

2/3

ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D. C. 20460

Date: 22 JAN 1971

Reply to
Attn of: ME&O

Subject: Next Steps in the Organization of EPA

To: Mr. David D. Dominick Dr. John T. Middleton
Dr. Raymond E. Johnson Mr. Richard D. Vaughan
✓ Dr. Joseph A. Lieberman

The first phase of establishing an organizational structure for EPA has been completed with the Administrator's approval of Orders providing for:

- continuity of functions,
- revocation of certain delegated authorities,
- extension of administrative authorities,
- approval of policy and standards,
- organizational symbols,
- organization of water hygiene functions,
- approval of changes in organizational structure, and
- delegations of authority to the Offices of Congressional Affairs, Equal Opportunity, General Counsel, International Affairs, Planning and Management, and Public Affairs.

We are now moving into the second phase, which is of critical importance to all of us in EPA. This phase will establish the internal organization, functional responsibilities, and further delegations of authority within the headquarters staff components. At the same time, and in accordance with EPA Order 1110.8 - "Approval of Changes in Organizational Structure," we need to make those adjustments in the initial organization of the Media Offices to provide the Administrator and the Acting Commissioners with viable on-going organizations to perform the program mission of the Agency effectively. These adjustments will afford the Administrator a better opportunity to evaluate the overall organizational direction EPA should take to meet the objectives of Reorganization Plan No. 3 of 1970.

With the foregoing background in mind, I would appreciate it if you would develop a proposal for the interim organization of your Office which will meet your needs for the immediate future. The proposal need not be in great detail but should include a rough organizational chart, brief functional statements, and accompanying delegations of authority. I would like to have a "first draft" of your proposed changes by February 3, 1971. Also, please have your representative, designated for this project, contact Seymour D. Greenstone, Director, Management and Organization Division.

Page 2 - Mr. David D. Dominick and others

Mr. Greenstone's staff will work with your representative on the project. If you do not have staff available for this task, Mr. Greenstone will provide the necessary support.



Howard M. Messner
Deputy Assistant Administrator
for Administration

Joe:
I know your organization
Chart is here - this memorandum
shows we are ready to do something
with it

Regards



726942

Schedule 189a
JUSTIFICATION FOR OPERATING COSTS & EQUIPMENT OBLIGATIONS FOR

Idaho Field Office or Laboratory		Date						
1. Budget Account No.		2. Project Title Experimental Cloud Dose Study						
3. Method of Reporting 1. Monthly		4. Person in Charge C. A. Pelletier		Principal Investigator P. G. Voilleau				
5. Contractor ID Health Services Laboratory		Type	6. Working Location NRTS		7. Task No. NA			
8. Reactor Concept NA		9. Materials NA						
10. Contract No. AT(10-1)-		11. Project term From: 1-1-69 To: 6-30-71		12. Contractor Project No.				
13. Man Years: Scientific Other Direct		FY 1968	FY 1969 Orig. Budget Current Estimate		FY 1970	FY 1971	FY 1972	FY 1973
				1	2.5 .5	2.5 .5	1.0 .5	
				1.0	3.0	3.0	1.5	
14. Costs (In Thousands)								
(a) Direct Salaries			10	20	20	10		
(1) Burden			2	6	6	5		
(b) Materials & Supplies								
(c) Support Services			10.5	28	27	15		
(d) Fuel Fabrication .2								
(e) Reactor Fabrication .4								
(f) Irradiations .6			.5	1	1			
(g) Test Reactors - Other .7								
(h) R&D Subcontracts								
(i) Expendable Equipment								
(j) Computer Services			5	10	10	5		
Total Direct Costs			28	65	64	35		
(k) Administrative Expense								
(l) NRTS Expense								
TOTAL COSTS								
(m) Unliquidated Obliga.								
(n) Equipment Obligations				36.9	2			

NOTE: This has been reduced for provenancing

REPOSITORY INEL

COLLECTION EXCES

Box #3, RES LCPA-690 Room #191

Box No. File: Env. Branch Reading Files 9/68-12/68

FOLDER Subj: Schedule 189A Justification for
Operating Costs & Equipment Obligations
for Idaho Field Office or Laboratory,
Experimental Cloud Dose Study

BEST COPY AVAILABLE

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Schedule 189a
JUSTIFICATION FOR OPERATING COSTS & EQUIPMENT OBLIGATIONS FOR

Idaho
Field Office or Laboratory

Date

1. Budget Account No.		2. Project Title Experimental Cloud Dose Study	
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	FY 1968	FY 1969		FY 1970	FY 1971	FY 1972	FY 1973
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Other Direct				.5	.5	.5	
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(h) R&D Subcontracts .7							
(i) Expendable Equipment							
(j) Computer Services			.5	10	10	5	
Total Direct Costs			28	65	64	35	
(k) Administrative Expense							
(l) NRTS Expense							
TOTAL COSTS							
(m) Unliquidated Obliga.				86.9	2		
(n) Equipment Obligations							

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DEPARTMENT OF HEALTH, EDUCATION, & WELFARE
PUBLIC HEALTH SERVICE
ENVIRONMENTAL HEALTH SERVICE
OFFICE OF THE ADMINISTRATOR

LIEBERMAN

Date:
Reply to
Attn of:

Subject: EPA Radiation Organization

To: Douglas Costle, Consultant, EPA
THROUGH: Administrator, EHS

1. In accordance with your request of November 16, 1970, there is attached a report (Attachment 1) on the organization of radiation activities in EPA. Since the organizational structure and its composition are dependent to a major degree on decisions regarding the split of the existing Bureau of Radiological Health in EHS, the report should be considered as a working or proposal document.

2. Also attached (Attachment 2) are some recommendations regarding possible staffing of the major elements of the organization. Again, in this staffing area there is some dependency on the BRH split.

3. Lastly, in connection with the importance of maintaining the continuity of the FRC activities, there is attached a draft letter (Attachment 3) for the Administrator's signature to other affected agencies asking that appropriate inter-agency arrangements and cooperation be established in order that important current activities can continue to be properly carried out.

Joseph A. Lieberman
Assistant Administrator
for Research and Development

3 Attachments

REPORT

EPA Radiation Organization

November 20, 1970

Joseph A. Lieberman
Assistant Administrator,
for Research and Development
Environmental Health Service

EPA Radiation Organization

Introduction

Radiation is a unique stressor that has significant potential for adverse effect on man, his environment and the total eco-system. As such it cuts across the commonly recognized air, water, land environmental media and its control involves essentially the entire spectrum of scientific and technological knowledge and investigation.

The control of radiation or radiation protection is the fundamental basis for consideration of functions and structure of a radiation organization in EPA. From a generalized functional standpoint it is clear that there should exist in EPA the capability (and resources) to:

1. adequately delineate the problems
2. establish and utilize the appropriate information and data base required for effective problem solutions.

Because of the uncertainty (at the date of this report) of the constituent elements to be transferred to EPA (i.e. the split of the EMS Bureau of Radiological Health) possible alternative organizational structures are indicated.

Conclusions

1. It is essential that a radiation organization in EPA have the spectrum of scientific, technical and administrative capability necessary to establish the bases for an effective national radiation protection program. This is particularly so with respect to the need for an in-house capability to consider, and arrive at conclusions regarding, the bases for specific radiation protection guidance, criteria and standards.
2. To the maximum extent possible the initial radiation organization structure should be convertible to (or consistent with) a future EPA functional organizational structure.
3. Since resources for carrying out the radiation functions are limited, it is important that the organizational capability and structure be such that it can relate to and work with other agencies (AEC, HEW particularly).

Recommendations

1. On the basis that the Division of Biological Effects will be transferred from HEW to EPA, the radiation organization alternate 1 is recommended as the initial operating structure.
2. If the Division of Biological Effects is not transferred to EPA, alternate 2 appears to have some advantages and is recommended.

Organizational Functions

The scope and nature of the functions and activities of an EPA radiation organization logically can be categorized as follows:

1. Development of radiation protection guidelines
 - Exposure to individuals and populations
 - Environmental - Occupational
2. Development of environmental radiation standards
 - Air - Water - Other media
3. Surveillance and Monitoring
 - Continuous and Special (including emergencies)
 - Nuclear Power Plants
 - Fuel Reprocessing Plants
 - U Tailings (Indoor Radon)
 - U Miners
 - AEC Weapons Tests
 - AEC Plowshare Tests
 - Other AEC Operations
 - NASA Space Shots
 - Non-ionizing Radiation (Environmental)
 - Microwave
 - VHF
 - UHF, other
4. Research and Development
 - Radiation Guides and standards support
 - Bio-effects studies and investigations
 - Animal Experiments
 - Epidemiologic Investigations
 - Surveillance and Monitoring Support
 - Engineering and Physical Science Studies
 - Ecological Investigations

5. Technology Assessment and Impact Review
 - Environmental Impact Evaluation
 - Problem Delineation
 - Other Agency Environmental Impact Statement Review
6. Information Collection, Storage, Retrieval, Dissemination
 - Data Processing
 - Radiological Health Reports Issuance

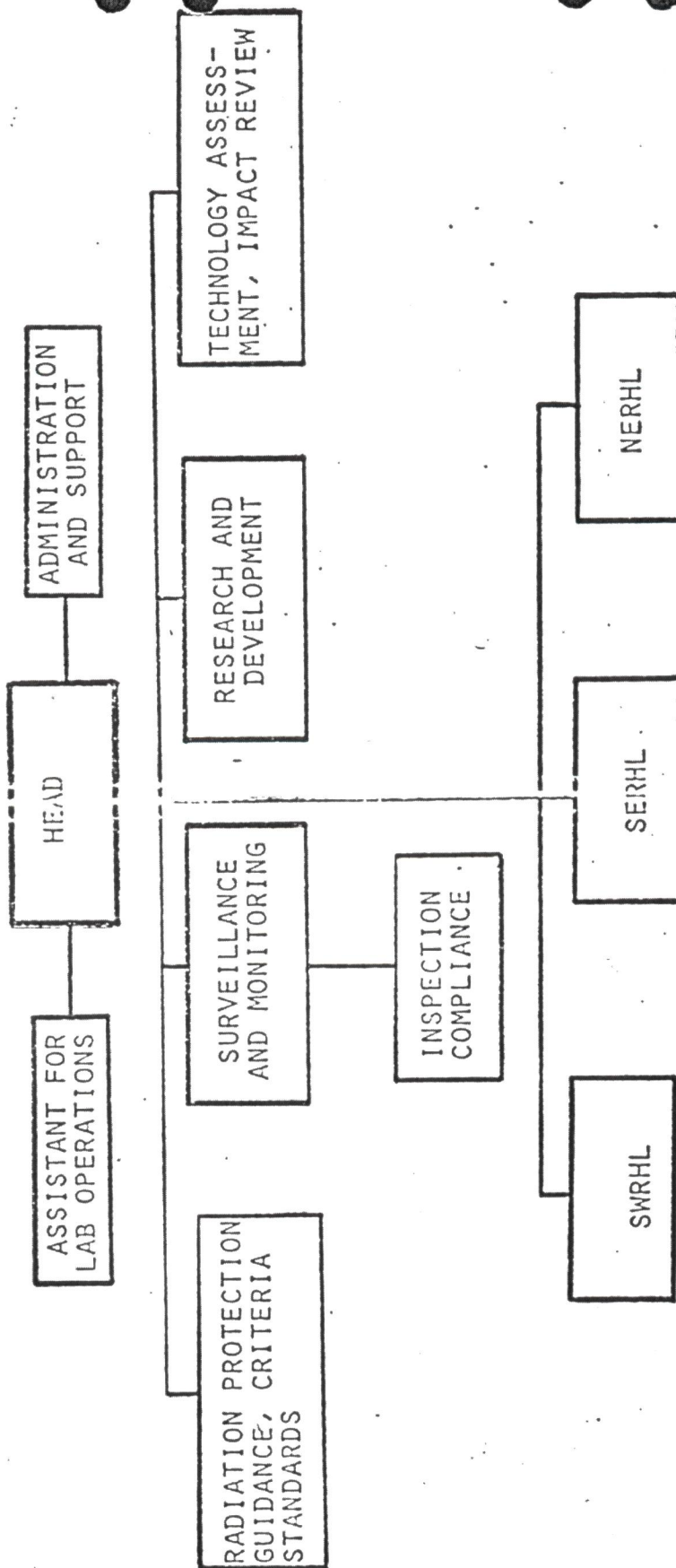
In turn the above categorization leads logically to the organizational structures that might be considered. It seems clear that the operating elements of the organization should consist of groups that are, respectively, primarily concerned with and responsible for the reasonably well-defined functions of:

1. Development of radiation protection and guidelines
2. Surveillance and Monitoring
3. Research and Development
4. Environmental impact analysis and evaluation
5. Administrative and service support

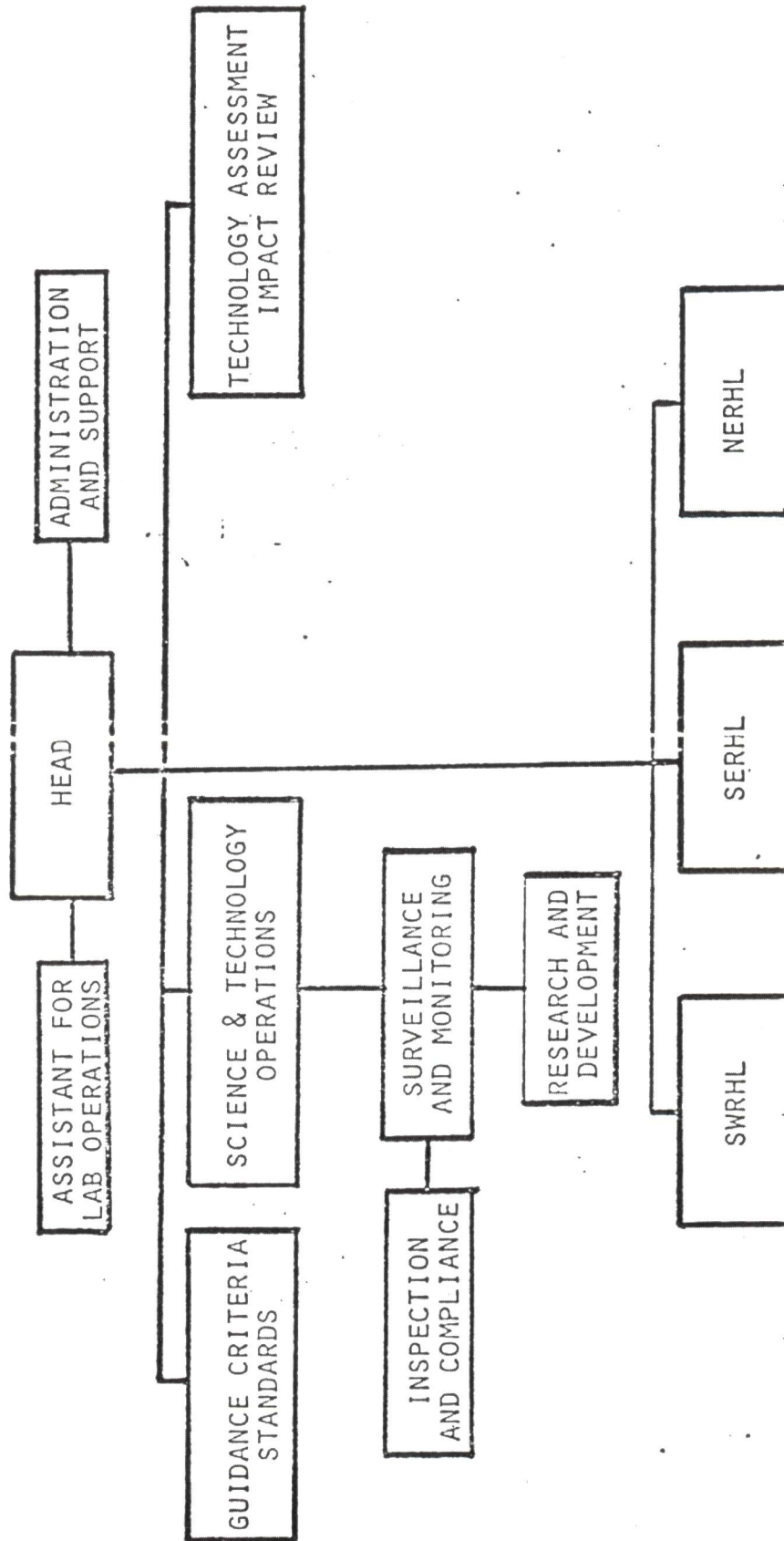
Accordingly, three alternative organizational arrangements, as shown schematically, suggest themselves. The difference between alternative 1 and alternative 2 is dependent primarily on the decision regarding the transfer of the Division of Biological Effects from the EHS Bureau of Radiological Health to EPA. If the DBE is not transferred to EPA the research and development capability and resources initially available to EPA would be, of course, drastically reduced. It would then appear to be advisable to combine the surveillance and monitoring, and research and development functional operations as indicated in order to minimize management overhead and to consolidate operational activities (as distinguished from the more staff-like activities associated with the other major organizational elements).

Alternative 3 sets up the functions more along an "environmental and human effects" basis. This arrangement recognizes a separability between research directed at the bases for fundamental radiation protection guides, criteria and standards and investigative efforts directed to origin, fate and behavior of radioactivity (and other radiation) in the environment and how it results in exposure to man.

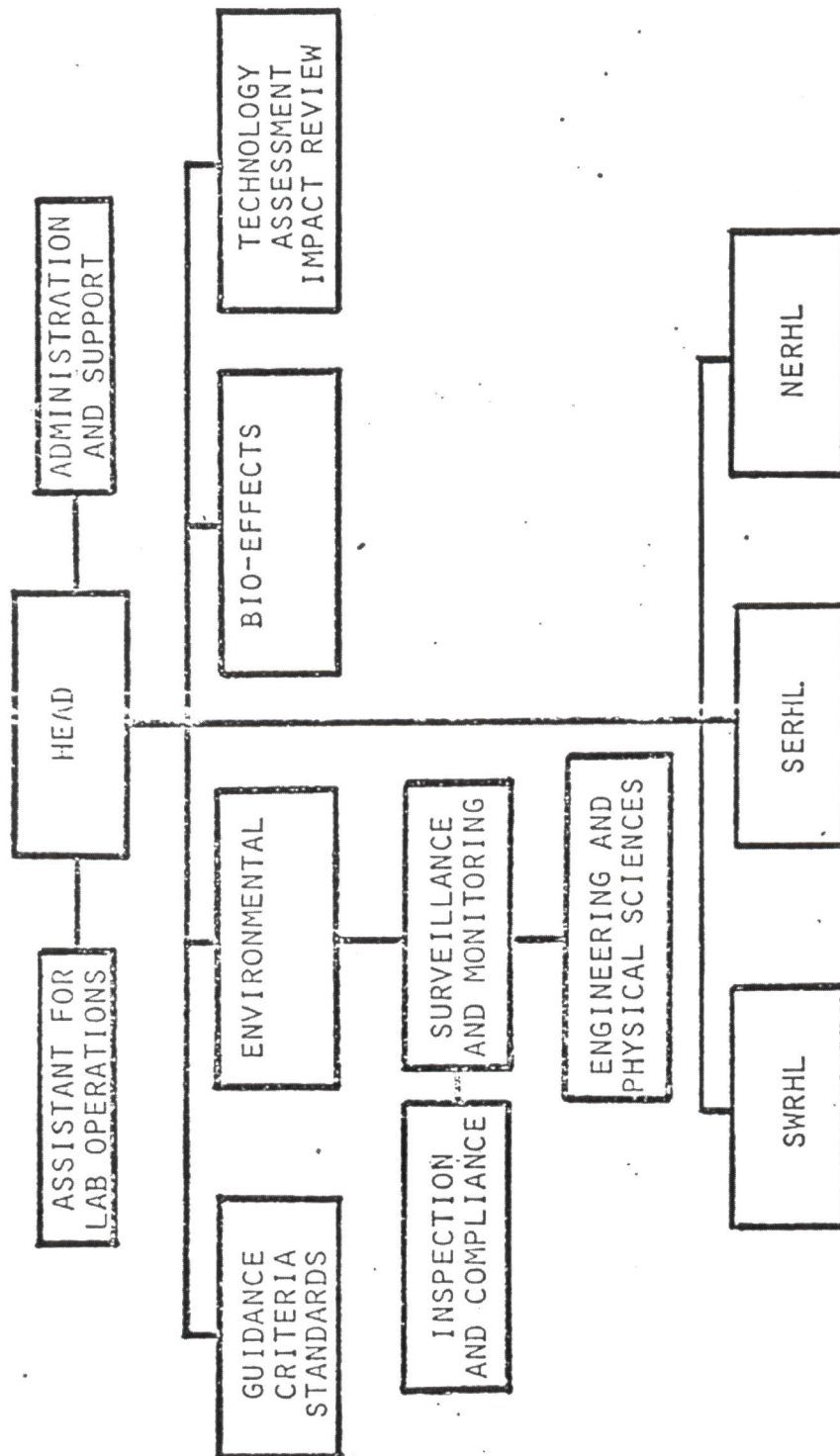
ENVIRONMENTAL PROTECTION AGENCY
DAY ONE
RADIATION ORGANIZATION (ALTERNATE 1)



ENVIRONMENTAL PROTECTION AGENCY
DAY ONE
RADIATION ORGANIZATION (ALTERNATE 2)



ENVIRONMENTAL PROTECTION AGENCY
DAY ONE
RADIATION ORGANIZATION (ALTERNATE 3)



Functional Statements

Brief statements of the functions of the elements of the EPA radiation organization as depicted in Alternative 1 are given below:

"Head" - Directs and exercises overall coordination and supervision of the activities of the Agency which relate to the protection of man and his environment from any adverse effects of environmental radiation.

"Assistant for Laboratory Operations" - Ensures that the program activities conducted in the radiological laboratories of the Agency are consistent with and contribute to the objectives of the total radiation protection program, especially in the areas of research and development and surveillance and monitoring. Coordinates, for the "Head", inter-laboratory activities, and operating element operations with laboratory operations.

"Administration and Support" - Provides support activities for the radiation protection programs of the Agency including (1) overall administration and budget supervision; (2) legislative and public affairs activities; (3) training programs; (4) data processing activities; (5) grants administration; (6) technical information activities; and (7) technical assistance to state and local radiation protection activities on a regional basis.

"Radiation Protection Guidance, Criteria and Standards" - Advises the Administrator on the adequacy of existing environmental radiation protection guides and standards for protecting the health of the general public and occupationally-exposed individuals, and recommends changes as appropriate; establishes and maintains liaison with recognized authorities in the field and organizations concerned with the establishment of criteria and standards for radiation protection.

"Surveillance and Monitoring & Inspection and Compliance" - Conducts surveillance and monitoring activities:
(1) to provide base-line data on the levels of existing background environmental radiation as required prior to the development of new man-made sources; (2) to provide information necessary to ensure compliance with

established radiation protection guidelines and standards; (3) to measure effectiveness of environmental radiation control programs.

"Research and Development" - Plans, conducts, and sponsors a broad program of research, development, and demonstration to provide a sound scientific and technical base for the radiation protection guides and standards of the Agency, and to provide for (1) a comprehensive understanding of the effects of environmental radiation on man and his environment; (2) the availability of practicable techniques and devices to measure and minimize environmental radiation levels; (3) the continuing adequacy of radiation protection guides and standards already established; coordinates the environmental radiation research and development programs of the Agency with the activities of other Federal, State, and local agencies, as well as the private sector.

"Technology Assessment and Impact Review" - Evaluates the potential environmental impact of new, Federally-sponsored or regulated activities, and extensions of existing Federally-sponsored or regulated activities, and developing industrial and commercial products or processes which may result in additional exposure of man and his environment to environmental radiation; forecasts these developments and their potential impacts, and recommends optional controls available to minimize any potential adverse effects. Carries out and coordinates reviews of Environmental Impact Statements as required.

Laboratory Management and Operation

A basic philosophy or policy of laboratory management and operations in the EPA radiation organization must be that the laboratory activities be responsive to the goals, missions, and requirements of the organization, and, more specifically, to the coherently defined research and development (or other) requirements of the operating elements of the organization.

While some flexibility in resources allocation is important to permit the exercise of initiative and independent (but related) investigation, in a mission directed agency such as EPA this should represent a small part of the total activity. The above in no way implies that the laboratory directors do

not have to be thoroughly competent scientific or technical professionals, but simply emphasizes the essentiality of a coordinated attack on well-defined problems.

It is intended that this philosophy or policy be implemented in the organizational arrangements proposed through an "Assistant Head" for laboratory operations, working with the laboratory directors and the operating element chiefs. A variation could be considered in Alternative 2 in the form of having the laboratory directors report to the head of Science and Technology Operations. This could eliminate the necessity for a separate "Assistant Head" for laboratory operations by, in effect, combining these two positions.

As indicated in the schematic diagrams of the three alternative organizational arrangements it is presumed that all three BRH laboratories will be transferred to EPA. In the estimated positions and dollars tabulation shown in Appendix 1 deductions for resources associated with consumer products activities at the three laboratories have been made as follows:

SWRHL	10 positions	\$250,000
SERHL	16 positions	\$260,000
NERHL	6 positions	\$100,000

It is suggested that consideration be given to early site visits to the laboratories by appropriate teams to recommend or determine which specific activities should remain the responsibility of HEW.

In any case, it appears completely reasonable that these HEW related activities continue to be conducted at the laboratories, at least on an interim basis, pending further decisions regarding possible consolidation, or physical transfer of consumer product related radiation protection activities.

Other Organizational Options

A number of variations are possible in the organizational structures described. Although some possibilities are listed below none are specifically recommended at this time.

1. Consolidation of guidance, criteria and standards activities

In the event there is some organizational level above the radiation group, the guidance, criteria

and standards activities of the radiation and (pesticides and solid wastes?) consolidation at that level could be considered.

2. Similar consideration might be given to the environmental impact assessment evaluation and review function.
3. As noted under Laboratory Management and Operation in Alternative 2 the laboratory directors could report to the head of the Science and Technology-Operations element, eliminating the need for an "Assistant Head" for laboratory operations.

Organizational Structure Pros and Cons

Alternate 1

PRO

- * Functions and activities clearly defined in structure
- * Probably most amenable to incorporation in functional EPA organization
- * Provides smoothest transition from current organization(s)

CON

- * Base on assumptions regarding transfer of elements
- * Requires some re-deployment of existing resources

Alternate 2

PRO

- * Consolidates operational activities in one group
- * Minimizes management overhead requirements

CON

- * One much larger program element
- * Represents inadequate resources

Alternate 3

PRO

- * More specifically recognizes issue of long-range, low level bio-effects
- * Does provide for reasonable distribution of effort between program groups

CON

- * Introduces intra-organizational inter-face problems

Organizational Designations and Titles

In order to facilitate communication and for personnel and other purposes it is suggested that the following organizational designations and titles be used.

Radiation Organization --- Bureau or Office
 Bureau Head --- Chief ~~Commissioner~~
 Major Bureau Operating Element --- Division
 Division Head --- Director
 Major Division Element --- Branch
 Branch Head --- Chief
 Major Branch Element --- Section
 Section Head --- Head

Radiation Organization Title --- Bureau (of Office) of Radiation Protection.

Alternate --- Bureau (or Office) of Radiation Control

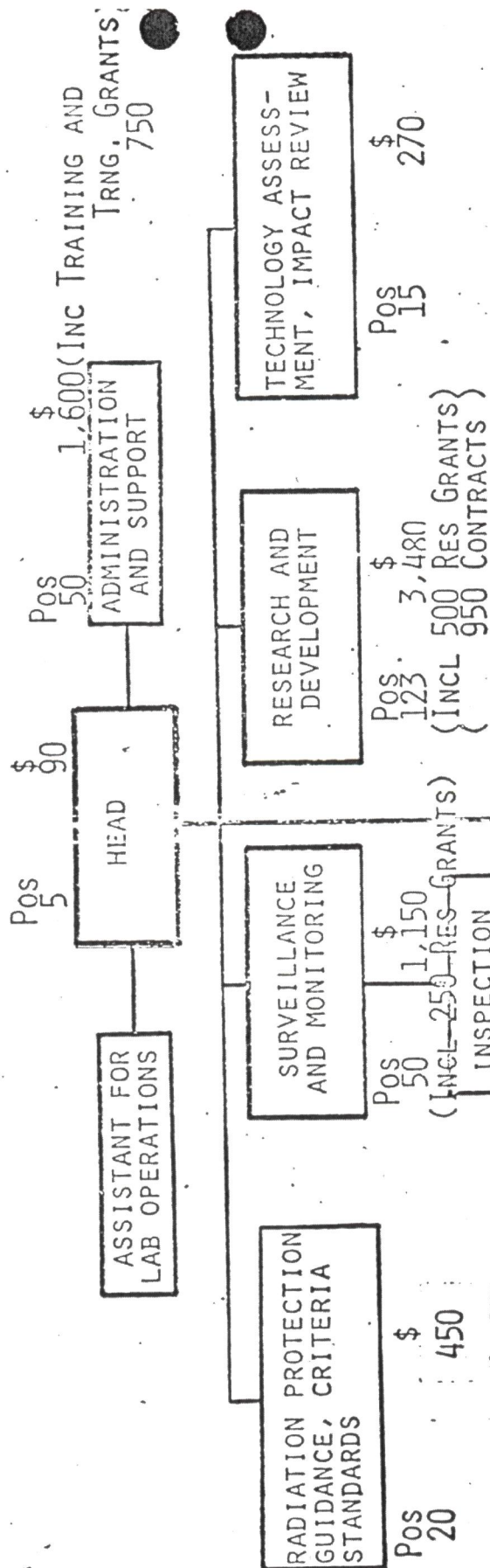
ENVIRONMENTAL PROTECTION AGENCY
RADIATION
PROGRAM & BUDGET SUMMARY
 (BY CURRENT ORGANIZATIONAL ELEMENT)

OFFICE OF DIRECTOR	56	1,150	56	1,205
DIV. ENV. RAD.	45	670	45	865
DIV. BIO. EFFECTS	130	3,000	130	3,325
SWRHL	48	950	48	1,000
SERHL	57	620	57	680
NERHL	62	860	62	900
TRAINING	21	400	21	420
RES. GRANTS	--	750	--	750
TRNG. GRANTS	--	750	--	750
FRC	4	200	5	400
AEC	<u>6</u>	<u>130</u>	<u>6</u>	<u>140</u>
TOTAL	429	9,480	430	10,435
* AEC REIMBURSABLE	145	2,300	150	2,600

ENVIRONMENTAL PROTECTION AGENCY

DAY ONE

RADIATION ORGANIZATION (ALTERNATE 1)



AEC REIMBURSABLE 150 2,600



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

May 12, 1989

NOTE TO RICH GUIMOND

SUBJECT: 1970 Radiation Paper

I was looking through some old files recently and ran across the attached staff paper prepared in 1970 on environmental radiation. I thought you might be interested in the perspective of almost 20 years ago, so I am sending it on to you.

Chuck
Chuck Elkins

Staff Paper
November 6, 1970

ENVIRONMENTAL RADIATION

I. Background

Man has always been exposed to environmental radiation from cosmic rays entering the atmosphere and from naturally occurring radioactive materials such as radium; however, the importance of human exposure to ionizing radiation* suddenly was emphasized by the advent of atomic energy for military and peaceful uses. The possibility of significant exposures to the general public from releases of radioactivity to the environment from accidents in nuclear facilities, or from effluents from normal operation of nuclear facilities, was recognized from the inception of the atomic energy program. Development of the uses of nuclear energy was from the beginning accompanied by intensive effort on the control of accidents and effluent emissions and research into the health effects of radiation exposure.

Significant exposure to the general public did not occur until the United States and other countries began to test nuclear weapons in the atmosphere. This exposure generally was curtailed by the signing

*Ionizing radiation, the only type of radiation discussed in this paper, has the capability of causing particularly serious effects in cells and tissue. Other types of radiation, such as sound and light waves, can also cause health and other effects.

of the test ban treaty by most countries. However, France and Red China continue testing in the atmosphere. -

Although probably more research has been done on the effects of radiation than on the effects of any other pollutant, we do not know for sure what, if any, effects on humans occur at very low levels of radiation exposure. It is known, of course, that exposures to ionizing radiation increase the natural rate of genetic mutations and when high doses are incurred and high dose rates experienced, some diseases such as leukemia are increased in incidence. At doses and dose rates within radiation protection standards, increases in incidence of naturally occurring diseases, if any, are so small that statistical methods have been incapable of measuring them. It is also known that many radioactive materials, like many other pollutants, accumulate in the tissues of fish and wildlife even when the concentrations of these materials to which they are exposed are very small. This must be taken into account in controlling releases of radioactivity into the environment.

Today the sources of environmental exposure are:

- natural sources (i.e., cosmic rays and naturally occurring radionuclides),
- peaceful uses of nuclear energy such as the generation of electric power,

- underground tests conducted by the Atomic Energy Commission or the Department of Defense for military or peaceful purposes, and
- atmospheric tests by France and Red China.

At the present time these environmental exposures to radiation are relatively insignificant in terms of total human dosage when compared to exposures resulting from medical and dental X-rays (the concern of HEW). Sources of occupational exposures (the concern of many departments, including AEC, DOD and Interior) and consumer items such as color TV sets (also the concern of HEW) contribute to a minor extent.

II. Current Federal Radiation Activities

Because of the controversy over exposures from radioactive fallout from atmospheric nuclear weapons testing, the possibility of exposure to radiation from many diverse sources and the individual roles played by many Federal agencies in the use of radioactive materials and their control, President Eisenhower established the Federal Radiation Council in 1959. This Council, composed of the heads of seven departments and agencies and the President's Science Adviser, was assigned the task of developing basic radiation protection guides for the guidance of Federal agencies in controlling total exposure of man to radiation from all sources combined. The Council was made statutory by an amendment to the Atomic Energy Act (Section 274h).

The Federal Radiation Council's guides, once approved by the President, have been used by Federal agencies in the establishment of standards applicable to radioactive materials and workers within their control. For example, the Atomic Energy Commission establishes standards governing the radioactive emissions from the licensed activities, such as nuclear reactors, and the exposure to radiation of the workers at such facilities. All agencies' standards are designed to keep radiation exposures to workers and the public at levels well within the radiation protection guides recommended by the Federal Radiation Council.

The Council has traditionally depended heavily on the advice of two federally-chartered organizations, the National Council on Radiation Protection and Measurement (NCRP) and the National Academy of Sciences (NAS), for assistance in establishing these guides. Bills now before Congress seek to tie the setting of Federal standards even more closely to the recommendations of the NCRP and NAS.

Other EPA programs could perhaps profit from certain examples set in the radiation field:

1. Vigorous research on the short- and long-term behavior and effects of radioactive substances.
2. Explicit recognition that, in decisions involving radioactive hazards, the risk must be balanced with

benefits resulting from the polluting activities (e.g., nuclear power).

3. Consideration of multiple sources of exposure in the setting of exposure standards. (Note: Individual medical and dental exposures are not included in setting general radiation exposure standards.)

Reorganization Plan No. 3 transferred the following radiation-related activities to the Environmental Protection Agency:

1. All functions of the Federal Radiation Council, including the recommending of radiation protection guides for occupational exposures as well as for exposures to the general public.
2. The research, monitoring and training functions of the Bureau of Radiological Health (HEW) related to environmental radiation. Left behind in HEW are research, monitoring and training related to radiation from electronic products, the use of radiation in medical practice, and occupational exposures.
3. The function of determining standards for atmospheric radiation concentrations beyond the boundaries of AEC-licensed nuclear installations. In the past, AEC in

effect made these determinations in the exercise of its licensing authority. Its approval of emission characteristics and design and engineering specifications was made in contemplation of the off-site concentrations of radioactivity that would result. Now EPA will determine off-site concentration limits and AEC will on this basis set facility characteristics and specifications to achieve the results desired by EPA, as well as to substantially preclude nuclear accidents. AEC will continue to enforce emission limitations. EPA's limits will also be used as guidelines for the direct activities of other Federal agencies, such as AEC and the Department of Defense.

Reorganization Plan No. 3 has the advantage of bringing together environmental radiation standard-setting with the standard-setting for other environmental pollutants. However, the plan has the following disadvantage: In the past, HEW has operated programs to reduce the adverse health effects of all radiation exposures no matter what the source, and a basic health research program to support it. Also, AEC had explicit responsibilities to control both occupational and environmental exposures resulting from its activities, and a very large research base to support it. The Reorganization Plan separates environmental radiation protection from radiation activities in the

nuclear power facilities keep their emissions so low that the resultant exposures to the public are a small fraction of the exposure from natural background radiation. Fuel reprocessing plants which remove the wastes from used nuclear fuel rods have more significant emissions, but these plants are currently few in number.

The disposal of radioactive wastes resulting from all of these operations poses a potential exposure hazard. So does the storage of highly radioactive materials of very long "half-life," that is, persistence. AEC controls this disposal and storage, but EPA's boundary line standards will be applicable to these facilities, either directly or as guidelines.

The AEC's Plowshare program (developmental testing of the use of nuclear explosives, currently all underground, for such peaceful purposes as exploitation of natural gas and mineral deposits, and excavation) presents possibilities of the release of radioactivity and other threats to the environment, as does the current underground military testing program. Both have given rise to controversy and legislative proposals, and attracted considerable public attention from the Joint Committee on Atomic Energy (JCAE) and Senator Muskie's Public Works Subcommittee.

Despite the relatively low level of radiation exposures resulting from environmental radiation, it is these exposures which the public appears to find most alarming. EPA's actions in this field will therefore be closely watched, particularly because of the recent controversy over the adequacy of the safety margin included in the FRC guidelines.

In recent years the highest environmental radiation exposures have been incurred by underground uranium miners. (Uranium ore is the basic material from which nuclear power plant fuel is derived.) These exposures have resulted in an undetermined number of lung cancer deaths. A controversy has raged within and without the FRC as to appropriate exposure limitations for the miners and when they should be enforced against the uranium mining operators. A review of existing FRC guidance--it underlies standards issued by the Interior Department--will be EPA's task during the first half of 1971. The JCAE has played a major role in this controversy, opposing the imposition of stricter standards as urged by HEW and Labor. The controversy remains intense, even though miners' exposures have been considerably controlled in recent years.

Decisions concerning the operation of the radiation program will probably consume less of the Administrator's time than decisions concerning the other EPA programs. However, relations with the public and the Congress on radiation may demand an inordinate amount of the Administrator's time.

IV. Significant Issues

1. Drs. Gofman and Tamplin of AEC's Livermore Laboratory have contended publicly that the current FRC radiation protection guides for the general public are at least ten times too lenient and that thousands of people will die as a consequence. Although they have not received

very much support from the scientific community, these scientists' charges, in part, have led to the initiation of a complete review of the FRC radiation protection guides. This review will address both the appropriateness of the current guides and the question of allocation of dose among multiple radiation sources. The review, which will be EPA's responsibility in large part, is being carried out in its current phase to a large extent by the NCRP and NAS, with financial and other assistance from HEW and other Federal agencies. Unresolved at this time is the question of the extent of EPA's discretion to accept or reject the recommendations of these organizations. A bill amending Section 274h of the Atomic Energy Act that has passed the House and is now before the Senate would restrict EPA's flexibility considerably. The White House is considering whether and how changes might be made on the floor of the Senate.

2. One state has challenged the right of Congress to preclude states from setting stricter standards than those set by the AEC for nuclear power plants (Northern States Power Company vs. State of Minnesota). In the area of air and water pollution and pesticides, states are generally allowed to set stricter standards than the Federal government. One notable exception is new motor vehicle air pollution standards, where only California has been allowed to set stricter standards. It is likely that EPA will be asked to take a position on the relationship between the responsibilities of the states and Federal government in the radiation standard-setting field.

3. There has been increasing public opposition to the construction of new electric generating plants and to nuclear plants in particular. Safety, thermal pollution and radiation emissions related specifically to nuclear plants have been the major concerns debated. In light of the power shortages which appear to be increasing each year, EPA will probably be forced to develop a "position" with regard to the appropriate balance between environmental considerations and other values such as the national need for more electrical energy. EPA may also be asked to involve itself to some degree in assuring the prevention of nuclear accidents.

4. EPA's relationships with other agencies and with Congress will be crucial to the carrying out of EPA's responsibilities. Both the Joint Committee on Atomic Energy and Federal Executive Branch agencies have historically played a large role in the formulation of radiation guides and standards. As EPA assumes the lead in defining needs in both research to support standard-setting and in environmental monitoring it will have to depend on other agencies, particularly AEC and HEW, to carry out much of the work, since they have very much greater resources. Relations with other agencies are also very important in continuing the review of the radiation protection guides and the studies and pending decisions related to uranium mining, all of which were begun as interagency efforts under the auspices of the Federal Radiation Council. The historically dominant role of the JCAE may be expected to present questions recurringly.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

ENVIRONMENTAL HEALTH SERVICE

~~ENVIRONMENTAL CONTROL ADMINISTRATION~~

Date: December 16, 1970

Reply to
Attn of:

Subject: Implementation of Reorganization Plan No. 3 of 1970 for the Three
Radiological Health Field Laboratories

To: Mr. Robert Harris, HEW
Mr. Charles Elkins, EPA

1. Enclosed is an analysis of the program relevancy of the projects conducted at the three radiological health field laboratories. Each laboratory Director was contacted and asked to identify the personnel and funds assigned to each project. He was also asked to classify each project by relevancy to the mission of the operating Divisions. The analysis and summary indicates that 34 percent of the laboratory funds allocated to Division projects are related to the DHEW mission and 64 percent relate to the EPA mission. This does not include training activities or laboratory administration. The distribution of the training activities should be considered in a separate analysis. A similar independent analysis by the respective Division Director resulted in a comparable distribution. This analysis is not enclosed, but is available for review. We, therefore, recommend the following solutions:

- a. The NERHL facility should remain under the program direction of DHEW and 39 permanent and 5 part-time positions and \$612.8k should remain in DHEW. EPA should be assigned 24 positions and \$361k to support EPA related projects at this facility.
- b. The SERHL facility should be transferred to the program direction of EPA and 53 positions and \$693.4K should be transferred to EPA. DHEW should be assigned 18 positions and \$266.8K to support DHEW related projects at this facility.
- c. The SWRHL facility should be transferred to the program direction of EPA and 45 permanent and 8 part-time positions and \$1,005.6K should be transferred to EPA. DHEW should be assigned 11 permanent and 2 part-time positions and \$175.4K to support DHEW related projects at this facility.
- d. The 17 permanent and 1 part-time position relating to training activities at the 3 laboratories should be evaluated by an independent analysis.

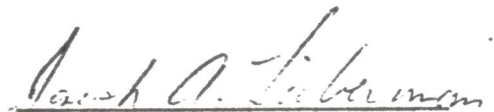
Page 2 - Mr. Robert Harris, HEW
Mr. Charles Elkins, EPA

e. Interagency agreements (sample protocol enclosure 4) should be written to provide for the continuation of each "tenant" project. This we believe will guarantee interim administrative support for these "tenant" projects and will provide for an orderly relocation of these projects at a permanent facility sometime in the future (probably within 2 years).

2. The list of personnel (enclosure 3) should be used to develop the determination orders.



Director, Bureau of Radiological Health
PHS, DHEW



Acting Commissioner*
Radiation Office, EPA

*An additional statement by Dr. Lieberman concerning other questions related to radiation activities is enclosed (Enclosure 5).

5 Enclosures

Summary of Distribution of Lab Resources
Evaluation of Each Lab Project
List of Lab Personnel to be Transferred
Sample Protocol of Interagency Agreement
Dr. Lieberman's Additional Statements

DEC 16 1970

Allocation of BRH Resources

Mr. Charles Elkins

1. While the proposal to retain the Northeast Radiological Health Laboratory in DHEW, as described in the memorandum to which this is attached, appears reasonable, (with the understanding that interim cross-transfer of funds as may be desired or required can be accomplished) it is believed pertinent to consider this distribution of BRH laboratories in the context of the allocation of other BRH resources, particularly the Division of Biological Effects and the BRH Director's office.
2. It is important to emphasize that a basic and essential requirement for the accomplishment of the missions of the Radiation Office in EPA is an adequate scientific and technical capability. With respect to the standard setting functions and responsibility that the EPA-RO organization would have and the public and political controversies that are raging in this area, EPA must have its "own credibility" in arriving at its position and in defending it. While it is fully recognized that under any circumstances it will be desirable, if not necessary, to work closely with other agencies, such as DHEW, and others, nevertheless the requirement for the necessary inhouse capability cannot be avoided. Coupled with the above is the fact that EPA has no other alternative source of such capability within the agency. On the other hand, DHEW, with NIEHS and other National Institutes of Health, and within other resources in the department, does have very significant alternative sources for the biomedical capabilities required to support the DHEW radiation related mission.
3. Accordingly, in view of the fact that even though the preponderance of work at NERHL is related to the EPA mission, if it is agreed that it will remain in DHEW it is strongly believed that it is only reasonable that all, or essentially all, of the Division of Biological Effects be transferred to EPA. Another very important

Page 2 - Mr. Charles Elkins

factor that supports this conclusion is the viability of DBE as an operating unit. The total resources of DBE in many respects constitute an inadequate capability in the total radiation-bio-effects area. Dividing this resource simply compounds this deficiency.

4. In addition, it would seem quite obvious that a reasonable portion of the personnel in the BBN Director's office be transferred to EBN. In the recent past something less than 50 percent is believed to have been designated for such transfer. Assuming that such personnel could be determined on a reasonably selective basis, such a percentage would appear to be equitable.

5. It is most strongly urged that the allocation of BBN resources be determined on the basis of the above.

Joseph A. Lieberman

cc:

Administrator, EPA

John C. Villforth, EBN

JALieberman:iz 12/16/70

Record Note:

	HEW			EPA		
	\$K	M.Y.	People Perm. & Part	\$K	M.Y.	People Perm. & Part
SWRHL:						
Lab Direction	-	-	-	671.0	29.5	19 + 3
DER	-	-	-	217.0	11.7	15
DEP	131.0	11.0	9 + 2	-	-	-
DBE	44.4	2.9	2	117.6	8.2	11 + 5
Total	175.4	13.9	11 + 2	1005.6	49.4	45 + 8
SERHL:						
Lab Direction	-	-	-	340.7	29.0	26
DER	-	-	-	339.7	25.4	26
DEP	41.5	2.0	2	-	-	-
DBE	131.2	9.0	9	13.0	1.0	1
DMRE	94.1	6.0	7	-	-	-
Total	266.8	17.0	18	693.4	55.9	53
NERHL:						
Lab Direction	415.8	30.0	29	-	-	-
AQCS	-	-	-	73.0	5.0	5
DER	26.0	2.0	2 + 1	288.3	21.0	19
DEP	72.5	4.5	4 + 1	-	-	-
DBE	98.5	6.6	4 + 3	-	-	-
Total	612.8	43.1	39 + 5	361.3	26.0	24
TOTAL ALL LABS	1055.0	74.0	68 + 7	2060.3	131.3	122 + 8

1

12/16/70

SWRHL Projects FY 1971

<u>Project No.</u>		<u>Man/Years</u>	\$
13195	Program Direction To plan, control and execute the activities of the SWRHL.	29.5	
13202	Nuclear Site Radiological Surveillance To maintain acpability for C-45 aircraft in response to radiological emergencies and establish a program of ground and aerial sampling at selected nuclear sites to determine parameters affecting radionuclide concentrations in the uncontrolled areas.	.6	
13203	Indoor Radon Study To evaluate the public health aspects of uranium mill tailings in surrounding communities through the Colorado River Basin.	1.7	
13204	Evaluation of Radon Diffusion Control Measures To evaluate the effectiveness of ventilation in controlling the radon progeny concentrations in the homes.	1.5	
13301	Eskimo Surveillance To survey a representative sample of Alaskan natives with regard to the use of isotope 137 Cs	1.0	DEP 97,000
13302	Electronic Products and Laser Studies To provide a basic capability in electronic products and to develop an educational laser performance standard and conduct studies relative to the control of potential laser hazards.	11.0	DEP 131,000

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AEC-EPA MEMORANDUM OF UNDERSTANDING
WITH RESPECT TO AEC-LICENSED FACILITIES

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Both the Atomic Energy Commission (AEC) and the Environmental Protection Agency (EPA) have complementary responsibilities in areas of environmental protection and the control of radiation effects. Pursuant to Reorganization Plan No. 3 of 1970, "the functions of the Atomic Energy Commission under the Atomic Energy Act of 1954, as amended, administered through its Division of Radiation Protection Standards to the extent that such functions of the Commission consist of establishing generally applicable environmental standards^{1/} for the protection of the general environment from radioactive material" and all functions of the Federal Radiation Council were transferred to the Administrator of EPA. The President's message to the Congress upon transmitting Reorganization plans to establish EPA and NOAA stated that "AEC would retain responsibility for the implementation and enforcement of radiation standards through its licensing authority." In order to fix an appropriate interface of the respective functions of the two agencies, to further facilitate their useful cooperation, and

^{1/} The word "standards," as used herein, has the same meaning as in Reorganization Plan No. 3 of 1970, as follows: "standards mean limits on radiation exposure or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of location under the control of persons possessing or using radioactive material."

to avoid unnecessary duplication with regard to AEC-licensed facilities, the AEC and EPA agree as follows:

1. AEC-licensed facilities are subject through AEC licensing authority and requirements to EPA's generally applicable environmental radiation standards, as defined in Reorganization Plan No. 3 of 1970. AEC will take appropriate action to assure that AEC-licensed facilities are operated in such a manner that routine radioactive discharges therefrom do not exceed generally applicable environmental standards established by EPA, outside the site boundary, for the protection of the general environment from radioactive material.

2. The AEC and the EPA will jointly undertake and carry out arrangements for special studies for the purpose of obtaining necessary information for establishing generally applicable environmental standards for the protection of the general environment from radioactive material discharged from AEC-licensed facilities. For example, the AEC will supply to EPA AEC data and will use its best efforts to supply reasonably obtainable licensee data, relevant to radioactive effluents and the generation of pathway models. The AEC will also participate and will take appropriate action to arrange for its licensees to participate, as may be necessary, in providing data on releases and concurrent meteorological data in support of EPA field measurements and special studies such as pathway model verification at typical licensed facilities. The EPA

will endeavor to minimize the number of separate typical facilities on which field measurements will be needed in establishing pathway models.

3. It is agreed that EPA may accompany AEC inspectors on AEC inspections of AEC-licensed facilities for the purpose of becoming informed on how licensees conform with generally applicable environmental standards. Such accompaniment may, at the discretion of EPA, be on either announced or unannounced AEC inspections. It is anticipated that up to 5 such accompaniments may be made in FY 1974. EPA will determine those inspections on which it wishes to accompany AEC. The first step will be for AEC to familiarize the EPA with the scope of AEC inspections.

4. EPA will advise and obtain AEC comments prior to the publication of data relating to discharges from AEC-licensed facilities and the results of these programs.

5. EPA will furnish technical advice and assistance to AEC upon request on discharges to the environment from AEC-licensed facilities.

6. Nothing in this Memorandum of Understanding, or any activities conducted hereunder, shall be construed as precedent for, or as recognizing, any authority of EPA to duplicate or supervise inspection activities of the AEC.

Executed this ^{21th}~~24th~~ day of ^{August}~~July~~, 1973, by:

ENVIRONMENTAL PROTECTION AGENCY

^{Elkins}
/s/ David D. Dominick

Assistant Administrator
for Hazardous Materials Control

ATOMIC ENERGY COMMISSION

^{S/ Durb}

FR Sept 11 '73



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

June 22, 1973

② CSD

OFFICE OF
CATEGORICAL PROGRAMS

MEMORANDUM

SUBJECT: AEC's View of EPA's Standard-setting Role

FROM : Director, Program and Management Operations

TO : Mr. Richard Denney, Associate General Counsel for
Radiation, Air Quality and Radiation Division, Office
of General Counsel, WSMW Rm. 509

I was concerned when you made your presentation to the Administrator the other day on legal aspects of our standard-setting authority when you expressed the AEC's view that EPA should set FRC-type standards instead of specific standards for each class of facility. This may be the Commission's philosophical view of the world, but from a legal point of view, I think, the Commission, through its staff, gave away that point on June 16, 1970. As you know, at that time I was working for the President's Advisory Council on Executive Reorganization, and had the responsibility of negotiating the specific content of Reorganization Plan No. 3. Chris Henderson, Assistant Director of Regulation for Administration at the AEC was the person given the responsibility at the Commission to negotiate with me. He continually checked back with the Commission itself, since, as you can imagine, the issues involved were of some considerable interest to the Commission. On the 16th of June he sent me the attached document which set out the AEC's view of how EPA would function under the reorganization plan. The reorganization plan was put into final very shortly thereafter, and these opinions on the part of the AEC of what they were giving up reflected to a large extent not just the independent view of AEC, but the agreement between Mr. Henderson and myself. You will note on the first page of that document that the last paragraph indicates that AEC believed that EPA should set standards for each class of use of activity, and that this is separate from their comments on page 2 of the documents which goes to the function of the Federal Radiation Council where they express the opinion that EPA should perform that function in the same manner as the Federal Radiation Council has in the past.

Received in Radiation Office
Environmental Protection Agency
Date JUN 27 1973

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

DEC 7 1973

MEMORANDUM FOR ADMINISTRATOR TRAIN
CHAIRMAN RAY

SUBJECT: Responsibility for setting radiation protection standards
FROM : Roy L. Ash

Thank you for providing position papers which outline the background and the current difference of views between your two agencies as to which should have the responsibility for issuing standards to define permissible limits on radioactivity that may be emitted from facilities in the nuclear power industry.

It is clear, as your paper indicates, that a decision is needed on this matter so that the nuclear power industry and the general public will know where the responsibility lies for developing (including public participation in development), promulgating and enforcing radiation protection standards for various types of facilities in the nuclear power industry. We must, in the national interest, avoid confusion in this area, particularly since nuclear power is expected to supply a growing share of the Nation's energy requirements; and it must be clear that we are assuring continued full protection of the public health and the environment from radiation hazards.

It is also clear from the information which you provided that:

. the area of responsibility now in controversy is intimately related to the direct regulatory responsibilities and capabilities of the Atomic Energy Commission, responsibilities about which there is no dispute.

. EPA has construed too broadly its responsibilities, as set forth in Reorganization Plan No. 3 of 1970, to set "generally applicable environmental standards for the protection of the general environment from radioactive material."

On behalf of the President, this memorandum is to advise you that the decision is that AEC should proceed with its plans for issuing uranium fuel cycle standards, taking into account the comments received from all sources, including EPA; that EPA should discontinue its preparations for issuing, now or

in the future, any standards for types of facilities; and that EPA should continue, under its current authority, to have responsibility for setting standards for the total amount of radiation in the general environment from all facilities combined in the uranium fuel cycle, i.e., an ambient standard which would have to reflect AEC's findings as to the practicability of emission controls.

EPA can continue to have a major impact upon standards for facilities set by AEC through EPA's review of proposed standards, during which EPA can bring to bear its knowledge and perspective derived from its responsibility for setting ambient radiation standards.

The President expects that AEC and EPA continue to work together to carry out the responsibilities as outlined above.

Handwritten signature



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 17 1972

Mr. Julius H. Rubin
Assistant General Manager
for Environment and Safety
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Rubin:

The Environmental Protection Agency has reviewed the environmental statement for the Rover Fuels Processing Facility proposed for future operation at the National Reactor Test Station in Idaho. I am pleased to provide you with the enclosed report which contains our comments.

This Agency has concluded that the reprocessing of Rover fuels can be accomplished with minimal adverse impact on the environment and the public. The final statement, however, should include a discussion of the recommendations made by the Federal Water Quality Administration (now part of EPA) and the U.S. Public Health Service concerning the improvement of waste treatment technology and methods, and of the land burial of solid waste material to prevent contamination of the Snake Plain Aquifer, one of the world's most productive ground water reservoirs. Steps taken by the Commission to implement these recommendations should be indicated.

We will be pleased to discuss any of our comments with you.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Sheldon Meyers", written over a horizontal line.

Sheldon Meyers
Director
Office of Federal Activities

Enclosure

ENVIRONMENTAL PROTECTION AGENCY
COMMENTS ON ROVER FUELS PROCESSING FACILITY

INTRODUCTION AND CONCLUSIONS

This review summarizes the results of an evaluation by the Environmental Protection Agency (EPA) of the environmental effects of the processing of nuclear fuel used in the Rover Program at the Chemical Processing Facility (ICPP) located at the National Reactor Testing Station (NRTS). This review is based on the draft environmental statement submitted by the AEC under the requirements of the National Environmental Policy Act of 1969.

This Agency has concluded that the reprocessing of Rover fuels can be accomplished with minimal adverse impact on the environment and the public. However, the final statement should include a discussion of the recommendations made by the Federal Water Quality Administration and the U.S. Public Health Service concerning the improvement of waste treatment technology and methods, and of the land burial of solid waste material to prevent contamination of the Snake Plain Aquifer, one of the worlds most productive ground water reservoirs. Steps taken by the Commission to implement these recommendations should also be indicated.

LIQUID WASTES

It is not clear from the information presented in the statement what the facility's total radioactive and chemical liquid waste discharge will be. A figure of 5000 liters per day is cited as the additional cooling water which will be needed. This flow, which under normal

operations will contain no radioactive waste, will have a temperature of 5°F above ambient water temperatures and is planned to be discharged to the Snake Plain aquifer via a deep injection well. This water will be used for cooling the burner which is a part of the proposed new head end facility. The radioactive and chemical concentrations in the waste water resulting from the dissolution, separation, and purification processes are not specified, although this waste stream, estimated as 3×10^6 liters per day, will also be discharged to the same deep well. This much larger flow probably will include condensate from the low level evaporator and, therefore, can be expected to be radioactive. A discussion of this large waste stream should be included in the final statement since it is discharged directly to the Snake Plain aquifer.

It would be desirable for the final statement to include a summary of the actions taken at NRTS regarding the recommendations made by the Federal Water Quality Administration (FWQA) in their April 1970 report, "Examination of the Waste Treatment and Disposal Operations at the National Reactor Testing Station: Idaho Falls, Idaho", and in the U.S. Public Health Service (USPHS) reports, "Staff Study: Public Health Aspects of the National Reactor Testing Station, Phase I and Phase II".

GASEOUS WASTES

It is estimated in the statement that 160 Curies of krypton-85 will be discharged to the atmosphere during the reprocessing of the existing Rover fuel. This is a rather small quantity of krypton-85 and will contribute an insignificant amount to the total presently in the atmosphere. The statement mentions the possibility that the Rover

fuel could be used again. In this event, the reprocessing of the additional fuel that would be produced could produce significant quantities of krypton-85. The final statement should address this possibility, and discuss whether the larger amounts of krypton-85 warrant utilization of the Rare Gas Recovery Facility.

SOLID WASTES

The high level calcined wastes are to be stored in existing stainless steel tanks which are located in near surface underground concrete vaults on site. Although these tanks have a relatively long life expectancy, provisions should be made to remove and store the solidified wastes in a Federal waste repository, when and if such a facility becomes available. Monitoring of the cooling water in the tanks should also be performed to observe the integrity of the solidified waste and to have the capability of estimating the discharge of radioactive waste to the environment under accident conditions.

Contaminated equipment, undissolved solids, filters, elements, and various other items are to be stored in an existing solid waste burial ground. Critical discussions of this disposal method were included in both the FWQA and USPHS reports cited previously. Actions taken at NRTS to reduce or eliminate ground water contamination by seepage through the burial areas should be described in the final statement.

- OPERATOR -- The operator at the treatment plant responsible for the day-to-day operation of the treatment facilities. Where there is no treatment, the person responsible for the operation of the system.
- PLATE COUNT -- A measure of the general bacterial population present in the water sample as described in Standard Methods for the Examination of Water and Wastewater, 12th Ed. These bacteria will produce colonies on plate count agar in 48 hours when incubated at 35°C (95°F).
- RECOMMENDED LIMIT -- The upper limit of concentration of turbidity, color, chemicals and radioactivity as described in Sections 4.2; 5.21; 6.21 and Section C, page 21, PHS Drinking Water Standards, 1962 (PHS Publication No. 956).
- SERVICE CONNECTION -- A physical connection to a water main for the purpose of conveying water to a building or onto a premise for use.
- TOTAL VERIFIED COLIFORMS -- Microorganisms that include a heterogeneous grouping of bacteria which are identified by bacteriological procedures to produce aldehydes on Endo media at 35°C and were shown to ferment lactose with gas production within 48 hours at 35°C in either aerobic or facultative anaerobic environments. Because these bacteria are eliminated in large numbers in fecal wastes, they have been the traditional bacteriological tool used to measure the occurrence and intensity of contamination in water supplies.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

APR 21 1972

Mr. Sheldon Meyers, Director
Office of Federal Activities
Environmental Protection Agency
Washington, D. C. 20460

Dear Mr. Meyers:

Thank you for the review and comments of the Environmental Protection Agency on the draft environmental statement - Rover Fuels Processing Facility, National Reactor Testing Station, Idaho. A discussion of the comments in your letter which relate to the proposed facility is enclosed. Since some of the recommendations made by the Federal Water Quality Administration and the U.S. Public Health Service are not related to facilities utilized by the proposed Rover Facility, they are not discussed.

Enclosed is a copy of our final statement. Minor modifications have been made to take into consideration comments received on the draft.

Sincerely,

A handwritten signature in cursive script that reads "Julius H. Rubin".

Julius H. Rubin
Assistant General Manager
for Environment and Safety

Enclosures:

1. Discussion of Comments
2. Copy of Final Environmental
Statement - Rover Fuels
Processing Facility, National
Reactor Testing Station, Idaho

ENCLOSURE

DISCUSSION OF COMMENTS FROM EPA ON THE
ROVER FUELS PROCESSING DRAFT ENVIRONMENTAL STATEMENT

Comment: "However, the final statement should include a discussion of the recommendations made by the Federal Water Quality Administration and the U.S. Public Health Service concerning the improvement of waste treatment technology and methods, and of the land burial of solid waste material to prevent contamination of the Snake Plain Aquifer, one of the worlds most productive ground water reservoirs. Steps taken by the Commission to implement these recommendations should also be indicated."

Reply: A discussion of those FWQA and USPHS recommendations pertaining to the proposed Rover Fuels Reprocessing Facility follows:

FWQA Recommendation 1.A.: "The AEC initiate a positive comprehensive program for abandonment of the practice of burial of radioactively contaminated solid wastes, including removal of such wastes presently buried at the site, to a new burial site, remote to the NRTS, and more hydrologically isolated from any important ground water or surface water resource."

Response: The disposal of radioactive wastes in the burial ground at the National Reactor testing station has been the subject of studies conducted by the AEC and several independent reviewing bodies. The AEC has shown that the present and future quality and safety of the Snake River Aquifer has never been threatened by the waste management practices employed at the NRTS. In response to a request from Senator Frank Church, the Department of Health, Education, and Welfare specifically

reviewed the solid burial operations at the NRTS. Assistant U.S. Surgeon General Charles C. Johnson, Public Health Service, in a letter to Senator Church, dated February 5, 1970, made the following statement:

"It is our judgement that the land burial techniques currently in use meet the radiation safety criteria of the Federal Radiation Council for protection of the public. Extensive environmental radioactivity data are available for the site which show that no health and safety problems have occurred as a result of burial of solid radioactive wastes. This experience also indicates that it is not likely that radioactivity will migrate from the burial grounds in the future if current procedures are continued."

It is noteworthy that a National Academy of Sciences NAS-NRC Committee on Radioactive Waste Management also reviewed and evaluated waste disposal operations at the NRTS in April 1969 and made no recommendations that were critical of current waste burial practices at the site.

The weight of technical information collected by the Commission together with extensive studies of the geology and hydrology of the NRTS by the U.S. Geological Survey, and also the considered judgement of the numerous experts who have made studies of the waste burial operations at the site all support the AEC's conclusion that solid waste burial operations at the NRTS are being conducted in a safe manner and do not represent a threat of pollution to the Snake Plain Aquifer.

FWQA Recommendation 1.A.I.: "A two-to-three foot layer of clinoptilolite be placed in the bottom of the burial trench to separate the radioactive waste from the basalt surface."

Response: Clinoptilolite selectively sorbs cesium and has been determined to be less effective for other radionuclides compared to the soil in the burial ground. Cesium nuclides comprised one-tenth of one percent of the total fission product disposed in 1971 in the NRTS burial ground. At present, all pits and trenches are required to have an underburden of two feet of native soil between the waste and the basalt surface. Research has proven that this soil has been found to be better for exchange than clinoptilolite.

FWQA Recommendation 1.A.II.: "The radioactive waste material be covered with soil at the end of each day's disposal rather than on a weekly basis."

Response: Our approved procedures presently require that waste be covered in a continuous and progressive manner (sanitary landfill type operation). However, it is not always practicable or economical to cover all radioactive waste material each day in view of the weather conditions, availability of equipment and manpower, and availability of trenches. In practice, the radioactive waste materials are compacted periodically and covered when there is sufficient material in the trench to warrant covering which conserves the amount of land utilized for burial.

FWQA Recommendation 1.A.III.: "An observation well or wells be constructed in proximity to the burial ground to monitor the effects of the burial ground on water quality."

Response: The AEC has approved and funded a proposal submitted by the USGS to drill at least four "deep wells" to the regional ground water and three to six "shallow wells" in the vicinity of the NRTS burial ground. This \$88,500 program was started in May 1971 and is scheduled to be completed in FY 72.

FWQA Recommendations 5.A.: "The AEC expedite the installation of the ion exchange unit that will 'polish' the condensate from the low-level evaporator."

Response: The ion exchange system was completed on September 15, 1970. Operation of this system indicates that the residual quantity of SR-90 being discharged to the disposal well has been reduced by a factor of ten (1971 total discharge was 68 millicuries).

FWQA Recommendation 5.B.: "The AEC follow the recommendations of the U.S. Geological Survey in their 1966 annual report by constructing the additional observation wells that are needed to better understand the behavior and fate of the wastes from the chemical processing plant."

Response: New wells may provide additional details regarding dispersal by tracing the tritium; however, the USGS tritium balance study has adequately defined the extent of the plume. In view of the well defined understanding of waste movement the USGS has provided the AEC, construction of new observation wells is not justified at this time.

FWQA Recommendation 5.C.: "The use of the deep well for the disposal of radioactive waste be discontinued to eliminate the threat of an accidental discharge of unacceptable waste directly into the Snake Plain Aquifer."

Response: Construction of an automatic diversion system to prevent the accidental discharges to the Snake Plain Aquifer has a scheduled completion date of CY 1972.

FWQA Recommendation 5.D.: "The discharge of the chemical waste stream directly to the Snake Plain Aquifer by the deep disposal well be discontinued."

Response: Design of plant modifications are underway which will result in a factor of five reduction of salts disposed via the injection well. Development studies are in process to consider the economics of using various techniques for converting the chemical wastes to solids and further elimination of chemical wastes in the returned water.

USPHS Study, Part I, Radioactive Burial Ground Recommendations:

- "1. Each trench and pit should be covered and maintained with a minimum of three feet of soil above the ground level.
2. A minimum of two feet of alluvial soil should be required beneath all buried wastes.
3. Flood control measures should be taken to prevent any accumulation of water in the trenches and pits.
4. Test holes should be drilled in the vicinity of the burial site to provide detailed information on the lithology and character of the alluvial deposits of underlying basalt.

5. Plutonium and americium waste should be segregated in special pits.
6. Monitoring should be intensified to provide a positive indication that radioactive material has not migrated from the waste burial ground.
7. Plutonium and americium waste should be accessible for removal from the burial ground should it be detected in the monitoring holes."

Response: The current NRTS burial ground and its operation meets or exceeds all of the above recommendations.

USPHS Study, Part II, Aqueous Radioactive Waste, Recommendations

All of these recommendations pertain to the NRTS generally and none are specifically directed to any portion of activities to be associated with the proposed reprocessing facility.

Comment: "It is not clear from the information presented in the statement what the facility's total radioactive and chemical liquid waste discharge will be. A figure of 5,000 liters per day is cited as the additional cooling water which will be needed. This flow, which under normal operations will contain no radioactive waste, will have a temperature of 50° F above ambient water temperatures and is planned to be discharged to the Snake Plain Aquifer via a deep injection well. This water will be used for cooling the burner which is a part of the proposed new head end facility. The radioactive and chemical concentrations in the waste water resulting from the dissolution, separation, and purification processes are not specified, although this waste stream, estimated as 3×10^6 liters per day, will also be discharged to the same deep well. This much larger flow probably will include condensate from the low level evaporator and, therefore, can be

expected to be radioactive. A discussion of this large waste stream should be included in the final statement since it is discharged directly to the Snake Plain Aquifer.

Reply: The estimate of 5,000 liters per day cooling water flow is in error; the correct value is 20,000 liters per day. This correction has been made in the statement. The 20,000 liters per day will be added to an existing 3,000,000 liters per day of service waste stream which is at a temperature very nearly the same as the Snake Plain Aquifer.

The existing service waste stream has been discussed in both the FWQA and USPHS Study (Part II). Current practices related to recommendations made by FWQA and USPHS relative to this waste stream are discussed in the comment above. All of the effluent decontamination systems utilized on the 3,000,000 liters per day stream will service the 20,000 liters per day stream from the Rover Fuels Reprocessing Facility.

Comment: "It would be desirable for the final statement to include a summary of the actions taken at NRTS regarding the recommendations made by the Federal Water Quality Administration (FWQA) in their April 1970 report, '...examination of the waste treatment and disposal operations at the National Reactor Testing Station, Idaho Falls, Idaho...' and in the U.S. Public Health Services (USPHS) reports, 'Staff Study: Public Health Aspects of the National Reactor Testing Station, Phase I and Phase II.' "

Reply: Current NRTS practices related to the recommendations made by the FWQA and the USPHS pertaining to liquid wastes have been provided in first comment.

Comment: "It is estimated in the statement that 160 curies of krypton-85 will be discharged to the atmosphere during the reprocessing of the existing Rover fuel. This is a rather small quantity of krypton-85 and will contribute an insignificant amount of the total presently in the atmosphere. The statement mentions the possibility that the Rover fuel could be used again. In this event, the reprocessing of the additional fuel that would be produced could produce significant quantities of krypton-85. The final statement should address this possibility, and discuss whether the larger amounts of krypton-85 warrant utilization of the rare gas recovery facility.

Reply: The mission of the Rover Fuels Reprocessing Facility is to recover uranium in the existing Rover fuel. Any significant change in the operation or fuel load of the facility, such as the processing of additional fuel, would require consideration of the preparation of another environmental statement.

Comment: "The high level calcined wastes are to be stored in existing stainless steel tanks which are located in near surface underground concrete vaults on site. Although these tanks have a relatively long life expectancy, provisions should be made to remove and store the solidified wastes in a federal waste repository, when and if such a facility becomes available. Monitoring of the cooling water in the tanks should also be performed to observe the integrity of the solidified waste and to have the capability of estimating the discharge of radioactive waste to the environment under accident conditions."

Reply: Provisions have already been provided which will allow the removal of the high level calcined wastes from the Rover fuel processing for transfer to a federal repository, should this ever be required.

The stainless steel tanks containing the calcined waste are cooled by air not water; hence, there is no chance for this to be a path of potential discharge to the environment.

Comment: "Contaminated equipment, undissolved solids, filters, elements, and various other items are to be stored in an existing solid waste burial ground. Critical discussions of this disposal method were included in both the FWQA and USPHS reports cited previously. Actions taken at NRTS to reduce or eliminate ground water contamination by seepage through the burial areas should be described in the final statement.

Reply: Current NRTS practices related to the recommendations made by the FWQA and USPHS pertaining to solid wastes have been provided in the first comment.

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

IN REPLY REFER TO:

Mr. Julius H. Rubin
Assistant General Manager
for Environment and Safety
Atomic Energy Commission
Washington, D. C. 20545

JAN 28 1972

Dear Mr. Rubin:

Your letter of January 12, 1972 requests comment on the AEC Draft Environmental Statement - Rover Fuels Processing Facility. In accord with CEQ guidelines, our comments are made on those aspects relating to the adequacy and reliability of electric power supply.

The projected large increase in the proportion of electric generation provided by nuclear energy will place a heavy demand on uranium resources. Therefore, the recovery of fissile material valued at \$26 million, with a potential electrical energy capability of about one billion kwh, is a positive contribution to the Nation's electric power supply. The capability of the facility to support the HTGR fuel cycle and make available for electric power the large thorium energy resources is also of benefit.

We have no other comments.

Very truly yours,


T. A. Phillips
Chief, Bureau of Power



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

APR 21 1972

Mr. T. A. Phillips
Chief, Bureau of Power
Federal Power Commission
Washington, D. C. 20426

Dear Mr. Phillips:

Thank you for the review and comments of the Federal Power Commission on the draft environmental statement - Rover Fuels Processing Facility, National Reactor Testing Station, Idaho.

Enclosed is a copy of the final statement. Minor modifications have been made to take into consideration comments received on the draft. You may be particularly interested in the fact that the draft contains an error on the net potential energy available from the Rover fuel. The net potential energy should be approximately 12 billion kwhe.

Sincerely,

A handwritten signature in cursive script, reading "Julius H. Rubin", is positioned above the typed name.

Julius H. Rubin
Assistant General Manager
for Environment and Safety

Enclosure:
Copy of Final Environmental Statement -
Rover Fuels Processing Facility,
National Reactor Testing Station, Idaho



THE ASSISTANT SECRETARY OF COMMERCE
Washington, D.C. 20230

February 14, 1972

Mr. Julius H. Rubin
Assistant General Manager
for Environment & Safety
Room B-312
U.S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Rubin:

In response to your letter of January 12, 1972, the Department of Commerce has received the draft environmental impact statement titled, "Rover Fuels Processing Facility, National Reactor Testing Station, Idaho," reference WASH-1512, for review and comment.

The Department of Commerce has reviewed the draft environmental impact statement. Enclosed are the Department's comments. I hope this information will be of assistance to you in the preparation of the final environmental impact statement.

Sincerely,

A handwritten signature in cursive script, reading "Sidney R. Galler", is written over the typed name.

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

Enclosure



U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards
Washington, D.C. 20234

Date: February 10, 1972

To: Dr. Sidney R. Galler
DAS/Environmental Affairs

From: Lewis H. Gevantman *L.H.G.*
Office of Standard Reference Data

Subject: WASH-1512, Draft Environmental Statement, Rover Fuels Processing
Facility, Idaho

Evaluation of this draft statement is rendered difficult by the fact that the total facility life and application is not clear. For example, the existing Rover fuel available for processing has a relatively small (0.04%) burnup and a cooling time of 10 years. If the Rover program is continued, it is anticipated that fuel of higher burnup (0.4%) and shorter cooling time (180 days) will be available for processing.

For these two situations most aspects of the draft appear acceptable.

It is, however, stated (Section II A.1) that "Should the Rover program be expanded at a future date, or another combustible fuel be assigned to ICPP for processing, the total amount of fuel to be processed would be increased greatly." This possible future use of the facility at an undefined but presumed greatly higher level of operation should be spelled out, or alternatively a new environmental statement should be submitted before this new application of the facility is undertaken.

Specifically, the ICPP fuel storage facility is contemplated for storage of both Rover fuel and high temperature gas cooled reactor (HTGR) fuel. While the heat release from the Rover fuel is not large, the heat release from stored HTGR fuels will be large. 10,000 cubic feet per minute air flow in the facility is required to maintain the HTGR fuel temperature below 200°F. Despite the availability of emergency electrical power, it is reasonable to contemplate failure of this air cooling system for appreciable periods of time. Evaluation should be given as to maximum temperature rise and safety with respect to stored HTGR fuel under those circumstances. Specific consideration should be given to the safety benefits of two stages of (HEPA) filtering in the fuel storage facility in the event of such a cooling failure situation.

Section III B. Contamination (page 45) indicates that exhaust gases from the process vessels are filtered at least once before discharge. It is shown in the statement that for the initial contemplated use of the process facility that even in the event of simultaneous rupture of all filters in the system the radioactivity release would not be a particularly dangerous situation, and could be handled by reasonable operational controls and monitoring. Here again, however, the magnitude of problem for the possible expanded future use of the facility is not indicated except for processing of Rover fuel.

Thus in summary, the draft statement appears reasonable for the originally contemplated use of the facility to process existing Rover fuel. It is probably acceptable for the expanded Rover fuel processing situation described in the statement. The statement, however, does not consider the expanded application of the facility to other combustible fuel situations which appear to be contemplated in the future. Either the maximum level of such future application of the facility should be described and evaluated or assurance should be given that a new environmental impact evaluation will be made before such future application of the facility is undertaken.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

APR 21 1972

Mr. Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs
Department of Commerce
Washington, D. C. 20230

Dear Mr. Galler:

Thank you for the review and comments of the Department of Commerce on the draft environmental statement - Rover Fuels Processing Facility, National Reactor Testing Station, Idaho.

Enclosed is a copy of the final statement. Minor modifications have been made to take into consideration comments received on the draft. In reply to Mr. Gevantman's specific comments on the total facility life and application, the Rover statement was prepared to cover the storage and processing of the existing 26,000 Rover fuel elements. Any significant change in the operation or fuel load of the facility, such as the processing of HTGR fuel or an expanded Rover program, would require consideration of the preparation of another environmental statement.

Sincerely,

A handwritten signature in cursive script, reading "Julius H. Rubin", is positioned above the typed name.

Julius H. Rubin
Assistant General Manager
for Environment and Safety

Enclosure:
Copy of Final Environmental Statement -
Rover Fuels Processing Facility,
National Reactor Testing Station, Idaho



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS

BLDG. 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

NPWEN-PL

23 February 1972

Mr. Julius H. Rubin
Assistant General Manager
for Environment and Safety
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Rubin:

The Office of the Chief of Engineers has requested that we review your draft environmental statement for the Rover Fuels Processing Facility and that we provide comments directly to your office.

The draft environmental statement is well done, and we have no suggestions for additional discussion. It appears that the proposed fuels processing facility will have no influence on any water resource programs or activities in Idaho which involve our agency.

The opportunity to review your draft environmental statement is appreciated.

Sincerely yours,

A handwritten signature in cursive script that reads "Carlos W. Hickman".

CARLOS W. HICKMAN
Major, CE
Deputy District Engineer



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

APR 21 1972

Major Carlos W. Hickman
Corps of Engineers
Deputy District Engineer
Department of the Army
Walla Walla, Washington 99362

Dear Major Hickman:

Thank you for the review and comments of the Department of the Army on the draft environmental statement - Rover Fuels Processing Facility, National Reactor Testing Station, Idaho. Enclosed is a copy of the final statement. Minor modifications have been made to take into consideration comments received on the draft.

Sincerely,

A handwritten signature in cursive script, reading "Julius H. Rubin", is positioned above the typed name.

Julius H. Rubin
Assistant General Manager
for Environment and Safety

Enclosure:

Copy of final Environmental Statement -
Rover Fuels Processing Facility,
National Reactor Testing Station, Idaho



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

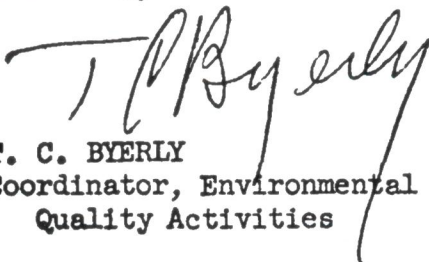
FEB 24 1972

Mr. Julius H. Rubin
Assistant General Manager
for Environment and Safety
U. S. Atomic Energy Commission
Washington, DC 20545

Dear Mr. Rubin:

We have reviewed the draft environmental statement for the
Rover Fuels Processing Facility, National Reactor Testing Station,
Idaho, and comments from the Forest Service, the Soil Conservation
Service, and the Economic Research Service, all agencies in the
Department of Agriculture, are attached.

Sincerely,


T. C. BYERLY
Coordinator, Environmental
Quality Activities

Attachments

U.S. Department of Agriculture

Forest Service

The proposed action includes the movement of spent nuclear Rover rocket engines from Nevada to the Idaho Chemical Processing Plant at the National Reactor Testing Station near Idaho Falls, Idaho. The useable uranium would be subsequently reclaimed.

The spent rocket engines will be transported in shielded casks. The casks will probably be shipped by truck starting in 1974. The route will be through remote roads away from cities. The statement adequately supports the position that there will be no significant hazard to people, animals, or plant life during transport.

One acre of land is involved and would be the site of a storage and processing plant. Vegetative impacts would be minimal. The emissions to the ambient air at the plant will be well within accepted standards.

The U.S. Atomic Energy Commission has presented a well-documented and thorough analysis of the environmental aspects of the project. We have no adverse comments.

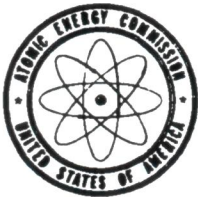
SOIL CONSERVATION SERVICE, USDA

Comments on Draft Environmental Statement
Prepared by the Atomic Energy Commission
for the Rover Fuels Processing Facility
National Reactor Testing Station, Idaho

The Rover Fuels Processing Facility is supposed to temporarily use less than an acre of restricted land within the National Reactor Testing Station, and therefore should not affect agricultural production. We feel this facility would not cause any serious soil erosion in the arid climate in which it will be located. No serious threats to the environment are foreseen as far as the Soil Conservation Service is concerned.

**ERS Comments on the Draft Environmental Statement
for the Rover Fuels Processing Facility, Idaho**

The Statement conforms generally to the NEP Act criteria. In our opinion, the time period over which the recovery of fissionable products is expected to take place is sufficiently short that discounting of the stream of benefits would not significantly add to the accuracy of the computed benefit-cost ratio.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

APR 21 1972

Mr. T. C. Byerly
Coordinator
Environmental Quality Activities
Department of Agriculture
Washington, D. C. 20250

Dear Mr. Byerly:

Thank you for providing us with the comments from the Forest Service, the Soil Conservation Service and the Economic Research Service on the draft environmental statement - Rover Fuels Processing Facility, National Reactor Testing Station, Idaho. Enclosed is a copy of our final statement. Minor modifications have been made to take into consideration comments received on the draft.

Sincerely,

A handwritten signature in cursive script, reading "Julius H. Rubin", is positioned above the typed name.

Julius H. Rubin
Assistant General Manager
for Environment and Safety

Enclosure:
Copy of Final Environmental
Statement - Rover Fuels
Processing Facility, National
Reactor Testing Station, Idaho

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

JUL 17 1972

ABR

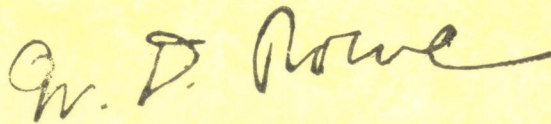
Organization Change for the Office of Radiation Programs

Assistant Administrator for Planning and Management

ATTN: Director, Management and Organization Division
Office of Administration

THRU: Assistant Administrator for Categorical Programs

Pursuant to EPA Order 1110.8A, dated November 22, 1971, the Office of Radiation Programs requests changes in titles of the Surveillance and Inspection Division to the Field Operations Division, and the Planning and Management Branch to the Program and Administrative Management Office. A functional statement and organization chart are attached. Also attached are EPA Forms 1110-1.



W. D. Rowe
Deputy Assistant Administrator
for Radiation Programs

Attachments

EPA:ORP:JMaguire:jm:7/14/72:18-87P:34550

Record Note: Changes made: SID to FOD; Inspection Branch to Operations Analysis Branch; Field Operations Branch to Field Studies Branch; add Electromagnetic Radiation Analysis Branch; in CSD, Standards Development Branch to Analytical Criteria Branch; and Analysis and Evaluation Branch to Exposure Criteria Branch. Per Dr. Mills and Mr. Weaver. P&MB to Program and Administrative Management Office per Mr. Hanson.

FILE COPY

OFFICE	SURNAME	DATE	OFFICE	SURNAME	DATE
PMB	Hanson	7/17/72			
ABR	Rowe	7/14/72			

REQUEST FOR CHANGE IN ORGANIZATION STRUCTURE

DATE

AUG 24 1972

TO Office of the Assistant Administrator for Planning and Management Office of Administration Management and Organization Division		FROM (Office, Division) Office of Categorical Programs Office of Radiation Programs	
TYPE OF CHANGE (Check appropriate box(es)) ☐ ADD ☐ DELETE ☒ CHANGE TITLE ☐ MOVE		DESIRED EFFECTIVE DATE OF CHANGE September 1, 1972	
EXACT TITLE OF EXISTING ORGANIZATIONAL UNIT (If new unit is proposed, indicate "NONE") Surveillance and Inspection Division			
EXACT TITLE OF PROPOSED ORGANIZATIONAL UNIT (If deletion is proposed, indicate "NONE") Field Operations Division			
NEED FOR CHANGE AND RATIONALE UNDERLYING APPROACH TAKEN The Office of Radiation Programs has changed to a project-oriented strategy to meet program objectives in the program planning document submitted for FY-73 in that the inspection activities identified in FY-72 have been modified and redirected to a field study function.			
PRESENT AND PROPOSED FUNCTIONS (May be attached with charts as appropriate) See attached.			
PRESENT AND PROPOSED FUNDING AND STAFFING 1972 - 67 positions; \$900,000 1973 - 40 positions; \$1 million			
TITLE AND SIGNATURE OF REQUESTOR Assistant Administrator/Categorical Programs		APPROVAL David D. Dominick	

REQUEST FOR CHANGE IN ORGANIZATION STRUCTURE

DATE

AUG 24 1972

☐ Office of the Assistant Administrator for Planning and Management Office of Administration Management and Organization Division		FROM (Office, Division) Office of Categorical Programs Office of Radiation Programs	
TYPE OF CHANGE (Check appropriate box(es)) ☒ ADD ☐ DELETE ☐ CHANGE TITLE ☐ MOVE		DESIRED EFFECTIVE DATE OF CHANGE September 1, 1972	
EXACT TITLE OF EXISTING ORGANIZATIONAL UNIT (If new unit is proposed, indicate "NONE") None			
EXACT TITLE OF PROPOSED ORGANIZATIONAL UNIT (If deletion is proposed, indicate "NONE") Program and Administrative Management Office			
NEED FOR CHANGE AND RATIONALE UNDERLYING APPROACH TAKEN The Program and Administrative Management Office is responsible for the implementation and management of the program plans for the Office of Radiation Programs. It is a key office in the structure of the Office and should be identified as such.			
PRESENT AND PROPOSED FUNCTIONS (May be attached with charts as appropriate) See attached.			
PRESENT AND PROPOSED FUNDING AND STAFFING 10 positions; \$180,000			
TITLE AND SIGNATURE OF REQUESTOR Assistant Administrator/Categorical Programs		APPROVAL David D. Dominick	

ORGANIZATION AND FUNCTIONS
OF THE OFFICE OF THE
DEPUTY ASSISTANT ADMINISTRATOR FOR RADIATION PROGRAMS

1. PURPOSE. This Order establishes the Branch organization and functions of the Office of Radiation Programs. The official organization chart of the Office is incorporated as Figure 1.

2. DEPUTY ASSISTANT ADMINISTRATOR FOR RADIATION PROGRAMS. The Office of Radiation Programs, under the supervision of the Deputy Assistant Administrator for Radiation Programs, is responsible to the Assistant Administrator for the radiation activities of the Agency, including development of radiation protection criteria, standards, and policies, methodology for measuring and controlling radiation exposure, and research requirements for radiation programs. Provides technical assistance to States and other agencies having radiation protection programs, establishes and directs a national surveillance and inspection program for measuring radiation levels in the environment; evaluates and assesses the impact of new and developing radiation technology on man and the environment; assists in the training of personnel for radiation protection programs in the States and for other purposes; maintains liaison with other public and private organizations interested in environmental radiation.

a. Program and Administrative Management Office. Provides management information and advice to the Deputy Assistant Administrator and maintains liaison between the Office of Radiation Programs and the Assistant Administrator for Categorical Programs relative to program and administrative operations. Coordinates and directs all program and administrative operations within the Office and provides staff services in the areas of program development planning, budget, financial management, activity reporting, personnel, manpower management and organization, contracts, data systems and support services, grants administration, security, and information.

b. Criteria and Standards Division. The Criteria and Standards Division, under the supervision of a Director, is responsible for maintaining continuous review of radiation protection guidance and formulating and recommending policies, criteria, and standards designed to protect the environment, the general public, and those occupationally exposed. Establishes guidance and standards, and develops criteria and methods for evaluation of risk/benefit relationships in radiation exposure situations. Maintains liaison with recognized authorities and organizations in the field relevant to the formulation of radiation protection criteria and standards.

(1) Analytical Criteria Branch. The Analytical Criteria Branch develops the bases for the formulation of EPA radiation policy, criteria, and standards. Determines the areas where controls are required and the information base necessary for the development of appropriate policy, criteria, or standards. Recommends appropriate specific guides or standards for use by the Office of Radiation Programs, other EPA offices, other Federal agencies, or States.

(2) Exposure Criteria Branch. The Exposure Criteria Branch develops current and projected estimates of radiation dose to the population from all sources and provides the basis for evaluating the effectiveness of the Office of Radiation Programs in reducing radiation dose to the minimum consistent with benefits derived.

c. Technology Assessment Division. The Technology Assessment Division, under the supervision of a Director, evaluates major Federal actions involving ionizing and non-ionizing radiation and the design, construction, operation, modification, or discontinuance of applications of technology related to these radiations in order to assess the impact on the environment and the population. Evaluates new Federally sponsored or regulated activities or extensions thereof, as well as all industrial and commercial products or processes which may have an effect on the environment and result in additional radiation exposure. Provides for the development of special environmental and engineering studies to determine the potential impact of nuclear applications or other uses of radiation and the appropriate measures to control and minimize all potential adverse effects. Provides program guidance and technical assistance to States relative to applications of nuclear technology, abatement and control of radiation hazards, and other radiation uses.

(1) Technology and Impact Review Branch. The Technology and Impact Review Branch is responsible for evaluating environmental impact of Federal and federally licensed projects and facilities involving radiation sources - ionizing and non-ionizing. This is accomplished through technical reviews of environmental impact statements; by in-house and contractual investigations to develop specific technical information; and by furnishing technical assistance to State health and environmental protection agencies, EPA Regional Offices, and other Federal agencies. Environmental Impact Reviews are concerned with central station nuclear power plants, nuclear fuel reprocessing plants, AEC test sites, laboratories, and material production facilities, NASA laboratories and launch sites, and AEC/NASA/DoD sponsored aerospace projects which incorporate nuclear power systems. Technical investigations assess the environmental impact associated with waste management systems. Technical assistance furnished to States concerns radiation facilities within those States.

(2) Advanced Technology and Studies Branch. The Advanced Technology and Studies Branch is responsible for developing technical information required to assess the potential environmental impact of applications of current and future technology involving ionizing and non-ionizing radiation. The Branch conducts special investigations and studies to assess the environmental impact of existing sources of ionizing and non-ionizing radiation; evaluates techniques used to limit environmental exposure from these sources; and predicts the potential consequences of proposed technology. These studies provide information for technology assessments and support reviews of environmental impact statements.

d. Field Operations Division. The Field Operations Division, under the supervision of a Director, is responsible for a national program for obtaining baseline data on the levels of existing environmental radiation. Determines any change occurring in the radiological quality of the environment, the magnitude of this change, and the nature and probable source of the contaminant. Provides data for estimating population exposure to ionizing and non-ionizing radiation. Determines if environmental levels are within established radiological guidelines and standards. Assists in evaluation of the effectiveness of existing control programs. Publishes environmental radiological quality data from Federal, State, and utility surveillance programs. Establishes requirements for analytical quality control services to assure compatibility and reliability of the data from the various participating laboratories. Provides consultation and technical assistance on surveillance activities to State and other Federal agencies.

(1) Field Studies Branch. The Field Studies Branch conducts field studies at operating nuclear facilities to investigate the mechanisms for production, release, and disposal of radionuclides in the environment. The Field Studies Branch: (a) measures the movement of radionuclides through environmental media to determine the concentration factors and effects of chemical state; (b) develops and tests radiation detection equipment to identify and quantify radionuclide discharges from nuclear facilities; (c) conducts special studies at selected nuclear facilities to obtain data to evaluate the facility's operational performance to determine if it meets the discharge criteria and environmental radiation protection guides; and (d) provides analytical quality control services to Federal and State agencies and to nuclear facility operators.

(2) Surveillance Branch. The Surveillance Branch conducts continuing systematic studies of the environment to determine if changes of public health significance have occurred in its radiological characteristics, ascertains the magnitude of the change and the specific nature of the contaminant and operates surveillance networks to provide information for the assessment of population radiation exposure. The Surveillance Branch also: (a) coordinates surveillance

to detect the environmental radioactivity resulting from weapon tests or other peaceful uses of nuclear energy; (b) develops surveillance methodology oriented towards improvement of surveillance operations to provide better data for assessment of population exposure; (c) conducts and coordinates special studies in the general area of the measurement and distribution of environmental radioactivity; and (d) provides technical assistance to State and Federal agencies and the public and private organizations which plan and develop protection action to reduce or prevent environmental contamination and radiation exposure of people.

(3) Operations Analysis Branch. The Operations Analysis Branch plans and conducts technical evaluations and field studies to determine if discharges of radioactive material from operating nuclear facilities are within the environmental radiation protection standards of the Environmental Protection Agency, Office of Radiation Programs. The Operations Analysis Branch also: (a) evaluates the effluent discharges by operating nuclear facilities and users of radioactive materials; and (b) provides program management for field studies to obtain independent data to assure validity and compatibility of surveillance and monitoring information.

(4) Electromagnetic Radiation Analysis Branch. The Electromagnetic Radiation Analysis Branch is responsible for developing and implementing the non-ionizing radiation program within the Office of Radiation Programs. The Branch identifies problem areas resulting from non-ionizing radiation sources in the environment and assesses the impact of these sources on human health and the environment. The Electromagnetic Radiation Analysis Branch also: (a) conducts studies to determine and evaluate environmental levels of non-ionizing electromagnetic radiation sources; (b) develops and maintains the capability to monitor non-ionizing electromagnetic radiation sources; (c) provides information for standards development; and (d) provides direct technical support for other functions of the Office of Radiation Programs' Divisions as related to non-ionizing electromagnetic radiation. From information collected and analyzed, the Branch recommends priority areas and goals for continuing non-ionizing radiation program emphasis so that appropriate resources may be allocated to ensure adequate protection of human health and the environment.

(5) Reports Branch. The Reports Branch publishes monthly Radiation Data and Reports; reviews Field Operations abstracts and manuscripts; prepares special radiation reports as required; and maintains a national data bank of information on environmental radiation levels from all sources.

ORGANIZATION AND FUNCTIONS
OF THE OFFICE OF THE
DEPUTY ASSISTANT ADMINISTRATOR FOR RADIATION PROGRAMS

1. PURPOSE. This Order establishes the Branch-organization and functions of the Office of Radiation Programs. The official organization chart of the Office is incorporated as Figure 1.

2. DEPUTY ASSISTANT ADMINISTRATOR FOR RADIATION PROGRAMS. The Office of Radiation Programs, under the supervision of the Deputy Assistant Administrator for Radiation Programs, is responsible to the Assistant Administrator for the radiation activities of the Agency, including development of radiation protection criteria, standards, and policies, methodology for measuring and controlling radiation exposure, and research requirements for radiation programs. Provides technical assistance to States and other agencies having radiation protection programs, establishes and directs a national surveillance and inspection program for measuring radiation levels in the environment; evaluates and assesses the impact of new and developing radiation technology on man and the environment; assists in the training of personnel for radiation protection programs in the States and for other purposes; maintains liaison with other public and private organizations interested in environmental radiation.

a. Program and Administrative Management Office. Provides management information and advice to the Deputy Assistant Administrator and maintains liaison between the Office of Radiation Programs and the Assistant Administrator for Categorical Programs relative to program and administrative operations. Coordinates and directs all program and administrative operations within the Office and provides staff services in the areas of program development planning, budget, financial management, activity reporting, personnel, manpower management and organization, contracts, data systems and support services, grants administration, security, and information.

b. Criteria and Standards Division. The Criteria and Standards Division, under the supervision of a Director, is responsible for maintaining continuous review of radiation protection guidance and formulating and recommending policies, criteria, and standards designed to protect the environment, the general public, and those occupationally exposed. Establishes guidance and standards, and develops criteria and methods for evaluation of risk/benefit relationships in radiation exposure situations. Maintains liaison with recognized authorities and organizations in the field relevant to the formulation of radiation protection criteria and standards.

(1) Analytical Criteria Branch. The Analytical Criteria Branch develops the bases for the formulation of EPA radiation policy, criteria, and standards. Determines the areas where controls are required and the information base necessary for the development of appropriate policy, criteria, or standards. Recommends appropriate specific guides or standards for use by the Office of Radiation Programs, other EPA offices, other Federal agencies, or States.

(2) Exposure Criteria Branch. The Exposure Criteria Branch develops current and projected estimates of radiation dose to the population from all sources and provides the basis for evaluating the effectiveness of the Office of Radiation Programs in reducing radiation dose to the minimum consistent with benefits derived.

c. Technology Assessment Division. The Technology Assessment Division, under the supervision of a Director, evaluates major Federal actions involving ionizing and non-ionizing radiation and the design, construction, operation, modification, or discontinuance of applications of technology related to these radiations in order to assess the impact on the environment and the population. Evaluates new Federally sponsored or regulated activities or extensions thereof, as well as all industrial and commercial products or processes which may have an effect on the environment and result in additional radiation exposure. Provides for the development of special environmental and engineering studies to determine the potential impact of nuclear applications or other uses of radiation and the appropriate measures to control and minimize all potential adverse effects. Provides program guidance and technical assistance to States relative to applications of nuclear technology, abatement and control of radiation hazards, and other radiation uses.

(1) Technology and Impact Review Branch. The Technology and Impact Review Branch is responsible for evaluating environmental impact of Federal and federally licensed projects and facilities involving radiation sources - ionizing and non-ionizing. This is accomplished through technical reviews of environmental impact statements; by in-house and contractual investigations to develop specific technical information; and by furnishing technical assistance to State health and environmental protection agencies, EPA Regional Offices, and other Federal agencies. Environmental Impact Reviews are concerned with central station nuclear power plants, nuclear fuel reprocessing plants, AEC test sites, laboratories, and material production facilities, NASA laboratories and launch sites, and AEC/NASA/DoD sponsored aerospace projects which incorporate nuclear power systems. Technical investigations assess the environmental impact associated with waste management systems. Technical assistance furnished to States concerns radiation facilities within those States.

(2) Advanced Technology and Studies Branch. The Advanced Technology and Studies Branch is responsible for developing technical information required to assess the potential environmental impact of applications of current and future technology involving ionizing and non-ionizing radiation. The Branch conducts special investigations and studies to assess the environmental impact of existing sources of ionizing and non-ionizing radiation; evaluates techniques used to limit environmental exposure from these sources; and predicts the potential consequences of proposed technology. These studies provide information for technology assessments and support reviews of environmental impact statements.

d. Field Operations Division. The Field Operations Division, under the supervision of a Director, is responsible for a national program for obtaining baseline data on the levels of existing environmental radiation. Determines any change occurring in the radiological quality of the environment, the magnitude of this change, and the nature and probable source of the contaminant. Provides data for estimating population exposure to ionizing and non-ionizing radiation. Determines if environmental levels are within established radiological guidelines and standards. Assists in evaluation of the effectiveness of existing control programs. Publishes environmental radiological quality data from Federal, State, and utility surveillance programs. Establishes requirements for analytical quality control services to assure compatibility and reliability of the data from the various participating laboratories. Provides consultation and technical assistance on surveillance activities to State and other Federal agencies.

(1) Field Studies Branch. The Field Studies Branch conducts field studies at operating nuclear facilities to investigate the mechanisms for production, release, and disposal of radionuclides in the environment. The Field Studies Branch: (a) measures the movement of radionuclides through environmental media to determine the concentration factors and effects of chemical state; (b) develops and tests radiation detection equipment to identify and quantify radionuclide discharges from nuclear facilities; (c) conducts special studies at selected nuclear facilities to obtain data to evaluate the facility's operational performance to determine if it meets the discharge criteria and environmental radiation protection guides; and (d) provides analytical quality control services to Federal and State agencies and to nuclear facility operators.

(2) Surveillance Branch. The Surveillance Branch conducts continuing systematic studies of the environment to determine if changes of public health significance have occurred in its radiological characteristics, ascertains the magnitude of the change and the specific nature of the contaminant and operates surveillance networks to provide information for the assessment of population radiation exposure. The Surveillance Branch also: (a) coordinates surveillance

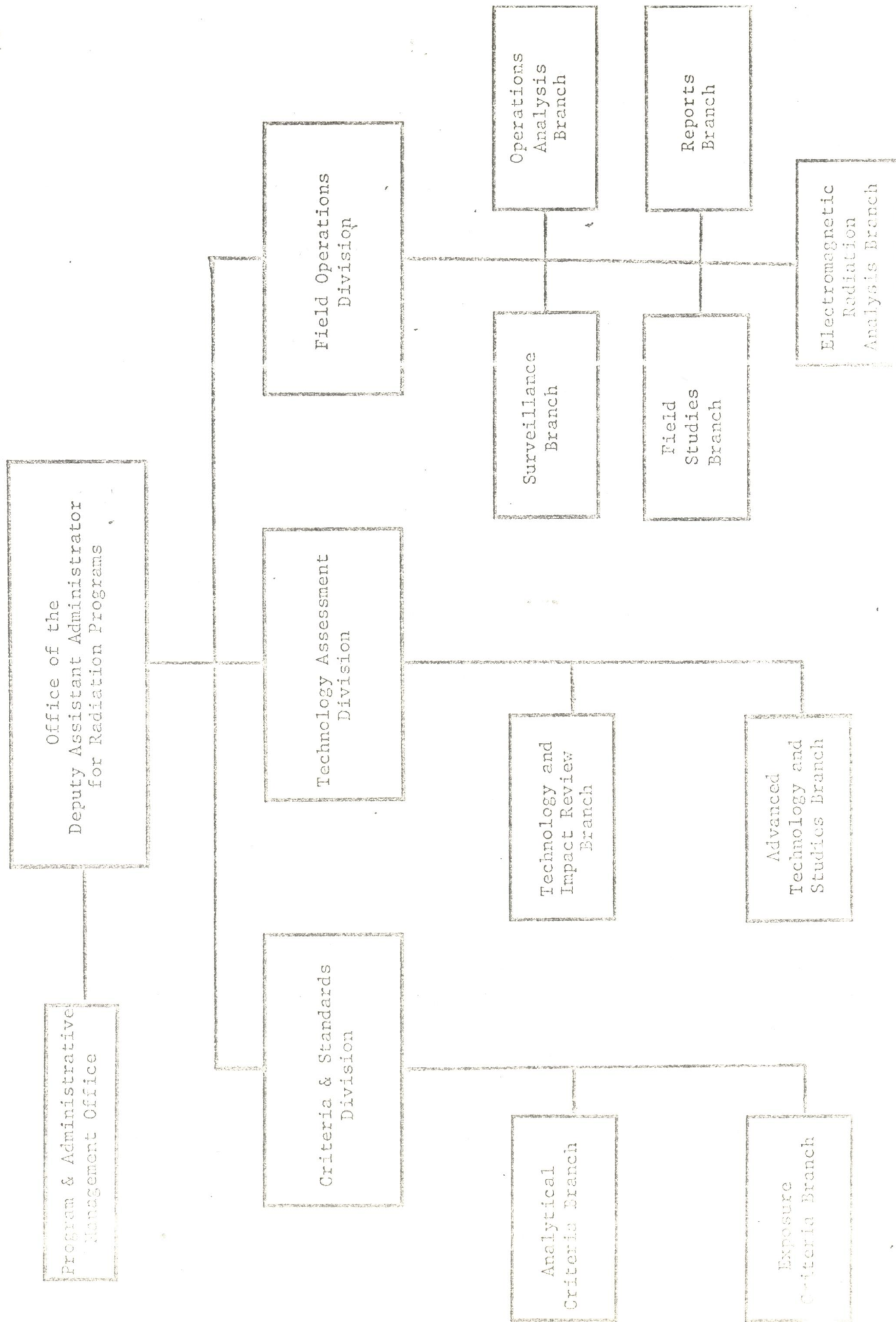
to detect the environmental radioactivity resulting from weapon tests or other peaceful uses of nuclear energy; (b) develops surveillance methodology oriented towards improvement of surveillance operations to provide better data for assessment of population exposure; (c) conducts and coordinates special studies in the general area of the measurement and distribution of environmental radioactivity; and (d) provides technical assistance to State and Federal agencies and the public and private organizations which plan and develop protection action to reduce or prevent environmental contamination and radiation exposure of people.

(3) Operations Analysis Branch. The Operations Analysis Branch plans and conducts technical evaluations and field studies to determine if discharges of radioactive material from operating nuclear facilities are within the environmental radiation protection standards of the Environmental Protection Agency, Office of Radiation Programs. The Operations Analysis Branch also: (a) evaluates the effluent discharges by operating nuclear facilities and users of radioactive materials; and (b) provides program management for field studies to obtain independent data to assure validity and compatibility of surveillance and monitoring information.

(4) Electromagnetic Radiation Analysis Branch. The Electromagnetic Radiation Analysis Branch is responsible for developing and implementing the non-ionizing radiation program within the Office of Radiation Programs. The Branch identifies problem areas resulting from non-ionizing radiation sources in the environment and assesses the impact of these sources on human health and the environment. The Electromagnetic Radiation Analysis Branch also: (a) conducts studies to determine and evaluate environmental levels of non-ionizing electromagnetic radiation sources; (b) develops and maintains the capability to monitor non-ionizing electromagnetic radiation sources; (c) provides information for standards development; and (d) provides direct technical support for other functions of the Office of Radiation Programs' Divisions as related to non-ionizing electromagnetic radiation. From information collected and analyzed, the Branch recommends priority areas and goals for continuing non-ionizing radiation program emphasis so that appropriate resources may be allocated to ensure adequate protection of human health and the environment.

(5) Reports Branch. The Reports Branch publishes monthly Radiation Data and Reports; reviews Field Operations abstracts and manuscripts; prepares special radiation reports as required; and maintains a national data bank of information on environmental radiation levels from all sources.

5/26/72



ORGANIZATION AND FUNCTIONS
OF THE OFFICE OF THE
DEPUTY ASSISTANT ADMINISTRATOR FOR RADIATION PROGRAMS

1. PURPOSE. This Order establishes the Branch-organization and functions of the Office of Radiation Programs. The official organization chart of the Office is incorporated as Figure 1.

2. DEPUTY ASSISTANT ADMINISTRATOR FOR RADIATION PROGRAMS. The Office of Radiation Programs, under the supervision of the Deputy Assistant Administrator for Radiation Programs, is responsible to the Assistant Administrator for the radiation activities of the Agency, including development of radiation protection criteria, standards, and policies, methodology for measuring and controlling radiation exposure, and research requirements for radiation programs. Provides technical assistance to States and other agencies having radiation protection programs, establishes and directs a national surveillance and inspection program for measuring radiation levels in the environment; evaluates and assesses the impact of new and developing radiation technology on man and the environment; assists in the training of personnel for radiation protection programs in the States and for other purposes; maintains liaison with other public and private organizations interested in environmental radiation.

a. Program and Administrative Management Office. Provides management information and advice to the Deputy Assistant Administrator and maintains liaison between the Office of Radiation Programs and the Assistant Administrator for Categorical Programs relative to program and administrative operations. Coordinates and directs all program and administrative operations within the Office and provides staff services in the areas of program development planning, budget, financial management, activity reporting, personnel, manpower management and organization, contracts, data systems and support services, grants administration, security, and information.

b. Criteria and Standards Division. The Criteria and Standards Division, under the supervision of a Director, is responsible for maintaining continuous review of radiation protection guidance and formulating and recommending policies, criteria, and standards designed to protect the environment, the general public, and those occupationally exposed. Establishes guidance and standards, and develops criteria and methods for evaluation of risk/benefit relationships in radiation exposure situations. Maintains liaison with recognized authorities and organizations in the field relevant to the formulation of radiation protection criteria and standards.

(1) Analytical Criteria Branch. The Analytical Criteria Branch develops the bases for the formulation of EPA radiation policy, criteria, and standards. Determines the areas where controls are required and the information base necessary for the development of appropriate policy, criteria, or standards. Recommends appropriate specific guides or standards for use by the Office of Radiation Programs, other EPA offices, other Federal agencies, or States.

(2) Exposure Criteria Branch. The Exposure Criteria Branch develops current and projected estimates of radiation dose to the population from all sources and provides the basis for evaluating the effectiveness of the Office of Radiation Programs in reducing radiation dose to the minimum consistent with benefits derived.

c. Technology Assessment Division. The Technology Assessment Division, under the supervision of a Director, evaluates major Federal actions involving ionizing and non-ionizing radiation and the design, construction, operation, modification, or discontinuance of applications of technology related to these radiations in order to assess the impact on the environment and the population. Evaluates new Federally sponsored or regulated activities or extensions thereof, as well as all industrial and commercial products or processes which may have an effect on the environment and result in additional radiation exposure. Provides for the development of special environmental and engineering studies to determine the potential impact of nuclear applications or other uses of radiation and the appropriate measures to control and minimize all potential adverse effects. Provides program guidance and technical assistance to States relative to applications of nuclear technology, abatement and control of radiation hazards, and other radiation uses.

(1) Technology and Impact Review Branch. The Technology and Impact Review Branch is responsible for evaluating environmental impact of Federal and federally licensed projects and facilities involving radiation sources - ionizing and non-ionizing. This is accomplished through technical reviews of environmental impact statements; by in-house and contractual investigations to develop specific technical information; and by furnishing technical assistance to State health and environmental protection agencies, EPA Regional Offices, and other Federal agencies. Environmental Impact Reviews are concerned with central station nuclear power plants, nuclear fuel reprocessing plants, AEC test sites, laboratories, and material production facilities, NASA laboratories and launch sites, and AEC/NASA/DoD sponsored aerospace projects which incorporate nuclear power systems. Technical investigations assess the environmental impact associated with waste management systems. Technical assistance furnished to States concerns radiation facilities within those States.

(2) Advanced Technology and Studies Branch. The Advanced Technology and Studies Branch is responsible for developing technical information required to assess the potential environmental impact of applications of current and future technology involving ionizing and non-ionizing radiation. The Branch conducts special investigations and studies to assess the environmental impact of existing sources of ionizing and non-ionizing radiation; evaluates techniques used to limit environmental exposure from these sources; and predicts the potential consequences of proposed technology. These studies provide information for technology assessments and support reviews of environmental impact statements.

d. Field Operations Division. The Field Operations Division, under the supervision of a Director, is responsible for a national program for obtaining baseline data on the levels of existing environmental radiation. Determines any change occurring in the radiological quality of the environment, the magnitude of this change, and the nature and probable source of the contaminant. Provides data for estimating population exposure to ionizing and non-ionizing radiation. Determines if environmental levels are within established radiological guidelines and standards. Assists in evaluation of the effectiveness of existing control programs. Publishes environmental radiological quality data from Federal, State, and utility surveillance programs. Establishes requirements for analytical quality control services to assure compatibility and reliability of the data from the various participating laboratories. Provides consultation and technical assistance on surveillance activities to State and other Federal agencies.

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ENVIRONMENTAL PROTECTION AGENCY

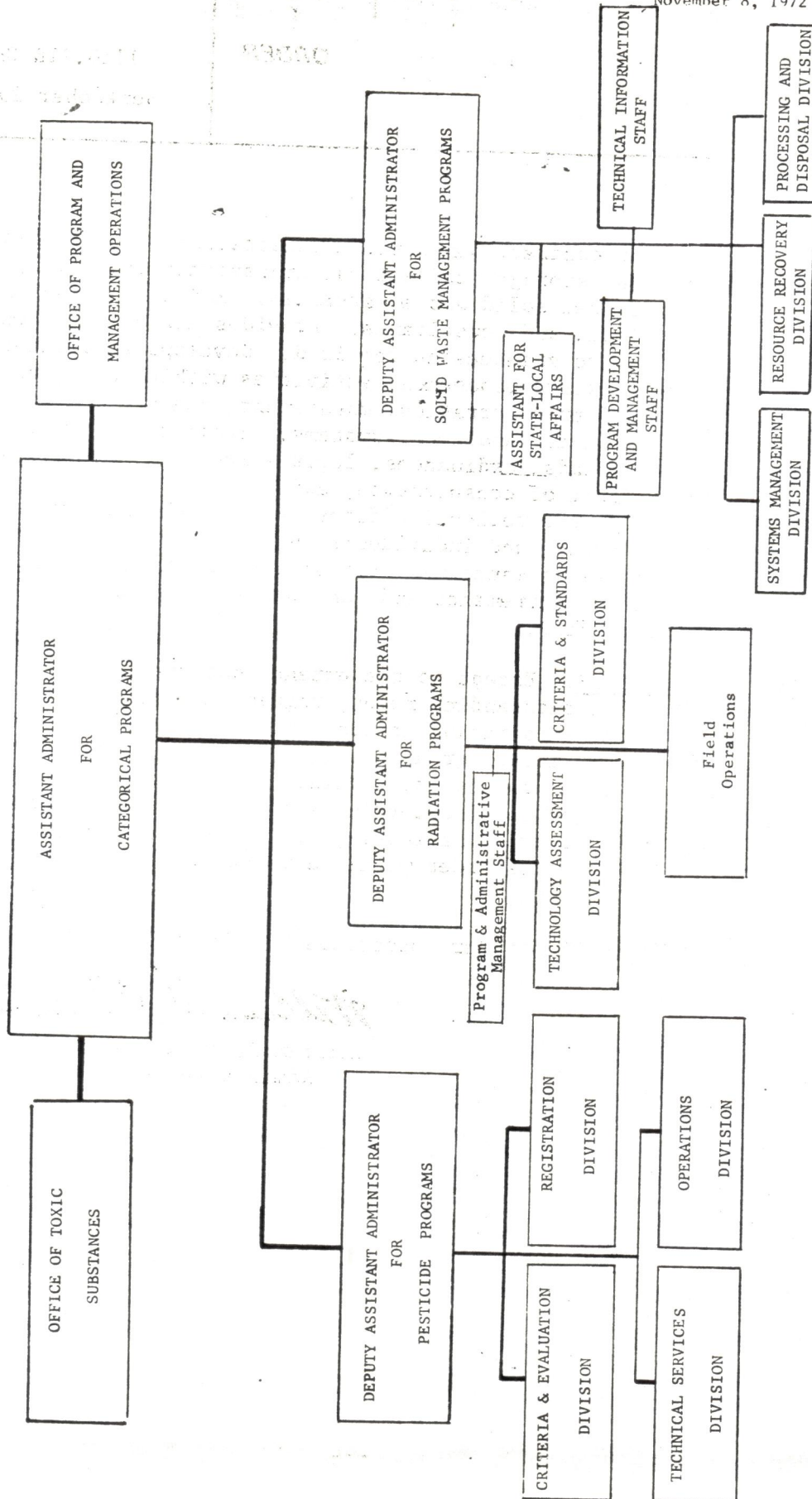


Figure 1. Assistant Administrator for Categorical Programs Organization Chart