Fort St. Vrain (FSV)
Independent Spent Fuel Storage Installation (ISFSI)
Emergency Response Plan Update Report

STI-NLF-RPT-040

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US Department of Energy
Prime Contract DE-EM0003976
NRC Licensed Facilities

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1.0 Introduction

The Department of Energy's Idaho Operations Office (DOE-ID) was issued license SNM-2504 to operate the Fort St. Vrain (FSV) Independent Spent Fuel Storage Installation (ISFSI). As part of the license issuance, DOE-ID's Emergency Response Plan for the FSV ISFSI was approved by the Nuclear Regulatory Commission (NRC).

Pursuant to 10 CFR 72.44, License Conditions, paragraph (f), DOE-ID has made changes to its NRC-approved FSV Emergency Response Plan without NRC approval. The criteria DOE-ID used for approving these changes were: (1) no change resulted in a decrease in effectiveness of the Emergency Response Plan, and (2) compliance with the applicable regulations and the FSV ISFSI Technical Specifications are maintained.

2.0 Description of Changes

The changes to the FSV Emergency Response Plan resulted from the updated formatting requirements and procedure implementation of a new DOE-ID contractor operating the FSV ISFSI and the update of information identified during the document review process conducted during the transition to the new contractor. The updated document is being provided to Region IV under separate transmittal.

Changes made to STI-NLF-EIP-014 (formerly PLN-143), Fort St. Vrain Emergency Response Plan (ERP) are detailed in the below table.

Section	Change Description
All	Editorial changes are made to format and content of document, including cover page, headers and footers, tables, references, and document numbering as required to reflect the transition to a new contractor and associated document formatting requirements. Overall document number changed from PLN-143 to STI-NLF-EIP-014.
1.1	Update eighth (8th) paragraph describing fences and the Emergency Planning Zone (EPZ) to reflect current facility configuration.
1.2.3 2.1.3, Item 2 4.2.2 5 Appendix C Appendix I	Remove references to the Idaho Nuclear Technology and Engineering Center (INTEC) Emergency Command Center (ECC) and Emergency Action Manager (EAM). Support functions are now provided by the Idaho National Laboratory (INL) Emergency Operations Center (EOC) and Emergency Director (ED). Also, change ECC/EAM references to EOC/ED where appropriate.
1.2.4	Add steps to reflect current contract between Spectra Tech Inc. (STI) and Department of Energy.
1.2.5	Add steps describing STI's commitment to the Integrated Safety Management System (ISMS).

Section	Change Description
2.1.3, Item 1	Add "Staffing" to accurately reflect sub-section title.
4.1, 1st bullet	Revise to indicate current staffing.
4.2.2, Item 1.b), 2nd and 7th bullets 4.4.1, 2nd paragraph 4.6.1, Item 1, 1st paragraph 4.7.6 Appendix A	Change implementing procedure references to STI procedure numbers.
4.2.2, Item 3.c)	Change to describe additional ICP core contractor response to the EOC. This change calls for the response of the ICP Fluor Manager to come to the EOC. Additional support from the ICP Core Contractor is available as needed through Flour Idaho Program Manager or designee present in the EOC.
4.3.2	Change heading "Contract Support" to "Subject Matter Expert Support". This change is editorial in nature.
4.4.2	Add reference STI-NLF-EIP-007, Fort St. Vrain Dose Assessment.
4.6.1, Item 1, 1st paragraph	Delete unnecessary text regarding "contractor training personnel" and "contractor training procedures".
4.6.1, Item 1, 2nd paragraph	Delete unnecessary text regarding Idaho Cleanup Project (ICP) Emergency Response Organization (ERO) training.
4.6.1, Item 1, 3rd paragraph	Update reference regarding Idaho National Laboratory (INL) Emergency Response Organization (ERO) training.
Section 6	Update references to include additional applicable references.
Appendix D	Revise list of Local Agency and Contract Support Services to reflect current agreements.
Appendix F	Revise the ISFSI Emergency Planning Zone map to show the current facility configuration.
Appendix G	Revise Exposure Guidelines for Emergency Workers table to reflect EP-400/R-17/001, Protective Action Guides and Planning Guidance for Radiological Incidents.
Appendix H	Revise Acute Radiation Syndrome table to reflect EP-400/R-17/001, Protective Action Guides and Planning Guidance for Radiological Incidents.

FORT ST. VRAIN EMERGENCY RESPONSE PLAN

STI-NLF-EIP-014 REV 0

NRC LICENSED FACILITIES
CONTRACT DE-EM0003976

EFFECTIVE DATE
AUGUST 18, 2017

REVISION RECORD

Rev	Date	Section	Description
0	8/18/17	ALL	Initial issue

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1. INTRODUCTION

1.1 Purpose

Introduction [Responsive to *10 CFR 72.32(a)(1), (13), and (14)]*

The Fort St. Vrain (FSV) Independent Spent Fuel Storage Installation (ISFSI) is owned and operated by the Department of Energy (DOE). The Nuclear Regulatory Commission (NRC) licenses the FSV ISFSI to DOE. Routine daily operation of the facility is conducted by Spectra Tech Inc. (STI). Spent nuclear fuel from the decommissioned FSV Nuclear Generating Station is stored in the ISFSI.

The Federal Radiological Emergency Response plan (FRERP) identifies the NRC as the lead federal agency (LFA) responsible for leading and coordinating all aspects of the Federal response to an incident at an NRC licensed facility.

The ISFSI is located about 3.5 miles northwest of Platteville, in Weld County, Colorado, and about 35 miles north of Denver.

Population density in the rural area surrounding the site is relatively low. Based on the 2000 census, the population within a 5-mi radius of the ISFSI was estimated to be 5,369. The nearest town is Platteville, which has a 2000 census population of 2,370. The majority of land within 5 mi of the site is agricultural. The area is characterized by irrigated farmland and pasture land with gently rolling hills. The ISFSI location is about 1.5 miles south of the confluence of the South Platte River and St. Vrain Creek.

The Modular Vault Dry Store (MVDS) provides for vertical, dry storage of irradiated graphite fuel elements in a reinforced concrete structure covered by a clad steel framework. The MVDS civil structure consists of a transfer cask reception bay, charge face, container handling machine, charge face isolation valve, crane, cooling air outlet chimney, and cooling air inlet structure.

The MVDS is designed for interim storage of fuel for 40 years in a contained shielded system. The design provides for up to six fuel elements stacked vertically in each fuel storage container. The fuel storage containers are tubular, closed at the lower end and sealed at the top. They are located and supported at their lower ends on the floor of the concrete vault module and supported at their upper ends by the charge face structure. Concrete walls provide shielding, as well as protection from tornado missiles and earthquakes. Fuel storage containers are positioned in an array of up to 45 to form a module surrounded by massive concrete shielding.

Decay heat from the loaded fuel storage container in a storage well is dissipated to the surrounding air by a once through buoyancy driven air flow that is ducted out of and back into the adjacent vault module structure surrounding the storage wells. Cooling air enters the vault module through a mesh covered opening. The cooling air is exhausted to the atmosphere through a concrete cooling air outlet chimney.

The physical barriers at the ISFSI include several fences. The inner fences are for security purposes. The outer fence approximately 100 meters from the outer surface of the MVDS defines the Emergency Planning Zone (EPZ) boundary.

The Emergency Planning and Community Right-to-Know Act (EPCRA), also known as the Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III, is referred to in *10 CFR 72.32(a)(13)* with respect to hazardous materials at an ISFSI. The Idaho National Laboratory (INL) Environmental Compliance Planning Manual (DOE/ID-10166) and Management Control Procedure MCP-3480, Environmental Instruction for Facilities, Processes, Materials, and Equipment, discuss and implement the EPCRA requirements, which specify that if a facility has an extremely hazardous substance in an amount greater than the appropriate threshold planning quantity, then the facility must designate a facility Emergency Coordinator to participate in the local planning process. Under DOE direction, an evaluation has been performed and it has been determined that extremely hazardous substances are not stored at the ISFSI in amounts greater than threshold planning quantities. DOE certifies that it has met its responsibilities under EPCRA with respect to hazardous materials at the ISFSI.

The Emergency Response Plan (ERP) consists of this document. The ERP is implemented through implementing procedures, the topics of which are listed in Appendix A of this manual. The ERP:

- Describes the facility
- Identifies types of accidents
- Provides a mechanism to classify emergencies according to the severity of the situation
- Identifies how accidents are identified
- Describes methods to be used to mitigate the consequences of an emergency
- Describes the methods used to assess the releases of radioactive materials
- Describes the responsibilities of both DOE and contractor personnel
- Describes the methods to be used to notify and coordinate with offsite response organizations and request offsite assistance
- Identifies the information to be communicated to NRC and offsite agencies
- Describes the training provided to workers on how to respond to emergencies at the facility
- Describes the means of restoring the facility to a safe condition after an accident
- Describes the Exercise program to be used to ensure the readiness of the facility to respond to emergencies
- Certifies DOE has met its responsibilities under the EPCRA of 1986 with respect to hazardous materials at the facility
- Provides for comments of this plan by offsite response organizations
- Describes arrangements made for requesting and effectively using offsite assistance onsite and provisions that exist for using other organizations capable of augmenting the planned onsite response
- Describes the arrangements that have been made for providing information to the public

Procedures have been developed to implement the ERP, provide the foundation for the Emergency Management Program, and comply with *10 CFR 72.32(a)*.

DOE allowed the offsite response organizations expected to respond in case of an accident 60 days to comment on the initial submittal of the ERP before submitting it to the NRC. Subsequent plan changes need not have the offsite comment period unless the plan changes affect the offsite organizations. DOE shall provide any comments received within the 60 days to the NRC with the emergency plan.

1.2 Scope

DOE recognizes a potential exists for an accident to occur at the ISFSI. The ERP defines and classifies the various types of emergencies that may occur.

1.2.1 Emergency Response Plan

- Provides a mechanism to classify emergencies at the ISFSI according to the severity of the situation
- Describes the organization and communications that are established to manage the emergency
- Outlines course-of-action and corresponding protective measures to mitigate consequences of an accident
- Describes the Recovery Organization and general considerations to return the facility to a pre-emergency condition

1.2.2 The ERP implementing procedures, which administer the plan, designate responsibilities and define actions to be taken by pre-assigned personnel to reduce the consequences of an accident.

1.2.3 The ERP is applicable to all DOE, contractor, and offsite response personnel, who have assigned duties at or related to the ISFSI.

1.2.4 This procedure applies to the Spectra Tech Inc. (STI) employees and their subcontractors for the Department of Energy (DOE) Prime Contract DE-EM0003976, NRC Licensed Facilities (STI-NLF).

1.2.5 The Integrated Safety Management System (ISMS) is applied to planning and performance of work activities that may produce opportunity for harm to workers, co-located workers, the public, and/or the environment. The application of ISMS applies to procedures that touch on planning and performance of work activities.

ISMS consist of five (5) Core Functions and eight (8) Guiding Principles that are applied to work planning, work implementation, and work closeout as applicable. Refer to STI-NLF-PM-014, Integrated Safety Management System Description, to review the five Core Functions and eight Guiding Principles of ISMS.

2. GENERAL

2.1 Summary of the Emergency Response Plan

2.1.1 The ERP governs DOE, contractor, and offsite response to emergencies associated with the ISFSI. The ERP (a) delineates the organization for emergencies, (b) classifies emergencies according to severity, (c) defines and assigns responsibilities and authorities, (d) outlines measures to mitigate the consequences of an accident, and (e) minimizes the effects on the health and safety of the public and facility personnel.

2.1.2 The Emergency Response Organization (ERO) is responsible for emergency operations and for providing accurate facility status information to offsite authorities.

2.1.3 Sections 4.1 through 4.7 of this plan and procedures listed in Appendix A of this plan provide details of the Emergency Preparedness Program. The contents of these sections are summarized below:

1. Section 4.1 – Staffing and Event Classifications: This section describes emergency classifications and nonemergency events. Initiating events and Emergency Action Levels (EALs) are described in procedures listed in Appendix A of this manual. EALs noted are based upon design characteristics specific to the ISFSI. Means of detecting accident conditions are included in procedures listed in Appendix A.

2. Section 4.2 – Emergency Organization: This section describes the ERO, with details on the functions and responsibilities assigned to the Command Post (CP) and Emergency Operations Center (EOC) personnel for both normal and emergency operations. This section also indicates specific assignments of personnel.

3. Section 4.3 – Offsite Emergency Support: This section describes the local services, contract, and federal assistance support available to the ERO.

4. Section 4.4 – Emergency Measures: This section describes the activation of the ERO, assessment of emergency conditions and corresponding protective actions, notification made in the event of emergency classification, and measures to aid injured and/or contaminated personnel. This section also includes exposure criteria for emergency workers and an EPZ map for the ISFSI.

5. Section 4.5 – Emergency Facility, Equipment, and Procedures: This section describes facilities and equipment available to assess emergency conditions, to support emergency operations, to treat injured/contaminated personnel, and to control incident-related damage. This section also

outlines communication links. A listing of procedures that effectively implement the ERP is included in Appendix A.

6. Section 4.6 – Maintaining Emergency Preparedness: This section summarizes the Emergency Training Program, describes emergency drills and exercises, and details methods to review and update the ERP.

7. Section 4.7 – Recovery: This section discusses recovery and the Recovery Organization.

2.2 Quality Records

Records of drills, exercises, actual emergencies, and other activities performed under this document and associated implementing procedures and forms including activities performed under STI-NLF-EIP-008, "Fort St. Vrain Emergency Response Plan Requirements," are quality records and shall be controlled as such.

3. PREREQUISITES

None

4. INSTRUCTIONS

4.1 Staffing and Event Classifications

The FSV ISFSI has permanent, full-time staff that perform the following:

- Security Officers, who monitor the security surveillance video cameras and perform periodic, scheduled rounds of the ISFSI and its environs 24 hours a day.
- One (1) ISFSI Manager who is a trained Emergency Coordinator (EC) available during normal working hours.
- One (1) Facility Safety Officer (FSO) who is a trained EC available during normal working hours.

NOTE: A trained EC is on-call 24 hours a day. Additional personnel may be trained and available to act as ECs.

The classification system results in responses and procedures that are both timely and appropriate for each emergency condition. When determining the classification of a particular situation, the higher classification (ALERT) would be consulted first, working down to the lower classification, Notification Of Unusual Event (NOUE).

4.1.1 Emergency Classifications [Responsive to 10 CFR 72.32(a)(2), (3), and (4)]

The following are the descriptions of the two emergency classifications used. Each classification description includes appropriate levels of emergency response actions.

The NRC and DOE Operations Centers shall be notified immediately after notification of the appropriate offsite response organizations and not later than 1 hour after declaration of an emergency. The NRC is the lead federal agency for emergency response to an NRC licensed facility.

ALERT:

An event is in progress or has occurred that involves an actual or potential substantial degradation of the level of safety of the ISFSI. Any radioactive releases are expected to be limited to small fractions of the EPA Protective Action Guideline
exposure levels.

a) Typical indications and initiating events for an ALERT include the following:
   - Reported or confirmed unauthorized acts that have the apparent intent or potential for affecting containment of irradiated fuel within the MVDS structure, cooling, shielding, explosion, or fire within the MVDS that lasts longer than 15 minutes.
   - Observed or reported, as determined by off-normal event assessment, damage to the MVDS structure that could result in a loss of containment or loss of shielding or damage to the MVDS inlet/outlet cooling ducts that could result in blockage of cooling air flow or loss of shielding.
   - Observed or reported drop of a loaded fuel storage container with a breach of the container.
   - Unexpected high radiation levels or high airborne radioactivity that indicates severe degradation in control of radioactive materials.
   - Reported and/or confirmed loss of spent fuel.
   - Accidental criticality.
   - Reported or experienced severe natural phenomenon such as seismic activity, flood near design level of 6 feet, or tornado striking the ISFSI.

b) The purpose of the ALERT category is to ensure that emergency personnel are readily available to provide offsite authorities with current status information. Emergency personnel will take corrective actions, as necessary, to mitigate the consequences of an event. If necessary, ISFSI personnel will be accounted for and evacuated to a designated assembly area located in the Administration Building/CP.

c) Declaration of an ALERT will trigger prompt initial and follow-up notification to offsite authorities. If applicable, radioactive release information will be provided to offsite authorities. The ALERT status is maintained until the event is declared to be downgraded or terminated.

Notification of Unusual Event (NOUE):

An event is in progress or has occurred that indicates a potential for

degradation of the level of safety of the ISFSI. No release of radioactive material requiring offsite response or monitoring is expected unless further degradation of the ISFSI occurs.

a) Typical indications and initiating events for a NOUE include the following:
   - An observed or reported fire in the MVDS that has the potential to spread.
   - Observed or reported unusual hazards experienced or projected such as an aircraft crash on site, a near site explosion, or entry of uncontrolled toxic or flammable gases into the facility environs.
   - Any equipment or system configuration initiating, or as indicated by an off-normal event assessment, an accident involving storage or handling of spent fuel that could result in a loss of containment or shielding.
   - Any event, as indicated by an off-normal event assessment, which may have the potential to impact effectiveness of facility shielding or cooling.
   - Visually observed or reported natural phenomenon that are experienced or projected that represent risk beyond normal levels including floods and tornadoes on site.
   - Reported, but unsubstantiated or potential threats, such as bomb threats or extortion, or any act that has the apparent intent of disrupting operations.
   - Reported and/or confirmed loss of a major portion of a physical security system that cannot be compensated.

b) The purpose of a NOUE is to ensure that the first step in any necessary response has been carried out; bring the operating staff to a state of readiness; and provide systematic handling of unusual event information and decision making.

c) In these situations, time is available to take precautionary and constructive steps to prevent a more serious event and/or to mitigate any consequences that may occur. This event status places the ISFSI in a readiness position for a possible cessation of routine activities and/or an augmentation of resources. State officials are notified of a NOUE.

4.1.2 Possible Accidents and Initiating Events

The accidents that could occur at the ISFSI have been analyzed in Section 8 of the FSV Safety Analysis Report (SAR) for their severity of consequences and probability of occurrence. These accidents reflect the design characteristics of the ISFSI, which are:

- Tornado and tornado generated missiles
- Earthquakes

- Dropping of a fuel storage container
- Fire and explosions
- Drop of a transfer cask
- Impact on charge face structure
- Long term loss of AC electrical power
- Full or partial blockage of inlet to vault module
- Tornado generated missile impact on the transfer cask in the transfer cask reception bay or cask load/unload port
- Tornado generated missile impact on the container handling machine
- Lifting of equipment out-of-sequence
- Close isolation valve onto partially inserted fuel storage container
- Deposit fuel storage container/fuel element on the charge face
- Traverse container handling machine with load partially inserted
- Maximum credible accident leak of one fuel storage container in a vault module due to fuel storage container seal failure or corrosion.

4.2 Emergency Organization [Responsive to *10 CFR 72.32(a)(7), (8), (9), and (16)*]

4.2.1 Normal Facility Organization

- The normal facility organization is depicted in Appendix B.
- Based on the credible accidents at the ISFSI, offsite dose consequences will be negligible and DOE does not anticipate emergency classifications above an ALERT. With no offsite consequences, DOE does not expect activation of the Colorado State Radiological Emergency Response Plan to support an emergency.

4.2.2 Emergency Response Organization

1. Command Post

a) The ERO for an ALERT emergency classification is depicted in Appendix C. In the event of an emergency, the CP personnel have the responsibility to initiate immediate actions to limit the consequences of the emergency and to return the ISFSI to a safe and stable condition. The Facility Manager or designated alternate assumes the responsibilities of the EC. During an NOUE emergency classification, the normal facility organization will manage the emergency situation.

b) The EC is responsible for:
- Timely classification and declaration of the emergency event.
- Initial and follow up notification of appropriate governmental agencies. The notification time requirements start upon event declaration regardless of whether or not management contact is desired or accomplished. Notification is conducted in accordance with STI-NLF-EIP-003, "Fort St. Vrain Event Notifications."
- Initiating protective actions for facility personnel.

- Initiating any required corrective actions to mitigate the consequences of the event.
- Diagnosing the accident condition and estimating radiological exposures based on ISFSI design basis accident consequences.
- Conferring with STI-NLF management personnel for advice or concurrence with initial accident classification. Contacting management should not delay making an event classification and declaration, nor should it delay the required offsite notifications.
- Acting as the onsite Public Information Officer (PIO) until a DOE-Headquarters representative arrives. The DOE Golden, Colorado, Field Office will provide a PIO when requested per STI-NLF-EIP-010, "Fort St. Vrain Emergency Public Information." Preapproved generic press releases will be issued as soon as possible to inform the public of events at the FSV Facility. Follow-up releases will be made at least hourly, and whenever additional significant information is available.
- Direction and coordination of emergency operations. Providing direction to, and coordination for, the ERO.
- Facility status updates and radiological information/estimates to appropriate offsite agencies.
- Ensuring adequate administrative, technical, and logistic support is available.
- Ensuring continuity of emergency organization resources.
- Collecting and analyzing technical information.
- Personnel accountability.
- Assessing radiological release consequences.
- Coordinating assistance from the FSV Advisor (FSVA) including assembling personnel for Emergency Response Teams and reserve staffing.

2. EOC

a) The DOE INL contractor maintains the capability to provide INL EOC support in the event of an emergency at the ISFSI facility.

b) An FSVA will be dispatched to the EOC to provide support in the event of an emergency at the ISFSI facility. The FSVA will coordinate engineering, licensing, and maintenance support; develop procedures; provide system analysis support; determine alternative system/equipment capabilities or configurations and repair/install/modify equipment; and collect technical data as necessary. Responsibility for making follow up classification and notifications may be formally transferred from the EC to the FSV Advisor.

An STI-NLF Senior Management Advisor (SMA) will be dispatched to the INL EOC to provide support in the event of an emergency at the ISFSI facility. The SMA will provide support and approve press releases.

c) The DOE ICP Core contractor maintains the capability to provide support in the event of an emergency at the ISFSI facility. Support includes Fluor Idaho contactor personnel, facilities, and equipment, which may be needed in an emergency situation. FSV requests for resources will be coordinated among the INL Emergency Director, DOE-ID, STI-NLF, and the Fluor Idaho Program Manager or designee in the EOC. Capabilities include:
   - Engineering and Technical Analysis:
     Engineering, licensing, and maintenance support; developing procedures; providing system analysis support; determining alternative system/equipment capabilities or configurations and repairing/installing/modifying equipment; and collecting technical data as necessary.
   - Radiation Protection:
     Personnel who can direct and perform radiation and contamination surveys and provide contamination control as required.

3. CP/EOC Activation

The EC and Facility Safety Officer operate from the CP. The CP will be staffed and operational within 60 minutes after classification of an ALERT level incident. If a security ALERT initiates an ALERT emergency declaration, the CP will be staffed and operational 60 minutes following release of personnel to freely move about the site. Key staffing of the EOC will be activated within 90 minutes after notification of an ALERT.

4.3 Offsite Emergency Support [Responsive to *10 CFR 72.32(a)(15)]*

Offsite emergency support is required under various circumstances. Appendix D lists the support services and organizations that would be of primary assistance during an emergency situation. Letters of Agreement between these organizations and DOE are maintained and will be reviewed annually and updated every 5 years, or as necessary. It is not necessary to have an Emergency Response Letter of Agreement for every organization that may lend assistance.

4.3.1 Local Services Support

In emergency situations, assistance from outside organizations may be required. Available assistance includes traffic control, local ambulance service to provide medical treatment and transport of injured and/or contaminated personnel as well as hospital facilities for personnel who require such assistance. In addition, the Platteville Gilcrest Fire Protection District (PGFPD) provides for onsite fire protection assistance.

4.3.2 Subject Matter Expert Support

Specialized assistance from various sources may also be requested in an emergency situation. Support may include construction, dosimetry and laboratory analysis, and decontamination and radioactive waste disposal assistance.

4.3.3 Federal Assistance

In addition to coordination with State/local governmental entities, technical assistance from other Federal agencies including the NRC in the area of communications, radiological monitoring, laboratory analysis, transportation, and meteorology may be requested through the EOC.

4.4 Emergency Measures [Responsive to *10 CFR 72.32(a)(11)]*

Emergency measures for the ISFSI will be initiated upon, and according to, event classification. This section identifies segments of the ERO, details methods and procedures for assessment actions and required notifications, specifies actions to correct or minimize the emergency situation, describes protective actions to prevent or minimize radiological exposure, sets forth measures to assist persons injured or contaminated, and defines the EPZ.

4.4.1 Activation of Emergency Response Organization

NOTE: Activation of the ERO is not required in a NOUE.

The two classes of emergency defined in Section 4.1.1 require a varying degree and scope of emergency event responses. The emergency organization activated in each emergency classification is described in Section 4.2.2. CP personnel will immediately initiate action to limit the consequences of an event and to return the facility to a safe and stable condition. The emergency organization for a NOUE consists of normal staff personnel. For ALERT level accidents, the CP will be staffed with an EC and activated.

State and county agencies, as well as the NRC Operations Center, the DOE Headquarters Operations Center, and the INL Warning Communications Center (WCC), will be notified of an emergency event (Appendix E). STI-NLF-EIP-003, "Fort St. Vrain Event Notifications," identifies the agencies to be notified and their telephone numbers.

4.4.2 Assessment Actions [*Responsive to 10 CFR 72.32(a)(6)*]

The assessment of facility conditions, radiation levels, and offsite consequences is coordinated by the EC. Assessment will continue throughout the emergency period and may result in reclassifying the incident and consequent alteration in emergency response actions. Methodology used to predict EPZ dose rates is contained in STI-NLF-EIP-007, "Fort St. Vrain Dose Assessment". Dose rates from incidents involving an actual release of radioactive materials to the environment are verified by personnel that survey

the EPZ boundary and other areas as may be appropriate. A map of the EPZ is included as Appendix F.

4.4.3 Mitigation [Responsive to *10 CFR 72.32(a)(5)*]

In the event of an emergency, the EC has the responsibility to initiate immediate and ongoing actions to limit the consequences of (mitigate) the emergency and to return the ISFSI to a safe and stable condition and protect workers onsite. Mitigating actions will be emergency dependent and will make use of the ERO, facilities and equipment, and offsite assistance as deemed necessary.

4.4.4 Corrective Action

Corrective actions may involve response by the following organizations:

1. Fire Fighting:
   If fire-fighting assistance is required, a call will be made to the Weld County Regional Communications Center who will dispatch appropriate local fire departments; normally the PGFPD.

2. Physical Security:
   Bomb threats, civil disturbances, or other security threats will prompt a call to the Weld County Regional Communications Center who will dispatch appropriate law enforcement personnel. Imminent physical threat will prompt security personnel to declare a Security ALERT and announce for all personnel to take cover.

4.4.5 Protective Actions

1. Actions to protect ISFSI personnel and visitors are the responsibility of the EC.

2. Protective actions for personnel on ISFSI property will be taken whenever a radiological emergency has occurred that could result in a significant unplanned exposure to ISFSI workers.

3. In addition, protective actions will be taken for those personnel in other emergency situations such as fires, floods, and tornadoes where personnel safety is threatened. Notification will be by actuation of alarm systems, telephone calls, or announcements as applicable.

4. Accountability
   The on-scene Incident Commander (IC) is responsible for ensuring that initial accountability of personnel is completed within 1 hour of making an appropriate announcement. Initial accountability will be conducted by appropriate facility personnel and reported to the IC in accordance with the applicable implementing procedure. The initial report will include the

number or names of missing personnel. The IC is responsible for continuing accountability of personnel.

5. The designated assembly area for site personnel is normally the Administration Building/CP. An alternate assembly area(s) may be established as necessary.

6. Access Control
   Support personnel responding to the facility during an emergency report to the appropriate access control personnel. A staging area for support personnel will be established if needed.

7. Search and Rescue Operations
   When personnel are unaccounted for in the initial or subsequent accountability process, the IC may assign a team to locate personnel.

8. Use of Onsite Protective Equipment and Supplies
   Protective equipment and supplies are available to minimize radiological exposures and contamination problems.

9. Contamination Control Measures
   Measures will be taken to prevent, or minimize inhalation or ingestion of radioactive materials deposited within the EPZ. As necessary, affected areas will be identified and isolated.

4.4.6 Aid to Affected Personnel

1. Emergency Personnel Exposure Criteria:
   Exposure records are maintained as required for ISFSI personnel. If available, this information will be used in determining emergency team assignments. Guidelines established for limiting doses to emergency workers are shown in Appendix G. Appendix H describes the potential acute effects of radiation to the exposed responder. Emergency workers will carry appropriate dosimetry.

   - Every effort will be made to minimize emergency worker doses. The EC is responsible for emergency team assignments.

- The EC will be notified of accidental exposure in excess of occupational limits. Those individuals will not be assigned to further emergency team operations involving radiation hazards. Decisions to accept doses in excess of occupational limits in life saving situations will be on a volunteer basis. The EC is ultimately responsible for ensuring the distribution of appropriate dosimetry to emergency personnel and the ongoing accountability of each worker's exposure. Personnel suspected of receiving an intake of radioactivity will undergo bioassay.

2. Decontamination and First Aid
Provisions have been made with North Colorado Medical Center to assist personnel who are injured or who may have become contaminated. Onsite decontamination areas are equipped with decontamination supplies and other specialized equipment. Personnel found to be contaminated will undergo decontamination in accordance with the appropriate procedures. Where contamination of personnel with significant injuries is involved, personnel will be transported to North Colorado Medical Center for treatment.

3. Medical Transportation
Contaminated personnel who require immediate medical attention will be transported to North Colorado Medical Center by helicopter or ambulance service. A personal vehicle may be used, if appropriate. Radiation protection trained personnel will accompany contaminated patients to the hospital, if available. Communications between the CP and emergency medical vehicles will normally be channeled through the Weld County Regional Communications Center.

4. Medical Treatment
Arrangements for treating contaminated patients have been made with North Colorado Medical Center in Greeley, Colorado. In situations where there is not time to transport a patient to North Colorado Medical Center, any area hospital may be used. In these cases, radiation protection trained personnel will respond to assist in contamination control at the hospital, when available.

4.5 Emergency Facility, Equipment, and Procedures [Responsive to *10 CFR 72.32(a)(1) and (8)*]

This section describes the emergency response facility, onsite and offsite communication systems links, first aid and medical facilities, the decontamination facility, and damage control equipment and supplies. A listing of topics of procedures, which effectively implement the ERP, is included as Appendix A.

4.5.1 Command Post

1. CP
   Emergency assessment and control is directed from the CP by the EC. The primary CP is located outside of the ISFSI in the Administration Building, a modular building approximately 150 ft from the front of the ISFSI. The primary CP contains facility procedures and radio and telephone equipment. Technical drawings, radiological monitoring equipment, protective clothing, dosimetry, and decontamination equipment are also located in close proximity to the primary CP. An alternate CP location(s) may be established by the EC as necessary. Alternate CP location(s) may not contain or be in close proximity to the above materials.

2. Communications Systems
   Communications between onsite and offsite facilities and personnel consist of commercial telephones and radios. Two-way security radios may be used to maintain communications between the CP and facility emergency teams. Primary telephone and secondary communication links are shown in Appendix I. DOE, NRC, state, and county communications facilities are staffed on a 24-hour basis. These are the principal entities involved in the offsite notification process.

3. First Aid Supplies and Medical Facilities
   Necessary first aid kits, and basic medical supplies are maintained in case of injuries. Basic first-aid treatment of injured individuals will be administered by trained personnel. Advanced medical care, if required, will be obtained by contacting the Weld County Regional Communications Center for ambulance assistance and, if necessary, transporting the individual(s) to North Colorado Medical Center.

4. Offsite Fire Fighting Support
   The Weld County Regional Communications Center will be called for a fire, who will contact one or more of the local fire departments to respond.

5. Decontamination Supplies
   Decontamination supplies are maintained at the ISFSI to facilitate personnel with decontamination as necessary.

6. Radiation Detection Equipment
   Equipment is available to perform radiation monitoring inside and outside of the ISFSI.

7. Seismic Instrumentation
   Facility seismic instrumentation can be evaluated via a computer link.

8. Severe Weather
The ISFSI is designated as the shelter for severe weather warnings, i.e., tornado, severe thunderstorms, etc., for ISFSI personnel.

9. Implementing Procedures
ERP implementing procedures provide instructions and checklists for use by personnel when responding to an emergency declaration. Specific emergency preparedness procedures provide the means by which emergency equipment and supplies are maintained, and the drills and actions specified are performed.

4.6 Maintaining Emergency Preparedness

4.6.1 Organizational Preparedness

[Responsive to *10 CFR 72.32(a)(7), (10) and (12)*]

To ensure that the ERO is prepared, a program comprising: (a) personnel training, (b) participation in scheduled drills and exercise, and (c) regular emergency plan review and evaluation has been established.

1. Training
ERO ISFSI training is described in implementing procedure STI-NLF-EIP-009, "Fort St. Vrain Emergency Preparedness Training." Each ISFSI employee receives general instruction on the ERP. A training and annual retraining program is maintained to ensure that personnel who actively participate in emergency situations are familiar with the contents and responses set forth in the ERP.

Training for ICP ERO personnel is described in PLN-2012, ICP Emergency Plan/RCRA Contingency Plan.

Training for INL ERO personnel is described in PLN-114, INL Emergency Plan/RCRA Contingency Plan.

STI-NLF offers training for members of the local Fire Protection District, which includes familiarization with the layout; the location and nature of fire hazards; the location, type, and availability of extinguishing equipment; and radiological considerations. Training is also offered to the Weld County Sheriff and North Colorado Medical Center personnel. Such training for non-ISFSI personnel includes site access procedures, identification of station emergency personnel who will control such support forces, and a general ERP overview, as applicable.

2. Drills and Exercises
Regular participation by personnel in drills and exercises is scheduled to maintain emergency preparedness effectiveness and test the adequacy of emergency procedures and equipment. The FSV ISFSI Manager is

responsible to ensure drills and exercises are completed as described below.

- Drills
  Drills for the station staff are conducted periodically to: (a) test response timing and familiarity with implementing procedures and methods; (b) test emergency equipment; and (c) ensure that emergency organization personnel are familiar with their duties. Radiological/Health Physics, Medical, and Fire drills shall be conducted semiannually.

- Exercises
  Each exercise critique is conducted by individuals not having direct implementation responsibility for conducting the exercise. Exercise performance is critiqued by exercise controllers/observers who offer corrections to erroneous performance. Objectives and criteria are established for each exercise to assess performance of the participants against the objectives that are applicable to their function. These objectives and criteria allow the evaluation of the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the plan. Personnel are provided written evaluations of the exercise performance based on the results of critiques, including participant's comments, if available. Follow-up action is then delineated to upgrade areas where deficiencies are noted.

  A biennial exercise of the ERP will be conducted to test the adequacy of implementing procedures and methods, test emergency equipment and communications networks, and ensure that emergency response personnel are familiar with their duties. Offsite response organizations shall be invited to participate in the biennial exercise. The NRC will be notified in advance of the exercises.

  Scenario information must be strictly limited to those preparing, controlling, authorizing, and evaluating the event. It is the responsibility of each individual involved to limit release of scenario and related information. The exercise coordinator should stress confidentiality of the scenario time and details at all scenario group meetings.

3. Communication and Notifications
   Communication checks with offsite response organizations are conducted semiannually. Emergency Telephone Numbers are updated, as needed. Verification of emergency response facility communication links is accomplished quarterly.

4. Emergency Planning/Preparedness Responsibility
The FSV ISFSI Manager has overall responsibility and authority for developing, maintaining, and updating the ISFSI ERP.

4.6.2 Periodic ERP Review and Letters of Agreement

1. The ERP is reviewed annually and updated as needed. Special attention is devoted to maintaining effective communication channels, and ensuring up-to-date contact and notification lists.

2. Revised or updated emergency plans and procedures are handled in accordance with appropriate procedures.

3. Letters of Agreement are maintained between DOE and support organizations. These agreements are reviewed annually and updated every 5 years, or as necessary.

4.6.3 Maintenance and Inventory of Emergency Equipment and Supplies [Responsive to *10 CFR 72.32(a)(5)*]

Radiation monitoring equipment is calibrated and maintained in a state of readiness in accordance with contractor procedures.

4.6.4 Independent Review of the Emergency Management Program

An independent audit will be conducted on a biennial basis of the FSV Emergency Management Program.

4.7 Recovery

1. Recovery operations consist of transactions associated with the long-term post emergency efforts that follow a major incident. These transactions will be performed under the direction of the Recovery Manager.

2. After termination of the emergency, (i.e., the ISFSI is in a safe and stable condition) recovery actions are designed to: (a) assess the extent of facility damage, (b) prepare specific plans and programs for facility repairs, and (c) implement specific corrective action plans and programs.

3. The following general guidelines assist in determining whether the ERO should be terminated and the Recovery Organization established:

   - Radiation levels are stable or decreasing with time.

   - Releases of radioactive material to the environment have ceased.

   - Fire, flooding, or similar emergency conditions no longer constitute a hazard to facility personnel.

- The ISFSI is in a stable condition.
- Measures have been successfully instituted to correct or compensate for malfunctioning equipment.
- NRC and state/local officials have been notified of intent to terminate the ERO.
- The EC has authorized transition from the ERO configuration to the Recovery Organization, and notified personnel accordingly.
- Shipping accidents have been stabilized.

4. The Recovery Organization described in the following sections may be activated following the termination of the emergency. Staffing and equipment resources supporting the individual functional segments of the recovery organization will vary according to the severity of damage and specific situational needs.

5. During recovery, actions will be preplanned to limit exposures. Access to affected area will be controlled and exposure to personnel documented.

6. Management personnel involved in the emergency will be assigned to direct and coordinate recovery operations. An overview of topics that may be addressed during establishment of recovery operations is presented in Appendix J and STI-NLF-EIP-012, "Recovery." The Recovery Organization will be established to respond to a particular situation in accordance with STI-NLF-EIP-012.

5. DEFINITIONS

The following are selected terms commonly used in the ERP.

Assessment Actions: Actions taken during or after an accident to obtain and process information necessary to implement specific emergency measures.

Accountability: Process of identifying missing personnel.

ALERT: An event is in progress or has occurred that involves an actual or potential substantial degradation of the level of safety of the ISFSI. Any radioactive releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

Command Post (CP): During an emergency the CP operates under the direction of the Emergency Coordinator (EC) and is normally located in the modular building on the access road, approximately 150 ft from the MVDS. It is the primary point at which corrective actions are coordinated to mitigate an abnormal occurrence. The CP provides information and analysis regarding system problems and long and short-term guidance on corrective actions, serves as a staging area and support base for emergency personnel, and as the staff marshaling point for personnel awaiting assignment to emergency teams. It is the location

where initial assessment and classification of an incident is initiated. Alternate CP location(s) may be established as necessary by the EC.

Corrective Actions: Measures to reduce the severity of (or terminate) an emergency situation.

Emergency Action Levels (EALs): Parameters or symptoms used to designate a particular class of emergency. These parameters are indicators of the severity of an emergency, or potential severity, and are guides in determining appropriate emergency response measures. EALs can also be referred to as "initiating events" for those events severe enough to cause an event classification.

Emergency Coordinator: This individual has the responsibility and authority to initiate emergency actions immediately and unilaterally.

Emergency Director (ED): The senior INL contractor management official with overall strategic responsibility for emergency response.

Emergency Operations Center (EOC): The facility is located in Idaho and is maintained and operated by the INL contractor for the Department of Energy, Idaho Operations Office under the direction of the ED. Emergency response support for the FSV ISFSI is coordinated through the EOC.

Emergency Planning Zone (EPZ): An area surrounding the MVDS approximately 100 meters from the outer surface of the building. It is also referred to as the controlled area or owner controlled area.

Emergency Response Organization (ERO): DOE contracted personnel who are assigned a specific emergency position as defined in this plan and who are trained to perform specific emergency response functions.

Fort St. Vrain Advisor (FSVA): The FSVA acts as a single point of contact for the Emergency Coordinator to ensure needed resources are obtained.

Incident Commander (IC): The initial qualified responder to an event who is responsible for incident activities including the development and implementation of strategic decisions and for approving the ordering and releasing of resources.

Independent Spent Fuel Storage Installation (ISFSI): The ISFSI is owned and operated by DOE. The ISFSI comprises an MVDS structure and facilitates interim storage of FSV spent nuclear fuel and other radioactive materials (if necessary) associated with spent fuel storage.

INL Warning Communications Center (WCC): The communications center located in Idaho Falls, ID.

Notification of Unusual Event (NOUE): An event is in progress or has occurred that indicates a potential for degradation of the level of safety of the ISFSI. No release of

radioactive material requiring offsite response or monitoring is expected unless further degradation of the ISFSI occurs.

Public Information Officer (PIO): The DOE authorized spokesperson that is responsible for interfacing with the media during an emergency event.

Senior Management Advisor (SMA): The STI-NLF individual in the EOC responsible for coordinating with the FSVA to obtain needed INL and ICP Core resources.

6. REFERENCES

DE-EM0003976 NRC Licensed Facilities Contract for Spectra Tech Inc.
EPA-400/R-17/001 Protective Action Guides and Planning Guidance for Radiological Incidents
10 CFR 72 Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High Level Radioactive Waste
FSV ISFSI SAR, Section 8
Idaho National Laboratory (INL) Environmental Compliance Planning Manual (DOE/ID-10166)
MCP-3032, Fort St. Vrain Response (BEA procedure)
MCP-3480, Environmental Instruction for Facilities, Processes, Materials, and Equipment (Fluor Idaho Document)
PLN-114, INL Emergency Plan/RCRA Contingency Plan (BEA Document)
PLN-2012, ICP Emergency Plan/RCRA Contingency Plan (Fluor Idaho Document)
STI-NLF-EIP-001, FSV Command Post
STI-NLF-EIP-002, FSV Emergency Classification
STI-NLF-EIP-003, FSV Event Notifications
STI-NLF-EIP-004, FSV Personnel Emergency Response
STI-NLF-EIP-005, FSV Emergency Response Teams
STI-NLF-EIP-006, FSV Medical Emergency Response
STI-NLF-EIP-007, FSV Dose Assessment
STI-NLF-EIP-008, FSV Emergency Response Plan Requirements
STI-NLF-EIP-009, FSV Emergency Preparedness Training
STI-NLF-EIP-010, FSV Emergency Public Information
STI-NLF-EIP-011, FSV Reentry
STI-NLF-EIP-012, FSV Recovery
STI-NLF-EIP-013, FSV Event Response
STI-NLF-PM-014, Integrated Safety Management System Description

7. APPENDICES

Appendix A, Procedures that Implement or Supplement the ERP
Appendix B, Normal Facility Organization
Appendix C, Emergency Response Organization
Appendix D, Local Agency and Contract Support Services
Appendix E, Notifications Made in the Event of an Emergency Classification (Sample)
Appendix F, ISFSI Emergency Planning Zone
Appendix G, Exposure Guidelines for Emergency Workers

Appendix H, Acute Radiation Syndrome
Appendix I, Offsite Communication Links
Appendix J, Recovery Planning Topics (Sample)

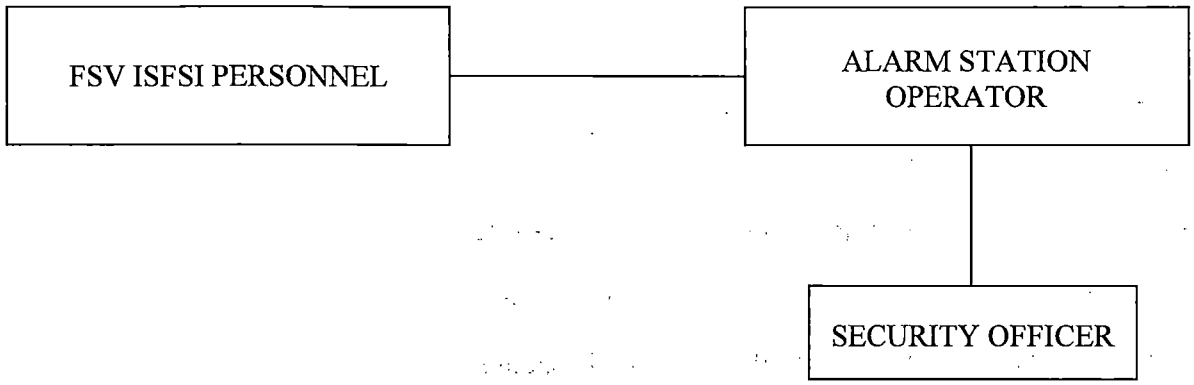
8. FORMS

None

APPENDIX A
Procedures that Implement or Supplement the ERP

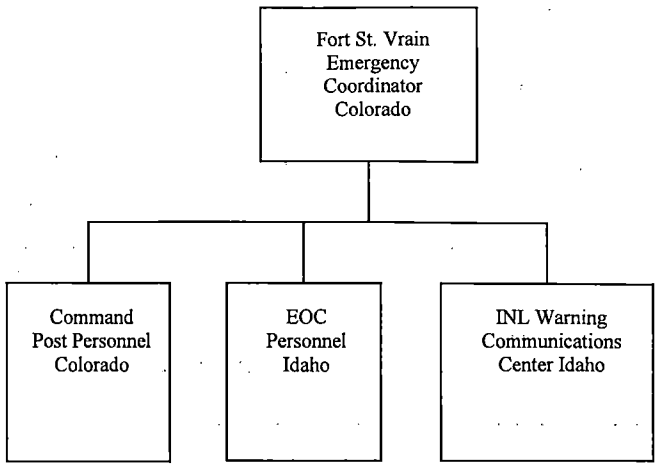
STI-NLF-EIP-001	FSV Command Post
STI-NLF-EIP-002	FSV Emergency Classification
STI-NLF-EIP-003	FSV Event Notifications
STI-NLF-EIP-004	FSV Personnel Emergency Response
STI-NLF-EIP-005	FSV Emergency Response Teams
STI-NLF-EIP-006	FSV Medical Emergency Response
STI-NLF-EIP-007	FSV Dose Assessment
STI-NLF-EIP-008	FSV Emergency Response Plan Requirements
STI-NLF-EIP-009	FSV Emergency Preparedness Training
STI-NLF-EIP-010	FSV Emergency Public Information
STI-NLF-EIP-011	FSV Reentry
STI-NLF-EIP-012	FSV Recovery
STI-NLF-EIP-013	FSV Event Response
MCP-3032	Fort St. Vrain Response (BEA procedure)
PLN-2012	ICP Emergency Plan/RCRA Contingency Plan (Fluor Idaho Document)
PLN-114	INL Emergency Plan/RCRA Contingency Plan (BEA document)

APPENDIX B
Normal Facility Organization



_____ LINE OF AUTHORITY AND COMMUNICATION

APPENDIX C
Emergency Response Organization

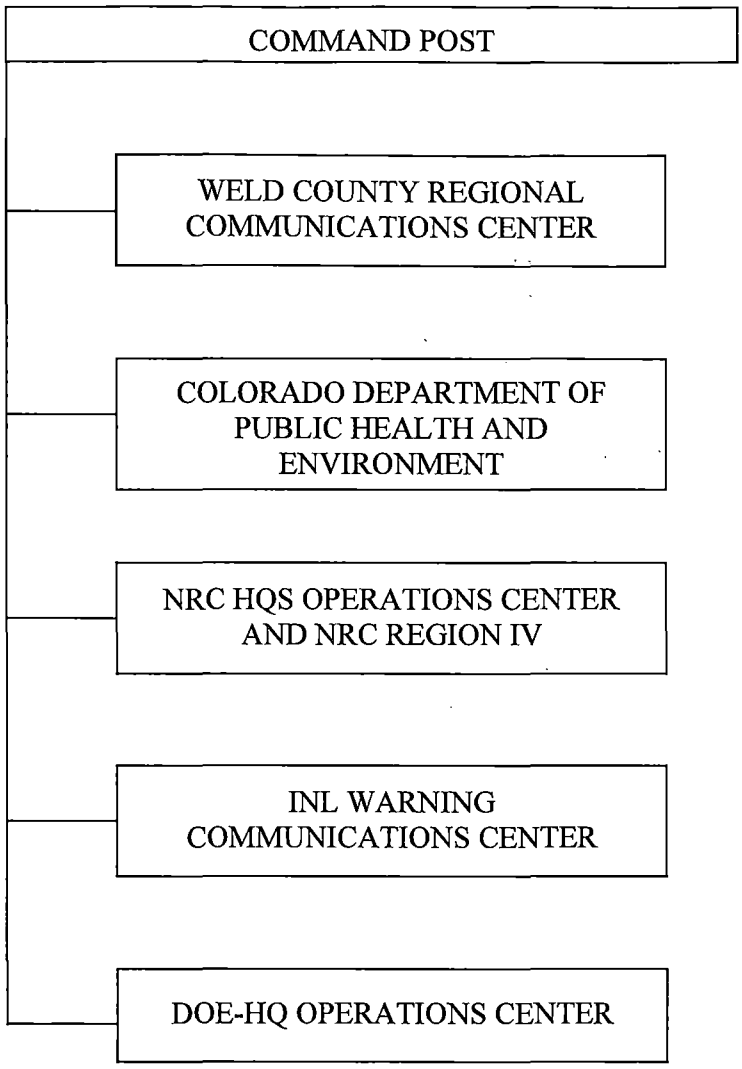


NOTE: The staffing represents an ALERT emergency classification.

APPENDIX D
Local Agency and Contract Support Services

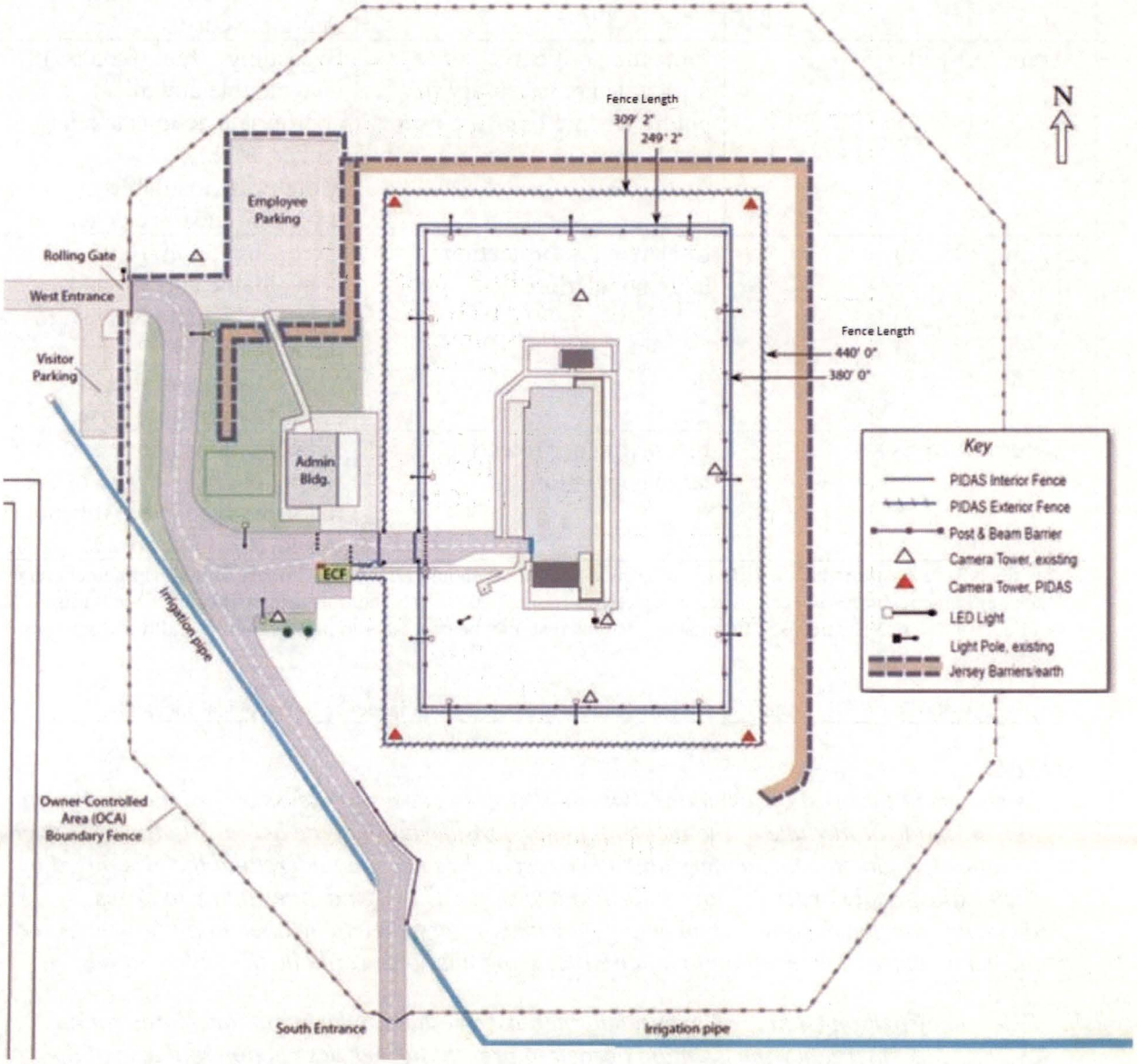
Local Agency	Support Service
Platteville Gilcrest Fire Protection District, Platteville, CO	Fire Protection/Ambulance Service
North Colorado Medical Center, Greeley, CO	Medical Treatment/Decontamination Assistance and Ambulance/Air Ambulance (Life Flight) Service
Weld County Sheriff, Greeley, CO	Physical Protection and Security
DOE Golden Field Office Golden, CO	Public Affairs/Media Interface

APPENDIX E
Notification Made In the Event of an Emergency Classification (Sample)



_____ Lines of Communication

APPENDIX F
ISFSI Emergency Planning Zone



APPENDIX G
Exposure Guidelines for Emergency Workers

Guideline	Activity	Condition
5 rem (0.05 Sv)	All occupational exposures	All reasonably achievable actions have been taken to minimize dose.
10 rem (0.1 Sv)	Protecting critical infrastructure necessary for public welfare (e.g., a power plant)	Exceeding 5 rem (0.05 Sv) unavoidable and all appropriate actions taken to reduce dose. Monitoring available to project or measure dose.
25 rem (0.25 Sv)	Lifesaving or protection of large populations	Exceeding 5 rem (0.05 Sv) unavoidable and all appropriate actions taken to reduce dose. Monitoring available to project or measure dose.
>25 rem (0.25 Sv)	Lifesaving or protection of large populations	All conditions above and only for people fully aware of the risks involved (See Appendix H and 10 CFR Part 20)[a]
a. It is the NRC's position that dose limits for normal operations should remain the primary guideline in emergencies to the extent practicable. However, in accordance with 10 CFR 20.1001(b), conformance with such dose limits should not hinder an NRC licensee from taking actions that may be necessary to protect public health and safety in an emergency. Source: EPA-400/R-17/001, Protective Action Guides and Planning Guidance for Radiological Incidents.		

NOTES:

a. *Decisions to take response actions that could result in doses in excess of 5 rem (50 mSv) can only be made at the time of the incident, under consideration of the actual situation. In such situations, incident commanders and other responders need to understand the risk posed by such exposures in order to make informed decisions. These guidelines apply to doses incurred over the duration of an emergency and are assumed to be once in a lifetime. After the early phase, it is likely that no more lifesaving missions would be needed.*

b. *Emergency personnel may be exposed to increased radiation during unique catastrophic events. The emergency intervention needed to prevent further destruction and loss of life may result in increased exposure. Exceeding the emergency worker guidelines may be unavoidable in responding to such events. For all exposures, emergency workers must be fully informed of the risks of exposure they may experience including numerical estimates of the risk of delayed health effects (See Appendix H), and must be trained, to the extent feasible, on actions to be taken. Each emergency worker should make an informed decision as to how much radiation risk they are willing to accept to complete a particular mission.*

APPENDIX H
Acute Radiation Syndrome

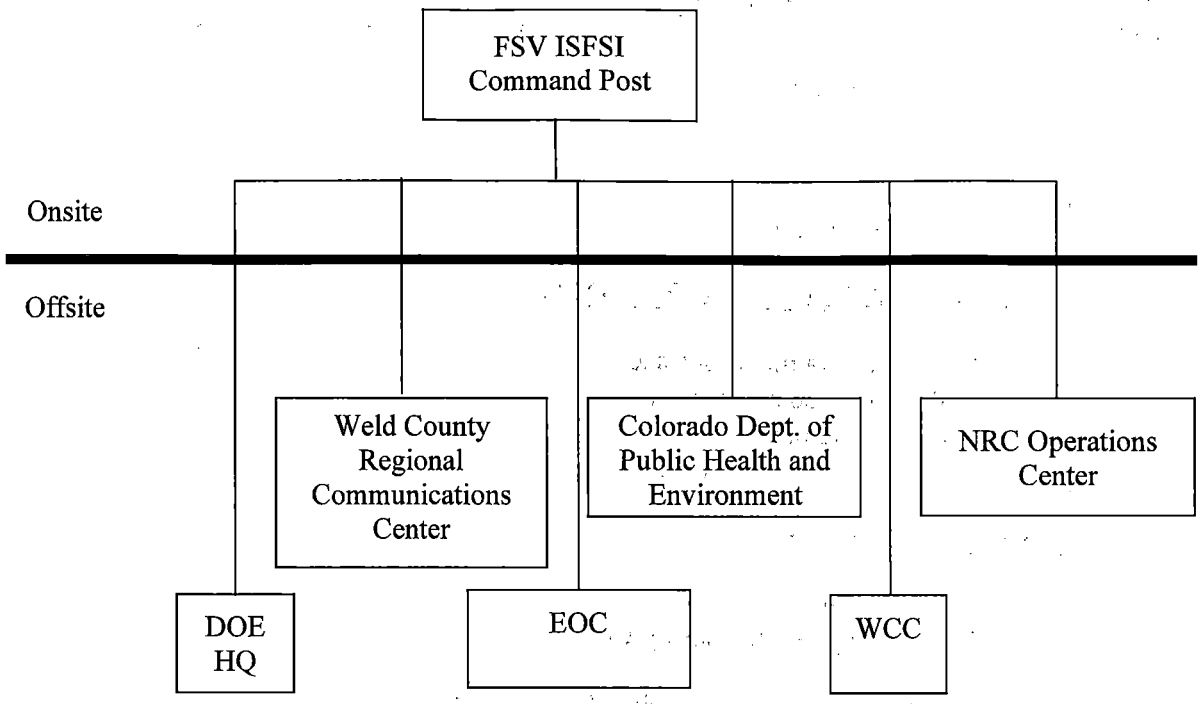
Acute Radiation Syndrome[a]

Feature or Illness	Effects of Whole Body Absorbed Dose from External Radiation or Internal Absorption, by dose range in rad (Gray)				
	0-100 (0-1 Gy)	100-200 (1-2 Gy)	200-600 (2-6 Gy)	600-800 (6-8 Gy)	>800 (>8 Gy)
Nausea, Vomiting	None[b]	5-50%	50-100%	75-100%	90-100%
Time of Onset		3-6 hr	2-4 hr	1-2 hr	< 1 hr to minutes
Duration		< 24 hr	< 24 hr	< 48 hr	< 48 hr
Lymphocyte Count	Unaffected	Minimally Decreased	<1000 at 24 hr	< 500 at 24 hr	Decreases within hours
Central Nervous System Function	No Impairment	No Impairment	Cognitive impairment for 6-20 hr	Cognitive impairment for > 20 hr	Rapid incapacitation
Mortality	None	Minimal	Low with aggressive therapy[c]	High	Very High: Significant neurological symptoms indicate lethal dose

a. Percentage of people receiving whole body doses within a few hours expected to experience acute health effects.
b. A small number of exposed individuals may experience symptoms such as nausea and vomiting at doses between 50 and 100 rad (0.5 and 1 Gy)
c. The LD 50/60 or the lethal dose with NO medical intervention to 50 percent of the population after 60 days is between 320 and 450 rad (3.2 – 4.5 Gy).

Source: EPA-400/R-17/001, Protective Action Guides and Planning Guidance for Radiological Incidents.

APPENDIX I
Offsite Communication Links



APPENDIX J
Recovery Planning Topics (SAMPLE)

The following is an outline of suggested topics that may be discussed while considering recovery operations. This outline is not all inclusive, rather it is provided for general guidance.

I. SUMMARY OF ACCIDENT

- A. Causes
- B. Initiating Events
- C. Accident Chronology

II. STATUS OF FACILITY AND PERSONNEL

- A. Injuries/Contamination Cases
- B. Radiation Exposure Summary
- C. Onsite Contamination
- D. Status of Facility Systems

III. SAFETY CONCERNS

- A. Entry Requirements
- B. Maintaining Stable Facility Conditions

IV. TENTATIVE REPAIR PLAN AND SCHEDULE

- A. Major Steps Necessary to Restore to a Pre-emergency Configuration
- B. Evaluation of Available Resources
- C. Licensing Considerations
- D. Quality Assurance Considerations
- E. Administrative Concerns
- F. Logistics/Scheduling
- G. Radiation Protection Considerations

V. CORPORATE RECOVERY ACTIVITIES

- A. Insurance Coverage/Contacts
- B. Reportability