



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 14 1979

The Honorable Aris T. Allen, M. D.  
Maryland Senate, District 30  
404 James Senate Office Building  
Annapolis, MD 21401

Dear Dr. Allen:

This letter is in response to your letter of May 21, 1979 to the U. S. Department of Energy regarding regulations having to do with the availability of a trained, designated physician who would be available in the case of radiological emergency at a nuclear power plant. Your letter was referred to us on July 10, 1979 by the Department of Energy. We apologize for the delay in our response.

All operating nuclear power plants must maintain an emergency plan which meets the requirements of our regulations. The pertinent regulation is at Appendix E to 10 CFR Part 50, a copy of which is attached. Paragraph IV.E.4 of this regulation requires that licensees maintain up-to-date arrangements for the services of a physician qualified to handle radiation emergencies. Other parts of the regulation require that provisions for first aid and transport (ambulance) services, and hospital treatment be maintained.

The Calvert Cliffs nuclear power plant is the only nuclear power plant in Maryland. A copy of a few pages from the Calvert Cliffs emergency plan, dealing with medical support, are attached. These general plans are themselves supported by detailed implementing procedures, both at the plant and at the Calvert County and University of Pennsylvania Hospital. These plans satisfy our regulations.

We note that the Department of Energy has provided you with descriptive literature regarding the Federal Interagency Radiological Assistance Plan, under which a variety of types of assistance can be provided to persons (e.g. individuals, States, local agencies) on an as needed basis, as provided for by law.

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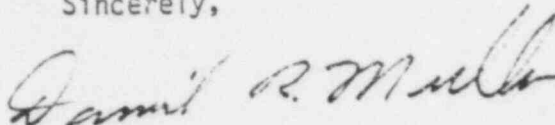
The Honorable Aris T. Allen, M.D.

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AUG 14 1974

We trust that this information is responsive to your inquiry.

Sincerely,



Daniel R. Muller, Acting Director  
Division of Site Safety and  
Environmental Analysis  
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix E to  
10 CFR Part 50
2. Part VI., Medical Support,  
from Calvert Cliff Emergency Plan

cc: The Honorable Marjorie Holt  
U. S. Congresswoman  
1510 Longworth House Office Building  
Washington, D. C. 20515

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All interested persons were invited to submit comments or suggestions in connection with the proposed amendments within 60 days after publication of the notice of proposed rule making in the FEDERAL REGISTER.

After careful consideration of all of the comments received the Commission has decided to adopt the amendments in the form set out below. The amendments have been revised to reflect some of the comments received. The substantive changes from the amendments published for comment are:

1. Appendix E, section II-B as published for comment would require a description in the preliminary safety analysis report of contracts and arrangements made or to be made with local, State and Federal governmental agencies with responsibility for coping with emergencies. Comments from agencies with this responsibility indicated that identification of the principal agencies should also be made in the preliminary safety analysis report. A statement has been added to section II-B to require identification of these principal agencies. A similar change has been made to section IV-D.

Sections II and IV of Appendix E have been revised to clarify that the licensee, at the time of an accident requiring off-site response, is responsible for notifying those persons or agencies who have legal authority and responsibility for such a response.

Editorial changes have also been made.

The "Guide To the Preparation of Emergency Plans for Production and Utilization Facilities" as referenced in 10 CFR Part 50, Appendix E was developed by the AEC to assist applicants in developing suitable emergency plans and is available for inspection at the Commission's Public Document Room, 1717 H Street NW. Copies may be obtained by addressing a request to the Director, Division of Reactor Licensing or Director, Division of Materials Licensing, U.S. Atomic Energy Commission, Washington, D.C. 20545.

Pursuant to the Atomic Energy Act of 1954, as amended, and sections 552 and 553 of title 5 of the United States Code, the following amendments to 10 CFR Part 50 are published as a document subject to codification, to be effective 30 days after publication in the FEDERAL REGISTER.

1. A new subparagraph (10) is added to § 50.34(a) and § 50.34(b)(1)(v) is amended to read as follows:

§ 50.34 Contents of applications: technical information.

(a) Preliminary safety analysis report. Each application for a construction permit shall include a preliminary safety analysis report. The minimum information to be included shall consist of the following:

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## Title 10—ATOMIC ENERGY

### Chapter I—Atomic Energy Commission

#### PART 50—LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

##### Plans for Coping With Emergencies

On May 21, 1970, the Atomic Energy Commission published in the FEDERAL REGISTER (35 F.R. 7818) for public comment proposed amendments to 10 CFR Part 50 "Licensing of Production and Utilization Facilities" which would amend § 50.34 "Contents of applications: technical information," and add a new Appendix E, "Emergency Plans for Production and Utilization Facilities." The proposed amendments would require the submission of certain information pertaining to licensee's emergency plans to the Commission in applications for facility operating licenses and of more general information in applications for facility construction permits.

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(10) A discussion of the applicant's preliminary plans for coping with emergencies. Appendix E sets forth items which shall be included in these plans.

(b) Final safety analysis report. Each application for a license to operate a facility shall include a final safety analysis report. The final safety analysis report shall include information that describes the facility, presents the design basis and the limits on its operation, and presents a safety analysis of the structures, systems, and components and of facility as a whole, and shall include the following:

(6) The following information concerning facility operation:

(v) Plans for coping with emergencies, which shall include the items specified in Appendix E.

2. A new Appendix E is added to read as follows:

#### APPENDIX E—EMERGENCY PLANS FOR PRODUCTION AND UTILIZATION FACILITIES

##### I. Introduction

Each applicant for a construction permit is required by § 50.34(a) to include in its preliminary safety analysis report a discussion of preliminary plans for coping with emergencies. Each applicant for an operating license is required by § 50.34(b) to include in its final safety analysis report plans for coping with emergencies.

This appendix establishes minimum requirements for emergency plans. These plans shall be described in the preliminary safety analysis report and submitted as a part of the final safety analysis report. Procedures used in the detailed implementation of emergency plans need not be described in the preliminary or final safety analysis report.

##### II. The Preliminary Safety Analysis Report

The Preliminary Safety Analysis Report shall contain sufficient information to assure the compatibility of proposed emergency plans with facility design features, site layout, and site location with respect to such considerations as access routes, surrounding population distributions, and land use.

As a minimum, the following items shall be described:

A. The organization for coping with emergencies, and the means for notification, in the event of an emergency, of persons assigned to the emergency organization;

B. Contacts and arrangements made or to be made with local, State, and Federal governmental agencies with responsibility for coping with emergencies, including identification of the principal agencies;

C. Measures to be taken in the event of an accident within and outside the site boundary to protect health and safety and prevent damage to property and the expected response in the event of an emergency, of offsite agencies;

D. Features of the facility to be provided for onsite emergency first aid and decontamination, and for emergency transportation of individuals to offsite treatment facilities;

E. Provisions to be made for emergency treatment of individuals at offsite facilities;

F. The training program for employees and for other persons, not employees of the licensee, whose services may be required in coping with an emergency;

G. Features of the facility to be provided to assure the capability for plant evacuation and the capability for facility

reentry in order to mitigate the consequences of an accident or, if appropriate, to continue operation.

##### III. The Final Safety Analysis Report

The Final Safety Analysis Report shall contain plans for coping with emergencies. The details of these plans and the details of their implementation need not be included, but the plans submitted must include a description of the elements set out in section IV to an extent sufficient to demonstrate that the plans provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety and prevent damage to property.

##### IV. Content of Emergency Plans

The emergency plans shall contain, but not necessarily be limited to, the following elements:

A. The organization for coping with radiation emergencies, in which specific authorities, responsibilities, and duties are defined and assigned, and the means of notification, in the event of an emergency, of: (1) Persons assigned to the licensee's emergency organization, and (2) appropriate State, and Federal agencies with responsibilities for coping with emergencies;

B. Written identification, position or function, of other employees of the licensee with special qualifications for coping with emergency conditions which may arise. Other persons with special qualifications who are not employees of the licensee and who may be called upon for assistance shall also be identified. The special qualifications of these employees and persons shall be described;

C. Means for determining the magnitude of the release of radioactive materials, including criteria for determining the need for notification and participation of local and State agencies and the Atomic Energy Commission and other Federal agencies, and criteria for determining when protective measures should be considered within and outside the site boundary to protect health and safety and prevent damage to property;

D. Procedures for notifying, and agreements reached with, local, State, and Federal officials and agencies for the early warning of the public and for public evacuation or other protective measures should such warning, evacuation, or other protective measures become necessary or desirable, including identification of the principal officials, by title and agencies;

E. Provisions for maintaining up to date: 1. The organization for coping with emergencies, 2. the procedures for use in emergencies, and 3. the lists of persons with special qualifications for coping with emergency conditions;

F. Emergency first aid and personnel decontamination facilities, including:

1. Equipment at the site for personnel monitoring;

2. Facilities and supplies at the site for decontamination of personnel;

3. Facilities and medical supplies at the site for appropriate emergency first aid treatment;

4. Arrangements for the services of a physician and other medical personnel qualified to handle radiation emergencies; and

5. Arrangements for transportation of injured or contaminated individuals to treatment facilities outside the site boundary;

G. Arrangements for treatment of individuals at treatment facilities outside the site boundary;

H. Provisions for training of employees of the licensee who are assigned specific authority and responsibility in the event of an emergency and of other persons whose assistance may be needed in the event of a radiation emergency;

I. Provisions for testing, by periodic drills, of radiation emergency plans to assure that employees of the licensee are familiar with their specific duties and provisions for participation in the drills by other persons whose assistance may be needed in the event of a radiation emergency;

J. Criteria to be used to determine when, following an accident, reentry of the facility is appropriate or when operation should be continued.

The Commission has developed a document entitled "Guide To the Preparation of Emergency Plans for Production and Utilization Facilities" to help applicants establish adequate plans required pursuant to § 50.34 and this Appendix, for coping with emergencies.

(Sec. 161, 68 Stat. 948; 42 U.S.C. 2201)

Dated at Germantown, Md., this 11th day of December 1970.

For the Atomic Energy Commission,

W. B. McCool,

Secretary of the Commission.

[F.R. Doc. 70-17306; Filed, Dec. 23, 1970; 8:45 a.m.]

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VI. Medical SupportA. Medical Treatment of Plant Personnel

Arrangements and facilities for medical treatment of injured plant personnel are described in detail in Appendix B - Medical Treatment and Assistance Plan. Depending on the nature and severity of injury, injured personnel may be treated in-plant by individuals trained in first aid, treated in-plant by a physician, transported to the Calvert County Hospital for treatment, or transported, through our arrangements with the Radiation Management Corp., to the University of Pennsylvania Hospital for treatment.

In cases of severe injury, lifesaving first aid or medical treatment will take precedence over personnel decontamination. In general the order of medical treatment will be:

1. care of severe physical injuries
2. personnel decontamination
3. first aid to other injuries
4. definitive medical treatment and subsequent therapy as required.

Definitive medical treatment and/or therapy may include urinary bioassays or whole body counts on persons suspected of inhaling or ingesting a significant amount of radioactive material or may include surveillance and therapy for persons receiving a large whole body dose.

B. On-Site Medical Facilities

A first aid room is located in the Service Building for the treatment of minor injuries occurring outside of the controlled area. This room is equipped with an examination table, examination chair and

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various standard first aid supplies.

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An additional first aid room is located within the controlled area for the initial treatment of personnel who become injured or ill inside the controlled area. This room is provided with a special examination table designed to aid in decontamination and a rather complete assortment of first aid and medical treatment equipment and supplies as listed in Appendix B - Medical Treatment & Assistance Plan.

Supplemental first aid kits and supplies will be placed at various locations throughout the plant area including the main control room, the gate house, and the Farm Demonstration Building.

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C. Medical Services

In addition to the Baltimore Gas & Electric Co.'s Medical Director and his staff, arrangements have been made with Calvert County area physicians to provide immediate medical advice and aid for injured plant personnel. Through arrangement with the Radiation Management Corp., the facilities and specialists of the University of Pennsylvania Hospital are available for treatment of severe radiation/contamination injuries. Arrangements have also been made with the Calvert County Hospital to care for injured plant personnel. The details of the medical services available and the procedures for requesting them are included in Appendix B - Medical Treatment and Assistance Plan.

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D. On-Site Personnel Decontamination Facilities

Personnel showers and chemical decontamination agents are available on-site and, except in cases of life threatening injury, accepted

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decontamination procedures will be employed on-site prior to medical treatment. Decontamination showers and supplies are provided adjacent to the controlled area first aid room with additional personnel decontaminating equipment located in the first aid room. All shower and sink drains in the controlled area are routed to the miscellaneous waste processing system where the liquid is processed and monitored prior to discharge.

Additional decontamination facilities and supplies are provided in the Farm Demonstration Center for emergency use. These facilities include a shower, the drain from which is routed to an underground tank for storage prior to treatment and disposal.

#### E. Medical Transportation

Ambulance service is available from the Solomons Volunteer Rescue Squad, Solomons, Maryland; the Second District Volunteer Rescue Squad, Prince Frederick, Maryland; and the North Beach Rescue Squad, North Beach, Maryland. It is anticipated, however, that in cases not involving severe injury, one of the plant vehicles would normally be used to transport individuals to the Calvert County Hospital, especially if radioactive contamination is present. Private automobiles of on-duty personnel could also be used.

The Radiation Management Corp. will make arrangements for transportation of patients to the Radiation Medicine Center at the University of Pennsylvania Hospital in Philadelphia. Transportation in this case is expected to be via helicopter or ambulance.

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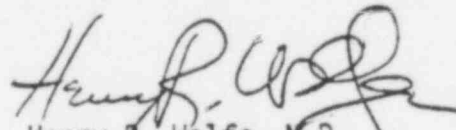
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Department of Energy  
Washington, D.C. 20545

JUL 10 1979

MEMORANDUM FOR Harold R. Denton  
Director  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555

Enclosed is a copy of a letter from Maryland State Senator Aris T. Allen, M.D. dated May 21, 1979, and a reply. If you need any further assistance in this matter, please call me at 353-3333.

  
Henry R. Wolfe, M.D.  
Occupational Health Physician  
Operational and Environmental  
Safety Division

Enclosures:  
As stated

cc: Honorable Aris T. Allen, M.D.  
Maryland Senate, District 30  
  
Honorable Marjorie Holt  
U.S. Congresswoman

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## SENATE OF MARYLAND

ANNAPOLIS, MARYLAND 21401

ARIS T. ALLEN, M. D.  
STATE SENATOR  
DISTRICT 30  
ANNE ARUNDEL AND CALVERT COUNTIES  
SENATE FINANCE COMMITTEE

ANNE ARUNDEL OFFICE:  
404 JAMES SENATE OFFICE BUILDING  
ANNAPOLIS, MARYLAND 21401  
269-3818 AND 267-8464  
CALVERT COUNTY OFFICE:  
535-1600-EXT. 11

May 21, 1979

U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

TO WHOM IT MAY CONCERN:

As the State Senator for District 30 in the State of Maryland,  
I am writing to you with regard to atomic energy/ nuclear  
power plants.

Specifically, are there any regulations in force which would have  
to do with the availability of a trained, designated physician  
who would be available in the case of an emergency, if one should  
arise, at one of the atomic energy/nuclear power plants.

I would greatly appreciate any information on this matter. Please  
reply to my Anne Arundel Senate Office.

Very truly yours,

ARIS T. ALLEN, M.D.  
Senator - District 30

cc: The Honorable Marjorie Holt  
U.S. Congresswoman  
1510 Longworth House Office Building  
Washington, D.C. 20515

*W. Rose  
action  
Request  
info*

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Department of Energy  
Washington, D.C. 20545

JUL 10 1979

Honorable Aris T. Allen, M.D.  
Maryland Senate, District 30  
404 James Senate Office Building  
Annapolis, Maryland 21401

Dear Dr. Allen:

There are no Department of Energy (DOE) regulations such as you have inquired about in your letter of May 21, 1979. The explanation is: (1) Privately owned nuclear power facilities, like the one in Calvert County, are licensed and regulated by the Nuclear Regulatory Commission (NRC) which is not part of DOE. Your letter will, therefore, be referred to NRC for reply. (2) DOE does have Government Owned Contractor Operated (GOCO) nuclear power facilities around the country. These are closely regulated and monitored. Specially trained personnel, designed facilities and monitoring equipment are available to deal with radiation emergencies. Oak Ridge Associated Universities, a GOCO facility, offers repeated courses to physicians in the management of radiation accident cases. Experts around the country can be assembled on an as needed basis. Specific details dealing with getting help in a radiological incident is in the enclosed copy, "Radiation Assistance Program."

Hopefully, this information will be of value to you.

Sincerely,

Henry R. Wolfe, M.D.  
Occupational Health Physician  
Operational and Environmental  
Safety Division

Enclosure:  
As stated

cc: Honorable Marjorie Holt  
U.S. Congresswoman  
1510 Longworth House Office Building  
Washington, D.C. 20515

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January 1979

RADIOLOGICAL ASSISTANCE PROGRAM

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ADMINISTERING DEPARTMENT	The U. S. Department of Energy (DOE)
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AUTHORIZATION FOR RADIOLOGICAL ASSISTANCE ACTIVITIES	A. The Energy Reorganization Act of 1974 and the Atomic Energy Act of 1954, as amended, which provide for protecting the health and safety of the public from hazards that may arise during the development, use, and control of nuclear energy. B. The Interagency Radiological Assistance Plan (IRAP), to which DOE is a signatory agency, assigns to DOE the responsibility for overall implementation of the plan.
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ELIGIBILITY FOR ASSISTANCE	Any person or organization aware of an incident believed to involve a hazard from radioactive material may request radiological emergency assistance. Also available upon request is information and other appropriate assistance to aid in the development of radiological emergency response plans and capabilities.
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TYPES OF ASSISTANCE	A. Radiological emergency assistance teams for dispatch on short notice to the scene of a radiological incident to identify and assess the hazards; advise on emergency operations to save life, minimize injury, and protect health, safety and property; and assist as may be necessary. B. Technical, scientific and medical advice on health and safety problems resulting from radiological incidents. C. Publications, movies, expert advice and information applicable to the development of radiological emergency response plans and capabilities.
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WHERE TO REQUEST RADIOLOGICAL ASSISTANCE	A. DOE Regional Coordinating Offices and other DOE offices (see attached list) will receive telephone requests for radiological emergency assistance 24 hours a day and will initiate the assistance most appropriate to the incident conditions. Other Federal agencies signatory to the IRAP will respond at the request of DOE Regional Coordinating Offices. They may also respond independently in accordance with their own procedures if they receive the initial request for assistance. B. State radiation control, civil defense, health and police agencies will respond to requests for emergency assistance and have access to Federal assistance through selected DOE Regional Coordinating Offices and through arrangements they may have with specific Federal agency field offices.
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RADIOLOGICAL  
INCIDENT  
REPORTS

- A. Report all incidents involving radioactive material identified as DOE or DOE contractor material to the nearest DOE Regional Coordinating Office.
- B. Report incidents believed to involve a nuclear weapon, weapon component or nuclear explosive to:
  1. DOE Albuquerque Operations Office, Albuquerque, New Mexico (phone 505-264-4667) or
  2. the nearest military installation.
- C. Report other incidents involving ionizing radiation sources to the nearest DOE Regional Coordinating Office, military installation, or state radiation control, civil defense, police or health agency.

PUBLICATIONS  
APPLICABLE  
TO  
RADIOLOGICAL  
ASSISTANCE  
ACTIVITIES

- A. Interagency Radiological Assistance Plan. Request from Division of Operational and Environmental Safety, DOE, Washington, D.C. 20545. Free
- B. Map of DOE Regional Coordinating Offices for Radiological Emergency Assistance and their Geographical Areas of Responsibility. Request from Division of Operational and Environmental Safety, DOE, Washington, D.C. 20545. Free
- C. Emergency Action Guidelines for Incidents Involving Radioactive Material. Request from Division of Operational and Environmental Safety, DOE, Washington, D.C. 20545. Free
- D. Guidance and Information on Nuclear Weapons Accident Hazards, Precautions and Procedures (prepared jointly by the Department of Defense and United States Atomic Energy Commission). Request from Division of Operational and Environmental Safety, DOE, Washington, D.C. 20545. Free
- E. Radiological Emergency Operations Course Instructor's Manual, TID-24918 and Radiological Emergency Operations Course Student's Manual, TID-24919. For sale by the Clearinghouse for Federal Scientific and Technical Information, National Bureau of Standards, U.S. Department of Commerce, Springfield, Virginia 22151. Price \$3.00 per copy of each manual.
- F. Radiological Emergency Procedures for the Non-Specialist. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price 50¢.

ADDITIONAL  
INFORMATION

For additional information and guidance regarding radiological assistance policies, plans, and activities, contact DOE field offices or write to the Director, Division of Operational and Environmental Safety, Washington, D.C. 20545. (See attached list of DOE Regional Coordinating Office addresses and telephone numbers to call for radiological emergency assistance and for information on radiation protection).

Department of Energy  
Regional Coordinating Offices for Radiological Assistance

Region	Mailing Address	a. Emergency Number b. Information Number
1		
Connecticut	Brookhaven Area Office	a. 516-345-2200
Delaware	Upton, L.I., New York 11973	b. 516-345-3430
District of Columbia		
Maine		
Maryland		
Massachusetts		
New Hampshire		
New Jersey		
New York		
Pennsylvania		
Rhode Island		
Vermont		
2		
Arkansas	Oak Ridge Operations Office	a. 615-525-7885
Kentucky	Post Office Box E	b. 615-576-0030
Louisiana	Oak Ridge, Tennessee 37830	
Mississippi		
Missouri		
Puerto Rico		
Tennessee		
Virgin Islands		
Virginia		
West Virginia		
3		
Alabama	Savannah River Operations	a. 803-725-6211
Canal Zone	Office	ext. 3333
Florida	Post Office Box A	b. 803-725-6211
Georgia	Aiken, South Carolina 29801	ext. 2467
North Carolina		
South Carolina		
4		
Arizona	Albuquerque Operations Office	a. 505-264-1667
Kansas	Post Office Box 5400	b. 505-264-3680
New Mexico	Albuquerque, New Mexico 87115	
Oklahoma		
Texas		

5	Illinois Indiana Iowa Michigan Minnesota Nebraska North Dakota Ohio South Dakota Wisconsin	Chicago Operations Office 9800 South Cass Avenue Argonne, Illinois 60439	a. 312-972-4800 Duty hours ext. 5731 Off hours b. 312-972-2253
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6	Colorado Idaho Montana Utah Wyoming	Idaho Operations Office Post Office Box 2108 Idaho Falls, Idaho 83401	a. 208-526-1515 b. 208-526-1366
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7	California Hawaii Nevada	San Francisco Operations Office 1333 Broadway Oakland, California 94612	a. 415-273-4237 b. 415-273-7963
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8	Alaska Oregon Washington	Richland Operations Office Post Office Box 550 Richland, Washington 99352	a. 509-942-7381 b. 509-942-7387
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Other DOE Offices

Grand Junction Office Post Office Box 2567 Grand Junction, Colorado 81501	a. 303-242-8621 Ask for appropriate contact. b. 303-242-8621 ext. 9219
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Nevada Operations Office Post Office Box 14100 Las Vegas, Nevada 89114	a. 702-734-3343 all hours b. 702-734-3181
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Pittsburgh Naval Reactors Office Post Office Box 109 West Mifflin, Pennsylvania 15122	a. 412-462-5000 Ask for appropriate contact. b. 412-462-5000, ext. 6905
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Schenectady Naval Reactors Office Post Office Box 1069 Schenectady, New York 12301	a. 518-393-6611 Ask for Patrol Headquarters b. 518-393-6611 ext. 7568
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