH PATHOLOGISTS AND AUDIOLOGISTS

IN THE MATTER of the proposed Adoption of a new rule ARM 40-3.101(2)-P10115 relating to public participation in board decision making functions.	NOTICE OF PROPOSED ADOPTION of a new rule ARM 40-3.101(2)-P10115 relating to public participation in board decision making functions

NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 1, 1980, the Board of Speech Pathologists and Audiologists proposes to adopt a new rule ARM 40-3.101(2)-P10115 relating to public participation in board decision making functions.

2. The rule as proposed will incorporate as rules of the board the rules of the Department of Professional and Occupational Licensing regarding public participation in department decision making functions, which have been duly adopted and are published in Title 40, Chapter 2, Sub-chapter 14, of the Administrative Rules of Montana.

3. The board is proposing the adoption because such action is mandated by section 2-3-103 MCA. That section requires all agencies to adopt rules which specify the means by which the public may participate in decision making functions. Rather than adopt its own set of rules and for the sake of expediency, the board has reviewed and approved the department rules and by this notice seeks to incorporate them as their own.

4. Interested parties may submit their data, view or arguments concerning the proposed new rule in writing to the Board of Speech Pathologists and Audiologists, Lalonde Building, Helena, Montana 59601 no later than February 28, 1980.

5. If a person who is directly affected by the proposed adoption wishes to express his data, views or arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to the Board of Speech Pathologists and Audiologists, Lalonde Building, Helena, Montana 59601 no later than February 28, 1980.

6. If the board receives requests for a public hearing on the proposed adoption from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed adoption, from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register.

7. The authority of the board to make the proposed adoption is based on section 37-15-202(1)(e) and (3) MCA and implements section 2-3-103 MCA.

BOARD OF SPEECH PATHOLOGISTS
& AUDIOLOGISTS
SHIRLEY DEVOE, CHAIRMAN

BY: 
ED CARNEY, DIRECTOR
DEPARTMENT OF PROFESSIONAL
AND OCCUPATIONAL LICENSING

Certified to the Secretary of State, January 22, 1980.

BEFORE THE DEPARTMENT OF REVENUE

OF THE STATE OF MONTANA

IN THE MATTER OF THE REVISION OF RULES relating to energy conservation and nonfossil forms of energy generation.	))))	NOTICE OF PROPOSED REVISION OF RULES relating to energy conservation and nonfossil forms of energy generation. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 17, 1980, the Department of Revenue proposes to revise the rules relating to energy conservation and nonfossil forms of energy generation. In particular, the Department proposes to repeal rules 42-2.22(26)-S22600, and 42-2.22(26)-S22610, amend rule 42-2.22(26)-S22620, and adopt a new rule concerning the treatment of gasohol production facilities.

2. The proposed amendment and the proposed new rule provide as follows:

42-2.22(26)-S22620 CAPITAL INVESTMENT IN NON-FOSSIL FORMS OF ENERGY GENERATION ~~(1) Non-fossil forms of energy generation are defined as systems which utilize solar heat, wind, solid wastes, or the decomposition of organic wastes, for capturing energy or converting energy sources into useable sources, for the production of electric power from solid wood wastes, and also means a small system for the utilization of water power by means of an impoundment not over 20 acres of surface area.~~

(1) The property owner of record or his agent must make application to the Property Assessment Division, Department of Revenue, Mitchell Building, Helena, Montana~~,~~ 59601, for classification as a non-fossil form of energy generation. Application will be made on a form ~~No. AB-14,~~ available from the division before April 1.

(2) The Department ~~of Revenue~~ will review the application~~,~~ and may perform a field evaluation ~~and/or refer the application to the Department of Natural Resources and Conservation~~. The Department ~~of Revenue~~ will approve or deny the application, return a copy of the form to the property owner or his agent, and inform the county assessor and appraiser of the decision rendered.

~~(2) Limitations:~~

~~(a) Investments in non-fossil forms of energy generation must be made after January 1, 1975.~~

~~(b) Investments made by persons and firms primarily engaged in provision of gas or electricity derived from fossil fuel extraction or conventional hydro-electric generation are not eligible for classification as non-fossil forms of energy generation.~~

~~(c) The first one hundred thousand dollars of appraised~~

~~value of the investment shall be tax exempt. Any additional values shall be placed in Class 7, taxable at 7% of assessed value.~~

~~(d) Total tax savings may not exceed one hundred thousand dollars per year for any one person or firm. Tax savings shall be calculated by applying the current mill levy to the taxable value the energy generating facilities would normally assume and comparing with the tax resulting from total exemption of the first $100,000 of appraised value plus the 7% classification of the balance of such property allowed under this act. If $100,000 in tax savings is exceeded, the adjustment shall be made by transferring a sufficient amount of the appraised value of the facilities from the 7% the normal classification.~~

RULE I TREATMENT OF GASOHOL PRODUCTION FACILITIES (1) Facilities for the production of gasohol do not receive a property tax exemption under 15-6-201, MCA, but may receive a classification under 15-6-135, MCA, as class 5 property.

(2) Anhydrous enthanol production facilities that produce the ethanol from solid or organic wastes may receive an exemption under 15-6-201, MCA, as well as classification as class 5 property under 15-6-135, MCA. Anhydrous ethanol production facilities utilizing grain to produce the ethanol are not entitled to exemption under 15-6-201, but may receive a classification as class 5 property under 15-6-135, MCA.

3 The revision is proposed to make the rules consistent with the statutes. The 1975 Legislature provided for the classification of a certain portion of the capital cost of energy conservation and of nonfossil forms of energy generation in classes that would reduce the tax rate on the portion so classified. The 1977 Legislature eliminated the property tax incentive for these energy measures and instead gave favorable treatment to such expenses under the individual and corporate income tax structuring. The 1979 Legislature, in addition to the income tax benefits, reinstituted property tax benefits for a portion of the cost of nonfossil forms of energy generation by granting a tax exemption to the statutory portion given special treatment (15-6-201, MCA, as amended by Chapter 639, Laws of 1979).

The rules as presently on the books reflect the situation in 1975. Rules 42-2.22(26)-S22600 and S22610 are proposed for repeal as no longer appropriate under the 1979 statutes. Rule 42-2.22(26)-S22620 is amended to reflect the present language of 15-6-201(3), MCA. The first paragraph is deleted as redundant with 15-32-102(5), MCA, and former subsection (2) is deleted as inconsistent with the limitations imposed by 15-6-201(3), MCA. The new rule with respect to gasohol production facilities has been written because of inquiries received by the Department as to the status of such facilities. Inasmuch as gasohol involves the use of fossil fuels, the Department considers it inappropriate that the gasohol production facilities be given a tax

exemption as a nonfossil form of energy generation. The gasohol production facilities have been especially singled out by the Legislature for classification as class 5 property under 15-6-135, MCA (Chapter 660, Laws of 1979). The differentiation of pure anhydrous ethanol from gasohol is made for consistency with proposed rules dealing with the taxation of special fuels under Title 15, chapter 70, MCA. Production of anhydrous ethanol from grain does not meet the definition of a nonfossil form of energy generation, and hence such facilities are not entitled to a tax exemption under 15-6-201, MCA.

4. Interested parties may submit their data, views, or arguments concerning the proposed repeals, amendment and new rule in writing no later than March 14, 1980, to:

Laurence Weinberg
Legal Division
Department of Revenue
Mitchell Building
Helena, Mt. 59601

5. If a person who is directly affected by the proposed repeals, amendment, and new rule wishes to express his data, views, and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to Laurence Weinberg at the address given in paragraph 4 above no later than March 14, 1980.

6. If the Department receives requests for a public hearing on the proposed repeals, amendment, and new rule from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed rule; from the Revenue Oversight Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be more than 25 based upon the number of persons potentially involved in the installation of nonfossil forms of energy generation and gasohol production facilities.

7. Authority of the Department to make the proposed revision is given by 15-1-201, MCA. The proposed revision implements 15-6-135 and 15-6-201, MCA.

MARY L. CRAIG, Director
Department of Revenue

Certified to the Secretary of State 1-21-80

BEFORE THE DEPARTMENT OF REVENUE

OF THE STATE OF MONTANA

IN THE MATTER OF THE REVISION OF RULES relating to the special fuel user's permit and the confiscation of illegible copies of such permit.	NOTICE OF PROPOSED REVISION OF RULES relating to the special fuel user's permit and the confiscation of illegible copies of such permit. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons:

1. On March 17, 1980, the Department of Revenue, proposes to revise rules relating to the special fuel user's permit and the confiscation of illegible copies of such permit. Specifically, the Department proposes to amend rules 42-2.18(6)-S18100, 42-2.18(6)-S18110, 42-2.18(6)-S18120, and 42-2.18(6)-S18190 and to adopt a new rule concerning confiscation of illegible copies of special fuel user's permits. The changes and the new rule would be effective April 1, 1980.

2. The rules as proposed for revision provide as follows:

42-2.18(6)-S18100 ~~MONTHLY~~ QUARTERLY REPORT REQUIRED-TAX PAYABLE ~~MONTHLY~~ QUARTERLY (1) Every special fuel user shall, on or before the ~~25th~~ last day of ~~each~~ the month following the close of a calendar quarter, file with the Department of Revenue a report showing the amount of fuel used during the ~~immediately preceding~~ calendar ~~month~~ quarter. Reports shall be accompanied by a remittance payable to the State Treasurer for the amount of tax due and payable.

(2) Every user shall render the ~~monthly~~ quarterly tax report regardless of whether he has used fuel during the ~~immediately preceding~~ calendar ~~month~~ quarter. Failure to file the ~~monthly~~ quarterly tax report within a reasonable length of time of a due date shall be considered sufficient cause for revocation of the special fuel ~~users license and special fuel vehicle~~ user's permit.

~~(3) As the Act requires, that the use of special fuel be paid on fuel consumed in propelling motor vehicles on the highways of this state on a calendar month basis, the method of reporting to achieve this result shall be as provided for on the monthly tax reporting forms.~~

42-2.18(6)-S18110 SPECIAL FUEL ~~LICENSE-VEHICLE~~ USER'S PERMIT (1) Any person who uses fuel other than gasoline to propel a motor vehicle upon the highways of this state is required to make written application for and obtain a ~~special fuel license, and a~~ special fuel ~~vehicle~~ user's permit ~~for each vehicle which is self-propelled upon the highways of this state~~. Application for a special fuel dealer's license~~, a special fuel user's license~~ or a special fuel ~~vehicle~~ user's permit shall be filed upon a form

prepared and furnished by the Department of Revenue and shall contain such information as the Department deems necessary. Any special fuel vehicle, whether bearing an SM plate, or registered under Title ~~53, R.C.M. 1947,~~ 23 chapter 2, part 6, or Title 61, MCA, shall be subject to all taxes and permits levied or imposed by Title ~~84, Chapter 18, R.C.M. 1947.~~ 15, chapters 70 and 71, MCA.

~~(2) All licensed special fuel users operating as truck dealers who demonstrate special fuel powered vehicles either for their own use or demonstration purposes, must obtain from the department a special fuel users demonstration fuel permit. The truck dealer will be responsible for executing the permit, reporting the operations of the vehicle in payment of all special fuel taxes accrued through the use of the permit. The demonstration permit will be valid for seven days from the date issued by the dealer.~~

~~(3) Expiration of Special Fuel Vehicle Permits~~ (2)(a) ~~Vehicle permits shall be~~ A special fuel user's permit is valid until February 28 of the year following the year of issuance unless suspended or revoked for cause ~~or until the transfer or sale of the motor vehicle~~ and in the case of reproduced copies of the permit issued by the department, only if clear and legible.

~~(b) The vehicle permit shall contain the users special fuel license number, the special fuel vehicle permit number, the users name, address, legal description of the vehicle, and the date issued.~~

~~(c)~~(b) ~~Vehicle~~ Special fuel user's permits are not transferrable and are valid only for the person in whose name the permit is issued. Any vehicle displaying a permit other than that of the registered owner must have a valid lease agreement in the vehicle.

~~(4) Special Fuel Courtesy Vehicle Permits Any out-of-state user who operates a recreational passenger car, pickup truck or family motor coach powered by special fuels (diesel fuel or LPG), shall secure a special users courtesy vehicle permit. The permit is valid for ninety (90) days from the date of issuance. There is no charge for the vehicle permit. Users who have fuel capacity in excess of thirty (30) gallons may be required to file a report to the Department of Revenue upon request, of all fuel used in Montana and to pay the tax on fuel on which the tax has not been paid.~~

~~(5) Temporary Clearance in Lieu of a Special Fuel Users License/Permits~~

(3)(a) Any special fuel user who has a corporate surety bond or cash bond on file with the Department of Revenue, or can confirm the issuance of such a bond through a bonding company may request temporary authority prior to operating within the State of Montana. This authority is subject to approval by the Department.

(b) This authority may be obtained ~~on any or all vehicles listed on the original application for special fuel user's license, as well as any additional units obtained~~ during the time

~~his~~ the special fuel user's ~~license~~ permit is active with the Department. Either a letter, telegram or telefax communication may be sent to the special fuel user allowing him temporary operating authority. Should the user be domiciled outside the State of Montana, clearance shall be sent outside of this state, and if the user is domiciled in Montana, clearance shall be sent only to the user's place of domicile, or place of business. Authority may be sent to the location where a new or used vehicle is purchased.

~~(6)~~(4) Compliance Bonds

(a) At the time a special fuel user wishes to become licensed in Montana and receive a special fuel user's permit and has not yet filed a corporate surety bond or posted a cash bond with this agency, he may post a $100.00 cash compliance bond on each vehicle at any weigh station. This one hundred dollars ($100.00) provides thirty (30) days temporary authority for the vehicle listed.

The $100.00 compliance bond is posted with the proper authorities with the intent that the special fuel user shall make application for a special fuel user's ~~license~~ permit and file a $500.00 corporate surety bond or a cash bond within thirty (30) days of issuance of the compliance bond. When the special fuel user complies with all Motor Fuel Tax Division licensing requirements and files a fuel tax return for the thirty (30) day period covered by the compliance bond on the vehicle involved, the $100.00 will be refunded subject to approval of ~~this office.~~ the motor fuel tax division. Upon determination by the Motor Fuel Tax Division that the licensing requirements have not been met within the thirty (30) day period, the $100.00 bond will be immediately forfeited.

~~(b) Agricultural Harvesting Equipment Persons operating agricultural harvesting equipment using special fuel are required to comply with the Special Fuel Tax Act in the same manner as all other special fuel users in Montana or they shall be required to purchase a non-resident agricultural harvesting permit pursuant to Section 84-1842, R.C.M. 1947, as amended, Laws of 1975, Chapter 440.~~

42-2.18(6)-S18120 CANCELLATION OR REVOCATION OF SPECIAL FUEL LICENSE AND VEHICLE PERMIT (1) Upon ceasing operations in Montana each user shall submit a final return requesting cancellation of the special fuel ~~license~~ user's permit. In order to cancel a Montana fuel tax account, and be released of any further obligations, a return must be filed for each calendar ~~month~~ quarter up to and including the ~~month~~ quarter that ~~all valid~~ the vehicle ~~permits are~~ permit issued by the department is returned to ~~this office~~ the motor fuel tax division, and the user shall remit and pay all tax, penalty, and interest required to be collected and which have accrued from the amount of fuel used up to and including the date of cancellation.

(2) When the user's permit is revoked for non-compliance, the ~~vehicle permits~~ permit shall be surrendered, and returned

with reports through the date of ~~their~~ the permit's return. Any attempt to use a revoked permit will be considered a violation of the Special Fuel Tax Act subject to the penalty provisions thereof.

~~(3) If a user sells, leases, or otherwise transfers the registered ownership, control or operation of a motor vehicle for which a special fuel users permit has been issued, he shall immediately notify the Deparmtent of such sale, lease or transfer. The special fuel vehicle permit shall be returned by the user with a request for cancellation thereof.~~

~~(4)~~(3) ~~Any licensed special fuel user who is in possession of a valid special fuel permit(s) shall, at the time he discontinues use of one or more vehicles, return to this agency the special fuel vehicle permit assigned to the vehicles involved for cancellation. Any outstanding vehicle permits which are not returned to this office for cancellation will be listed on~~ An invalid permit list ~~which~~ is maintained by the department and is distributed to all duly authorized law enforcement officers in Montana. ~~Any vehicle permit(s) on the invalid list are~~ A vehicle permit on the invalid list or a reproduction of such a permit is subject to confiscation by enforcement officers, and a fine may be imposed ~~at the discretion of the arresting officer~~.

~~(5) A person who discontinues using a motor vehicle shall be subject to the tax that thereafter may accrue due to the operation of the vehicle, if the above provision of this regulation is not fulfilled.~~

42-2.18(6)-S18190 FAILURE TO MAINTAIN RECORDS-SPECIAL FUEL DEALERS OR USERS

~~(1) Special Fuel Dealers' and Special Fuel Users' Records~~

~~(a) Preparation of records and inspection of: Every special fuel dealer, special fuel user and every person importing, manufacturing, refining, dealing in, transporting or storing, special fuel in this state, shall keep such records, receipts and invoices and other pertinent papers, with respect thereto as the Department of Revenue may require, and shall produce them for the inspection of the Department of Revenue at any time during the business hours of the day.~~

~~(b) Retention of Records. Said records, receipts, invoices and other pertinent papers shall be required to be kept for a period of at least five (5) years from the date on which the return to which they relate was required to have been made.~~

~~(2) It was the manifest intent of the Montana Legislature, when it enacted into law Section 84-1834, R.C.M. 1947, that the special fuel dealers and users have records, open to inspection by the Department of Revenue, that would provide sufficient evidence and basis upon which the Department of Revenue could determine whether all the special fuel taxes are in fact paid.~~

~~(3) Specifically, the Department of Revenue, pursuant to the provisions of Section 84-1834, R.C.M. 1947, has required that special fuel users keep a complete record '. . . . of all pertinent papers which verifies any information listed ont he Special Fuel~~

~~Use Tax Return. Pertinent papers include fuel purchase invoices, bills of lading, trip records, etc.'~~

~~(4)~~(1) The Department of Revenue ~~deems~~ considers the failure of a special fuel ~~users~~ user to retain ~~these~~ records~~,~~ as ~~are herein~~ specified~~,~~ in 15-70-323, MCA, to constitute a ~~critical threat to the enforcement and collection of the special fuel user tax. Accordingly, any such failure shall be deemed~~ reasonable cause for the revocation of ~~Special Fuel User's License and Special Fuel Vehicle Permits~~ the special fuel user's permit under the provisions of ~~Section 84-1833, R.C.M. 1947, subsection (h),~~ 15-70-306, MCA. Records to be kept include fuel purchase invoices, bills of lading, and trip records.

~~(5)~~(2) The revocation of ~~Special Fuel User's Licenses and Special Fuel Vehicle Permits,~~ a special fuel user's permit, however, does not by itself determine special fuel user taxes. ~~In view of the fact that the failure to keep the required records or any part of them, jeopardized the verification and determination by the Department of Revenue must take steps to protect itself against possible deficiencies in the special fuel user tax collections resulting from such failure. Therefore, the~~ The Department of Revenue shall, in the event a special fuel user fails to retain the required records, make estimates of the miles traveled, special fuel purchased, and miles per gallon that the user's vehicle travels in order that it may determine the special fuel user tax due. These estimates will be based upon the Department of Revenue's general knowledge of what are the operations of the trucking industry and what it knows of the general operations of the specific user.

~~(6)~~(3) In those cases where a special fuel user fails to retain the required records, the Department of Revenue shall advise the special fuel user of those standard estimates of miles per gallon, miles traveled, and fuel consumed which are normally utilized by the department in ascertaining the special fuel user tax in such cases.

RULE I CONFISCATION OF CERTAIN PERMIT COPIES (1) A reproduced copy of a fuel user's permit that is not clear and legible is invalid and is subject to confiscation by checking station officers, GVW personnel, authorized employees of the department, and law enforcement personnel. The person from whom the permit is confiscated may operate the vehicle by obtaining a clear and legible copy of the permit or by purchasing a temporary trip permit pursuant to 15-70-311, MCA.

(2) Confiscation of a reproduced copy of a permit under this rule does not affect the validity of the original permit issued by the department.

3. The proposed revision is made to bring the rules into conformity with the statutes and to eliminate some redundant material. Chapter 599, Laws of 1979, revised the laws pertaining to special fuel user's permits by providing for a single permit in lieu of a license and a permit for each vehicle. Chapter 599

with reports through the date of ~~their~~ the permit's return. Any attempt to use a revoked permit will be considered a violation of the Special Fuel Tax Act subject to the penalty provisions thereof.

~~(3) If a user sells, leases, or otherwise transfers the registered ownership, control or operation of a motor vehicle for which a special fuel users permit has been issued, he shall immediately notify the Department of such sale, lease or transfer. The special fuel vehicle permit shall be returned by the user with a request for cancellation thereof.~~

~~(4)~~(3) ~~Any licensed special fuel user who is in possession of a valid special fuel permit(s) shall, at the time he discontinues use of one or more vehicles, return to this agency the special fuel vehicle permit assigned to the vehicles involved for cancellation. Any outstanding vehicle permits which are not returned to this office for cancellation will be listed on~~ An invalid permit list ~~which~~ is maintained by the department and is distributed to all duly authorized law enforcement officers in Montana. ~~Any vehicle permit(s) on the invalid list are~~ A vehicle permit on the invalid list or a reproduction of such a permit is subject to confiscation by enforcement officers, and a fine may be imposed ~~at the discretion of the arresting officer~~.

~~(5) A person who discontinues using a motor vehicle shall be subject to the tax that thereafter may accrue due to the operation of the vehicle, if the above provision of this regulation is not fulfilled.~~

42-2.18(6)-S18190 FAILURE TO MAINTAIN RECORDS-SPECIAL FUEL DEALERS OR USERS

~~(1) Special Fuel Dealers' and Special Fuel Users' Records~~

~~(a) Preparation of records and inspection of: Every special fuel dealer, special fuel user and every person importing, manufacturing, refining, dealing in, transporting or storing, special fuel in this state, shall keep such records, receipts and invoices and other pertinent papers, with respect thereto as the Department of Revenue may require, and shall produce them for the inspection of the Department of Revenue at any time during the business hours of the day.~~

~~(b) Retention of Records Said records, receipts, invoices and other pertinent papers shall be required to be kept for a period of at least five (5) years from the date on which the return to which they relate was required to have been made.~~

~~(2) It was the manifest intent of the Montana Legislature, when it enacted into law Section 84-1834, R.C.M. 1947, that the special fuel dealers and users have records, open to inspection by the Department of Revenue, that would provide sufficient evidence and basis upon which the Department of Revenue could determine whether all the special fuel taxes are in fact paid.~~

~~(3) Specifically, the Department of Revenue, pursuant to the provisions of Section 84-1834, R.C.M. 1947, has required that special fuel users keep a complete record '. . . of all pertinent papers which verifies any information listed ont he Special Fuel~~

~~Use Tax Return. Pertinent papers include fuel purchase invoices, bills of lading, trip records, etc.'~~

~~(4)~~(1) The Department of Revenue ~~deems~~ considers the failure of a special fuel ~~users~~ user to retain ~~these~~ records~~,~~ as ~~are herein~~ specified~~,~~ in 15-70-323, MCA, to constitute a ~~critical threat to the enforcement and collection of the special fuel user tax. Accordingly, any such failure shall be deemed~~ reasonable cause for the revocation of ~~Special Fuel User's License and Special Fuel Vehicle Permits~~ the special fuel user's permit under the provisions of ~~Section 84-1833, R.C.M. 1947, subsection (h).~~ 15-70-306, MCA. Records to be kept include fuel purchase invoices, bills of lading, and trip records.

~~(5)~~(2) The revocation of ~~Special Fuel User's Licenses and Special Fuel Vehicle Permits~~, a special fuel user's permit, however, does not by itself determine special fuel user taxes. ~~In view of the fact that the failure to keep the required records or any part of them, jeopardized the verification and determination by the Department of Revenue must take steps to protect itself against possible deficiencies in the special fuel user tax collections resulting from such failure. Therefore, the~~ The Department of Revenue shall, in the event a special fuel user fails to retain the required records, make estimates of the miles traveled, special fuel purchased, and miles per gallon that the user's vehicle travels in order that it may determine the special fuel user tax due. These estimates will be based upon the Department of Revenue's general knowledge of what are the operations of the trucking industry and what it knows of the general operations of the specific user.

~~(6)~~(3) In those cases where a special fuel user fails to retain the required records, the Department of Revenue shall advise the special fuel user of those standard estimates of miles per gallon, miles traveled, and fuel consumed which are normally utilized by the department in ascertaining the special fuel user tax in such cases.

RULE I CONFISCATION OF CERTAIN PERMIT COPIES (1) A reproduced copy of a fuel user's permit that is not clear and legible is invalid and is subject to confiscation by checking station officers, GVW personnel, authorized employees of the department, and law enforcement personnel. The person from whom the permit is confiscated may operate the vehicle by obtaining a clear and legible copy of the permit or by purchasing a temporary trip permit pursuant to 15-70-311, MCA.

(2) Confiscation of a reproduced copy of a permit under this rule does not affect the validity of the original permit issued by the department.

3. The proposed revision is made to bring the rules into conformity with the statutes and to eliminate some redundant material. Chapter 599, Laws of 1979, revised the laws pertaining to special fuel user's permits by providing for a single permit in lieu of a license and a permit for each vehicle. Chapter 599

also provided for quarterly in place of monthly reports by special fuel users and for the use of copies of the special fuel user's permit. The revision also eliminates some redundant material as part of the rule recodification project.

The amendments to rule 42-2.18(6)-S18100 implement the quarterly report and tax payment requirements. Subsection (3) is deleted as unnecessary. The amendments to rule 42-2.18(6)-S18110 clarify the terminology and utilize references to special fuel user's permits. Former subsection (2) is deleted as inappropriate following the 1979 changes in the statutes. The changes in former subsection (3) incorporate the annual nature of the permit, with former subsection (3)(b) deleted as unnecessary. Former subsection (4) is deleted as redundant with 15-70-302, MCA. Former subsection (6)(b) is deleted as redundant with 15-70-311, MCA. The amendments to rule 42-2.18(6)-S18120 implement the changes of Chapter 599, as do the amendments to rule 42-2.18(6)-S18190. Additionally, former subsections (1) through (3) of rule 42-2.18(6)-S18190 are deleted as redundant with 15-70-323. Language deleted in former subsections (4) and (5) are simply unnecessary. The new rule addresses the situation of use of illegible copies of permits and the confiscation of such permits. Section 15-70-302, MCA, places the responsibility for producing clear and legible copies of the permit on the permit holder.

4. Interested parties may submit their data, views, or arguments concerning the proposed amendments and the proposed rule in writing no later than March 14, 1980, to:

Laurence Weinberg
Legal Division
Department of Revenue
Mitchell Building
Helena, Mt. 59601

5. If a person who is directly affected by the proposed amendments and the proposed rule wishes to express his data, views, and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to Laurence Weinberg at the address given in paragraph 4 above no later than March 14, 1980.

6. If the Department receives requests for a public hearing on the proposed amendments and the rule from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed rule; from the Revenue Oversight Committee of the Legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be more than 25 based upon the number of persons subject to the special fuel laws.

7. Authority of the Department to make the proposed amendments and the proposed rule is based on 15-70-104, MCA. The proposals implement Chapter 599, Laws of 1979. More specifically, the proposals implement 15-70-302, 5-70-325, and 15-70-327.

MARY L. CRAIG, Director
Department of Revenue

Certified to the Secretary of State 1-21-80

BEFORE THE DEPARTMENT OF REVENUE

OF THE STATE OF MONTANA

IN THE MATTER OF THE AMENDMENT OF RULE 42-2.8(1)-S8660, relating to adjusted gross income of spouses on separate returns.	)))))	NOTICE OF PUBLIC HEARING ON PROPOSED AMENDMENT OF RULE 42-2.8(1)-S8660, relating to the adjusted gross income of spouses on separate returns.

TO: All Interested Persons:

1. On March 17, 1980, at 10:00 a.m., a public hearing will be held in Room 104 of the Capitol Building, at Helena, Montana, to consider the amendment of rule 42-2.8(1)-S8660.

2. The proposed amendment replaces present rule 42-2.8(1)-S8660 found in the Administrative Rules of Montana. The proposed amendment revises the rule on splitting of income between spouses filing separately to permit allocation of income earned by one spouse between the spouses. The changes would be effective for tax years beginning after December 31, 1979.

3. The rule as proposed to be amended provides as follows:

42-2.8(1)-S8660 ADJUSTED GROSS INCOME OF SPOUSES ON SEPARATE RETURNS (1) No changes.

(2) Income from salaries, wages, bonuses, commissions and other income derived from personal services rendered either as an employee or as an independent contractor must be reported by the spouse who earned it. Income such as rents, royalties, dividends and interest must be reported by the spouse who owns the property from which the income is derived. If such income is derived from property which is jointly owned by the spouses, it must be allocated between them according to their legal interest in the property and their legal rights to the income derived therefrom. The net income from any business conducted as a proprietorship must be reported in full by the spouse who is the individual proprietor. Provided, however, in the event the proprietor's spouse regularly and systematically renders substantive personal services in the operation of the business, and with respect to which services he or she is not paid a salary or wages, the proprietor and the spouse may, at their option, agree that the spouse earned an amount equivalent to reasonable compensation for the services rendered, and such amount shall be deemed income taxable to that spouse as compensation for services rendered, and such amount shall reduce the proprietorship income taxable to the spouse who is the actual proprietor. ~~Income deemed earned by the spouse for services rendered can not be justified solely by a legal property-holding arrangement, but must be justified by showing a substantial contribution of personal services. This regulation shall be applicable to income earned on or after January 1, 1973.~~ It is presumed that spouses share in the res-

ponsibility and management, as well as labor and personal services and, therefore, the income may be allocated as in a partnership between both separate returns in a manner that reflects the sharing of responsibility, management, and services as long as it is consistent throughout.

4. The amendment is proposed at the request of the Revenue Oversight Committee, pursuant to a petition dated January 15, 1980. A copy of the petition may be viewed at the office of the Department of Revenue. The Revenue Oversight Committee considers that the amendments will provide a more equitable manner of treating income received by one spouse and will clarify the meaning of the rule. The suggested language may create some difficulty with the provisions of 15-30-111, MCA, which defines adjusted gross income. To the extent that the income splitting permitted under the rule would not be permitted under federal tax law, the rule appears to contradict 15-30-111, MCA. There may also be a problem with legislative intent as several bills and resolutions attempting to achieve the same type of result were defeated during the 1975 and 1977 Legislatures.

5. Interested persons may present their data, views, or arguments either orally or in writing at the hearing. Written data, views, or arguments may also be submitted no later than March 17, 1980, to:

Laurence Weinberg
Legal Division
Department of Revenue
Mitchell Building
Helena, Mt. 59601

6. Ross Cannon has been designated to preside over and conduct the hearing.

7. Authority of the Department to make the proposed amendment is based on section 15-30-305, MCA. The rule implements section 15-30-142, MCA.

Mary L. Craig

MARY L. CRAIG, Director
Department of Revenue

Certified to the Secretary of State 1-21-80

BEFORE THE DEPARTMENT OF SOCIAL
AND REHABILITATION SERVICES OF THE
STATE OF MONTANA

In the matter of the amendment of Rule 46-2.10(38)-S102030 pertaining to eligibility, medical resources	NOTICE OF PROPOSED AMENDMENT OF RULE 46-2.10(38)-S102030 PERTAINING TO ELIGIBILITY, MEDICAL RESOURCES. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 3, 1980, the Department of Social and Rehabilitation Services proposes to amend rule 46-2.10(38)-S102030 which pertains to eligibility, medical resources.

2. The rule as proposed to be amended provides as follows:

(2) County medical assistance shall not be available to cover medical services for individuals who are, or would be, eligible for assistance through Medicaid even when a provider refuses to participate in the Medicaid Program.

3. This amendment is necessary to modify ARM 46-2.10(38)-S102030 to comply with House Bill 692 which modified 53-3-103 MCA.

4. Interested parties may submit their data, views or arguments concerning the proposed amendment in writing to the Office of Legal Affairs of the Department of Social and Rehabilitation Services, P. O. Box 4210, Helena, MT 59601, no later than February 28, 1980.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to the Office of Legal Affairs, P. O. Box 4210, Helena, MT 59601 no later than February 28, 1980.

6. If the agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be

directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 1118 persons based on a Department budget analysis that shows a total of 11,184 Medicaid recipients.

7. The authority of the agency to make the proposed amendment is based on Section 53-3-103 MCA, and the rule implements Section 53-3-103 MCA.

Keith F. Colburn
Director, Social and Rehabilitation Services

Certified to the Secretary of State January 22, 1980

BEFORE THE DEPARTMENT OF SOCIAL
AND REHABILITATION SERVICES OF THE
STATE OF MONTANA

In the matter of the amendment of Rule 46-2.10(18)-S11440(1)(q)(v) and the adoption of three rules pertaining to medical assistance, speech therapy	)))))))	NOTICE OF PROPOSED AMENDMENT OF RULE 46-2.10(18)-S1144(1)(q)(v) AND PROPOSED ADOPTION OF RULES PERTAINING TO MEDICAL ASSISTANCE, SPEECH THERAPY. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 3, 1980, the Department of Social and Rehabilitation Services proposes to amend rule 46-2.10(18)-S11440(1)(q)(v) and adopt three rules all pertaining to medical assistance, speech therapy.

2. The rule as proposed to be amended provides as follows:

(v) Occupational therapy ~~and speech therapy~~ may be provided in ~~speech, hearing, or~~ a rehabilitation clinic, hospital, skilled nursing facility, or intermediate care facility which has a qualified ~~speech~~ therapist on the staff and the special therapy has been requested by a physician. The authorization criteria are the same as physical therapy above.

3. The rules as proposed to be adopted provide as follows:

RULE I SPEECH PATHOLOGY SERVICE, DEFINITION

(1) Speech pathology services are those diagnostic, screening, preventive or corrective services provided by a licensed speech pathologist, upon physician referral, to individuals with speech and language disorders.

RULE II REQUIREMENTS FOR SPEECH PATHOLOGY SERVICES

(1) Outpatient speech pathology service is limited to a maximum of 200 hours per fiscal year.

(2) All diagnostic, evaluative speech pathology services must be physician referred.

(3) All therapy services must be reviewed and renewed by the referring physician at a minimum of 90 day intervals.

(4) Written physicians' orders, diagnostic, evaluative, and therapy reports must be current and available upon request of the department or its designated representative.

(5) Outpatient speech pathology services will be subject to review by the designated professional review organization.

(6) Speech pathology services provided through a home health care agency shall be part of the agency's 200 visit limitation.

RULE III SPEECH PATHOLOGY SERVICES, REIMBURSEMENT

(1) Payment for outpatient speech pathology services shall not exceed the lowest of: usual and customary charges which are reasonable, actual charges, or $21.50 per hour.

4. The proposed amendment of this rule is part of the department of social and rehabilitation services' plan to update all Medicaid rules to comply with current Medicaid practice. The revised reimbursement for speech pathology services is proposed after lengthy consultation with the Montana Speech, Hearing and Language Association and analysis of the estimated expenditures based on the current legislative guidelines.

5. Interested parties may submit their data, views or arguments concerning the proposed amendment and adoptions in writing to the Office of Legal Affairs of the Department of Social and Rehabilitation Services, P. O. Box 4210, Helena, MT 59601, no later than February 28, 1980.

6. If a person who is directly affected by the proposed amendment and adoptions wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to the Office of Legal Affairs, P. O. Box 4210, Helena, MT 59601 no later than February 28, 1980.

7. If the agency receives requests for a public hearing on the proposed amendment and adoptions from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment and adoptions; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 1,118 persons based on a department budget analysis that shows a total of 11,184 Medicaid recipients.

8. The authority of the agency to make the proposed amendment and adoptions is based on Section 53-6-113 MCA, and the rule implements Section 53-6-101 and 53-6-141 MCA.

CERTIFIED TO THE SECRETARY OF STATE January 22, 1980
(Date)

Director, Social and Rehabilitation Services

BEFORE THE DEPARTMENT OF SOCIAL
AND REHABILITATION SERVICES OF THE
STATE OF MONTANA

In the matter of the amendment of Rule 46-2.10(18)-S11440(1)(n)(i) and the adoption of three rules pertaining to medical assistance, services provided, amount, duration--hearing aid services	)))))))	NOTICE OF PROPOSED AMENDMENT OF RULE 46-2.10(18)-S11440(1)(n)(i) AND PROPOSED ADOPTION OF RULES PERTAINING TO MEDICAL ASSISTANCE, HEARING AID SERVICES. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 3, 1980, the Department of Social and Rehabilitation Services proposes to amend rule 46-2.10(18)-S11440 (1)(n)(i) and adopt three rules all pertaining to medical assistance, services provided, amount, duration concerning specifically hearing aid services.

2. The rule as proposed to be amended provides as follows:

(n) Prosthesis, appliances and medical supplies may be provided upon the recommendation of the attending physician. This includes artificial limbs, artificial eyes, hearings aids, braces, splints, durable medical equipment such as wheelchairs, walkers, canes, crutches, hospital beds and sickroom equipment. The rental or purchase of oxygen and oxygen equipment will also be charged to the prosthesis and appliance benefit.

~~(i) Hearing aids are provided upon the recommendation for purchase by the coordinator of the Montana State Department of Health and Environmental Science, Hearing Conservation program. All medical assistance claims must be approved and signed by the coordinator before payments can be made. Authorization for purchase of a hearing aid will be made only on the recommendation of a certified audiologist after the completion of the following tests by head phone and bone oscillator.~~

~~(aa) Pure tone bone conduction test including 250 - 8,000 H2 at ISO level with masking.~~

~~(ab) Pure tone bone conduction testing with masking, including 250 - 4,000 H_2 at ISO levels.~~

~~(ac) Speech reception threshold testing.~~

~~(ad) Speech discrimination testing.~~

~~(ae) Tone decay testing.~~

~~(af) It is also required that the field evaluation, with whatever hearing aids are considered appropriate, be undertaken and include the total evaluation, and counseling that the certified audiologist deems an appropriate hearing aid evaluation.~~

~~(ii)~~ (i) All prosthesis, braces, splints, durable medical equipment and other appliances which cost less than $50.00 may

be purchased without prior authorization from the Medical Assistance Bureau. It is necessary, however, to have a physician prescription attached to each claim. The equipment must be primarily medical in nature and appropriate for home use. It is necessary to secure prior authorization from the Medical Assistance Bureau for such items which cost more than $50.00. If equipment is to be rented, the total rental cost should not exceed the purchase price.

~~(iii)~~ (ii) In addition to the restriction of the $50.00 value unless prior authorization is secured, the following are limitations of the medical assistance program as it relates to prosthesis, appliances, and medical supplies:

~~(aa)~~ (A) Orthopedic shoes are not a benefit unless they are attached to a brace or other device.

~~(ab)~~ (B) Shoe repair and shoe corrections are not benefits of the program.

~~(ac)~~ (C) Wheelchairs, walkers, etc. utilized by nursing home patients may not be provided unless the item is of special design for the particular patient and is used exclusively by him or unless it is a necessary part of a discharged home plan.

~~(ad)~~ (D) Convenience and comfort items such as air cleaners, grab bars, bed tables and tub seats are not a benefit of the program.

3. The rules as proposed to be adopted provide as follows:

RULE I HEARING AID SERVICES (1) "Hearing aid" means any wearable instrument or device designed for, offered for the purpose of, or represented as aiding persons with or compensating for impaired hearing.

(2) "Hearing aid dispenser" means any person, partnership, corporation, or association engaged in the sale, lease, or rental of hearing aids to a Medicaid recipient.

RULE II REQUIREMENTS FOR HEARING AID SERVICES

(1) Medicaid payment for hearing aids will be made only to a licensed hearing aid dispenser.

(2) Medicaid recipient must be physician referred for a Hearing Aid Evaluation (HAE) by a licensed audiologist prior to fitting and purchase of the hearing aid.

(3) Where travel and recipient immobility prohibit the audiological HAE, a recipient must receive a medical examination from a physician and the physician must certify the need for a hearing aid.

(4) Medicaid payment for hearing aid purchase following the original aid purchase will be allowed only when replacement is medically necessary due to a marked change in the client's hearing loss.

(5) Medicaid payment for hearing aid purchase will include the cost of the hearing aid (model and serial number and ear fit) and ear mold, the fitting, adjusting, two (2) return office calls, aid orientation, and counseling.

(6) Hearing aid rentals are limited to a maximum of 30 days.

(7) All hearing aid purchases and rentals will be reviewed and approved by the designated review organization.

RULE III HEARING AID SERVICES, REIMBURSEMENT (1) Payment for hearing aid services shall not exceed the lowest of usual and customary charges which are reasonable or the amounts allowed by the Hearing Aid Fee Schedule.

(2) Hearing Aid Fee Schedule:

List of Services	Fee
Purchase of instrument	Wholesale cost & $250.00 dispensing fee
Hearing aid rental	$1.00 per day
Hearing aid service & repair ..... (which includes a 6 month warranty)	$60.00 maximum per year per aid
Hearing aid recasing	$30.00 maximum per year per aid
Accessories (Cords, receivers, etc.)	$35.00 maximum per year per aid
Bone ossilator	$65.00 maximum per year per aid
Ear mold replacement	$15.00
Hearing aid batteries	$7.50/silver oxide standard package $5.00/all other standard package

4. The amendment and adoptions are proposed to make more explicit the Department's current hearing aid practice and to

reflect our new reimbursement schedule. The Department has met with the Montana Hearing Aid Society and has considered their input in formulating the reimbursement schedule.

5. Interested parties may submit their data, views or arguments concerning the proposed amendment and adoptions in writing to the Office of Legal Affairs of the Department of Social and Rehabilitation Services, P. O. Box 4210, Helena, MT 59601, no later than February 28, 1980.

6. If a person who is directly affected by the proposed amendment and adoptions wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to the Office of Legal Affairs, P. O. Box 4210, Helena, MT 59601 no later than February 28, 1980.

7. If the agency receives requests for a public hearing on the proposed amendment and adoptions from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment and adoptions; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 1,118 persons based on a department budget analysis that shows a total of 11,184 Medicaid recipients.

8. The authority of the agency to make the proposed amendment and adoptions is based on Section 53-6-113 MCA, and the rule implements Section 53-6-101 and 53-6-141 MCA.

CERTIFIED TO THE SECRETARY OF STATE January 22, 1980
(Date)

Director, Social and Rehabilitation Services

BEFORE THE DEPARTMENT OF SOCIAL
AND REHABILITATION SERVICES OF THE
STATE OF MONTANA

In the matter of the amendment of Rule 46-2.10(18)-S11440(r) and the adoption of three rules pertaining to medical assistance, psychological services	NOTICE OF PROPOSED AMENDMENT OF RULE 46-2.10(18)-S11440(r) AND PROPOSED ADOPTION OF RULES PERTAINING TO MEDICAL ASSISTANCE, PSYCHOLOGICAL SERVICES. NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 3, 1980, the Department of Social and Rehabilitation Services proposes to amend rule 46-2.10(18)-S11440(r) and adopt three rules all pertaining to medical assistance, psychological services.

2. The rule as proposed to be amended provides as follows:

~~(r) Psychological services may be provided by a clinical psychologist licensed by the Montana State Board of Psychologists. Clinical psychological services are limited to a maximum of twenty-two (22) hourly visits, or the equivalent, in a fiscal year.~~

~~(s)~~ (r) Clinic Services: Clinic services are available only through those medical facilities that have a specific contract with the Medicaid program. A specific fee schedule is required and prior authorization for certain services must be delineated in the contract.

~~(t)~~ (s) Home Dialysis for Chronic Kidney Disease Patients: Payment for home dialysis related services including training at a Certified Home Dialysis Training Center and assistance of a "back-up" person in dialysing a patient at home can be provided by the medical program. The availability of Medicare funds, Vocational Rehabilitation funds, and any other resources will be coordinated on an individual case basis to supplements under Medicaid.

3. The rules as proposed to be adopted provide as follows:

RULE I PSYCHOLOGICAL SERVICES Psychological services are those services provided by a licenses clinical psychologist, which are within the scope of the practices of his profession.

RULE II ADDITIONAL REQUIREMENTS FOR PSYCHOLOGICAL SERVICES (1) Psychological services are limited to those allowed under 37-17-102(5) MCA.

(2) Group psychological services shall consist of one and one half (1½) hour sessions with no more than eight (8) individuals participating in the group.

(3) Psychological services are limited to twenty-two (22) hourly visits or the equivalent, per fiscal year.

RULE III PSYCHOLOGICAL SERVICES, REIMBURSEMENT

Reimbursement for services shall be the lowest of customary charges which are reasonable, or

(1) the amount payable by Medicare, or

(2) thirty-two dollars and ten cents ($32.10) for individual psychological services, or

(3) nine dollars and sixty-three cents ($9.63) for group psychological services.

4. The proposed amendment and adoption of these rules are part of the Department's plan to update all Medicaid rules to comply with current practice and to facilitate the Department's recodification process. The revised reimbursement for psychological services reflects the increase which the Department can allow based upon its legislative guidelines.

5. Interested parties may submit their data, views or arguments concerning the proposed amendment and adoptions in writing to the Office of Legal Affairs of the Department of Social and Rehabilitation Services, P. O. Box 4210, Helena, MT 59601, no later than February 28, 1980.

6. If a person who is directly affected by the proposed amendment and adoptions wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to the Office of Legal Affairs, P. O. Box 4210, Helena, MT 59601 no later than February 28, 1980.

7. If the agency receives requests for a public hearing on the proposed amendment and adoptions from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment and adoptions; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 1,118 persons based on a department budget analysis that shows a total to 11,184 Medicaid recipients.

8. The authority of the agency to make the proposed amendment and adoptions is based on Section 53-6-113 MCA, and the rule implements Section 53-6-101 and 53-6-141 MCA.

CERTIFIED TO THE SECRETARY OF STATE January 22, 1980
(Date)

Keith E. Colo
Director, Social and Rehabilitation Services

BEFORE THE BOARD OF PUBLIC EDUCATION
OF THE STATE OF MONTANA

In the matter of the amendment of Rule 48-2.22(1)-S2210 regarding outreach and itinerant services for the hearing impaired and visually impaired	NOTICE OF PROPOSED AMENDMENT OF RULE 48-2.22(1)-S2210 regarding outreach and itinerant services for the hearing impaired and visually impaired NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 1, 1980, the Board of Public Education proposes to amend rule 48-2.22(1)-S2210 regarding outreach and itinerant services for the hearing impaired and visually impaired.

2. The rule as proposed to be amended provides as follows:

48-2.22(1)-S2210 RESPONSIBILITY FOR OUTREACH AND ITINERANT SERVICES FOR THE HEARING IMPAIRED AND VISUALLY IMPAIRED

(1) To be consistent with the philosophy of least restrictive alternative for education and to maintain a continuum of alternatives which assures the best possible availability of services and materials; the board authorizes the Montana school for the deaf and blind to provide regional services of itinerant consultants and instructional tools, materials and books from the center at the school in Great Falls, and that these services shall function in cooperation with the regional offices for special education ~~administered by the office of public instruction~~.

3. The rule is proposed to be amended to clarify the role and scope of the Montana School for the Deaf and Blind.

4. Interested parties may submit their data, views or arguments concerning the proposed amendment in writing to the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302(4).

6. If the agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 13 persons based on the approximate 130 students enrolled at the Montana School for the Deaf and Blind.

7. The authority of the agency to make the proposed amendment is based on section 20-2-114, MCA, and the rule implements section 20-8-103, MCA.

BEFORE THE BOARD OF PUBLIC EDUCATION
OF THE STATE OF MONTANA

In the matter of the amendment of Rule 48-2.22(1)-S2230 regarding the school calendar and school vacations for the Montana School for the Deaf and Blind	NOTICE OF PROPOSED AMENDMENT OF RULE 48-2.22(1)-S2230 regarding the school calendar and school vacations of the Montana School for the Deaf and Blind NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 1, 1980, the Board of Public Education proposes to amend rule 48-2.22(1)-S2230 regarding the school calendar and school vacations for the Montana School for the Deaf and Blind.

2. The rule as proposed to be amended provides as follows:

48-2.22(1)-S2230 SCHOOL CALENDAR, LENGTH OF SCHOOL YEAR, AND REQUIRED SCHOOL VACATIONS (1) The board establishes as policy that the administration of the Montana school for the deaf and blind shall:

(a) adopt a yearly calendar having not less than 180 or more than 186 instructional days~~.~~;

(b) such yearly calendar may be adjusted to coincide with the school calendar adopted by Great Falls school district #1~~.~~;

(c) ~~require that on two occasions during the year a long weekend from Thursday until Monday be determined and parents notified so that children attending the school may go home for a visit, and further,~~ require that all children go to their respective homes for all ~~school holidays during the year that exceed three days duration.~~ residential closings during the year.

3. The rule is proposed to be amended to insure that the students' education is at "the least restrictive environment."

4. Interested parties may submit their data, views or arguments concerning the proposed amendment in writing to the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302(4).

6. If the agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 13 persons based on the approximate 130 students enrolled at the Montana School for the Deaf and Blind.

7. The authority of the agency to make the proposed amendment is based on section 20-2-114, MCA, and the rule implements section 20-8-103, MCA.

BEFORE THE BOARD OF PUBLIC EDUCATION
OF THE STATE OF MONTANA

In the matter of the amendment of Rule 48-2.22(2)-S2240 concerning admission of students to the Montana School for the Deaf and Blind	NOTICE OF PROPOSED AMENDMENT OF RULE 48-2.22(2)-S2240 concerning admission of students to the Montana School for the Deaf and Blind NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 1, 1980, the Board of Public Education proposes to amend rule 48-2.22(2)-S2240 which outlines procedures for admission of students to the Montana School for the Deaf and Blind.

2. The rule as proposed to be amended provides as follows:

48-2.22(2)-S2240 ~~POLICY-REGARDING~~ ADMISSION OF STUDENTS TO THE MONTANA SCHOOL FOR THE DEAF AND BLIND (1) ~~The-superintendent of-the-school-shall-appoint-an-admission-and-suspension-committee comprised-of:~~ The following procedures shall govern the admission of students at the Montana school for the deaf and blind:

~~(a)--the-academic-principal~~

~~(b)--the-child-care-director~~

~~(c)--the-school-nurse~~

~~(d)--the-supervising-teacher-appropriate-for-the-handicap and/or-age-of-applicant~~

~~(e)--an-appropriate-classroom-teacher~~

~~(2)--This-committee-shall-make-recommendations-to-the superintendent-for-the-admission-of-students-and-also-recommend supervision-of-students-when-necessary.~~

~~(3)--Before-this-committee-makes-a-recommendation-for admission,-the-following-requirements-must-be-met:~~

(a) ~~a-completed-application-by-the-parent-or-guardian~~ The parent or legal guardian must complete an application for admission.

(b) ~~a~~ A ~~fully-completed~~ medical examination form ~~submitted by-the-family-doctor~~ must be filed from the family doctor.

(c) ~~supportive-data-relative-to-hearing-loss-or-impairment of-vision~~ Appropriate data and/or assessment of hearing loss or impairment of vision must accompany the application.

(d) ~~site-visit-and-conference-with-the-parents-or-guardian~~ The parents or guardian, with their child, must visit the school.

(e) Within practical limitation of time, but not exceeding six months, a child study team shall be called on each child admitted or considered for admission. The composition of the child study team shall follow the rules and regulations set forth by the office of the superintendent of public instruction.

(f) A child study team shall be called yearly for reassessment of the child's placement at the school.

(g) The school shall follow the mandates of Public Law 94-142 regarding admission of students.

~~(4)--In-cases-of-suspension-of-a-student,-the-committee-shall proceed-as-follows:~~

~~(a)--examine-all-other-alternatives~~

~~(b)--confer-with-the-parents-or-guardian-giving-a-full explanation-of-events-or-circumstances-precipitating-the-action~~

~~(c)--discuss-with-the-parents-or-guardian-the-length-of suspension-and-any-conditions-appropriate-for-reentry.~~

3. The rule is proposed to be amended to clarify the due process rights of the students.

4. Interested parties may submit their data, views or arguments concerning the proposed amendments in writing to the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302(4).

6. If the agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 13 persons based on the approximate 130 students enrolled at the Montana School for the Deaf and Blind.

7. The authority of the agency to make the proposed amendment is based on section 20-2-114, MCA, and the rule implements section 20-8-103, MCA.

BEFORE THE BOARD OF PUBLIC EDUCATION
OF THE STATE OF MONTANA

In the matter of the amendment of Rule 48-2.22(2)-S2250 concerning residence of children at the Montana School for the Deaf and Blind	NOTICE OF PROPOSED AMENDMENT OF RULE 48-2.22(2)-S2250 concerning residence of children at the Montana School for the Deaf and Blind NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 1, 1980, the Board of Public Education proposes to amend rule 48-2.22(2)-S2250 which concerns residence of children at the Montana School for the Deaf and Blind.

2. The rule as proposed to be amended provides as follows:

48-2.22(2)-S2250 ~~POLICY REGARDING~~ RESIDENCE OF CHILDREN AT THE MONTANA SCHOOL FOR THE DEAF AND BLIND (1) Admission of children as residents in the dormitory at the Montana school for the deaf and blind shall be as follows:

(a) All children otherwise certified as admissable students and residing outside the immediate area of the city of Great Falls~~,~~ may reside in the dormitory during regular school days.

(b) All children otherwise certified as admissable students and residing within the city of Great Falls and its immediate surrounding area shall be day students--meaning that they shall go to their respective homes each day after regular school hours.

(c) Under certain conditions of need or social considerations, day students may be admitted as resident students provided such recommendation is made by:

(i) the welfare department

(ii) a review committee comprised of the superintendent of the school, ~~a child care director~~ the dean of students, the principal, and a teacher.

(d) In such cases the arrangement must be discussed with the parent or guardian and is subject to review periodically.

3. The rule is proposed to be amended to clarify admission policies.

4. Interested parties may submit their data, views or arguments concerning the proposed amendments in writing to the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302.

5. If a person who is directly affected by the proposed amendment wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. Section 2-4-302(4).

6. If the agency receives requests for a public hearing on the proposed amendment from either 10% or 25, whichever is less,

of the persons who are directly affected by the proposed amendment; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having no less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 13 persons based on the approximate 130 students enrolled at the Montana School for the Deaf and Blind.

7. The authority of the agency to make the proposed amendment is based on section 20-2-114, MCA, and the rule implements section 20-8-103, MCA.

BEFORE THE BOARD OF PUBLIC EDUCATION
OF THE STATE OF MONTANA

In the matter of the ADOPTION OF A RULE regarding the transfer of students from the Montana School for the Deaf and Blind to a local education agency	) NOTICE OF PROPOSED ADOPTION OF A RULE regarding the transfer of students from the Montana School for the Deaf and Blind to a local education agency)) NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 1, 1980, the Board of Public Education proposes to adopt a rule regarding the transfer of students from the Montana School for the Deaf and Blind to a local education agency.

2. The proposed rule provides as follows:

TRANSFER TO LOCAL EDUCATION AGENCY (1) The transfer of students from the Montana school for the deaf and blind to another educational placement shall be accomplished by:

(a) recommendation of the child study team;

(b) concurrence of the parents; and

(c) consultation with and acceptance by the local education agency.

3. The rule is proposed for adoption to clarify the due process rights of students.

4. Interested parties may submit their data, views or arguments concerning the proposed rule in writing to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. 2-4-302(4).

5. If a person who is directly affected by the proposed rule wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments

he has to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. 2-4-302(4).

6. If the agency receives requests for a public hearing on the proposed rule from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed rule; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 13 persons based on the approximate 130 students enrolled at the Montana School for the Deaf and Blind.

7. The authority of this agency to adopt the proposed rule is based on section 20-2-114, MCA, and the rule implements section 20-8-103, MCA.

BEFORE THE BOARD OF PUBLIC EDUCATION
OF THE STATE OF MONTANA

In the matter of the ADOPTION OF A RULE regarding suspension of a student from the Montana School for the Deaf and Blind	NOTICE OF PROPOSED ADOPTION OF A RULE regarding suspension of a student from the Montana School for the Deaf and Blind NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 1, 1980, the Board of Public Education proposes to adopt a rule regarding suspension of a student from the Montana School for the Deaf and Blind.

2. The proposed rule provides as follows:

SUSPENSION (1) For those circumstances or conditions where a student at the Montana school for the deaf and blind is to be suspended, the superintendent shall use the following procedures. (Suspension is defined as a short term guidance or disciplinary placement of the child at home with his/her parent or guardian. Suspension shall not exceed one week at a time.)

(a) Call together an appropriate committee to examine the circumstances and reasons for action of suspension.

(b) Examine all other alternatives.

(c) Communicate and discuss the matter with the parents or guardian.

3. The rule is proposed for adoption to clarify the due process rights of students.

4. Interested parties may submit their data, views or arguments concerning the proposed rule to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. 2-4-302(4).

5. If a person who is directly affected by the proposed rule wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. 2-4-302(4).

6. If the agency receives requests for a public hearing on the proposed rule from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed rule; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 13 persons based on the approximate 130 students enrolled at the Montana School for the Deaf and Blind.

7. The authority of this agency to adopt the proposed rule is based on section 20-2-114, MCA, and the rule implements section 20-8-103, MCA.

BEFORE THE BOARD OF PUBLIC EDUCATION
OF THE STATE OF MONTANA

In the matter of the ADOPTION OF A RULE regarding expulsion of students from the Montana School for the Deaf and Blind	NOTICE OF PROPOSED ADOPTION OF A RULE regarding expulsion of students from the Montana School for the Deaf and Blind NO PUBLIC HEARING CONTEMPLATED

TO: All Interested Persons

1. On March 1, 1980, the Board of Public Education proposes to adopt a rule regarding expulsion of students from the Montana School for the Deaf and Blind.

2. The proposed rule provides as follows:

EXPULSION OF STUDENTS FROM THE MONTANA SCHOOL FOR THE DEAF AND BLIND (1) Expulsion will be resorted to only when it is evident that there is little or no possibility of the pupil's being able to benefit from continued school experience and that his presence would constitute a hazard to the school program.

Expulsion or permanent exclusion is solely the direct responsibility of the board of public education.

(2) The parents or guardians shall be notified in writing of their opportunity to appear before the Board of Public Education prior to any action of expulsion.

(3) The superintendent shall make an administrative recommendation to the board based on a thorough investigation of the case and the recommendation of the school principal or director of child care services.

(4) If the board expels the student, the secretary to the board shall officially notify his parent(s) or guardian(s) of the action.

(5) Readmission of an expelled student is possible provided the cause(s) leading to the expulsion have been corrected or substantially diminished.

(6) Readmission is subject to approval by the board.

3. The rule is proposed for adoption to clarify the due process rights of students.

4. Interested parties may submit their data, views or arguments concerning the proposed rule to Marjorie W. King, Chairman of the Board of Public Education 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. 2-4-302(4).

5. If a person who is directly affected by the proposed rule wishes to express his data, views and arguments orally or in writing at a public hearing, he must make written request for a hearing and submit this request along with any written comments he has to Marjorie W. King, Chairman of the Board of Public Education, 33 South Last Chance Gulch, Helena, Montana 59601, no later than February 28, 1980. 2-4-302(4).

6. If the agency receives requests for a public hearing on the proposed rule from either 10% or 25, whichever is less, of the persons who are directly affected by the proposed rule; from the Administrative Code Committee of the legislature; from a governmental subdivision or agency; or from an association having not less than 25 members who will be directly affected, a hearing will be held at a later date. Notice of the hearing will be published in the Montana Administrative Register. Ten percent of those persons directly affected has been determined to be 13 persons based on the approximate 130 students enrolled at the Montana School for the Deaf and Blind.

7. The authority of this agency to adopt the proposed rule is based on section 20-2-114, MCA, and the rule implements sections 20-5-202 and 20-8-103, MCA.

Marjorie W. King

MARJORIE W. KING, CHAIRMAN
BOARD OF PUBLIC EDUCATION

BY: Marilyn Miller

Assistant to the Board

Certified to the Secretary of State January 22, 1980.

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule ARM 16-].14(10)-S14390, relating to the investigation of water supplies of passenger trains	)))))	NOTICE OF THE REPEAL OF RULE ARM 16-2.14(10)-S14390

TO: All Interested Persons

1. On November 29, 1979, the board published notice of a proposed repeal of rule 16-2.14(10)-S14390, relating to the investigation of water supplies of passenger trains at page 1455 of the 1979 Montana Administrative Register, issue number 22.

2. The board has repealed the rule as proposed.

3. No comments or testimony were received.

JOHN F. McGREGOR, M.D., Chairman

By: RITA ANN SHEEHY

Certified to the Secretary of State January 22, 1980

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule ARM 16-2.14(10)-S14410, relating to drinking water in railway stations	))))	NOTICE OF THE REPEAL OF RULE ARM 16-2.14(10)-S14410

TO: All Interested Persons

1. On November 29, 1979, the board published notice of a proposed repeal of rule 16-2.14(10)-S14410, relating to drinking water in railway stations, at page 1458 of the 1979 Montana Administrative Register, issue number 22.

2. The board has repealed the rule as proposed.

3. No comments or testimony were received.

JOHN F. McGREGOR, M.D., Chairman

By: RITA ANN SHEEHY

Certified to the Secretary of State January 22, 1980

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule ARM 16-2.14(10)-S14470 relating to water pollution grant program	)))	NOTICE OF THE REPEAL OF RULE ARM 16-2.14(10)-S14470

TO: All Interested Persons

1. On November 29, 1979, the board published notice of a proposed repeal of rule 16-2.14(10)-S1470 relating to the water pollution grant program at page 1456 of the 1979 Montana Administrative Register, issue number 22.

2. The board has repealed the rule as proposed.

3. No comments or testimony were received.

JOHN F. McGREGOR, M.D., Chairman

By: RITA ANN SHEEHY

Certified to the Secretary of State January 22, 1980

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule ARM 16-2.14(10)-S14510, relating to refuse from houses	)))	NOTICE OF THE REPEAL OF RULE ARM 16-2.14(10)-S14 510

TO: All Interested Persons

1. On November 29, 1979, the board published notice of a proposed repeal of rule 16-2.14(10)-S14510, relating to refuse from houses, at page 1457 of the 1979 Montana Administrative Register, issue number 22.

2. The board has repealed the rule as proposed.

3. No comments or testimony were received.

JOHN F. McGREGOR, M.D., Chairman

By: RITA ANN SHEEHY

Certified to the Secretary of State January 22, 1980

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule ARM 16-2.14(10)-S14530, relating to control of pollution from confined livestock feeding activities	NOTICE OF THE REPEAL OF RULE ARM 16-2.14(10)-S14530

TO: All Interested Persons

1. On November 29, 1979, the board published notice of a proposed repeal of rule 16-2.14(10)-S14530, relating to control of pollution from confined livestock feeding activities, at page 1460 of the 1979 Montana Administrative Register, issue number 22.

2. The board has repealed the rule as proposed.

3. No comments or testimony were received.

JOHN F. McGREGOR, M.D., Chairman

By: RITA ANN SHEEHY

Certified to the Secretary of State January 22, 1980

BEFORE THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
OF THE STATE OF MONTANA

In the matter of the repeal of rule 16-2.18(14)-S18060 relating to functions and responsibilities of the nursing bureau	))))	NOTICE OF REPEAL OF RULE 16-2.18(14)-S18060, FUNCTIONS AND RESPONSIBILITIES OF THE NURSING BUREAU

TO: All Interested Persons

1. On November 29, 1979, the Department of Health and Environmental Sciences published notice of the proposed repeal of rule 16-2.18(14)-S18060, relating to functions and responsibilities of the nursing bureau at page 1461 of the 1979 Montana Administrative Register, issue number 22.

2. The Department has repealed the rule as proposed.

3. No comments or testimony were received.

A. C. Knight
A. C. KNIGHT, M.D., Director

By: John W. Bartlett
JOHN W. BARTLETT

Certified to the Secretary of State January 22 1980

BEFORE THE BOARD OF LIVESTOCK
STATE OF MONTANA

In the matter of the repeal of ARM 32-2.6A(110)-S6570 and 32-2.6A(110)-S6580 relating to activities of renderers and rendering plants	NOTICE OF THE REPEAL OF ARM 32-2.6A(110)-S6570 AND 32-2.6A(110)-S6580

TO: All Interested Persons

1. On October 11, 1979 the Department of Livestock published notice of proposed repeal of rules 32-2.6A(110)-S6570 INFECTIOUS, CONTAGIOUS DISEASE SHALL BE REPORTED and 32-2.6A(110)-S6580 FOOD ANIMALS concerning rendering and rendering plants at page 1166 of the 1979 Montana Administrative Register, Issue No. 19.

2. The agency has repealed these rules as proposed.

3. No comments or testimony were received.

In the matter of the amendment of ARM 32-2.10(10)-S10030 relating to the location of livestock market inspectors.	NOTICE OF THE AMENDMENT OF RULE 32-2.10(10)-S10030

1. On October 11, 1979 the Department of Livestock published notice of the proposed amendment to rule 32-2.10(10)-S10030 MARKET LOCATIONS concerning the location of livestock market inspectors at page 1167 of the 1979 Montana Administrative Register, Issue No. 19.

2. The agency has amended the rule as proposed.

3. No comments or testimony were received.

In the matter of the repeal of ARM 32-2.6BII(1)-S620, 32-2.6BII(1)-S630, and 32-2.(1)-S6100 relating to regulations of the egg industry.)	NOTICE OF THE REPEAL OF ARM 32-2.6BII(1)-S620, 32-2.6BII(1)-S630, AND 32-2.6BII(1)-S6100

1. On October 11, 1979 the Department of Livestock published notice of proposed repeal of rules 32-2.6BII(1)-S620 GRADING AND CANDLING BY LICENSED GRADERS, 32-2.6BII(1)-S630 EGGS REQUIRED TO BE CANDLED, and 32-2.6BII(1)-S6100 EGG GRADERS REQUIRED TO BE LICENSED concerning regulations of the egg industry at page 1172 of the 1979 Montana Administrative register, Issue No. 19.

2. The agency has repealed the rules as proposed.

3. No comments or testimony were received.

In the matter of the repeal of ARM 32-2.6A(14)-S640, 32-2.6A(14)-S680, and 32-2.6A(14)-S690 relating to artificial insemination.	NOTICE OF THE REPEAL OF ARM 32-2.6A(14)-S640, 32-2.6A(14)-S680, AND 32-2.6A(14)-S690

1. On December 13, 1979 the Department of Livestock published notice of the proposed repeal of rules 32-2.6A(14)-S640 DEFINITIONS OF TERMS USED, 32-2.6A914)-S680 INFECTIOUS, CONTAGIOUS DISEASE SHALL BE REPORTED, and 32-2.6A(14)-S690 SEMEN FROM APPROVED SIRES ONLY concerning artificial insemination at page 1500 of the 1979 Montana Administrative Register, Issue No. 23.

2. The agency has repealed the rules as proposed.

3. No comments or testimony were received.

In the matter of the amendment of ARM 32-2.6A(10)-S630 relating to quarantined feedlots.	NOTICE OF THE AMENDMENT OF ARM 32-2.6A(10)-S630

1. On December 13, 1979 the Department of Livestock published notice of the proposed amendment to rule 32-2.6A(10)-S630 APPROVED QUARANTINED FEEDLOTS relating to quarantined feedlots at page 1502 of the 1979 Montana Administrative Register, Issue No. 23.

2. The agency has amended the rule as proposed.

3. No comments or testimony were received.

In the matter of the repeal ARM 32-2.6A(118)-S6760, 32-2.6A(118)-S6830, and 32-2.6A(118)-S6840 relating to tuberculosis area and herd plans.	NOTICE OF THE REPEAL OF ARM 32-2.6A(118)-S6760, 32-2.6A(118)-S6830, AND 32-2.6A(118)-S6840

1. On December 13, 1979 the Department of Livestock published notice of the proposed repeal of rules 32-2.6A(118)-S6760 PAYMENT OF INDEMNITY, 32-2.6A(118)-S6830 INDIVIDUAL ACCREDITED HERD PLAN, and 32-2.6A(118)-S6840 MODIFIED-ACCREDITED AREA PLAN concerning tuberculosis area and herd plans at page 1505 of the 1979 Montana Administrative Register, Issue No. 23.

2. The agency has repealed the rules as proposed.

3. No comments or testimony were received.

ROBERT G. BARTHELMESS
Chairman, Board of Livestock

By: JAMES W. GLOSSER, D.V.M.
Administrator & State Veterinarian

Certified to the Secretary of State January 22, 1980.

STATE OF MONTANA
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL LICENSING
BEFORE THE BOARD OF DENTISTRY

In the matter of the Adoption of new rules setting fee schedules for dentists and dental hygienists.	NOTICE OF ADOPTION OF ARM 40-3.34(6)-S3455 FEE SCHEDULE and ARM 40-3.34(10)-S34010 FEE SCHEDULE

TO: All Interested Persons:

1. On December 13, 1979, the Board of Dentistry published a notice of proposed adoption of a fee schedule for dentists, 40-3.34(6)-S3455 FEE SCHEDULE and of a fee schedule for dental hygienists, 40-3.34(10)-S34010 FEE SCHEDULE at pages 1513 and 1514, Montana Administrative Register, issue number 23.

2. The board has adopted the rules exactly as proposed.

3. No comments or testimony were received.

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL LICENSING
BEFORE THE BOARD OF RADIOLOGIC TECHNOLOGISTS

In the matter of the Repeal of ARM 40-3.96(6)-S9630 Grandfather clause and the amendments of ARM 40-3.96(6)-S9640 subsection (3) concerning applications; 40-3.96(6)-9670 Subsection (3) concerning examinations, and 40-3.96(6)-S9675 concerning permits.	NOTICE OF REPEAL OF ARM 40-3.96(6)-S9630 GRANDFATHER CLAUSE and the AMENDMENTS OF ARM 40-3.96(6)-S9640 APPLICATIONS; ARM 40-3.96(6)-S9670 EXAMINATIONS; and ARM 40-3.96(6)-S9675 PERMITS

TO: All Interested Persons:

1. On December 13, 1979, the Board of Radiologic Technologists published a notice of proposed repeal of 40-3.96(6)-S9630 concerning a grandfather clause and proposed amendments of ARM 40-3.96(6)-S9640 subsection (3) concerning applications; 40-3.96(6)-S9670, subsection (3) concerning examinations; and 40-3.96(6)-S9675 concerning permits at pages 1515 through 1517, Montana Administrative Register, issue number 23.

2. The board has repealed and amended the rules as proposed with the exception of 40-3.96(6)-S9670 concerning examinations which has been changed as follows: (new matter underlined, deleted matter interlined)

"40-3.96(6)-S9670 EXAMINATIONS.....

...(3) Passing scores for the examination are listed as follows:

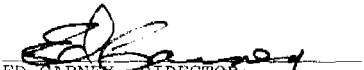
(a)	General knowledge portion	56 out of 75 correct answers
(b)	Chest, extremeties, spine	20 out of 25 correct answers

(c) Other, including fluoroscopy 24 out of 30 correct answers

....."

The change is in response to a phone call from the Administrative Code Committee in which they stated either a percentage should be given or the total number of questions shown.

3. No other comments or testimony were received. The reasons for the repeal and amendments are those stated in the notice.

BY: 
ED CARNEY, DIRECTOR
DEPARTMENT OF PROFESSIONAL
AND OCCUPATIONAL LICENSING

Certified to the Secretary of State, January 22, 1980.

BEFORE THE DEPARTMENT OF REVENUE
OF THE STATE OF MONTANA

IN THE MATTER OF THE AMENDMENT OF RULE 42-2.12(6)-S12005 relating to wine license amendments to retail beer licenses.	NOTICE OF AMENDMENT OF RULE 42-2.12(6)-S12005 relating to wine license amendments.

TO: All Interested Persons:

1. On September 27, 1979, the Department of Revenue published notice of a proposed amendment to rule 42-2.12(6)-S12005, relating to wine license amendments, on pages 1097 and 1098 of the Montana Administrative Register, issue no. 18. On November 15, 1979, the Department published notice of the interim amendment of the rule on pages 1392 and 1393 of the Montana Administrative Register, issue no. 21.

2. The department has amended the rule, with the following changes (deletions interlined and additions capitalized and underlined):

42-2.12(6)-S12005 WINE LICENSE AMENDMENT (1) Any person holding a retail beer license for consumption on the premises may apply, on forms prescribed by the Department, for an amendment to the retail beer license permitting the applicant to sell wine, provided that applicant conducts, on the same premises, a restaurant or prepared food business that is properly licensed by state and local authorities for the purpose of operating a restaurant or prepared food business and to which the sale of wine shall be supplementary.

~~(2) For purposes of this regulation, a "restaurant or prepared food business" shall be defined as an establishment wherein appropriate and necessary facilities are provided for the preparation of refreshments and meals for the public, wherein, the refreshments and meals are made ready for eating by due assembling, dressing or cooking.~~

~~(3)~~ (2) The sale of wine as being "supplementary" to a restaurant or prepared food business ~~shall mean that the sale of food shall constitute the principal business of the establishment to be licensed.~~ means that both the sale of food and the sale of wine add to the income of the establishment. Neither the sale of food nor wine need be the principal source of income for the establishment.

~~(4)~~ (3) It shall be lawful for a retailer holding a beer and wine license to sell and serve wine ~~on the premises for consumption~~ either ~~on draught or in bottles to be consumed~~ ON DRAUGHT OR IN BOTTLES TO BE CONSUMED on ~~or off~~ the premises.

3. After considering the proposed amendments as initially published on September 27, 1979, and after reviewing the decision of the hearing examiner, the Department has determined

that it lacks statutory authority to promulgate that portion of the proposed amendment that would authorize sales for off-premise consumption. The statutory language indicates that sales for on-premises consumption are the only type of sales permitted. The suggested amendments can best be accomplished by legislation and not by administrative rule.

Consequently, the Department has adopted as a permanent rule the language previously adopted on an interim basis.

MARK L. CRAIG, Director
Department of Revenue

Certified to the Secretary of State 1-7-80

BEFORE THE DEPARTMENT OF REVENUE

OF THE STATE OF MONTANA

IN THE MATTER OF THE ADOPTION OF A RULE relating to wine distributor's monthly reports.	))))	NOTICE OF THE ADOPTION OF A RULE relating to wine distributor's monthly reports.

TO: All Interested Persons:

1. On December 13, 1979, the Department of Revenue published notice of the proposed adoption of a rule relating to wine distributor's monthly reports at pages 1518 and 1519 of the 1979 Montana Administrative Register, issue no. 23.

2. The Department has adopted Rule I (42-2.12(6)-S12130) as proposed.

3. No comments or testimony were received.

MARY L. CRAIG, Director
Department of Revenue

Certified to the Secretary of State 1-21-80

BEFORE THE SECRETARY OF STATE
OF THE STATE OF MONTANA

In the matter of the adoption of procedural rules for the use of voting machines and devices where the procedures differ from use of paper ballots	)))))	NOTICE OF ADOPTION OF PROCEDURAL RULES FOR USE OF VOTING MACHINES AND DEVICES

TO: All Interested Persons:

1. On December 13, 1979, the Secretary of State published notice of the proposed adoption of procedural rules concerning the use of voting machines and devices where the procedures differ from use of paper ballots at page 1520 of the 1979 Montana Administrative Register, issue number 23.

2. The secretary of state has adopted the rules as proposed except for the following revisions. ARM rule numbers will be assigned upon codification of the Election Chapter.

RULE I USE OF VOTING MACHINES AND DEVICES; RULE II PROCEDURES FOR USE OF IES (SHOUP) VOTING MACHINES - BEFORE THE POLLS OPEN; RULE III PROCEDURES FOR USE OF IES (SHOUP) VOTING MACHINES - WHILE THE POLLS ARE OPEN; RULE IV PROCEDURES FOR USE OF IES (SHOUP) VOTING MACHINES - AFTER THE POLLS CLOSE; RULE VII PROCEDURES FOR USE OF AVM VOTING MACHINES - WHILE THE POLLS ARE OPEN; RULE X DEFINITIONS - COMPUTER ELECTION SYSTEMS VOTOMATIC (CES); RULE XI PROCEDURES FOR USE OF COMPUTER ELECTION SYSTEMS VOTOMATIC - (CES) - BEFORE THE POLLS OPEN; RULE XII PROCEDURES FOR USE OF COMPUTER ELECTION SYSTEMS VOTOMATIC - (CES) - WHILE THE POLLS ARE OPEN; RULE XIII PROCEDURES FOR USE OF COMPUTER ELECTION SYSTEMS VOTOMATIC - (CES) - AFTER THE POLLS CLOSE; RULE XV CENTRAL COUNTING CENTER FOR TABULATION OF COMPUTER ELECTION SYSTEM - VOTOMATIC (CES) BALLOTS; RULE XVI CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - OBSERVATION BOARD; RULE XVII CENTRAL COUNTING COUNTING CENTER PROCEDURES AND DUTIES - RECEIVING BOARD; RULE XVIII CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - INSPECTION BOARD; RULE XIX CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - DUPLICATION BOARD; RULE XX CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - WRITE-IN TALLY BOARD; RULE XXI CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - BALLOT TABULATION BOARD; RULE XXII CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - BALLOT SEALING BOARD; RULE XXIII CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - ELECTION RESULTS BOARD and RULE XXIV CENTRAL COUNTING CENTER PROCEDURES AND DUTIES - CLOSING OF COUNTING CENTER are adopted as proposed.

The secretary of state has adopted RULE VI with the following changes:

RULE VI PROCEDURES FOR USE OF AVM (AUTOMATIC VOTING MACHINES) - BEFORE THE POLLS OPEN

(1) - (3)(f) same as proposed rule.

(4) Election admininstrator shall close, lock and place a new machine seal ~~on each machine by passing the seal through the slot in the lower right hand corner of the front of the machine and deliver them to polling places.~~ in the slot provided for each particular machine. Keys shall be placed in an envelope having the corresponding machine number and the protective counter number recorded on it by the election administrator. Key envelopes shall be delivered to chief election judge for each precinct. Chief election judges shall distribute keys to judges, as needed, for preparation of machines for use and upon close of polls for locking the machines.

(5) - (9) same as proposed rule.

The secretary of state has adopted RULE VIII with the following changes:

RULE VIII PROCEDURES FOR USE OF AVM VOTING MACHINES - AFTER THE POLLS CLOSE

(1) Election judges shall ~~seal each machine with a new metal machine seal by passing the seal through the slot in the lower right hand corner of the front of the machine.~~ close, lock and place a new metal machine seal in the slot provided for each particular machine. They will turn keys in the locks, as instructed, remove them and place them in custody of the chief election judge.

(2) - (9) same as proposed rule.

The secretary of state has deleted the following proposed rules because they unnecessarily repeat statutory language.

RULE V PROCEDURES FOR RECOUNT OF VOTES IN IES (SHOUP) PRECINCTS; RULE IX PROCEDURES FOR RECOUNT OF VOTES IN AVM MACHINE PRECINCTS and RULE XIV PROCEDURES FOR RECOUNT OF VOTES IN (CES) - VOTOMATIC PRECINCTS.

3. Comments were received in writing from David Halland, Election Administrator of Yellowstone County on RULE V and RULE VIII concerning the placement of seals on AVM machines.

Response: Secretary of State agrees the wording concerning the placement of seals on AVM machines should be less specific due to the construction of various models of AVM machines and has changed the language of the two rules to be less specific.

Comments were received from Randy McDonald, Staff Attorney, reviewing rules for the Administrative Code Committee. He

stated that RULES V, IX and XIV were in conflict with Section 2-4-305(2), MCA, in that they unnecessarily repeat statutory language.

Response: Secretary of State agrees that RULES V, IX and XIV do unnecessarily repeat statutory language and has deleted those proposed rules.

Further comments were received from Mr. McDonald, concerning missing or incorrect implementation sections.

Response: Secretary of State shall provide corrected and appropriate implementing sections in the replacement pages when filed for printing in the Administrative Rules of Montana.

Dated this 22nd day of January, 1980

FRANK MURRAY
Secretary of State

VOLUME NO. 38 OPINION NO. 62

ADOPTION - Disclosure of original birth records to adopted person;
BIRTH - Disclosure of original birth records to adopted person;
DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES - Disclosure of original birth records to adopted person;
ILLEGITIMATE CHILDREN - Disclosure of illegitimacy of birth to adopted person;
VITAL STATISTICS - Birth certificates: disclosure of original birth records to adopted person.
MONTANA CODE ANNOTATED - Sections 1-2-203, 50-15-206(1)(a), 50-15-304(2)(c).

HELD: Legitimately born adopted persons of legal age may have their sealed original birth records opened on demand pursuant to section 50-15-304(2)(c), MCA. Illegitimately born adopted persons may apply to the court for disclosure of their sealed original birth records pursuant to section 50-15-206(1)(a), MCA.

8 January 1980

Sandra R. Muckleston
Chief Counsel, Legal Division
Department of Health and
Environmental Sciences
1400 Eleventh Avenue
Helena, Montana 59601

Dear Ms. Muckleston:

You have requested my opinion on the following question:

> Is a court order required before an adopted person may be allowed access to his or her sealed original birth records?

Your question requires construction of section 50-15-206, MCA. That section provides, in part:

> (1) Disclosure of illegitimacy of birth or information from which illegitimacy can be ascertained may be made only:
> (a) upon an order of a court to determine personal or property rights. An adopted person of

> legal age may apply to the court for such an order.

The last sentence, concerning adopted persons, was added by the forty-sixth legislature last year.

The amending legislation, Senate Bill 137, as introduced, provided for disclosure of such information "upon request of an adopted person if of age." This proposed subsection was considered and specifically rejected by the legislature. In its final form the bill allowed adopted persons to apply for court ordered disclosure. History of legislation may be resorted to in order to determine the intention of the legislature. State ex rel. Normile v. Cooney, 100 Mont. 391, 398, 47 P.2d 637, 641 (1935). Since the legislature chose to require adopted persons to petition the courts for disclosure of these records, rather than allowing direct disclosure on request, the legislative intent must have been to prohibit disclosure of such records to adopted persons except upon court order.

With section 50-15-206, MCA, so construed, an apparent conflict arises between the provisions of that section and section 50-15-304, MCA. The latter section provides in relevant part:

> (2) The procedure for recording a substitute certificate of birth for a person born in Montana and adopted is as follows: ...
> (c) The department shall seal original birth records and open them only on demand of the adopted person if of legal age or on order of a court.

Hence, where section 50-15-304(2)(c), MCA, would allow an adopted, illegitimately born person access to his or her sealed original birth records upon demand, section 50-15-206(1)(a) specifically requires that such persons may gain access to any records which disclose illegitimacy of birth only upon application to a court. Within this limited area of access by adopted illegitimately born persons, the sections conflict.

The provisions of 50-15-206(1)(a) must control this conflict. Sections 50-15-206 and 50-15-304, MCA, were enacted by the legislature at the same time by Chapter 197, Laws of Montana 1967. However, section 50-15-206(1)(a), MCA, was

enacted as part of a 1979 amendment of that section. Section 1-2-203, MCA, provides in relevant part: "Where a section or a part of a statute is amended, ... the new provisions are to be considered as having been enacted at the time of the amendment." Earlier statutes, to the extent of any repugnancy, are controlled by later statutes. State ex rel. Wiley v. District Court, 118 Mont. 50, 55, 164 P.2d 358, 361 (1945). As already discussed, the legislature intended that adopted illegitimately born persons apply to the courts for disclosure of their original birth records. To that extent the provisions of the two sections are repugnant, and section 50-15-206(1)(a), MCA, the newer enactment, controls.

Another rule of statutory construction also supports my opinion that section 50-15-206(1)(a) controls. Where a specific statute conflicts with a general statute, the specific statute controls over the general to the extent of any repugnancy. State ex rel. Browman v. Wood, 168 Mont. 341, 346, 543 P.2d 184, 187 (1975). Under this rule of construction, the better view is that section 50-15-304, MCA, is a general statute dealing with the birth records of all adopted persons. Section 50-15-206(1)(a), MCA, is a more specific statute regulating disclosure of birth records of illegitimate adopted persons, which thus controls in cases where the statutes conflict.

In all instances where the statutes do not conflict, the provisions of section 50-15-304(2)(c) remain valid and have effect. Legitimately born adopted persons of legal age may therefore have their sealed original birth records opened pursuant to that section.

THEREFORE, IT IS MY OPINION:

> Legitimately born adopted persons of legal age may have their sealed original birth records opened on demand pursuant to section 50-15-304(2)(c), MCA. Illegitimately born adopted persons may apply to the court for disclosure of their sealed original birth records pursuant to section 50-15-206(1)(a), MCA.

Very truly yours,

MIKE GREELY
Attorney General