

MINUTES OF THE MEETING ON THE JOINT APPROPRIATION SUBCOMMITTEE  
ON HUMAN SERVICES  
January 22, 1983

Begin Tape 18 Side One.

The meeting was called to order upon adjournment of the House session at 11:30 a.m. by Vice-Chairman, Senator Story.

Subcommittee members present included Vice-Chairman Story, Sen. Regan, Sen. Aklestad, Rep. Menahan and Rep. Winslow. Rep. Shontz, Chairman was absent.

OCCUPATIONAL HEALTH BUREAU HEARINGS

Mr. Larry Lloyd, Chief of the Occupational Health Bureau spoke first. See exhibit A He explained there has been an increasing public demand for services provided by this bureau. The staffing has remained constant for the past 12 years of about 4 FTE. The Occupational Health section is primarily response oriented. They seek to maintain conditions in a workplace that will protect human health and safety. They test such areas as airborne formaldehyde concentrations in the homes, carbon monoxide concentrations in homes and vehicles, try to determine sewer gas concentrations and sources of entry into living areas, investigate unhealthful conditions in dental offices due to exposure to nitrous oxide, study lead exposures to workers in radiator repair shops, etc. They also provide training and technical assistance to local health departments to assist in the development of better occupational health capabilities on the local level. The second program within the bureau dealt with the radiological health which began in 1963 upon the initiation of a voluntary medical x-ray inspection program and they seek to protect Montanans from exposure to ionizing radiation which may cause injury or health risks such as increased susceptibility to cancer. Some programs designed to achieve this are the medical x-ray program, the radiology plan evaluations, emergency response, licensing and regulation of radioactive materials, environmental surveillance and the Butte radiation study. The Department of Health requests that the occupational health bureau be funded at the same level of operation that it has conducted under general fund authorization for the last 12 years. This being 4 FTE and necessary program operational monies.

Relating to the FY 84 and 85 budgets needs for the bureau is difficult because the health physicist position for medical x-ray program was vacant for the first 9 1/2 months of FY82 and consequently did not do much traveling that year. The bureau had 3 FTE's in the department for the study in Butte and were financed entirely by federal funds. The Bureau Chief and the Administrative Assistant who were normally totally supported by general funds contributed to the Butte project and so their expenses were paid for by the federal contract. There was consequently a savings of \$42,443 reverted back to the general fund. The federal contracts for the Butte projects will terminate on June 30, 1983. They are asking once again that the funds for the Occupational Health Bureau be totally funded from the general fund monies.

There are three funding categories for which the LFA has recommended substantially less funding than requested by the executive request. They feel that this would severely curtail the operations of the Occupational Health Bureau. They are almost totally field oriented and they feel productive and efficient operation of the bureau's programs can not be conducted without having adequate travel funds.

On repair and maintenance the 1981 Legislature allowed the Occupational Health Bureau \$4000 to repair the analyzer component of the gamma spectrometer. They found it could be repaired but the repairs could not be guaranteed. They now request that it be replaced because they perform qualitative and quantitative analyses on environmental samples, for nuclear fallout and to perform analyses during times of radiological emergencies. They are asking \$14,000 to replace the analyzer portion of the gamma spectrometer. The Department has requested \$9,500 during FY85 for the purchase of an electronic x-ray analyzer which analyzes x-ray machines and would speed up the testing done now by as much as 25%.

Dr. Drynan briefly explained the radioactive materials licensing. General fund is requested to fund a program within the Occupational Health Bureau to license and regulate naturally-occurring and acceleration-produced radionuclides. The MCA 75-3-302 mandates that the department shall provide by rule for general or specific licensing of persons to receive, possess, or transfer radioactive materials and devices or equipment utilizing such materials. The department currently has no such program.

The LFA provided 3 options regarding this request that A) the committee approve the agency's request for a licensing program at a cost of approximately \$50,000 general fund per year and support 1 FTE or B) they approve the department's request for a licensing program but require that the program be supported from fees generated from those receiving licenses. The department felt this was not acceptable because they had no authority to charge fees for radioactive materials licenses and that if fees were charged it would not be enough to fund the program. Without a licensing program there would be no control over who can obtain and use radioactive materials, no control over storage facilities for radioactive materials, no monitoring of radiation exposures received by the user, leak testing of sealed radioactive sources would not be performed and there would be no control over the disposal of radioactive materials and devices. They felt a repeal of the law requiring the licensing of radioactive materials would be a very serious error.

End of Side One Tape 18      Begin Side Two of Tape 18

#### WATER QUALITY BUREAU

Steve Pilcher, Chief of the Water Quality Bureau presented the program for Water Quality. They administer a variety of programs dealing with all aspects of water quality. They propose to operate

for the biennium with a staff of 33.25 FTE's and 4.0 FTE in the subdivision review. Because of inflationary increases and a reduction in federal funding they have resulted in staff reductions from 42.5 FTE's in Water programs in FY'82 to 33.25 FTE for the coming biennium. One major change will be addressed on the proposed replacement of lost federal funds with general funds to support the bureau's Water Quality Management Program. On Construction Grants Management he explained there was a program initiated in 1956 to assist municipalities in construction of sewage treatment facilities. The program currently provides funding for 75% of the costs associated with planning, design and construction of such facilities. No general fund support is required but there is a requirement that general fund support not drop below the amount provided in FY77. They currently have 8 FTE in this program.

On Safe Drinking Water Program they are responsible for 1,896 public water supplies within the state. The staff monitors the water served in public places for bacterial, chemical and radiological contents to insure they remain within safe limits. They anticipate no major changes in this program with the exception of possible federal funding reduction.

He explained the Water Pollution Control Program protects water quality by establishing limits on the quality and quantity of pollutants which can be discharged into state waters. This is funded by federal grant and requires a maintenance level of effort for general fund support provided by the program in fiscal 1972. They have 12.0 FTE's proposed for this program.

The Water Quality Management Program is responsible for providing a comprehensive program to prevent, abate and control water pollution as required by Montana Water Quality Act. They provide monitoring, intensive surveys, planning and evaluation, data management and quality control. This program was controversial in the past because 208 planning activities were included in this section. They have requested additional funds to replace that portion of the lost federal funds to support minimal water quality management. Recent amendments to the Federal Clean Water Act have made available an additional source of federal funding which can be used to reduce somewhat the original request for additional general funds. Section 205 (j) authorizes the state to reserve up to one percent of its construction grant allotment to be used to fund activities necessary to make water-quality based decisions. Based on current allocations, they will receive \$118,000 approximately. The problem is however, knowing how much of this will be earmarked for use in the water quality management section of the bureau. They have stated that their general fund request would then be reduced should they receive these funds.

Water and Wastewater Operators Certification is required by Montana law for operators serving the public. The audit committee recommended continuation of the program but recommended that the board be made advisory to the department. House Bill 207 contains details on re-establishment of this program.

The newest program for this bureau is the Subdivision Review. This program is responsible for the Montana Sanitation in Subdivision Act which insures compliance with health and safety standards for water supplies, sewage and solid waste disposal for subdivisions of less than 20 acres. In the past this program was financed with review fees of \$30.00 per lot. A decision was made in November to close the Subdivision Bureau and transfer review responsibility to the Water Quality Management Bureau effective mid-November. This has placed an additional burden on bureau employees. See exhibits B through G

There have been several bills introduced to this session that would provide supplemental appropriation to fund a total staff of 4 FTE for subdivision review (HB 95) and (HB118) would allow an increase in lot review fees from \$30 to \$50 per lot and this type of increase would support a staff of 4 FTE's housed within the Water Quality Bureau. In closing Mr. Pilcher said that basically the only issue of concern in the LFA budget is in the area of Water Quality Management where a request has been made for additional general fund monies to replace lost federal funds.

Ray Hoffman requested that because the water quality is broken down into five sub-sections and the funding of each of these is very crucial that the LFA come in and have separate budgets broken out so they can tell where the differences are.

Mr. Don Willems, Administrator of the Environmental Science Division then gave a short presentation on the Administration of the Environmental Sciences Division. This office insures that each bureau in the division meets its statutory obligations, is properly managed and that the work is done as scheduled. This is primarily done through the administrator's work with each of the 5 bureau chiefs. They are involved with coordinating interagency and intergovernmental matters such as planning and review of scientific reports and environmental impact statements and the writing or assistance in writing of supporting documents for grant applications, environmental impact statements and environmental reports. They are funded by a combination of general, federal indirect and earmarked revenue funds. The indirect costs were associated with the accountant position which was transferred to the Centralized Services Division in 82. The earmarked revenue funds were from junked vehicle account. If federal funds were taken out of air and water quality programs then a reduction in one air quality and possibly two water quality programs would probably occur. They felt it was questionable whether

Minutes of the Meeting of the Joint Appropriations Subcommittee  
on Human Services  
January 22, 1983

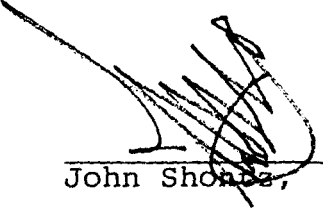
Page 5

or not EPA would accept such a proposal.

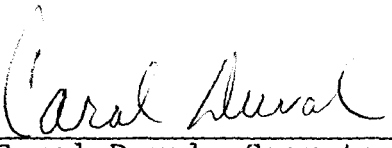
Sen. Regan told the committee at this time they would take no action and would hold questions until Norman Rostocki had a breakdown on the budgets for review. This hearing was an overview only.

End Tape 18 Side Two

The meeting was adjourned at 1:20 p.m.



John Shonka, Chairman



Carol Duval, Secretary

January 22, 1983

1-2-83  
C. H. B. T. D.

Department of Health & Environmental Sciences

Occupational Health Bureau

FY 1984 & 1985 Budget Request Presentation

to the

Appropriation Subcommittee for Human Services

Prepared By

Larry Lloyd, Chief  
Occupational Health Bureau  
449-3671

AGENCY : 5301 DEPT HEALTH & ENVIRON SCIENCES  
PROGRAM : 64 OCCUPATIONAL HEALTH  
CONTROL : 00000

PROGRAM : 64 OCCUPATIONAL HEALTH CONTROL : 00000										
AE/OE		DESCRIPTION	OBPP FY 84	LFA FY 84	DIFF. FY 84	SUB-CMT. FY 84	OBPP FY 85	LFA FY 85	DIFF. FY 85	SUB-CMT. FY 85
0000		FULL TIME EQUIVALENT (FTE)	4.00	4.00			4.00	4.00		
1100		SALARIES	105,995	107,526	1,531		105,884	107,119	1,235	
1400		EMPLOYEE BENEFITS	15,507	15,710	203		15,671	15,927	256	
1500		HEALTH INSURANCE	3,840	3,840			3,840	3,840		
		TOTAL LEVEL	125,342	127,076	1,734		125,395	126,886	1,491	
2100		CONTRACTED SERVICES	1,136	1,675	539		1,173	1,773	600	
2200		SUPPLIES & MATERIALS	4,517	4,893	376		4,787	5,235	448	
2300		COMMUNICATIONS	2,362	1,965	-397		2,807	2,307	-500	
2400		TRAVEL	19,654	11,386	-8,268		<del>18,476</del> 20,125	11,384	<del>-8,741</del> -7,092	
2500		RENT	10,002	8,206	-1,796		10,601	8,697	-1,904	
2600		UTILITIES	1,908	2,147	239		2,022	2,426	414	
2700		REPAIR & MAINTENANCE	18,475	421	-18,054		3,853	441	-3,412	
2800		OTHER EXPENSES		1,794	1,794			1,898	1,898	
		TOTAL LEVEL	58,054	32,487	-25,567		45,368	34,171	-11,197	
3100		EQUIPMENT					9,500		-9,500	
		TOTAL LEVEL					9,500		-9,500	
		TOTAL PROGRAM	183,396	159,563	-23,833		180,263	161,057	-19,206	
01100		GENERAL FUND	183,396	159,563	-23,833		180,263	161,057	-19,206	
		TOTAL PROGRAM	183,396	159,563	-23,833		180,263	161,057	-19,206	

## OCCUPATIONAL HEALTH BUREAU

### Program Description

#### Bureau Description

The Occupational Health Bureau conducts two primary programs - Occupational Health and Radiological Health.

During the past few years there has been an ever increasing public demand for services provided by the bureau. The number of public requests for services has grown from approximately 40 per year to over 600 per year during the past decade.

With the exception of the 3 FTE's temporarily hired to conduct the federally-funded Butte Radiation Study project, the bureau staffing has remained constant for about 12 years. The staff consists of the Bureau Chief who is a professional Health Physicist, a Health Physicist responsible for conducting the medical X-ray program, an Industrial Hygienist who conducts the occupational health program, and an Administrative Assistant who provides secretarial support and assists with public information and data reduction and reporting.

#### II. Occupational Health Section

The occupational health section is primarily response oriented. Of the complaints and requests received by the bureau over 400 per year are handled by the occupational health section.

The primary goal of the occupational health section is to achieve and maintain such conditions in the workplace as will protect human health and safety.

To achieve this goal, potentially unhealthful workplaces are inspected to determine compliance with occupational health standards. Corrective action is initiated to eliminate unhealthful conditions when they are identified.

The occupational health section provides assistance to business and industry in the design of industrial hygiene engineering to be incorporated into new workplaces.

Because the occupational health section has essentially the only capabilities in the state for determining human exposure to toxic and irritating dusts, fumes, mists, and gases, as well as asphyxiants, the bureau is frequently called upon to identify such exposures in areas other than workplaces. Some examples of these measurements are:

- a. determinations of airborne formaldehyde concentrations in homes;
- b. measurements of carbon monoxide concentrations in homes and vehicles;
- c. measurements of gasoline and other petrochemical and organic vapors in living areas;
- d. investigations to determine sewer gas concentrations and sources of entry into living areas.



The occupational health section continues, as time permits, to initiate investigations of unhealthful conditions in workplaces. For instance, the exposure of dentists and dental personnel to nitrous oxide is currently being studied by the bureau. The exposure to nitrous oxide in essentially all dental offices ranges from about 10 to 100 times the maximum allowable exposure. A comprehensive report of this study will be released in the near future and assistance from the Montana Dental Association will be requested to help abate this problem.

The occupational health section has recently completed a study of lead exposures to workers in radiator repair shops. Most of the radiator repair shops investigated had lead exposure problems which were abated with assistance from the bureau.

The occupational health section is frequently called upon for emergency response assistance. When vehicles carrying hazardous materials are involved in accidents which result in spillage or potential loss of control, the Occupational Health Bureau is called upon to provide information regarding the toxicity of the material, necessary protective clothing, necessary respiratory protection, and proper clean-up and disposal procedures. When requested, occupational health personnel assist in the actual recovery and clean-up efforts for hazardous material spills.

The occupational health section routinely analyzes compressed breathing air supplies for carbon monoxide content. Essentially all local law enforcement agencies and fire departments using compressed breathing air participate in this program.

In addition, the occupational health section provides training and technical assistance to local health departments to assist in the development of better occupational health capabilities on the local level.

### III. Radiological Health Section

Radiological health activities in Montana were begun in 1963 with the initiation of a voluntary medical X-ray inspection program. Montana's first radiation control laws were enacted in 1967. The Radiation Control Program was staffed and state radiation control regulations were promulgated in 1969.

The goal of the radiological health program is to protect Montanans from exposure to ionizing radiation which may cause injury or cause health risks such as increased susceptibility to cancer. Ongoing programs designed to achieve this goal are:

#### A. Medical X-Ray Program

All X-ray equipment in Montana is registered with the bureau. Presently 1766 X-ray machines are registered.

Through the medical X-ray program, all X-ray facilities and machines are periodically inspected for radiation safety. The calibration of each X-ray machine is also checked during the inspection. Where necessary, facility personnel are instructed in radiation safety procedures and may also be assisted in the development of proper X-ray techniques.

Reports of every inspection are mailed to each facility inspected. Compliance actions are initiated where necessary.

Specific X-ray technique improvement programs are routinely conducted for the purpose of reducing patient and operator exposure to radiation and to improve the diagnostic quality of the films.

Through these programs, the radiation received in dental offices has been reduced by approximately 50% while producing dental X-ray films which were more preferable to dentists. A similar program has substantially reduced patient exposures during mammographic (breast radiography) examinations and has improved mammographic imaging such that breast cancer can be detected in earlier stages.

#### B. Radiology Plan Evaluations

The plans for all new radiology facilities in hospitals and for most other offices are evaluated for radiation safety by the bureau. In all cases, minimum shielding requirements for each facility are calculated and provided to the individual requesting the service.

This plan evaluation program assists in providing adequate protection at a minimum of cost and assures that the facility will be in compliance with Montana radiation control rules when inspected.

#### C. Emergency Response

The bureau assumes the lead role in responding to all incidents involving radiological emergencies or loss of control of radioactive materials.

During the past years there have been, on the average, two to four radiological incidents per year in which the radiological health section has assumed the lead role in protecting public health, safety, and property until control of the hazard was gained.

#### D. Licensing and Regulation of Radioactive Materials

The Department of Health and Environmental Sciences is mandated (MCA 75-3-202) to conduct a licensing and regulatory program for naturally-occurring and accelerator-produced radionuclides. Funds to conduct this program have never been made available to DHES. Intensive efforts during the 1979 and 1981 legislative sessions failed to produce funds to initiate the required licensing and regulation program.

#### E. Environmental Surveillance

The radiological health section conducts limited activities pertaining to environmental radiation surveillance. During periods of atmospheric nuclear testing, milk samples are collected for radioanalysis and air samples are collected and measured for radioactivity on a daily basis.

Drinking water supplies in the Helena area have been analyzed for radioactivity. Numerous private water supplies containing radioactivity in excess of the standards for public drinking water supplies have been located. Further

investigation of drinking water supplies will be continued if staff time becomes available.

#### F. Butte Radiation Study

The radiological health section is concluding a study of elevated radon concentrations in Butte homes. Occupants of some Butte homes are receiving higher radiation doses to their lungs than would be allowed for working uranium miners. This study is federally funded. The project and associated staff will be terminated June 30, 1983.

## OCCUPATIONAL HEALTH BUREAU

### Current Level Funding

DHES requests that the Occupational Health Bureau be funded at the same level of operation that it has conducted under general fund authorization for approximately 12 years. This level of operation includes salaries and benefits for 4.0 Full Time Employees (FTE) and necessary program operational monies.

Relating the FY 84 & 85 budget needs for the bureau to the FY 82 general fund expenditures is difficult for the following reasons:

1. The Health Physicist position for the medical X-ray program was vacant for the first 9½ months of FY 82. After this position was filled, the new Health Physicist underwent approximately two months of training and program orientation and therefore, incurred very little travel expense.
2. The bureau has had contracts with the U. S. Environmental Protection Agency (EPA) and with the U. S. Department of Housing and Urban Development (HUD) for radiation studies and measurement projects in Butte. Three FTE's other than the four normally employed by the bureau were hired to conduct the work in Butte which was financed entirely by federal funds.

The Bureau Chief and the Administrative Assistant who are normally totally supported by general funds contributed effort to the Butte project. At a savings to the general fund, portions of the Bureau Chief's and the Administrative Assistant's salaries and operational support costs were charged to the federal contracts. Essentially all of the Bureau Chief's travel for FY 82 was charged to federal contracts, as was some rent and equipment maintenance and repair. As these expenses would normally be borne by the general fund, the savings were reverted to the general fund at the end of FY 82. A total of \$42,443 was reverted to the general fund by the Occupational Health Bureau at the end of FY 1982. Of this total, \$4,166 in travel money reverted, \$3,673 in rent money reverted, and \$6,117 in repair and maintenance money was reverted. These savings of general fund monies were possible because federal contracts were billed where possible rather than spending state funds.

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The federal contracts for the Butte projects will terminate on June 30, 1983. The Butte radiation office will be closed at that time and the 3 remaining FTE's will be terminated. The Occupational Health Bureau does not anticipate any federal contracts for FY 84 or FY 85.

The savings to the general fund which have been made possible by charges federal contracts during 1980, 1981, and 1982 will not be possible during FY 84 or FY 85. For this reason, it is necessary that the Occupational Health Bureau be, once again, totally funded from general fund monies.

Apparently there was some confusion on the part of the Legislative Fiscal Analyst regarding the Occupational Health Bureau programs which have been totally supported by general funds. The Occupational Health Bureau is not attempting to replace federal funds with general fund monies. The Occupational Health Bureau is asking that the programs be funded at the fully operational level at which these programs have been funded without regard to the savings to the general fund which have been made by charges to federal contracts.

There are three funding categories for which LFA has recommended substantially less funding than that requested by DHES/OBPP. A comparison of these recommendations are shown in Table A.

TABLE A

DHES/OBPP and LFA Funding Recommendations for Occupational Health Bureau Travel, Repair & Maintenance, and Equipment for FY 1984 & FY 1985

Category	FY 1984		FY 1985	
	DHES/OBPP	LFA	DHES/OBPP	LFA
Travel	\$ 19,654	\$ 11,386	\$ 18,476	\$ 11,384
Repair & Maintenance	18,475	421	3,853	441
Equipment	0	0	9,500	0

The effect of the reduced funding recommended by LFA for each funding category is discussed below.

#### Travel

The LFA-recommended travel budget will severely curtail the operations of the Occupational Health Bureau. Inspections and services provided by the Occupational Health Bureau are almost totally field-oriented. Productive and efficient operation of the bureau's programs can not be conducted without having adequate travel funds.

Because of the limited travel funds allotted the Occupational Health Bureau for FY 1983 (\$8,949), services to the northern and eastern regions of the state have been curtailed. To save travel funds for the health physicist conducting the medical X-ray program and for the industrial hygienist, the Bureau Chief has had to direct all of his field activities toward the Butte project where travel can be paid by federal funds. Both the health physicist and the industrial hygienist have had to direct an inordinate amount of activity to the Helena area and surrounding areas to conserve travel funds. This is shifting program needs to areas further from Helena for FY 84 and FY 85, thus increasing travel costs.

DHES attempted for over a year to hire an experienced health physicist to fill the vacancy in the medical X-ray program. With the salary levels we were able to offer, we could not hire an experienced health physicist. Our only option then was to hire an individual who could be trained. The individual who was hired has had no formal instruction in Basic Radiological Health. This training is essential for the proper operation of the medical X-ray inspection program and to enable him to assist in radiation emergency response. The Occupational Health Bureau has requested out-of-state travel funds for FY 84 to send this health physicist to a two-week Basic Radiological Health training course conducted by the University of Texas.

The Occupational Health Bureau's request for travel funding is itemized in Table B. Travel expenditures for FY 79-82 are presented in Table E.

#### Repair and Maintenance

For 1981, the Legislative Finance Committee allowed the Occupational Health Bureau \$4,000 to repair the analyzer component of the gamma spectrometer. The manufacturer (ORTEC) informed the bureau that the analyzer could be repaired for that amount but because the analyzer is antiquated, they could not guarantee the repair. ORTEC also informed the bureau that the analyzer, when repaired, would have a value of only about \$1,000.

As it would have been unrealistic to invest \$4,000 in the repair of an instrument having a value of only \$1,000, the bureau opted to request that the analyzer portion of the spectrometer be replaced. The \$4,000 allotted for the repair of the analyzer was reverted to the general fund at the end of FY 1981.

This gamma spectrometer is necessary to perform qualitative and quantitative analyses on environmental samples, milk samples, to measure nuclear fallout, and to perform analyses during times of radiological emergencies.

The cost to replace the analyzer portion of the gamma spectrometer is approximately \$14,000. The gamma spectrometer should be placed back in service.

The annual service contract on the Beckman Wide Beta II Low Background Alpha-Beta Counter is \$2,300. During FY 1982, \$2,000 was budgeted for this service contract. Because we had a service contract on this instrument during FY 1981, we decided to gamble on service calls and not pay for the service contract during FY 1982. The \$2,000 was returned to the general fund. This instrument will require extensive service by 1984 which can be most economically handled by a service contract.

This instrument is used for measuring gross alpha and gross beta activity in drinking water samples and for determining alpha and beta contamination levels on other samples such as wipe tests from sealed radioactive sources. This instrument is also necessary to monitor clean-up from any spills of radioactive materials.

Adequate funds are also necessary for the maintenance of portable instruments. During FY 1982, \$430 of general fund was expended for this purpose. In addition, the bureau was able to bill federal contracts \$1,435 for maintenance costs. Therefore, a total of \$1,865 was expended for portable instrument repair during FY 1982.

The Occupational Health Bureau request for maintenance and repair funding is shown in Table C.

## Equipment

The Occupational Health Bureau has requested \$9,500 during FY 1985 for the purchase of an electronic X-ray analyzer. The bureau's staff of one health physicist in the medical X-ray program is unable to perform adequate inspections of nearly 1800 X-ray machines in Montana. (The National Conference of Radiation Control Program Directors recommends one inspector for every 600 X-ray machines.)

This X-ray analyzer will not provide the bureau with any new measurement capabilities, but will speed up the measurements such that approximately 25% more X-ray machines can be inspected with the same manpower. This will recover its cost in less than two years in manpower savings and increased production.

The equipment budget request is presented in Table D.

As it is difficult to adequately explain and present to the Committee the work performed by the bureau, a typical monthly report of bureau activities is attached for your review.

TABLE B  
Travel Budget Request

<u>Item Description</u>	<u>FY 84</u>	<u>FY 85</u>
2404 In-State Transportation:		
Bureau Chief 7,500 miles		
Ind. Hygienist 12,000 miles		
Health Physicist <u>15,000 miles</u>		
TOTAL 34,500 miles @ \$.215/mi.	\$ 7,863	\$ 8,335
2407 In-State Meals:		
Bureau Chief 60 days @ \$13.50/day		
Ind. Hygienist 90 days @ \$13.50/day		
Health Physicist <u>130 days @ \$13.50/day</u>		
TOTAL 280 days @ \$13.50/day	3,780	3,780
2408 In-State Lodging:		
Bureau Chief 48 nights @ \$24/night		
Ind. Hygienist 75 nights @ \$24/night		
Health Physicist <u>100 nights @ \$24/night</u>		
TOTAL 223 nights @ \$24/night	5,352	5,352
2412 Out-of-State Commercial Transportation:		
Bureau Chief Air fare - \$674		
Health Physicist <u>Air fare - \$757 ('84)</u>		
TOTAL	1,431	674
2417 Out-of-State Meals:		
Bureau Chief 6 days @ \$22.50/day		
Health Physicist <u>13 days @ \$22.50/day ('84)</u>		
TOTAL	428	135
2418 Out-of-State Lodging:		
Bureau Chief 4 nights @ \$50/night		
Health Physicist <u>12 nights @ \$50/night ('84)</u>		
TOTAL	<u>800</u>	<u>200</u>
TOTAL	<u>\$19,654</u>	<u>\$18,476</u>



TABLE C

## Repair &amp; Maintenance Budget Request

	<u>FY 84</u>	<u>FY 85</u>
Office equipment	\$ 30	\$ 30
Laboratory equipment:		
Replace analyzer component of gamma spectrometer	14,000	---
Service contract for Wide Beta II Low-Background Alpha-Beta Counter	2,200	2,200
Repair & maintenance of portable instruments	<u>1,200</u>	<u>1,200</u>
TOTAL	<u>\$ 17,430</u>	<u>\$ 3,430</u>

TABLE D  
Equipment Budget Request

	<u>FY 84</u>	<u>FY 85</u>
Field Monitoring Equipment:		
Victoreen X-Ray Analyzer		\$ 9,500
This analyzer performs in only a few minutes the examinations that now require over one hour's time using present equipment. This analyzer will pay for itself in personnel time saved in less than two years.		
TOTAL		<u>\$ 9,500</u>

TABLE E  
Occupational Health Bureau  
Travel Expenditures

	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
6040	\$4,076	\$5,104	\$2,822	\$3,130
6041	6,968	6,755	1,038	---
6042		3,338	854	143
6043		25	---	---
6044			2,422	4,494
6045				926
Gen. Fund	\$11,044	\$11,859	\$3,860	\$3,130
Federal	---	3,363	3,276	5,563
TOTAL	\$11,044	\$15,222	\$7,136	\$8,693

## Radioactive Materials Licensing

To address the policy issue as stated on page 276 of the Executive Budget for FY 1984 and 1985, the following is submitted.

General Fund is requested to fund a program within the Occupational Health Bureau to license and regulate naturally-occurring and accelerator-produced radionuclides. MCA 75-3-302 mandates that "the Department shall provide by rule for general or specific licensing of persons to receive, possess, or transfer radioactive materials and devices or equipment utilizing such materials." The Department currently has no such program.

LFA provided three options regarding this request:

Option a: Approve the agency's request for a licensing program at a cost of approximately \$50,000 general fund per year and support 1 FTE.

This is the only acceptable option to DHES as it will enable DHES to comply with MCA 75-3-302 and provide protection of the public health as intended by the law.

Option b: Approve the department's request for a licensing program. However, require that the program be supported from fees generated from those receiving licenses. General fund of approximately \$50,000 may be necessary in the initial year of the program to establish a cash flow from licenses.

This option is not acceptable for the following reasons:

1. DHES has no authority to charge fees for radioactive materials licenses.
2. If fees were charged for the radioactive materials licenses, a fee schedule compatible with that charged by the U. S. Nuclear Regulatory Commission (NRC) would not support the licensing program. The NRC estimates that the fees charged by them result in a recovery of only about 20% of the licensing program cost. DHES would be unable to fund the licensing program after the first year when general funds were discontinued.

3. When a radioactive materials licensing program is established, a continuing commitment is incurred by the licensing agency. The licensing agency assures that the health and safety of both the user and the public will be protected when the user complies with all license conditions. To maintain this assurance, licensees must be inspected on a continuing basis to assure compliance with license conditions. New license applications must be processed in a timely manner. Existing licenses must be renewed at time of expiration upon application by the licensee. License amendments must be continuously processed as requested by licensees.

For these reasons, a continuously operating licensing program must be assured.

Option c: Do not fund the program, and change the law which requires the department to license the users of radioactive substances.

This option is not in the interest of public health. There are many dangerous non-licensed radioactive materials which should be controlled.

Without a licensing program the following conditions will continue:

1. There are no controls over who can obtain, possess and use radioactive materials. Individuals with no qualifications can obtain and use dangerous radioactive materials.

2. There is no control over the storage facilities for radioactive materials. Neither the user or the general public is protected from inadequately shielded radioactive sources and in many cases, adequate security of the storage area is not provided.

3. There is no monitoring of radiation exposures received by the user.

4. Leak testing of sealed radioactive sources is not performed. This can potentially result in gross radioactive contamination of persons and property and seriously jeopardize public health.

5. There is no control over the disposal of radioactive materials and devices. Improper disposal can result in recovery by an unsuspecting individual with subsequent radiation injury. Improper disposal such as incineration can result in gross contamination incidents. Drinking water supplies can also be contaminated by improper disposal techniques.

The repeal of the law requiring the licensing of radioactive materials would be a serious error.

BUDGET SUMMARY

R.C. Name: Radioactive Materials Licensing

	FY 84	FY 85	Total
F.T.E.	1.0	1.0	
1100 Salaries	\$ 25,294	\$ 26,811	\$ 52,105
1300 Other Compensation			
1400 Employee Benefits	4,553	4,826	9,379
2100 Contracted Services	10,800	10,800	21,600
2200 Supplies & Materials	980	480	1,460
2300 Communications & Postage	960	960	1,920
2400 Travel	7,520	4,542	12,062
2500 Rent	----	----	----
2600 Utilities	----	----	----
2700 Repair & Maintenance	----	200	200
2800 Other	4,000	----	4,000
3100 Equipment	1,250	----	1,250
6000 Grants			

SUB-TOTAL

2199 Recharges

TOTAL FUNDS REQUESTED	<u>\$55,357</u>	<u>\$48,619</u>	<u>\$103,976</u>
GENERAL FUND	\$55,357	\$48,619	\$103,976

	<u>FY 84</u>	<u>FY 85</u>
<u>Contracted Services</u>		
Legal Service (300 hrs. @ \$35/hr.)	\$ 10,500	\$ 10,500
Printing (5000 copies @ \$0.01/copy)	50	50
Photographic Services (copying - 5000 copies @ \$0.05/copy)	250	250
Total Level	<u>\$ 10,800</u>	<u>\$ 10,800</u>
<u>Supplies &amp; Materials</u>		
Educational Materials (NRC regulations update)	280	280
Laboratory	250	---
Office Supplies	200	200
Books & Reference Materials	250	---
Total Level	<u>\$ 980</u>	<u>\$ 480</u>
<u>Communications &amp; Postage</u>		
Telephone - Local Service & Equipment	300	300
Telephone - Long Distance	100	100
Postage & Mailing	200	200
Telephone - STS Usage	360	360
Total Level	<u>\$ 960</u>	<u>\$ 960</u>
<u>Travel</u>		
In-State Motor Pool (12,000 miles @ \$0.215/mile)	2,580	2,580
In-State Meals (60 days @ \$13.50/day)	810	810
In-State Lodging (48 nights @ \$24/night)	1,152	1,152
Out-of-State Comm. Trans. - air fare, Washington, D.C. - 2 trips @ \$850/trip	1,700	---
Out-of-State Meals (19 days @ \$22.50/day)	428	---
Out-of-State Lodging (17 days @ \$50/day)	850	---
Total Level	<u>\$ 7,520</u>	<u>\$ 4,542</u>
<u>Equipment</u>		
G. M. Survey Meter	500	---
Alpha Survey Meter	750	---
Total Level	<u>\$ 1,250</u>	<u>\$ 0</u>
<u>Other</u>		
Relocation	2,000	---
Job Candidate Expense	2,000	---
Total Level	<u>\$ 4,000</u>	<u>\$ 0</u>

NARRATIVE JUSTIFICATION OF  
WATER QUALITY BUREAU PROGRAM BUDGET

The Water Quality Bureau currently administers a variety of programs dealing with all aspects of water quality. The bureau is responsible for administration of the Montana Water Quality Act, Montana Law Regarding Public Water Supply, Water/Wastewater Operator Certification Law, and as of November 1982, the Sanitation in Subdivision Act. The bureau is proposing to operate for the biennium with a staff of 33.25 FTE's in water quality programs and 4.0 FTE's in subdivision review. We expect very little change in direction with most of the programs administered by the bureau. Inflationary increases and a reduction in federal funding have resulted in staff reductions from 42.5 FTE's in water programs in FY 1982 to our proposal of 33.25 FTE's for the coming biennium.

One major charge or issue which will be addressed is the proposed replacement of lost federal funds with general funds to support the bureau's Water Quality Management program. Details of this change will follow. The bureau is organized into sections which correspond to program responsibilities and, for the most part, funding sources. These programs are funded through a varied combination of sources including federal grants, general fund monies and earmarked revenue.

I will discuss the bureau effort on a program by program basis with a brief explanation of each and discussion of the proposed expenditures and financial support.

CONSTRUCTION GRANTS MANAGEMENT

A federal grant program was initiated in 1956 to assist municipalities in the construction of sewage treatment facilities. The program in its current form normally provides funding for 75 percent of the costs associated with planning, design, and construction of such facilities. In the early years of the program the state assisted the Environmental Protection Agency in administering the program. Since 1978 the state role has increased to a point where the entire program has now been delegated to us. Such delegation allows the bureau to do all the day-to-day program management thus eliminating needless duplicative reviews, time delays and providing one level of government. While we do not handle the grant funds directly, we are responsible for their expenditure. To date, Montana has received over \$135 million for use in this program with current annual appropriations of approximately \$12 million. The management of the program at the state level is supported by a percentage of that annual appropriation. No general fund support is required for this program but there is a requirement that general fund support of the water pollution control program not drop below the amount provided in FY 1977.



During 1982 the Board of Health and Environmental Sciences adopted rules to create a similar permit program to protect groundwater quality. Such a program will control the possible discharge of pollutants into shallow groundwater aquifers thereby protecting those waters for domestic supply, livestock water, irrigation, and other beneficial uses.

Bureau involvement in projects being reviewed under the Montana Major Facilities Siting Act are coordinated through this program. Projects such as the Bonneville Power Administration transmission lines, Kootenai Falls hydropower project, Poplar River power plant and others all can have significant impacts on water quality that must be identified and addressed during review. Staff members are also responsible for periodic technical review and revision to our state water quality standards which are an important link in our water pollution control effort. Water quality data from streams and public water supplies is stored on computer to facilitate easier data handling and retrieval.

Alleged violations of water quality laws and rules are handled in this program. Complaints are received and investigations scheduled to determine if in fact a violation has occurred. Depending on the nature and extent of the violation, appropriate legal action is then initiated.

These program efforts and bureau administrative efforts are funded through a federal grant for state water pollution control program administration which is received from the Environmental Protection Agency. This grant requires a maintenance level of effort for general fund support to the program which is to be no less than the general fund support provided to the program in fiscal year 1972. A total of 12.0 FTE's are proposed for program support for the biennium which is basically the same level of resource commitment as in previous years.

#### WATER QUALITY MANAGEMENT

The Water Quality Management program is responsible for providing a comprehensive program to prevent, abate and control water pollution as required by the Montana Water Quality Act. Considering the fact that Montana has approximately 16,000 miles of flowing streams plus hundreds of lakes, the collection of data to carry out that responsibility becomes a sizable task. The effort includes not only the collection of chemical and biological data but also the evaluation and management of that data in such a way that it is available for decision-making purposes in other bureau programs. This information aids in determining where construction grant funds are spent, what effluent limits must be established for discharges and what might be the source of drinking water quality problems. Specific responsibilities include monitoring, intensive surveys, planning and evaluation, instream flow reservations, data management and quality control. The program is also responsible for coordinating the department's effort in dealing with toxic algae blooms within the state.

In the past, these activities have been overshadowed by planning functions as required in Section 208 of the Federal Clean Water Act. The program proposed for FY 1984-85 reflects a minimum level of effort which no longer includes the detailed planning requirements associated with the 208 program.

Program staff has been reduced to 4.75 FTE's for the biennium. We were fortunate in the past several years to have had available a funding source, "208", to partially finance water quality management activities without asking for additional general fund monies to support the effort. While effectively utilizing federal dollars to carry out state-mandated programs, we have created a problem when those federal dollars are no longer available. Thus, we have included a request for additional general funds to replace that portion of lost federal funds necessary to support a minimal water quality management program.

Recent amendments to the Federal Clean Water Act have made available an additional source of federal funding which can be used to reduce somewhat our original request for additional general funds. Section 205(j) of the act authorizes the state to reserve up to one percent of its construction grant allotment to be used to fund activities necessary to make water quality-based decisions. Based on one current allocation, we will receive approximately \$118,000. Activities involving data collection, data analysis, intensive surveys, etc. are eligible for funding under this program. The amendments require the state to develop jointly with local and regional agencies a work plan which will address priority water quality problems and needs within the state. If selected priority needs can best be addressed by a local or areawide agency, the state will pass through necessary funding to that entity. While we can safely say that a portion of the available funds will be used at the state level, we have no way of identifying that dollar amount until the Environmental Protection Agency has approved the work plan. Facing this uncertainty from the beginning, we have stated that our general fund request would be reduced by a like amount. We know of no other way to realistically approach the situation.

A meeting was held on January 19, 1983 to initiate discussion between state, local, and areawide entities on priority water quality needs. It may well be 60-90 days before final approval is given to the work plan and final figures are available regarding the amount available for use by the bureau.

#### WATER AND WASTEWATER OPERATORS CERTIFICATION

Montana law requires the operators of water distribution systems, water treatment plants and wastewater treatment and disposal facilities serving the public to be certified. Certification to ensure that these individuals meet minimum knowledge and experience requirements is deemed essential to the protection of public health and safety and also to the protection of state waters. Currently, approximately 1,200 operators are certified under this program.

This program underwent Sunset Audit Review during the past year. The audit committee recommended continuation of the program but recommends that the board be made advisory to the department. House Bill #207 contains the details on reestablishment of this program.

#### SUBDIVISION REVIEW

The newest program responsibility for the bureau is Subdivision Review. This program is responsible for the Montana Sanitation in Subdivision Act which ensures compliance with health and safety standards for water supply, sewage and solid waste disposal for subdivisions of less than 20 acres. In the past, the program has been financed from review fees of \$30.00 per lot. During the fall of 1982 the number of applications being submitted dropped to a point that income would not support the program effort. A decision was made at that time to close the Subdivision Bureau and transfer review responsibility to the Water Quality Bureau effective mid-November. One Environmental Engineer and an Administrative Aide were transferred to this bureau to facilitate a smoother transition.

Such a transfer of responsibility has placed a tremendous additional burden on bureau employees. Not only are they expected to continue to perform the high priority tasks associated with the previously discussed programs but are also expected to review subdivision submittals in a timely manner. Since assuming the program, approximately 275 subdivision applications have been reviewed. As many as eight engineers and water quality specialists are currently spending a portion of their time on subdivision review.

These positions are funded by general fund monies and federal grants from the Environmental Protection Agency as previously explained. Discussions with representatives of that agency indicated that while they could not approve the use of their funds for subdivision review, they would not object as long as it was a short-term, stopgap measure. They made it clear that they will not accept long-term diversion of resources into subdivision review.

Two bills have been introduced which would eliminate this problem. HB 95 would provide a supplemental appropriation of \$64,000.00 to fund a total staff of 4.0 FTE's for subdivision review until July 1, 1983. HB 118 would allow an increase in lot review fees that could be charged from \$30.00 to \$50.00 per lot. That type of increase, when combined with the number of lots currently being submitted for review, would support a staff of 4.0 FTE's housed within the Water Quality Bureau. This would be the minimum number of FTE's required to handle review responsibilities at the current rate of submittals.

## ENVIRONMENTAL SCIENCES DIVISION ADMINISTRATION

The office staff insures that each bureau in the division meets its statutory obligations, is properly managed and work is done as scheduled. This is principally done through the administrator's work with each of the five bureau chiefs. The staff also works with counterparts in other state and local agencies, as well as officials from federal agencies.

This office is involved with coordinating interagency and intergovernmental matters, such as the planning and review of scientific reports and environmental impact statements, and the writing or assistance in writing of supporting documents for grant applications, environmental impact statements and environmental reports.

The Environmental Sciences Division administrative program has been funded by a combination of general, federal indirect and earmarked revenue funds. The federal indirect costs were associated with the accountant position which was transferred to the Centralized Services Division during FY 82. The earmarked revenue funds were from the junked vehicle account. During FY 82 and 83, no program costs were paid by federal funds except those indirect funds associated with the accountant's position. If federal funds are taken out of the air and water quality programs to fund this office's programs as proposed by the LFA, then a reduction of one in the air quality program and one and possibly two in the water quality program will probably occur. It is also questionable whether EPA would accept such a proposal.

## RADIATION CONTROL JURISDICTION IN MONTANA

### Department of Health & Environmental Sciences

1. Electronically-Produced Radiation
  - a. X-ray machines
  - b. Accelerators, etc.
2. Electronically-Produced Radionuclides
  - a. Radioactive materials produced by an accelerator
3. Naturally-Occurring Radionuclides
  - a. Radioactive materials occurring naturally such as radium-226, but not including uranium or thorium mill tailings, source material, or special nuclear material

### U. S. Nuclear Regulatory Commission

1. Byproduct Materials
  - a. Reactor-produced radionuclides
  - b. Uranium & thorium mill tailings
2. Source Materials
  - a. Ores having a uranium or thorium content of 0.05% or greater
3. Special Nuclear Material
  - a. Uranium enriched in the isotope U-235
  - b. Uranium-233
  - c. Plutonium

AGENCY Health

PROGRAM Water quality

Subprogram \_\_\_\_\_

Exec. Budget Page 277

Fiscal Analyst's Page 783

	EXPEND.	1984 BUDGET			1985 BUDGET		
	1982 Adjusted	Exec. Budget	Fiscal Analyst	Exec. -LFA Variance	Exec. Budget	Fiscal Analyst	Exec. -LFA Variance
FTE	47.5	33.25	33.25	-	33.25	33.25	
Personal Serv.	912,567	897,479	909,356	(11,879)	897,930	908,473	(10,543)
Operating Serv.							
21 Contr. Serv.	116,502	149,637	151,731	(2099)	158,585	160,840	(2255)
22 Supplies	17,403	11,999	15,056	(3057)	12,777	16,071	(3294)
23 Communication	34,140	32,360	34,356	(1996)	37,667	40,899	(2432)
24 Travel	45,953	43,932	50,244	(6312)	45,365	52,219	(6854)
25 Rent	40,549	42,339	42,342	3	44,827	44,663	6
26 Utilities	960	1,167	1259	92	1482	1598	(116)
27 Repairs	4515	4802	5066	266	5086	5366	(282)
28 Other	3557	1,428	3449	(2021)	1453	3656	(2203)
Subtotal	259,621	287,664	303,512	(15,848)	307,292	324,734	(17,442)
Non-Operating							
1. equipment	7180	1504	2142	(638)	3118	3900	(782)
2.							
3. grants	23520	112,866	112,866	-	112,703	112,703	-
4.							
5.							
6.							
Total Expenditures	1,415,529	1,299,515	1,327,560	(28,045)	1,321,043	1,349,910	(28,767)
Funding							
General Fund	233,995	222,686	223,083	5993	305,127	226,768	78,359
Other Funds							
1. Water Wtr Operator	17525	19251	21514	(12263)	19221	22805	(3584)
2. Env. Impact Study	4731						
3. EPA	115,318	129,015	132,287	28365	132,043	134,910	22,767
4.							
5.							

REPORT EBL 00  
DATE : 01/08/83  
TIME : 16/25/25

OFFICE OF BUDGET, PLANNING  
EXECUTIVE BUDGET SYSTEM  
AGENCY/PROGRAM/CONTROL --- BUDGET WORKSHEET

PAGE 26

AGENCY : 5301 DEPT HEALTH & ENVIRON SCIENCES  
PROGRAM : 69 ENVIRONMENTAL ADMINISTRATION  
CONTROL : 00000

CURRENT LEVEL SERVICES ONLY

AE/OE	DESCRIPTION	OBPP FY 84	LFA FY 84	DIFF. FY 84	SUB-CMT. FY 84	OBPP FY 85	LFA FY 85	DIFF. FY 85	SUB-CMT. FY 85
0000	FULL TIME EQUIVALENT (FTE)	3.00	3.00			3.00	3.00		
1100	SALARIES	85,093	84,868	-225		84,801	84,550	-251	
1400	EMPLOYEE BENEFITS	11,709	11,462	-247		11,804	11,615	-189	
1500	HEALTH INSURANCE	2,880	2,880			2,880	2,880		
	TOTAL LEVEL	99,682	99,210	-472		99,485	99,045	-440	
2100	CONTRACTED SERVICES	4,539	4,994	455		4,809	5,290	481	
2200	SUPPLIES & MATERIALS	295	316	21		312	333	21	
2300	COMMUNICATIONS	1,465	1,551	86		1,681	1,781	100	
2400	TRAVEL	1,430	3,414	1,984		1,479	3,532	2,053	
2500	RENT	3,498	3,451	-47		3,707	3,658	-49	
2700	REPAIR & MAINTENANCE	125	132	7		132	139	7	
2800	OTHER EXPENSES	60	340	280		63	359	296	
	TOTAL LEVEL	11,412	14,198	2,786		12,183	15,092	2,909	
	TOTAL PROGRAM	111,094	113,408	2,314		111,668	114,137	2,469	
01100	GENERAL FUND	91,968	26,650	-65,318		92,542	26,822	-65,720	
02845	JUNK VEHICLE DISPOSAL	19,126	22,341	3,215		19,126	22,485	3,359	
03029	PUBLIC HEALTH SP REV		64,417	64,417			64,830	64,830	
	TOTAL PROGRAM	111,094	113,408	2,314		111,668	114,137	2,469	

exhibit E  
January 22, 1983

Monthly Report of Activities  
Occupational Health Bureau  
October 1982

1. Highlights:

A year of intensive continuous monitoring of sixteen Butte homes was completed in early October. The four super-intensive level locations were extended for six months in order to fulfill a year's testing period for equipment received after the October, 1981, starting date. The remaining nine months of the Butte study will be occupied with testing in 48 homes on a quarterly schedule and reviewing data, techniques and instrument evaluations.

Eighteen of the buildings comprising Silver Bow Homes in Butte have been released for normal occupancy after months of study and remedial work. The Regional HUD Office in Denver authorized the Butte Housing Authority to resume renting these units. Limited restrictions due to radon daughter concentrations had been imposed in September, 1979. The Butte staff will continue to assist the Butte Housing Authority with radon/radon progeny measurements in HUD-subsidized housing. The contract with HUD for measuring radiation has been extended until June, 1983.

During October, 21 dental offices were investigated for nitrous oxide and 5 dental offices were investigated for mercury vapor. Fourteen homes were tested for formaldehyde and nine businesses and government agencies were inspected for the following parameters : gasoline vapors, carbon monoxide, formaldehyde, and organic vapors. Two dust samples were weighted and eight asbestos samples were also analyzed during the month.

During October, 78 X-ray units were inspected; 21 compliance discrepancies were noted and 23 quality control discrepancies were noted.

2. Standards Exceeded:

All of the dental offices investigated for nitrous oxide exceeded the NIOSH-recommended standard of 25 ppm.

Mission Valley Hospital, St. Ignatius, October 4 - Inaccurate collimators on two X-ray units.

North Valley Hospital, Whitefish, October 5 - The G. E. combination X-ray unit had inaccurate collimation, malfunctioning fluoroscopic shutters, and the fluoroscopic beam was not limited to the input phosphor. The hospital stated that the fluoroscopic part of this unit is not in use at this time.

Kalispell Regional Hospital, Kalispell, October 6 - Two X-ray units had inaccurate collimators.

Clark Fork Valley Hospital, Plains, October 7 - The G. E. combination X-ray unit had a fluoroscopic output which exceeded the maximum allowable limit.

St. John's Lutheran Hospital, Libby, October 7 - Two X-ray units had inaccurate collimators and the G. E. combination unit had a fluoroscopic output which exceeded the maximum limits.



Monthly Report of Activities  
Page Four  
October, 1982

Shelda Hames, St. Patrick Hospital, Missoula, Oct. 13 - Requested an X-ray inspection on Nov. 9 and 10 so that she could have the report by Dec. 1 for their accreditation by the JCAH. Howe scheduled the inspection as requested.

Doctor Craig, Philipsburg, Oct. 14 - Requested information pertaining to the physical symptoms that may result from exposure to low concentrations of formaldehyde. Lloyd provided information as requested.

Rom Gammil, Billings Deaconess Hospital, Oct. 18 - Requested information pertaining to parameters used for mA linearity tests on X-ray equipment. Howe provided information as requested.

Val Johnson, CEA Instruments, Boulder, CO, Oct. 18 - Requested information pertaining to occupational health standards in Montana. Hansen provided information as requested.

Bruce Treis, City-County Health Dept., Great Falls, Oct. 19 - Requested information on formaldehyde and 3-M monitors. Hooper provided information as requested.

Legislative Auditor's Office, Helena, Oct. 21 - Requested information on licensing of radioactive materials. Hansen provided information as requested.

Tim Marn, Montana Deaconess Medical Center, Great Falls, Oct. 22 - Requested information on radiation protection and licensing of technologists for a television program he is to appear on during National Radiologic Technologists Week. Howe provided information as requested.

John King, Gardiner, Oct. 25 - Requested information on the odor threshold of cresol. Hooper provided information as requested.

Alan Anderson, Billings Deaconess Hospital, Oct. 25 - Requested information pertaining to the effects of microwave ovens on cardiac pacemakers. Howe provided information as requested.

Barbara Johnson, Carroll College Dental Hygiene Clinic, Helena, Oct. 27 - Wanted to know if a technique change required to keep the same density indicated a higher exposure to her patients from their X-ray machine. Howe indicated that this was not necessarily the case, but that the equipment was probably out of calibration and should be checked by their service technician.

During the month, 13 formaldehyde complaints were received. Six of these only needed information or an interpretation of their 3M monitor results. Seven wanted their homes tested; Hooper will perform these tests as soon as possible.

Hansen loaned microwave oven survey instruments to two county extension agents to sample two microwave ovens which had been damaged - no leakage was found. An instrument was also loaned to the Extension Service at MSU for training county extension agents in its use.

Monthly Report of Activities  
Page Three  
October, 1982

Pacific Railroad is requesting permission to use this material as ballast on their trackage in Wyoming. Lloyd provided information as requested.

Kwik-way Market, Bozeman, Oct. 6-12 - An underground gasoline tank was leaking gasoline. The local sanitarian's office informed us that the residents (two) of a basement apartment next to the market were complaining of a gasoline-like odor. Inspection of the basement apt. found 50 ppm of hydrocarbons and a strong gasoline-like odor was evident. The ACGIH occupational health standard for gasoline is 300 ppm. The NIOSH occupational health standards for the components of gasoline are: pentane = 120 ppm, hexane = 100 ppm, heptane = 85 ppm, and octane = 75 ppm. Rule of thumb for converting occupational health standards to ambient air "safe levels" vary from 1/10 to 1/42 of the occupational health standards. Hooper judged the gasoline levels in this apartment to be excessive.

Sheryl Hooper, SRS Building, Helena, Oct. 7 - Complained that six or seven people had burning eyes and sore throats during the heating season. The fluorescent lights have diffusers and formaldehyde levels would be low because of the building's construction. Samples will be collected in the near future.

Janice Price, Mountain Bell, Helena, Oct. 8 - Requested information on ammonia. Hooper provided information as requested.

Bradley Bruce, Materials Bureau, Highway Department, Helena, Oct. 8 - Requested information on hoods and handling procedures for mercury. Hooper provided information as requested and will take measurements in the near future.

Ron Gammil, Billings Deaconess Hospital, Oct. 12 - Requested information on the measurements taken on the X-ray equipment at the Broadus Clinic. Howe provided information as requested.

Tim Marn, Montana Deaconess Hospital, Great Falls, Oct. 12 - Called to discuss additions to the Q. A. guidelines for radiologic facilities which his committee is developing. Howe discussed these additions with Marn.

Debbie Riggs, New Jersey Radiologic Health, Oct. 12 - She was conducting a survey on how many state programs had a fee-implemented inspection program. Howe informed her that our program was not fee-implemented.

Dental Offices, Billings, Oct. 12-13 - Four dentists - Dr. Fry, Dr. Tripp, Dr. Schuyler and Dr. Bergeson - asked to have their offices checked for mercury vapor. Hooper checked these offices on the 13th and 15th and no occupational health standards were exceeded. Some mercury contamination of floors, mixer areas, etc., was found in each office.

Dr. Smith, Laurel, Oct. 13 - Asked to have his offices checked for mercury vapor. This sample will be done in the near future.

Jerry Adamick, Administrator, Rosebud Memorial Hospital, Forsyth, Oct. 13 - Informed Howe that the repairs requested in our inspection report would be accomplished on October 20.

Monthly Report of Activities  
Page Two  
October, 1982

Mineral County Hospital, Superior, October 8 - The G. E. combination X-ray unit had an inaccurate collimator.

Bozeman Deaconess Hospital, Bozeman, Oct. 18 - The Picker combination X-ray unit had an inaccurate timer.

Livingston Memorial Hospital, Livingston, Oct. 19 - The Picker combination X-ray unit had an inaccurate collimator.

Medical Associates, Bozeman, Oct. 20 - The G. E. radiographic unit had an inaccurate collimator.

Intercity Radiological Laboratories, Bozeman, Oct. 21 - The Picker combination X-ray unit had an inaccurate collimator.

Red Lodge Fire Department, Red Lodge, Oct. 21 & 27 - Carbon monoxide levels in their compressed breathing air exceeded the standards recommended: 56 ppm. This sample may have been contaminated because their compressor air intake is located inside the building. They will move their air intake outside.

Galen State Hospital, Galen, Oct. 29 - The G. E. combination X-ray unit had an inaccurate collimator and the fluoroscopic shutters did not function properly.

Montana State Prison, Deer Lodge, Oct. 29 - The Profexray radiographic unit had an inaccurate collimator.

10. Complaints & Requests Received During the Period:

Robin Billeau, Montana Tech, Butte, Oct. 1 - Requested a copy of the occupational health rules. Hooper sent a copy as requested.

Don Hiede, Picker Service Supervisor, Oct. 1 - Requested information on the measurements done on the X-ray equipment at Carbon County Hospital. Howe provided information as requested.

USF&G, Helena, Oct. 4 - Kathy Herron wanted information on the gasoline spill at Cenex-BLM in Dillon. Hooper provided information as requested.

Dick Swanson, Helena, Oct. 6 - Requested information on chlordane. Hooper provided information as requested.

Bill Robinson, Buttrey Foods, Billings, Oct. 6 - Asked us to measure noise levels in the computer room of their store in Billings Heights. Noise measurements were made under three sets of conditions, and all levels were relatively low: 67 to 73 dBA.

Charles Porter, Department of Environmental Quality, Wyoming, Oct. 6 - Requested information pertaining to the use of phosphate slag as railroad ballast. Union

11. Field Activities:

During the month, 14 homes were tested for formaldehyde. Airborne levels of formaldehyde ranged from 0.004 ppm to 0.33 ppm. Seven homes exceeded the 0.10 ppm recommended standard for indoor air.

Mission Valley Hospital, St. Ignatius, Oct. 4 - Three X-ray units inspected.

St. Luke Community Hospital, Ronan, Oct. 4 - Three X-ray units inspected.

St. Joseph Hospital, Polson, Oct. 5 - Four X-ray units inspected.

Dr. Jenko, Big Fork Medical Office, Oct. 5 - One X-ray unit inspected.

North Valley Hospital, Whitefish, Oct. 5 - Six X-ray units inspected.

Gary L. Dalen, D.D.S., Whitefish, Oct. 6 - Three X-ray units inspected.

Kalispell Regional Hospital, Oct. 6 - Nine X-ray units inspected.

J. W. Kehr, D.D.S., Helena, Oct. 6 - Breathing zone levels of nitrous oxide were measured in this office: dentist's BZ = 1480 ppm; assistant's BZ = 780 ppm. No nitrous oxide scavenging system is used and two leaks were found.

Ted Beck, D.D.S., Helena, Oct. 6 - Breathing zone levels of nitrous oxide were measured in this office: dentist's breathing zone = 1260 ppm; assistant's BZ = 550 ppm. No nitrous oxide scavenging system is used, and two small leaks were found.

St. John's Lutheran Hospital, Libby, Oct. 7 - Five X-ray units inspected.

Clark Fork Valley Hospital, Plains, Oct. 7 - Three X-ray units inspected.

Mineral County Hospital, Superior, Oct. 8 - Three X-ray units inspected.

Bozeman Deaconess Hospital, Oct. 18 - Ten X-ray units inspected.

Nitrous oxide measurements were made in dental offices in the Billings area at the following locations:

- a. Dr. Fry - dentist's BZ = 171 ppm; assistant's BZ = 204 ppm. A Coastal scavenging system is used. Two nitrous oxide leaks were found. 10/12
- b. Dr. Tripp - dentist's BZ = 170 ppm; assistant's BZ = 180 ppm. A Frasier-Harlake scavenging system is used. Two N<sub>2</sub>O leaks were found. 10/12
- c. Dr. Bergeson - dentist's BZ = 1370 ppm; assistant's BZ = 230 ppm. No nitrous oxide scavenging system is used. One N<sub>2</sub>O leak was found. 10/13
- d. Dr. Smith, Laurel - No breathing zone measurements could be made because the dentist uses N<sub>2</sub>O infrequently. Five N<sub>2</sub>O leaks were found and two were

repaired at the time. No nitrous oxide scavenging system is used. 10/13

- e. Dr. Dorow - dentist's BZ = 690 ppm; assistant's BZ = 1050 ppm. No nitrous oxide scavenging system is used, and no leaks were found. 10/14
- f. Dr. Beyl, Laurel - dentist's BZ = 150 ppm. The nitrous oxide was only on for about four minutes. The N<sub>2</sub>O scavenging system was not used; no N<sub>2</sub>O leaks were found. 10/14
- g. Dr. Michael - No breathing zone measurements could be made at this time because no patients were scheduled to use N<sub>2</sub>O during the week. No N<sub>2</sub>O leaks were found. 10/14
- h. Dr. Dunlap - dentist's BZ = 230 ppm; assistant's BZ = 320 ppm. No N<sub>2</sub>O scavenging system is used; two N<sub>2</sub>O leaks were found. 10/15
- i. Dr. D. L. Johnson - dentist's BZ = 1400 ppm; assistant's BZ = 370 ppm. No N<sub>2</sub>O scavenging system is used; one N<sub>2</sub>O leak was found. 10/15

Livingston Clinic, Oct. 19 - Two X-ray units inspected.

Livingston Memorial Hospital, Oct. 19 - Five X-ray units inspected.

Medical Associates, Bozeman, Oct. 20 - One X-ray unit inspected.

MSU Student Health Center, Bozeman, Oct. 20 - Four X-ray units inspected.

Intercity Radiologic Labs, Bozeman, Oct. 21 - Five X-ray units inspected.

Diagnostic Labs, Bozeman, Oct. 21 - Two X-ray units inspected.

National Guard, Helena, Oct. 21 - Employees had complained of dust and eye and respiratory irritation from recent remodeling. Dust levels were low: 0.3 mg/m<sup>3</sup> and formaldehyde levels were low: 0.076 ppm.

Ortt Building, Billings, Oct. 14 & 26 - Owner and employees wanted air sampling because of illnesses in the building. All parameters were low: carbon monoxide = 2 ppm; formaldehyde = 0.24 ppm; infra-red scan from 2.5 to 14.5 microns = no organic vapors detected.

Red Lodge Fire Department, Oct. 21 & 27 - This fire dept. sent in a compressed breathing air sample highly contaminated with carbon monoxide (56 ppm). Carbon dioxide (400 ppm) and hydrocarbons (5 ppm) levels were also higher than normal. Compressed air samples collected directly from their compressor and cascade system contained normal amounts of CO (1 to 2 ppm). The air intake for the compressor is located inside the building, and a vehicle had been moved out of the area just before they collected the sample that they sent in to us. They will move the air intake to the outside of the building.

Monthly Report of Activities  
Page Seven  
October, 1982

Miles City Fire Department, Oct. 27 - Their compressed breathing air contained very little carbon monoxide: 1 ppm.

Glendive Fire Department, Oct. 27 - Their compressed breathing air contained very little carbon monoxide: 1 ppm.

Nitrous oxide measurements were made in dental offices in the following locations:

- a. Dr. Bryan, Big Timber, Oct. 25 - Dentist's breathing zone = 200 ppm; assistant's BZ = 320 ppm. No nitrous oxide scavenging system is used. This was a short sample because of a power outage.
- b. Dr. Evans, Red Lodge, Oct. 26 - Dentist's breathing zone = 950 ppm; assistant's BZ = 1150 ppm. No nitrous oxide scavenging system is used and no N<sub>2</sub>O leaks were found.
- c. Dr. Olson, Colstrip, Oct. 26 - Dentist's BZ = 330 ppm; assistant's BZ = 730 ppm. No N<sub>2</sub>O scavenging system is used; one N<sub>2</sub>O leak was found.
- d. Dr. Lang, Miles City, Oct. 27 - No breathing zone levels of nitrous oxide were measured in this office because no patients were scheduled to use N<sub>2</sub>O during the week. Two N<sub>2</sub>O leaks were found.
- e. Dr. Haynes, Miles City, Oct. 27 - Dentist's BZ = 780 ppm; assistant's BZ = 330 ppm. No N<sub>2</sub>O scavenging system is used.
- f. Dr. McPherson, Glendive, Oct. 28 - Dentist's BZ = 870 ppm; assistant's BZ = 1720 ppm. No N<sub>2</sub>O scavenging system is used, and no N<sub>2</sub>O leaks were found.
- g. Dr. Eichmann, Glendive, Oct. 28 - Breathing zone concentrations of nitrous oxide were measured in this office, but time constraints only permitted a short sample. This office will be re-sampled.
- h. Drs. Gary & Coleen Lucachick, Baker, Oct. 28 - No breathing zone samples could be taken at this time. Three N<sub>2</sub>O leaks were found and one of these was repaired at the time.
- i. Dr. Brown, Glendive, Oct. 29 - No patients were scheduled to use nitrous oxide during the week. Information on N<sub>2</sub>O was given to the dentist and breathing zone samples will be collected the next time we are in the area.
- j. Dr. Holcomb, Glendive, Oct. 29 - No patients were scheduled to use N<sub>2</sub>O during the week. Information on N<sub>2</sub>O was given to the dentist and we will collect breathing zone samples the next time we are in the area.

Drs. Gary & Coleen Lucachick, Baker, Oct. 28 - Breathing zone concentrations of mercury vapor were measured in these offices. The BZ levels were low: 0.002 mg/m<sup>3</sup>. The mixer area had some mercury contamination.

Monthly Report of Activities  
Page Eight  
October, 1982

Butte Radiation Study, Butte, Oct. 28 - Lloyd traveled to Butte to work on radon measurement calibration problems.

Galen State Hospital, Galen, Oct. 29 - Four X-ray units inspected.

Montana State Prison, Deer Lodge, Oct. 29 - Two X-ray units inspected.

Powell County Memorial Hospital, Deer Lodge, Oct. 29 - Three X-ray units inspected.

Six RIPISU measurements were made during October. Results of RIPISU measurements received through October 31, 1982, were as follows:

<u>Working Level</u>	<u>Total Measurements # of Samples</u>
Less than 0.01	967
0.01 - 0.02	466
0.02 - 0.05	561
0.05 - 0.10	267
Greater than 0.10	151

Seventeen grab sample measurements were made in October. The results of grab samples are as follows:

<u>Working Level</u>	<u>October Samples</u>	<u>Total Samples Through 10/31/82</u>
Less than 0.01	8	1504
0.01 - 0.02	4	653
0.02 - 0.05	5	635
0.05 - 0.10	0	204
Greater than 0.10	0	63

RIPISU sampling in SILOM homes (4) through week #52 shows the following results:

<u>Working Level</u>	<u>Total # of Samples</u>
Less than 0.01	52
0.01 - 0.02	61
0.02 - 0.05	48
0.05 - 0.10	89
Greater than 0.10	71
	<u>321</u>

RIPISU sampling in ILOM homes (16) through week #52 shows the following results:

<u>Working Level</u>	<u>Total # of Samples</u>
Less than 0.01	49
0.01 - 0.02	140
0.02 - 0.05	567
0.05 - 0.10	558
Greater than 0.10	263
	<u>1577</u>

Monthly Report of Activities  
September  
October, 1982

The sampling program for ILOM homes has now been completed and results through week #52 constitute the final report on this phase of the study.

Line RIPISU samples were collected in NLOM homes (48) through week #52. Results of this sampling to date are as follows:

<u>Working Level</u>	<u>Total # of Samples</u>
Less than 0.01	43
0.01 - 0.02	26
0.02 - 0.05	18
0.05 - 0.10	7
Greater than 0.10	2
	<hr/> 96

2. Meetings, Training Sessions, Schools Attended, Etc.:

October 1 - Lloyd attended a Bureau Chiefs meeting.

October 1 - Lloyd and Dennis Thurston met with Norm Rostocki of the Legislative Fiscal Analyst's Office to discuss the Occupational Health Bureau's budget requests for FY 1984 & 1985.

October 5 - Lloyd hosted a meeting of the Northwest Low-Level Radioactive Waste Management Committee which was held in Helena.

October 6 - Lloyd met with Peggy Fields of the Commerce Department to discuss measurement of radon in HUD and FHA housing in Butte.

October 7 - Lloyd participated in the Annual Sanitarians' Training Conference which was held in Bozeman.

October 12 - Lloyd met with Ron Weiss (OBPP) to discuss the Occupational Health Bureau's budget requests for FY 1984 & 1985.

October 12 - Howe met with John DenHerder of the Licensing & Certification Bureau to determine his possible role with hospitals that are not in compliance with the Radiologic Technologists Licensure Law.

October 22 - Howe met with the Board of Radiologic Technologists.

Oct. 25-26 - Lloyd met with Bob Dillard, FDA/BRH Region VIII, to discuss the Bureau's ionizing radiation programs and to assist Dillard in completing the FDA/BRH FY 1982 Annual Report for Montana.

October 27 - Lloyd attended a Bureau Chiefs meeting.

19. Other:

Lloyd reviewed plans for a new X-ray room to be constructed at Liberty County Hospital and computed minimum shielding requirements for the facility.



Monthly Report of Activities  
Page Ten  
October, 1982

Lloyd reviewed the revised shielding analysis for St. Patrick Hospital which was performed by St. Patrick Hospital's consultant radiation physicist. The physicist had changed nearly every item of disagreement to concur with Lloyd's computations. Two items of disagreement remained in the physicist's report. These items were resolved during a telephone conversation with the physicist with the physicist again accepting Lloyd's computations.

Replies to requests for corrective action have been received from Dwayne Borgstrand, D. C., Red Lodge; St. James Community Hospital, Butte; Powder River County Medical Clinic, Broadus; Clark Fork Valley Hospital, Plains; and Joseph P. Orley, M. D., Lewistown.

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## AIR QUALITY BUREAU

Program Summary  
January 19, 1983

Presented to  
1983 Legislature

The Air Quality Bureau, Department of Health and Environmental Sciences (DHES), has the basic responsibility of maintaining and protecting air quality in the state. The authorizing legislation for these duties lies in Title 75, Chapter 2, MCA.

The Bureau programs that accomplish the goals and requirements of the Clean Air Act are summarized below.

Permits	The permit program is the primary method used to assure compliance with ambient air quality standards and allows a review of new facilities to insure that the most recent control technologies are applied to new sources.
Inspection/Enforcement	A scheduled inspection program is operated to guarantee continued compliance with emission standards and permit conditions.
Ambient Air Monitoring	The Act requires that the bureau monitor the state's air quality. More than 70 stations are operated in order to meet this goal.
Open Burning and Slash Burning	A modified program limiting the effects of slash and general open burning began recently. Additionally, in the fall a special, intensive program is implemented to limit the amount of smoke (principally from slash burning operations) that drifts into valleys.

Despite these programs, it is necessary to conduct further work in order to identify and solve special problems. The following is a list of these projects planned for the 1984-85 biennium.

East Helena Lead Study	The bureau recently completed a major study to determine the source of ambient lead violations. Next the study will determine the control strategies necessary to bring these levels below the ambient air quality standards. A screening of all the children in the area will be conducted this summer. The purpose is to identify any child whose blood-lead concentration exceeds public health guidelines. Children with blood-lead levels exceeding the guidelines will be referred to physicians for treatment.
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- Billings Sulfur Dioxide Study    The Bureau, with the aid of the local industries, has been engaged in a year-long study of the levels of sulfur dioxide in the area. The study is complete and the data is being analyzed to determine the necessity of control strategies.
- Oil Well Flaring    There is a great deal of flaring of hydrogen sulfide (which changes to sulfur dioxide) at many oil well locations throughout the state, especially in the Williston Basin. The bureau is in the process of cataloging these wells and requiring permits when necessary. The emissions from the Williston Basin alone exceed 2,000 tons per year of sulfur dioxide.
- Wood Smoke and Particulate Study of western Montana    Many areas in western Montana exceed ambient air quality standards. These problems can be solved through proper identification of the sources. The bureau intends to address these problems over the next biennium.
- Glacier National Park    Both Montana and federal rules provide special protection to areas such as Glacier National Park. In conjunction with the Park Service, the bureau has determined the need for a careful inventory of nearby sources and more accurate ambient monitoring in the area. To date the data indicates the possibility of air pollution influences from areas outside the park, including Canada.
- Ambient Standards Violations    Several areas of the state fail to meet carbon monoxide standards. These areas will receive special attention with an emphasis on resolving their problems.

This does not represent every project conducted by the Bureau, nor does it address responses to complaints or emergencies. It is necessarily brief in order to provide an overview of the operations. More specific information can be supplied upon request.

The Bureau is requesting a reduction in the number of FTE's authorized in the last biennium from 23.5 to 17.5. This represents the reduction of one FTE for the Flathead Study (ending June 30, 1983), the reduction in permit processing requests and general efficiency in operation of the programs.

It is submitted that the agency requested operating budget is reduced to a minimal amount. A reduction in funds will need to be offset by a reduction in FTE's, not necessarily a reduction in operating expenses. This would be reflected by a reduction in the air monitoring efforts and/or inspections.