

Plan

Three-Mile Island Unit 2 (TMI-2) Independent Spent Fuel Storage Installation (ISFSI) Emergency Response Plan (ERP)

**Idaho
Cleanup
Project**

CH2M • WG Idaho, LLC is the Idaho Cleanup Project contractor for the U.S. Department of Energy

THREE-MILE ISLAND UNIT 2 (TMI-2) INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) EMERGENCY RESPONSE PLAN (ERP)	Identifier: PLN-1610 Revision*: 6 Page: 1 of 62
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ACRONYMS

ALOHA	Areal Locations of Hazardous Atmospheres
ATR Complex	Advanced Test Reactor Complex
CFA	Central Facilities Area
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
DOE-HQ	U.S. Department of Energy Headquarters
DOE-ID	U.S. Department of Energy Idaho Operations Office
DRSC	Document and Record Service Center
DSC	Dry-Shielded Canister
EAL	Emergency Action Level
EAM	Emergency Action Manager
EC	Emergency Coordinator
ECC	Emergency Control Center
ECS	Emergency Communication System
ED	Emergency Director
EDF	Engineering Design File
EM	Emergency Management
EMT	Emergency Medical Technician
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EOC	Emergency Operations Center
ERO	Emergency Response Organization
ERP	Emergency Response Plan

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ES	Emergency Services
ESH&QA	Environment, Safety, Health, and Quality Assurance
ft	feet
HOC	Headquarters Operations Center
HSM	Horizontal Storage Module
ICP	Idaho Cleanup Project
ICS	Incident Command System
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
ISFSI	Independent Spent Fuel Storage Installation
JIC	Joint Information Center
MD	Medical Doctor
mi	mile(s)
mi ²	square mile(s)
MOA	Memorandum Of Agreement
MOU	Memorandum Of Understanding
NRC	U.S. Nuclear Regulatory Commission
PA	Protective Action
PAG	Protective Action Guide
PAR	Protective Action Recommendation
RCRA	Resource Conservation and Recovery Act
RSAC	Radiological Safety Analysis Computer
SAR	Safety Analysis Report
SAT	Systematic Approach to Training

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TMI-2	Three-Mile Island Unit 2
TRAIN	Training Records and Information Network
U.S.	United States
VIZ	Meteorological Visualization and Atmospheric Modeling System
WCB	Willow Creek Building
WCC	Warning Communications Center

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1. INTRODUCTION

1.1 Purpose

This Emergency Response Plan (ERP) provides facility-specific emergency planning information for the Three-Mile Island Unit 2 (TMI-2) Independent Spent Fuel Storage Installation (ISFSI). This document contains all the information necessary to establish and document an emergency planning approach for the TMI-2 ISFSI. The TMI-2 ISFSI is located within the Idaho Nuclear Technology and Engineering Center (INTEC) on the United States (U.S.) Department of Energy (DOE) Idaho National Laboratory (INL) Site. INTEC, including the TMI-2 ISFSI is operated by DOE's contractor responsible for the Idaho Cleanup Project (ICP), therefore, this plan has been prepared in a manner that is consistent with the format of the "*ICP Emergency Plan/RCRA Contingency Plan*," (PLN-2012) hereinafter referred to as the ICP Base Plan. The ICP Base Plan format has been followed in this document to provide straightforward implementation of the TMI-2 ISFSI Emergency Response Plan with the existing ICP emergency plans to ensure coordination of notification and response activities.

The INL can refer to an area or an organization, depending on the context. The TMI-2 ISFSI is located on the INL Site, and Emergency Services programs are administered by the INL contractor for the site in general. The TMI-2 ISFSI lies within the boundaries of INTEC which is operated and managed by the ICP contractor. Emergency Services for the ICP are administered by the ICP contractor.

Emergency response at the INL involves a three-tiered approach. The first tier consists of various Emergency Response Organizations (ERO) and the INL Fire Department at the INL Site. The INTEC ERO and the INL Fire Department make up the first tier for the TMI-2 ISFSI. EROs are configured to meet the needs of each facility individually and the INL Site collectively. The second tier consists of the INL Emergency Operations Center (EOC) staffed by INL and DOE-ID personnel. The third tier consists of the DOE Headquarters EOC in Washington, D.C., aided by other national emergency response agencies.

Because the TMI-2 ISFSI is a U.S. Nuclear Regulatory Commission (NRC) licensed facility, the TMI-2 ISFSI Emergency Response Plan documents how the requirements of *Title 10 Code of Federal Regulations (CFR), Section 72.32(a)* are met. No other documents are needed to demonstrate compliance with *10 CFR 72.32(a)*. In this respect, the TMI-2 ISFSI Emergency Response Plan is considered a stand-alone document as a license basis document. Implementing documents include the ICP Base Plan (PLN-2012), and implementing procedures, forms, training materials, etc.

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The external regulation of the DOE-owned TMI-2 ISFSI by the NRC sets this facility apart from the other facilities located on the INL Site. The INL has a security protective force, a fire department, a medical department, and an environmental monitoring department. These services are provided to the ICP by the INL contractor. The INTEC Emergency Action Manager (EAM) is responsible for managing all emergencies within INTEC, including the TMI-2 ISFSI, and transportation incidents within the facility boundaries. The INTEC EAM is available on site, or on call, 24 hours a day. The Central Facilities Area (CFA) emergency action manager (EAM), is responsible for managing all transportation incidents outside facility boundaries on the INL, is on call 24 hours a day. The DOE infrastructure (not including personnel or equipment specific to the TMI-2 ISFSI) is comparable to independent local (city or county) agencies that would provide external response to an NRC licensed ISFSI. Such external responders are not subject to NRC regulation, but DOE is responsible to ensure that adequate response capability, as described in this plan, exists at all times.

No TMI-2 ISFSI-specific criterion exists for implementing a RCRA Contingency Plan for incidents involving hazardous waste inside buildings at the TMI-2 ISFSI. The TMI-2 ISFSI will not possess or generate any RCRA-type waste. “The Emergency Planning and Community Right-to-Know Act of 1986,” (EPCRA) (Public Law 99-499, 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-R3) and Management Control Procedure (MCP) 3480, “Environmental Instructions for Facilities, Processes, Materials, and Equipment,” discuss and implement the EPCRA requirements.”

1.1.1 Update of Plan

The resources applied to emergency response at the TMI-2 ISFSI are some of those applied to other INTEC facilities. The TMI-2 ISFSI Emergency Response Plan will be reviewed against changes made to the ICP Base Plan and the INTEC Addendum and updated as needed to ensure the description of the emergency planning approach for the TMI-2 ISFSI remains accurate. Changes to the TMI-2 ISFSI Emergency Response Plan will be subject to the change controls of *10 CFR 72.44(f)*. This particular document hierarchy is needed to avoid regulating ICP-wide emergency response under both DOE and NRC requirements.

1.1.2 Control of Copies

Because the TMI-2 ISFSI is located within INTEC, the INTEC Emergency Control Center (ECC) serves as the TMI-2 ISFSI ECC. Copies of the TMI-2 ISFSI Emergency Response Plan are maintained in the INTEC ECC and other INL facilities, as appropriate.

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1.2 Scope

1.2.1 Types of Emergencies

Emergencies are significant accidents, incidents, and events that have seriously degraded, or have the potential to seriously degrade, the safety or security of the facility. Emergencies may also include operational, security, or medical events and natural phenomena.

Emergencies at the TMI-2 ISFSI shall be classified as an Alert. Section 5 addresses the accident types and classification guidelines.

Other INL facilities use DOE emergency categorization and classification guidelines: (a) Unclassified Operational Emergencies (b) Alert, (c) Site Area Emergency, and (d) General Emergency, per DOE O 151.1C. The DOE definitions may differ from those used for NRC notification in this plan.

1.2.2 Facilities and Site Boundaries

This ERP shall be implemented for emergencies that originate at the TMI-2 ISFSI and may also be implemented for other ICP or INL events that impact the TMI-2 ISFSI.

The TMI-2 ISFSI is surrounded by a security fence that restricts access and protects individuals against undue risks from exposure to radiation and radioactive materials (see Figure 1-1). The TMI-2 ISFSI is located wholly within the INTEC boundary, which is located wholly within the INL Site boundary. Access by the general public to the INL Site is controlled. The INL Site boundary is the controlled area boundary for the TMI-2 ISFSI (see Figure 1-2).

1.3 Concept of Operation

1.3.1 Basis for the Plan

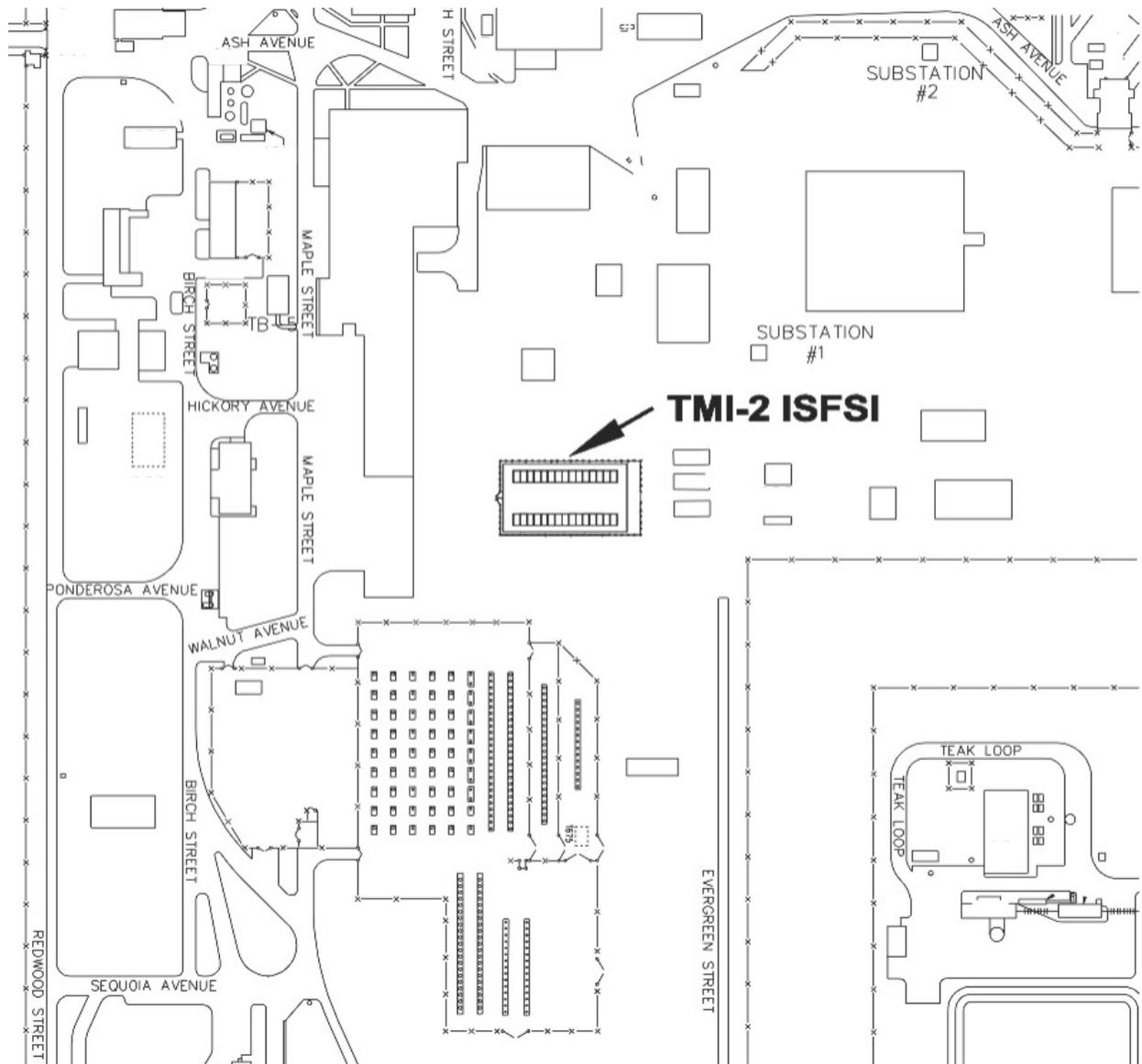
This emergency plan provides the emergency planning requirements for the TMI-2 ISFSI. It was developed based on TMI-2 ISFSI accident analyses as described in the Safety Analysis Report (SAR).

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Figure 1-1. Location of TMI-2 ISFSI at INTEC.

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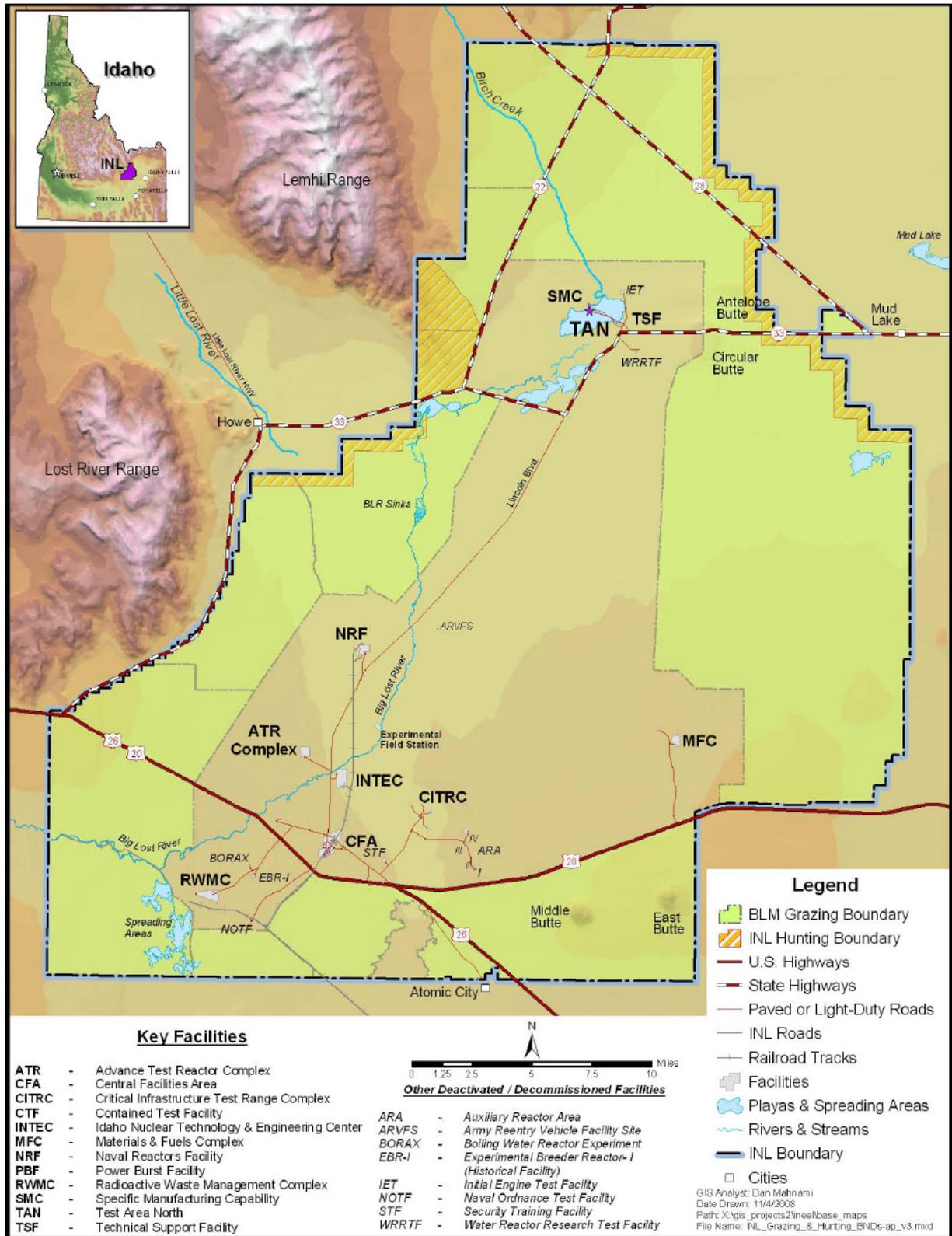


Figure 1-2. INL Site boundary.

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1.3.2 Basis of Operation

The basis of TMI-2 ISFSI emergency management is consistent with the ICP and INL Incident Command System (ICS). Personnel at the TMI-2 ISFSI identifying the need for response will notify the fire department or security as applicable and the INTEC Shift Manager, who will contact the on duty INTEC EAM for coordination of the event. (Most of the time the INTEC Shift Manager is the on duty EAM.) The on duty EAM is required to remain “fit for duty” and within 90 minutes of INTEC.

The INL Warning Communication Center (WCC), located in Idaho Falls, will notify the NRC Headquarters Operations Center (HOC) and the DOE Headquarters (DOE-HQ) Emergency Operations Center (EOC) immediately after any request for off-INL emergency response and notification of the appropriate INL response organizations. This notification will occur no later than 1 hour after the licensee declares an emergency.

1.4 Site Description

1.4.1 Overview Description of the Site

The 888 square mile (mi²) INL Site, in southeastern Idaho, is open, sagebrush covered, desert land. The INL is a research and development laboratory serving the needs of the DOE. The INL Site and its facilities, which are located entirely within the State of Idaho, are owned by the U.S. Government and administered, managed, and controlled by DOE.

The remoteness of the INL provides reasonable protection to the public. This is further enhanced by the location of the facilities toward the center of the reservation, which is surrounded by an area of very low population density. The large DOE-controlled area buffers hazardous facilities from unauthorized public intrusion, which augments security and public safety.

1.4.1.1 Detailed INTEC Facility Description

INTEC is situated on 200 acres of the sagebrush desert at the INL Site, within the boundaries of Butte County. The facility is 10.5 miles (mi) northwest of the nearest town, Atomic City, and 3.5 mi from the nearest public road, U.S. Highway 20/26. With respect to other INL facilities, INTEC is 2.9 mi north of the CFA, 1.8 mi southeast of the Advanced Test Reactor Complex (ATR Complex), 5.7 mi

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south of the Naval Reactors Facility. The facility is 8.0 mi north of the nearest INL Site boundary.

INTEC houses several facilities and operations, including spent fuel receiving and storage areas, liquid and solid radioactive waste management facilities, laboratory facilities, and older facilities undergoing decommissioning.

Bus staging areas are provided immediately outside the INTEC perimeter and at CFA. The paved road between INTEC and CFA is the primary route for access of emergency equipment from CFA and for evacuation from INTEC. Security posts are located throughout the INL. The INL Fire Department is located at CFA. Radiological control and monitoring facilities are located at several INL locations, including INTEC. Communications facilities are located at the WCC in Idaho Falls.

1.4.1.2 Detailed TMI-2 ISFSI Description

The TMI-2 ISFSI is a dedicated, secure area located on one-half acre of INL Site property within the INTEC, 50 mi west of Idaho Falls (see Figure 1-2). The area surrounding the ISFSI is fenced for security purposes and is a controlled area as defined in *10 CFR 20.1003*. The fenced area has sufficient area for receipt and handling of the dry-shielded containers (DSCs). Administrative offices and equipment storage areas are not required at the ISFSI because these functions are provided by INTEC.

The TMI-2 ISFSI is a modular system using heavily-reinforced, concrete horizontal storage modules (HSMs) that are placed on a 110-ft by 200-ft load-bearing foundation. The layout is based on the use of up to 30 HSMs. Each HSM holds a high-integrity steel DSC containing up to 12 stainless steel TMI-2 canisters. Each DSC is vented through a high-efficiency particulate air filter to prevent gas build-up inside the DSC.

1.4.1.3 Hazards Assessment

Hazards assessments have been performed for specific buildings and processes that operate at the INTEC. The hazards assessments for the INTEC are reported in the Hazards Assessment Documents for INTEC. Hazards for the TMI-2 ISFSI are analyzed in Chapter 8 of the TMI-2

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ISFSI SAR. The hazards at INTEC and elsewhere on the INL Site could affect the TMI-2 ISFSI only to the extent that personnel evacuation could be required. Because of the passive nature of the storage system, personnel evacuation from INTEC is not expected to impact the TMI-2 ISFSI. Potential damage to the ISFSI, essentially from natural phenomena, was analyzed in the TMI-2 ISFSI SAR.

1.4.2 Physical Attributes of the INL Site

1.4.2.1 Geography

The area comprising the INL Site is essentially a rectangle, 34 mi north-to-south and 29 mi east-to-west, with the northwest corner excluded. (see Figure 1-2)

1.4.2.2 Topography and Geology

The entire plain upon which the INL Site is located is surrounded by mountains 10,000 to 11,000 feet (ft) above mean sea level. Geologically recent volcanic activity is evident at the INL from the numerous lava domes, flows, and volcanic cones present. Recent studies indicate that a lava flow from a volcanic vent could affect some Site facilities, including INTEC. The INL Seismic Network would give warning of volcanic activity days or weeks beforehand.

1.4.2.3 Population Distribution

The population in the region surrounding the INL Site is clustered along the interstate highways located to the east and south. The largest and nearest urban area, within 50 mi of INTEC, is Idaho Falls with approximately 50,000 inhabitants. No other large city lies within 50 mi.

Figure 1-3 shows the population distribution within a 50-mi radius of the TMI-2 ISFSI (based on 2000 U.S. Census data).

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2. EMERGENCY RESPONSE ORGANIZATION

2.1 Organization Structure

DOE-ID utilizes a Site contractor for facility management and for the Emergency Response Organization (ERO) for the INL. Additionally, the DOE-ID utilizes a contractor for managing the ICP including emergencies affecting ICP facilities. In conjunction with the normal day-to-day operations, facility management is responsible for the safety of personnel and the public and for protection of property and the environment during an emergency. The DOE-ID Emergency Management (EM) Program Administrator oversees ICP emergency management program which includes the TMI-2 ISFSI.

The ICP ERO is structured to fit the diversity of the ICP and to optimize its resources. It is an umbrella structure, which consists of these levels: (a) on-scene, based at the Incident Command location; (b) facility, based at the ECC; and (c) Site/DOE-ID management, based at the EOC in Idaho Falls, Idaho.

Mitigation of the emergency (tactical response) is conducted in most cases at the scene of the incident by the Incident Commander. For most events (fire, hazardous material, and special rescue) the Incident Commander will be the senior fire department officer at the scene and the primary responders will be firefighters. In security-related incidents, the INL protective force would become the primary responders, with the senior protective force officer at the scene acting as the Incident Commander. Mitigation and on-scene protective actions (PAs) are the primary focus of these EROs.

2.1.1 Facility Management

The DOE-ID Facility Director is the licensee's management representative responsible for daily activities of the TMI-2 ISFSI, including the maintenance of license basis documents and implementing procedures and training.

The ISFSI Manager is responsible for preparing written reports to the NRC, and maintaining records associated with emergencies (events and conditions) that directly affect the TMI-2 ISFSI. Such records will support information required to be reported pursuant to *10 CFR 72.75*.

2.1.2 EM Department

The ICP EM program is developed and maintained by the ICP contractor with DOE-ID approval. The ICP emergency plans, the implementing procedures, and associated training are maintained by a subcontractor to the ICP. In addition to these document control records, records are kept

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to demonstrate completion of training, drills and exercises, and emergency equipment status.

2.1.3 Offsite Response

The services provided by the ERO are considered sufficient responding resources (fire, security, medical, and radiological control) for most emergencies at the TMI-2 ISFSI. Therefore, the only additional offsite response description is associated with offsite hospitals for significant medical emergencies and coordination with offsite fire and police departments and with various governmental agencies.

2.2 Emergency Direction and Control

During emergencies, the ICS is used. The ICS is an emergency management system designed for use from the time an incident occurs (even at less-than-emergency category events) until the requirements for emergency management and operations no longer exist.

The structure of ICS can be established and expanded/contracted depending upon the changing conditions of the event. The system consists of procedures for controlling personnel, facilities, equipment, and communications. The ICS structure is staffed and operated by trained, qualified personnel from the responding ICP ERO. In the event of an incident that requires unified command with multiple agencies, ICS adapts quickly to facilitate that effort, including incidents involving multiple jurisdictions.

The ICS unified command concept permits agencies/individuals with jurisdictional/functional responsibility to have a voice in determining overall objectives for addressing the incident and the methods used to obtain those objectives.

2.3 ERO Operations

2.3.1 ERO Personnel (Response)

The functions performed by the ICP and INL EROs (the INTEC ECC and the INL EOC) are identified with specific titles, but they may be performed by any ERO member with the appropriate expertise and training. The detailed responsibilities and activities of ERO personnel shall be specified in implementing emergency response documents (plans and procedures).

The INTEC EAM is responsible for emergency response at the TMI-2 ISFSI.

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2.3.1.1 INTEC ECC

- A. **EAM:** The EAM is responsible for all TMI-2 ISFSI response with the exception of tactical response, which is the Incident Commander's responsibility.
- B. **Support Manager:** The Support Manager oversees activating and deactivating the ECC and manages conduct of operations in the ECC.
- C. **Operations Manager:** The Operations Manager directs operational response activities. The Operations Manager reports to the INTEC EAM.
- D. **Planning Manager:** The Planning Manager gathers and analyzes data in relation to event consequences and operations for developing alternative tactical operations, projecting trends concerning the course of the event, and projecting issues to be addressed during the recovery phase of the event. The Planning Manager reports to the INTEC EAM.
- E. The Support and Planning Managers share in the management of the acquisition of personnel, equipment, supplies, vehicles, and services during the event. They are responsible for tracking and obtaining the support of emergency operations resources.

2.3.1.2 INL EOC

The INL EOC supports facility EROs by providing dose assessment and public information. The EOC does not assume classification, notification, or PAs for INTEC.

2.3.2 DOE-ID Emergency Organization

The DOE-ID Management Duty Officers (MDOs) are contacted by the WCC, based on a rotating duty roster that includes alternates for each position.

DOE-ID personnel with oversight responsibility for normal facility operations may respond to the facility ECC, thereby providing DOE oversight and communication with DOE-ID management and with DOE-HQ during emergency response.

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2.3.3 Declaration of an Emergency

The EAM collects appropriate information, assesses the situation, and categorizes the event/condition. This will be done as soon as practical, but in all cases within 2 hours of the EAM becoming aware of the event/condition. If the event/condition is categorized as an emergency, the EAM classifies and declares the emergency.

2.3.4 Activating Response Centers

When the EAM declares an emergency, the INTEC ECC is activated. The ERO personnel report to the ECC in CPP-652 and ERO support personnel report outside the ECC. Support personnel, including TMI-2 ISFSI management and available staff, remain in standby until released by the EAM or assigned a task.

2.3.5 Emergency Response

Emergency operations conducted at the scene are managed by the Incident Commander. The Incident Command Post maintains direct contact with the ECC, continuously relaying event-related information and requests and obtaining concurrence on actions that affect facility operations. Monitoring/sampling and technical information is relayed to personnel within the EOC planning function, who process the information to obtain trends and determine mitigative actions and PA/Protective Action Recommendations (PARs), and relay these data back to the EAM.

2.3.6 Terminating the Emergency

Emergency conditions exist until adequate measures have been taken to protect personnel health and safety, to protect the environment, to stabilize conditions, and to minimize operational disruption away from the scene. Once initiated, an emergency declaration will remain in effect until officially terminated or downgraded. NRC reportable events may be downgraded due to changing conditions. DOE events may NOT be downgraded.

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3. OFFSITE RESPONSE INTERFACES

3.1 Overview

Off-Site response interfaces are a procured service through a Statement of Work with the INL contractor following Blanket Master Agreement (BMA) No. 800020.

The INL off-Site Emergency Planning Program, established by the DOE-ID Emergency Management organization, is maintained by the INL, managed by the Emergency Management Department, and administered by the INL emergency management public liaison. Federal, state, local, and tribal agencies participate in the INL offsite emergency planning program that, through agreements, defines cooperative emergency policies and procedures. Formal documentation of the participant's defined role is recorded in federal interagency agreements, internal DOE agreements or directives, legislation and federal regulations, state regulations, and state and local emergency plans. Mutual aid agreements are documented in memoranda of understanding (MOUs), memoranda of agreement (MOAs), or letters of agreement. All affected offsite agencies have entered into mutual aid agreements with DOE-ID.

3.1.1 DOE Offsite Interface

DOE-ID coordinates the offsite radiological monitoring assessment, evaluation, and reporting activities of all federal agencies during the initial phases of an event, and maintains a technical liaison with state and local agencies with similar responsibilities.

3.1.2 Contractor Offsite Interface

The INL contractor is responsible for familiarizing local police, fire departments, and emergency response teams with the INL. Copies of this plan are also provided to these local agencies, including hospitals, to provide information on INL emergencies during disasters.

3.1.3 Requests for Offsite Services

Offsite agencies are available within the bounds of established agreements to support emergency response activities at DOE-ID facilities. The request chain for offsite assistance varies depending on the agency involved.

3.2 Other Federal Agencies

The DOE is the Lead Federal Agency for coordinating federal response to events that occur at the TMI-2 ISFSI where the health and safety of the public is

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threatened. DOE-ID will provide telecommunications support and will interface with the Federal Radiological Monitoring and Assessment Center to secure their capabilities for the TMI-2 ISFSI. DOE assists other federal agencies as a normal course of business in developing and establishing guidelines on effective systems of emergency radiation detection and measurement, including instrumentation.

3.3 State Government

The INL public safety liaison meets formally and informally with various state agencies on a quarterly or as needed basis. Topics of discussion include developing/revising emergency plans, procedures, emergency action levels, and agreements; response capabilities; areas of expertise; assignment of responsibility; and other concerns.

3.4 Local Organizations

Local sheriff's departments in the five contiguous counties (Jefferson, Bonneville, Butte, Bingham, and Clark) are the primary points of contact for the designated local emergency response authority.

3.5 Agreements with Tribal Organizations

DOE-ID has established a working agreement with the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation located in southeastern Idaho. The agreement has provisions for tribal emergency planning and response with respect to transportation emergencies.

3.6 Agreements with Private Organizations

The major privately owned hospitals in the area have agreements with DOE that establish the framework to receive and medically treat injured, contaminated injured, radiologically exposed, chemically contaminated, and chemically exposed personnel.

3.7 MOA and MOU

Emergency support arrangements have been made with offsite support organizations to provide assistance in the event of an emergency at the INL. These organizations include sheriff's departments, fire departments, hospitals, and federal, tribal, state, and county governmental agencies. Written agreements (MOAs and MOUs) with these organizations are reviewed and updated as needed and are maintained separate from this plan. **The written agreement for offsite emergency medical services will be reviewed every five years and updated as needed (NRC Commitment, October 27, 2005).**

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4. EMERGENCY FACILITIES AND EQUIPMENT

Sufficient equipment and supplies have been obtained and are available and operable for emergency response personnel to carry out their respective duties and responsibilities in response to TMI-2 ISFSI events that have been identified in the hazards assessment.

4.1 Emergency Facilities

Several types of facilities are used by the ERO: ECC, WCC, EOC, Relocation Center, decontamination facilities, and the Joint Information Center (JIC).

4.1.1 INTEC ECC and EOC

The INTEC ECC is a dedicated facility located in building CPP-652. The ECC has no special shielding or ventilation related to INL emergency hazards. It contains equipment required to aid the ERO in performing its task of emergency control. Equipment in the ECC includes, but is not limited to, radios, voice paging system, telephones, computer-network systems, security monitor and alarm systems, faxes, meteorological readout equipment, data display systems, reference manuals, and materials.

The INL EOC is located in Room 16C of the Idaho National Laboratory Administration Building in Idaho Falls, Idaho. The EOC is a dedicated facility, ready for immediate use. Access to the EOC is restricted.

The EOC is divided into seven functional areas: the Command Center, Planning Support Room, Public Affairs Room, State and Local Representatives Room, Conference Area, Administration Area, and Supply Room. The EOC has no special shielding or ventilation related to INL emergency hazards because it is located approximately 50 miles away from these hazards.

The EOC contains telephones, faxes, a world wide web (www)-based Information Management System, Public Address System, closed circuit video system, and radio communications systems to establish and maintain communications internally and with INL, state, federal, and local officials.

4.1.2 Alternate or Secondary ECC and EOC

The alternate ECC for INTEC is the Radioactive Waste Management Complex (RWMC). The alternate location for the EOC is in the Willow Creek Building (WCB) located approximately ¼ mile from the primary EOC location. The EOC is located remotely with respect to the TMI-2 ISFSI, so the risk from emergency hazards is minimal.

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4.1.3 Technical Support Center and Relocation Centers

The INL maintains relocation centers and a radiological and environmental science laboratory.

4.1.4 JIC

The JIC in Idaho Falls is equipped with communications and media monitoring equipment.

4.1.5 Communications Centers

The WCC maintains a wide variety of equipment in support of daily and emergency operations at the INL.

Alarm centers are maintained by the INL Fire Department and by the INL security force.

4.1.6 Decontamination Facilities

The INL has the capability to decontaminate personnel and equipment using permanent and temporary facilities.

4.1.7 Medical Facilities

The CFA Medical Clinic is subdivided into office areas, waiting areas, and small examination rooms for occupational medical records and limited examinations and treatment. First aid equipment and expendable minor supplies are available at the CFA Medical Clinic.

4.1.8 Security Control Centers

The INL Protective Force headquarters building is located at CFA. Security posts and facilities are maintained at locations appropriate for the various and changing missions at the INL.

4.2 Emergency Equipment

4.2.1 Command, Control, and Communications Equipment

The INL Emergency Communication System (ECS) is centered at the WCC which is adjacent to the EOC. Telephones are the primary communication link, with radio as backup. The emergency radio system provides direct communications among operating, administrative, and construction areas; and between those areas and the WCC. See Section 6 of this plan.

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The ECS is the primary method for contacting INTEC ERO and technical support personnel. The INL notification system may be used when individuals are away from INTEC during a back shift event. Pagers are assigned and programmed with individual or group paging numbers as necessary to facilitate routing and emergency communications.

4.2.2 Consequence Assessment Equipment

Meteorological data are supplied through the National Oceanic and Atmospheric Administration via the INL Meteorological Visualization and Atmospheric Modeling System (VIZ). Meteorological data from sites on and around the INL are distributed through the computer network. The computer network is backed up by dedicated telephone lines, dial-in telephone lines with modems, and the INL radio system.

Radiological detection equipment, contamination control supplies, and protective clothing are maintained at INTEC.

4.2.3 Protective Action Equipment

An emergency communication system is in place at INTEC. This system provides the capability to make a public address announcement to all INTEC personnel and is used to inform plant personnel of emergency conditions.

4.2.4 Fire Protection Equipment

The INL maintains a fully equipped fire department. Fire extinguishers are located in all INTEC buildings and are inspected and maintained. Minimal fire hazards exist at the TMI-2 ISFSI therefore there are no alarms or fire suppression equipment at the facility.

4.2.5 Medical Equipment

Medical equipment sufficient for first aid is maintained on the INL ambulances. Additional medical supplies and facilities are maintained at CFA.

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5. EMERGENCY CATEGORIZATION

5.1 Definitions: Emergency Classes

The regulations in *10 CFR 72.32(a)(3)* requires a classification system for classifying accidents as alerts. Although the classification system used by the INL emergency response organization includes severity levels above that of an alert, only those accidents that could be classified as Alert are possible at the TMI-2 ISFSI.

5.1.1 Emergency Classes

Emergencies are classified by severity for the purpose of specifying appropriate emergency actions, including required response activities and notifications, commensurate with the degree of hazard presented by the event. Classification aids in the rapid communication of critical information and the initiation of appropriate time urgent emergency response actions.

TMI-2 ISFSI accidents are classified in the table in this section in accordance with the classification system used by the INL emergency response organization. The classification provided below is the definition to be used to determine the reporting of events and conditions affecting the TMI-2 ISFSI **Alert**. An alert is defined as an incident that has led or could lead to a release to the environment of radioactive or other hazardous material, but the release is not expected to require a response by an offsite response organization to protect persons offsite.

5.1.1.1 **Site Area Emergency.** A site area emergency is defined as an incident that has led or could lead to a significant release of radioactive or hazardous material and that could require a response by an offsite organization to protect persons offsite. Because of the design of the TMI-2 ISFSI and the size of the INL, there are no offsite protective actions needed for any accident at the TMI-2 ISFSI.

5.2 Emergency Action Levels

5.2.1 Facility EALs

EALs are specific, predetermined, observable criteria used to classify emergencies. The classification for NRC reporting is provided. The emergencies that might occur at the TMI-2 ISFSI are analyzed in Chapter 8 of the TMI-2 ISFSI Safety Analysis Report (SAR) for their severity of consequences and probability of occurrence. These emergencies are reflected in the design characteristics of the ISFSI. The

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EALs addressed are listed below in the order they appear in Section 8.2 of the SAR.

- Reduced horizontal storage modules self shielding
- Tornado winds and tornado generated missiles
- Design basis earthquake
- Design basis flood
- Accidental cask drop with loss of neutron shield
- Lightning effects (not included in the emergency plan because there are no safety related concerns)
- Dry shielded canister (DSC) leakage
- Accident pressurization within the DSC (not included in the emergency plan because there are no safety related concerns)
- Onsite fire and explosion hazards
- Blockage of gap between adjacent modules (not included in the emergency plan because there are no safety related concerns)
- Basaltic lava flow (not included in the facility emergency plan because the protective actions take place far from the TMI-2 ISFSI and are performed by several agencies).

Analyses documented in Section 8.2 of the SAR have determined that the limits of *10 CFR 72.106* would not be exceeded for any of the postulated accidents.

5.2.2 Sitewide EALs

Sitewide EALs, in addition to those bounding natural phenomena described in the TMI-2 ISFSI SAR, have been developed for the INL. These sitewide EALs do not affect the design of the TMI-2 ISFSI and do not require emergency response at the TMI-2 ISFSI. The sitewide EALs may affect operations at the TMI-2 ISFSI due to temporary curtailment of operations.

Temporary curtailment of operations at the TMI-2 ISFSI can also occur as a result of EALs at neighboring facilities. But, as with sitewide EALs, no emergency at any neighboring facilities affects the design of the TMI-2 ISFSI and does not require emergency response at the TMI-2 ISFSI.

The sitewide EALs and EALs at neighboring facilities include provisions for notifying personnel anywhere on the INL, including the TMI-2 ISFSI, for protection of personnel at the TMI-2 ISFSI.

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5.2.3 Non-EAL Covered Events

Any event or occurrence that represents a reduction in safety, or a hazard to personnel, the public, or the environment that is not addressed in these EALs, shall be classified in accordance with the definitions of Section 5.1. **Security events or other events that result in facility damage are examples of events in this category. Responses to security events are also covered by the TMI-2 ISFSI Physical Protection Plan (NRC Commitment, October 27, 2005).**

5.2.4 Responsibility for Classifying the Occurrence

The EAM will determine the emergency classification. For the TMI-2 ISFSI, an NRC-licensed facility, emergency classifications are limited to alerts only. (See Table 1.) The EAM will declare the emergency level that most closely corresponds to apparent conditions, regardless of whether it can be determined that a specific EAL has been exceeded.

Table 1. Emergency Action Levels.

INL TMI-2 ISFSI, 1. ANY EVENT, A. ALERTS				
EAL	Area	Initiating Event/Condition	Protective Action	Related EALs
A.1	CPP-1774	Any event that results in high radiation field due to displacement of horizontal storage modules (HSMs) WITH No dry-shielded canister (DSC) breach AS INDICATED BY Direct observation of displaced HSMs and no external contamination.	Evacuate all nonessential personnel to a distance greater than 100 m (328 ft) from CPP-1774.	None
A.2	CPP-1774	Any event that results in radiological release due to damaged or displaced of horizontal storage modules (HSMs) WITH Breach of dry-shielded canister (DSC) AS INDICATED BY Direct observation of damaged or displaced HSMs and DSCs or measurement of external contamination.	Evacuate all nonessential personnel to a distance greater than 900 m (0.6 mi) from CPP-1774.	None

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6. NOTIFICATIONS AND COMMUNICATIONS

6.1 Notifications

All ICP personnel are trained to promptly report any unusual situation that could threaten ICP personnel, the public, or the environment (as appropriate to the event) to the shift supervisor, protective force personnel, their immediate supervisor, the INL Fire Department, or the WCC. Event information is passed to facility management or the INTEC EAM.

After classifying an event, the INTEC EAM is responsible for notifying personnel within the facility (via alarms or voice paging system, if possible), the INTEC ERO, other INL facilities that may be affected by the emergency, as well as the state, county, local, tribal, DOE-ID, DOE-HQ authorities, and NRC.

Notifications and communications to the NRC by the WCC are authorized by the DOE-ID Manager/Duty Officer for Three-Mile Island Unit 2 Independent Spent Fuel Storage Installation accidents. The initial notification is to be made within 15 minutes (not to exceed 1 hour) after event classification.

Instructions are maintained for making offsite notifications (state, local, and tribal authorities; federal organizations; and private interests) and onsite notifications (ERO personnel and INL work force). The instructions include a standard notification form that includes the status of the facility, if a release of radioactive material is occurring or could occur, and recommendations for protective actions that may be implemented by the offsite response organization responsible for implementing protective actions.

6.2 Communications

A variety of communications equipment is used by ERO personnel during an emergency for exchanging information within the ERO, for receiving information for external sources (such as weather), and for transmitting information offsite. This equipment is consistent and compatible with communications equipment used by DOE, other federal agencies, and state, tribal, and local organizations. Radio systems, telephones, personal pagers, and facility alarm and voice paging systems are utilized. **The list of telephone numbers of offsite response organizations is reviewed, verified, and updated (if corrections are needed) semiannually. Other communication systems (such as fixed and mobile radios for emergency medical services) are used more frequently than semiannually in the course of routine operations performed by those organizations (NRC Commitment, October 27, 2005).** In the course of daily business the radio systems used by the INL fire department, emergency medical services, and security force are used and maintained operable. Additionally, weekly radio checks are conducted between the ECC and the WCC that includes security and INL Fire Department. This satisfies the *10 CFR 72.32(a)(12)* requirement for semi-annual communications checks with offsite response.

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In addition to communications related to coordinating emergency response resources, the ICP maintains communications resources for communicating with the public (see Section 10, Public Information).

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7. CONSEQUENCE ASSESSMENT

Consequence assessment of radiological and nonradiological hazardous material releases is one of the primary emergency response functions. The default source information used for consequence determination is based on hazards assessments information. The consequence assessments discussed in this section are performed while the emergency is in progress and are integrated into the process for categorization and classification of the event. They serve to provide information about the probable effects caused by a release of radiological or nonradiological hazardous materials. The consequence assessments form the basis for PAs/PARs and the recovery actions that may be taken. The source of the release; the quantity of material released and deposited; the time for the material to decay, disperse, or dilute; physical and chemical effects; and the toxicity or other effects of the material are evaluated during these assessments.

The Radiological Safety Analysis Computer (RSAC) Program and the Areal Locations of Hazardous Atmospheres (ALOHA) computer programs are the principal computer codes used for assessing radiological and hazardous chemical releases. Dispersion calculations using alternative techniques for consequence assessment may be used as a backup for the computer-based programs. The EOC ERO has the equipment, procedures, and trained personnel necessary to operate these computer codes and perform back-up calculations, as appropriate. When performing consequence analysis, ERO personnel ensure that all available information resources are considered. Typical sources of relevant data include National Oceanic and Atmospheric Administration, INTEC Emergency Control Center Planning Team, the INL Fire Department, monitoring teams, plant instruments, and security.

7.1 Consequence Determination

The initial consequence assessment is performed by the INTEC ERO. The INL EOC ERO is responsible for the continued consequence assessment of the event. The INTEC ERO will continually provide consequence assessment information to the EOC. The EOC will periodically exchange information concerning site monitoring and dispersion calculations to offsite agencies and jointly review PARs with the health specialists of the state and local agencies.

The best available information at the time of the event, is compared with precalculated information from the results of the hazards assessment, or is inserted into calculation models using assumptions and default inputs to support estimates of consequences. This information, combined with predetermined emergency action levels and emergency planning zones, is used by the INTEC emergency action manager to categorize and classify the event, and direct default PAs/PARs for the health and safety of INL personnel and the public until information assessments can be performed. The following is typical information used to assess the consequences of an accident:

- Nature of the accident

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- Weather conditions, present and expected (if radiological or hazardous material has been released or potential release is expected)
- Dose estimates, involving radioactive material and personnel exposure
- Exposure estimates (if hazardous or toxic material is involved)
- Impact to affected population.

Facility and site monitoring teams verify dispersion calculations and determine the location and nature of actual plume impacts. Sampling is done after initial accident assessment to confirm dose calculations in the plume exposure and ingestion exposure pathway and to serve as the basis for further PAs/PARs.

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8. PROTECTIVE ACTIONS AND REENTRY

Protective actions (PAs) are physical measures, such as evacuation or sheltering, taken to prevent potential health hazards, resulting from the release of hazardous materials to the environment, from adversely affecting employees or the offsite population. Protective action recommendations (PARs) are the PAs recommended to offsite authorities in response to specific emergency incidents. PAs and PARs are intended to protect workers and the public from the consequences of incidents involving the release or potential release of radiological materials from the TMI-2 ISFSI.

The INTEC EAM is responsible for initially determining the appropriate PAs to be taken in responding to an event at the TMI-2 ISFSI. The INTEC EAM selects the appropriate default PAs on the applicable emergency action level and ensures the notification of federal/state/local/tribal authorities of the actions to be taken. The INTEC EAM maintains the responsibility to continuously evaluate the adequacy of the PAs and notify any other affected facility(s) and federal/state/local/tribal authorities of any changes in the actions to be taken.

8.1 Applicability

PAs/PARs for both radiological and chemical incidents provide guidelines for avoiding exposures. They do not apply to chemical exposures or radiation doses that have already been received prior to implementing the PA. For this reason, it is important that PAs commence as soon as possible at the onset of an emergency condition.

PAs are made in a timely, safe, and complete manner to all INTEC personnel and any affected personnel located outside of INTEC when Protective Action Guides (PAGs) are expected to be exceeded.

8.2 Principal Protective Action Options

The principal PA options available to the INTEC EAM are described below.

8.2.1 Sheltering

The purpose of sheltering (take shelter) is to reduce personal exposure to chemical and/or radiological exposure hazards. Sheltering is a valuable PA option. It can be implemented quickly, usually in a matter of minutes. In addition, sheltering is less disruptive of normal activities than evacuation. Implementation and management of sheltering are also less demanding on resources since no vehicles, traffic control, or dispatching of emergency workers is required. Access control will be affected onsite when sheltering has been recommended.

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Sheltering involves remaining inside, closing all doors and windows, turning off electrical appliances, and turning off ventilation systems that draw air in from the outside, by the direction of INTEC management. If the take shelter alarm is triggered, but not followed by announcements to the contrary, personnel need to stay under cover or move into the nearest habitable facility. To protect personnel from weapons fire and other dangers that may be associated with a security incident, personnel may be directed to take shelter in the nearest habitable facility, but to avoid gathering together or being near windows or outside doors.

The major drawback to sheltering is that over long periods of time, it will be less effective than evacuation in reducing exposures. Protection from inhalation of contaminated air is highly dependent upon the ability of an operational area to limit the exchange of indoor air with outdoor air. Limited ventilation also tends to trap the contaminated air that infiltrates into the building. As a consequence, provisions should be made to ventilate or leave the building soon after the contamination source has passed.

8.2.2 Evacuation

The purpose of evacuation is to reduce or eliminate potential personal exposure to chemical or radiological hazards, and to provide protection from the effects of fire. Appropriate actions, such as directing the use of alternative evacuation routing, will be implemented to facilitate evacuation onsite if constraints exist that impede evacuation. Offsite authorities are responsible for developing evacuation plans for their own jurisdictions; however, these authorities may base their evacuation plans on information provided by the affected facility. If an evacuation cannot be implemented, sheltering-in-place will be recommended.

Government-owned buses are the primary means of transportation for evacuation at INTEC. These buses will use evacuation routes that avoid the path of the incident plume whenever possible. Specific evacuation routes and evacuation procedures are described in emergency response procedures and in facility addenda. Traffic control points, which are the responsibility of the protective force, will also expedite traffic flow during implementation of an evacuation. If necessary, an evacuation can be implemented during adverse weather. Private vehicles may be used as an alternate means of evacuation, if directed by the INTEC EAM or INL ED.

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8.2.3 Access Control

Access control restricts unauthorized individuals from entering an area in which exposure to hazardous conditions could exist. Access control is a necessary adjunct to both sheltering and evacuation. Access control helps to clear traffic from roads within the hazardous condition area, so they may be better used for evacuation or emergency vehicles. It also provides a means of maintaining security for areas that have been evacuated or sheltered. Protective forces implement access control.

8.3 Protective Action Criteria for Radiological Incidents

The ERO uses the PAGs published in the *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* (EPA 1998) as the basis for making PAs/PARs. For convenience the EPA manual divides nuclear incidents into three phases: early, intermediate, and late phases. PAGs are generally specified for each phase. Decisions to implement radiological PAGs should be based on the projected dose that would be received if the PAGs were not implemented. In addition, the EPA considered several other principles in establishing the radiological PAGs, including:

- Doses that would result in acute effects should be avoided.
- The risk of delayed effects should not exceed the upper bounds that are judged to be adequately protective of public health under emergency conditions and are reasonably achievable.
- Any reduction of risk to public health achievable at an acceptable cost should be carried out.
- Regardless of the above principles, the risk to health from a PA should not itself exceed the risk to health from the dose that would be avoided.

The PAGs do not imply an acceptable level of risk for normal (nonemergency) conditions. They also do not represent the boundary between safe and unsafe conditions. Rather, they are the approximate levels at which the associated PAs are justified. Radiation doses presented in this section refer to dose per individual.

8.4 Criteria for Non-radiological Incidents

Emergency planning for non-radiological incidents is included in implementing documents.

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8.5 Reentry

The Incident Commander is responsible for initial reentry into the area for rescue and initial mitigation of the event. Reentry into an evacuated facility or established control area under emergency conditions is performed to take actions for the protection of people, property, and the environment. These actions may include: (a) on-scene assessment for initial monitoring and evaluation of the emergency; (b) collection of information for reentry planning; (c) isolation or containment of a hazardous substance; and (d) protection of vital equipment used for the protection of people, property, and the environment.

Reentry planning is a coordinated effort performed by the planning manager, technical support, facility management, engineering, and the fire department, then approved by the INTEC EAM. Supervision of reentry will consider protective clothing, radiation dosimetry, and the following general instructions to specified individuals:

1. Perform shutdown duties as assigned by the INTEC EAM.
2. Search for unaccounted personnel or ascertain that all personnel who were in the affected area have been evacuated.
3. Assist in evacuating injured or incapacitated personnel from the affected area.
4. Evaluate and report damage to equipment and facilities.
5. Measure and record radiation or hazardous material levels.
6. Perform operations that may mitigate the effect of the hazardous condition.
7. Establish personnel exclusion area boundaries.

For reentry activities, the emergency work permit approved by the INTEC EAM is utilized for all personnel reentering the affected area. When activities are taken in response to an emergency conflict with TMI-2 ISFSI Technical Specifications, these activities will be reported to the NRC in accordance with *10 CFR 72.75 (b)*.

After an emergency has been terminated, reentry into an originating area is carefully planned and controlled to minimize exposing personnel and equipment to radiation, hazardous materials, unstable physical conditions, or other hazards. Both reentry and recovery are carefully planned and controlled to prevent initiating another emergency. Reentry planning is performed by the recovery organization through developing a recovery plan. Included in the recovery plan is any reentry consideration necessary for recovery.

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If operations are placed in standby or shutdown as a result of an emergency, the INTEC EAM or Recovery Manager will direct qualified reentry personnel to monitor for leaks, pressure buildup, gas generation, wherever appropriate.

Normal operating procedures are used to the extent possible for all reentry activities. When this is not possible special procedures governing the activity being conducted are written and receive approval from the Recovery Manager.

8.6 Emergency Planning Zone

Emergency planning zones will be used in implementing documents to ensure that PAs for the TMI-2 ISFSI are implemented in a prompt and effective manner.

8.7 Records

All logs and records pertaining to the incident will be retained as permanent records.

8.8 Personnel Accountability

Facility security provides access controls that are used for personnel accountability in the event of an evacuation. The responsibility for personnel accountability for incidents at the TMI-2 ISFSI is assigned to the INTEC EAM.

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9. EMERGENCY MEDICAL SUPPORT

Medical support facilities and capabilities available to INL facilities during an emergency are described in this section, including general medical facility and staff resources, the system for handling medical emergencies, equipment, transportation, evacuation, agreements, communications, and offsite facilities available for emergency response.

The INL Site has a central clinic located at the CFA. The central clinic has a decontamination unit with a dedicated holding tank.

If medical treatment is needed that cannot be handled at the INL, arrangements have been made for additional medical support offsite via MOUs between DOE-ID and Eastern Idaho Regional Medical Center, Idaho Falls, Idaho; Portneuf Regional Medical Center, Pocatello, Idaho; and Bingham Memorial Hospital, Blackfoot, Idaho. In the case of a contaminated/exposed person, the radiological control technician or industrial hygienist stays with the contaminated/exposed person until he or she is released by the attending physician.

9.1 Medical Support System Description

The INL medical program has first-aid trained personnel to respond to injuries (non-contaminated or contaminated). Preparation for medical emergency response will be directed by an MD, or his designee. Actual medical response activities will be directed by an MD or on-call physician.

The CFA medical staff and/or responding emergency medical technicians (EMTs) will make the determination, possibly by phone or radio consultation, on where to take patients that require care beyond the scope of individual dispensaries. A patient will be brought to CFA under two conditions: (a) if it appears that minor treatment can be administered and the patient released, and (b) if triage/stabilization or decontamination is required before an attempt is made to deliver the patient to a local hospital.

9.2 INL Occupational Medical Program Staff

The CFA clinic has at least one physician on day shift. In addition, registered nurses who are EMT and advanced cardiac life support certified are at CFA. Nurse coverage at the CFA clinic is 24 hours a day. Designated physicians are on call 24 hours a day. INL Fire Department EMTs are also available 24 hours a day.

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9.3 Equipment

9.3.1 CFA Clinic

The primary medical facility for the INL is the CFA Clinic, which has supplies, equipment, and a trained staff. The ambulance bay has showers that can be used for patient decontamination. A decontamination tank is also located in the ambulance bay area.

9.3.2 INTEC

INTEC is equipped with protective clothing and equipment for entry into contaminated areas; the INL ambulances are also equipped with basic protective clothing, protective cover for patients, and dosimetry for radiological exposure. Medical kits are located in several areas of each facility according to hazards and accessibility.

9.3.3 INL Ambulances

The INL maintains ambulances onsite staffed by certified EMTs. All ambulances are fully equipped to care for injured personnel.

9.3.4 Regional Medical Facilities

Three hospitals, in the regions adjacent to the INL Site, qualify as secondary care facilities—one in Idaho Falls, one in Pocatello, and one in Blackfoot. Each hospital has either a separate entrance for contaminated patients or has developed procedures to separate patients through a divided entry. Procedures are also in place for patient decontamination, using holding tanks or other equipment to contain contaminated water. INL personnel will assist hospital personnel in transferring contaminated waste into storage containers and in transporting the waste to the INL Site for treatment and storage.

9.4 Transportation and Evacuation

Procedures are in place for the transportation/evacuation of injured individuals, including radiologically or chemically contaminated injured individuals, if necessary. Transportation and evacuation are coordinated with the MD and the Incident Commander. If ambulance capabilities are exhausted, shuttle vans, government vans, cars, and buses may also be used for evacuation, depending on casualty numbers. Protective force vehicles are available for emergency situations.

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9.5 Agreements

MOUs have been signed to prearrange care for INL emergency casualties, which may or may not be chemically or radiologically contaminated, at local hospitals. These MOUs state that the hospitals will maintain an adequate skill base to be able to respond to the INL's unique problems and will provide adequate support personnel for such a response.

9.6 Communications

Emergency medical communications are part of overall communications addressed in Section 6.

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10. PUBLIC INFORMATION

The INL emergency public information program establishes the means for providing accurate and timely information to INL employees and the general public through the media. This program also provides for an annual familiarization session to acquaint the news media with the methods for obtaining information during an emergency, as well as information about the overall emergency management program for the INL.

The method and procedures for timely release of accurate information regarding a TMI-2 ISFSI emergency to the news media and the coordination of this information within DOE and with other federal, state, tribal, and local response organizations is established in emergency public information implementing procedures. Preapproved press releases are available in the EOC for immediate release to notify the media that an emergency has occurred, INL emergency response organizations are responding, and additional information will be forthcoming. Information from the INTEC Emergency Control Center is provided to the INL EOC. This information provides a chronological list of events and is distributed to appropriate personnel in the EOC. The EOC Information Specialist gathers information from the teams within the EOC for press release/press conference preparation. Times for additional press conferences are established by the Public Information Director based upon event escalation, media deadlines, demand for information, etc.

During a TMI-2 ISFSI emergency, INL news releases are written in the EOC. The EOC public information function is to write the news release; obtain a classification review; obtain release approval from DOE-ID; and transmit the news release to the JIC. Information is disseminated to the media and the public through the JIC.

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11. TERMINATION AND RECOVERY

During an emergency, actions are directed toward protecting people and limiting the consequences of the incident. Once initial corrective actions have been taken and effective control established, response efforts may shift toward recovery.

Recovery is the process of assessing post-emergency conditions and developing a plan for returning to pre-emergency conditions when possible and following the plan to completion.

The INTEC EAM is responsible for determining when an emergency situation is sufficiently stable to terminate the emergency and to enter the recovery phase. A recovery manager may (depending on event complexity) be appointed to initiate recovery planning and implement recovery measures.

The Incident Commander is responsible for initial reentry. Reentry into an evacuated facility or established control area under emergency conditions is performed to take actions to protect people, property, and the environment. These actions may include: (a) on-scene assessment for initial monitoring and evaluation of the emergency; (b) collection of information for recovery planning; (c) isolation or containment of a hazardous substance; (d) rescue of injured or affected personnel; and (e) protection of vital equipment used for the protection of people, property, and the environment.

11.1 Termination of an Emergency

Emergency conditions exist until adequate measures have been taken to protect personnel health and safety, to protect the environment, to stabilize conditions, and to minimize operational disruption away from the scene. Emergency termination can be declared when: (a) the source causing the emergency is under control or has been neutralized; (b) no individual, either onsite or offsite, is further threatened by the condition; (c) the area is secured to protect against inadvertent entry and to provide controlled access for investigators; (d) further damage to systems, equipment, or structures is under control or limited; and (e) the INTEC EAM, in consult with the INL EOC ED, and the DOE-ID MDO declares the emergency is terminated.

11.1.1 Terminating an Emergency Event

The INTEC EAM declares the end of the emergency response process and initiates recovery actions. When conditions have stabilized or are improving with no reasonable expectation of worsening, the INTEC EAM, in consultation with the ED and the DOE-ID Management Duty Officer will direct recovery operations to begin. The INTEC EAM takes the necessary actions to assure a smooth transition from emergency response to recovery. These actions may include designating the recovery manager early in the emergency phase and deciding how best to

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utilize ERO resources in the recovery organizations. The INTEC EAM releases emergency response personnel or places personnel on stand-by, depending on the potential need for responders during initial recovery and the time that initial recovery will begin. The INTEC EAM documents existing conditions and turns the situation over to either a directing authority or the recovery organization as appropriate.

11.1.2 Debriefing or Critique

As soon as reasonably practicable after the emergency is terminated, the INTEC EAM or assigned recovery manager assembles all participating personnel to verify existing conditions, review the event in detail, and determine and assign corrective actions. If necessary, the INTEC EAM or recovery manager initiates or requests an investigation prior to determining corrective actions.

11.2 Recovery

When it has been determined that TMI-2 ISFSI conditions have stabilized, or are improving with no expectation of worsening, the INTEC EAM, in concert with the ED and the DOE-ID Management Duty Officer, will direct recovery operations to begin. The change of classification from emergency status to recovery status will be conveyed to the ERO by formal announcement in the INTEC Emergency Control Center by the INTEC EAM. Offsite agencies and the public will be informed of this transition through appropriate notification processes.

The initial objectives in the recovery phase will be to assess damage and determine the work limitations and access controls necessary to place the TMI-2 ISFSI in a long-term, safe condition. Once initial objectives are completed, the INTEC EAM or recovery manager will ensure that the recovery plan includes checking and restoring all TMI-2 ISFSI equipment important to safety to normal. The ICP Base Plan and other implementing documents will provide additional details of recovery plan considerations.

11.2.1 Recovery Organization

The INTEC EAM is responsible for determining when an emergency situation is sufficiently stable to terminate the emergency and to enter the recovery phase. A recovery manager may (depending on event complexity) be appointed to initiate recovery planning and implement recovery measures. The recovery organization differs from the ERO in that the use of the incident command structure is stopped and recovery teams are established to accomplish recovery actions.

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11.2.2 Procedures

Normal operating procedures are used to the extent possible for all recovery activities. When this is not possible special procedures governing the activity being conducted are written and receive approval from the recovery manager.

Further plans and procedures are developed in accordance with existing routine practice for safety analysis and procedure development. Routine practices are adequate because rapid action is not required after the emergency is terminated and emergency response capability is restored.

11.2.3 Normal Operations

The recovery manager declares recovery complete when the recovery plan is complete. That is, all follow-up, reentry, and recovery actions are complete and the affected area is in a condition that can be returned to routine operations, left in a true standby condition, or dismantled.

11.2.4 NRC Event Reporting

The DOE-ID Facility Director for the TMI-2 ISFSI will ensure that reports of events and conditions resulting in the use of the TMI-2 ISFSI Emergency Response Plan are reported to the NRC in accordance with *10 CFR 72.75*.

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12. PROGRAM ADMINISTRATION

12.1 Program Administrator

The ICP Emergency Management Program Manager (FSM) is the emergency management program administrator. The emergency management program includes the TMI-2 ISFSI emergency program. The TMI-2 ISFSI Manager has overall responsibility and authority for developing, maintaining, and updating the ISFSI ERP.

12.2 Document Control

12.2.1 Emergency Response Plan Control

This Emergency Response Plan is controlled by the ICP Document and Record Service Center (DRSC). DRSC oversees distribution of documents (i.e., processes requests for the plan and distributes revisions of the plan to persons on the controlled document list). The plan is sent to DOE-ID, DOE contractor distribution, ICP EM Program Administrator, INTEC ECC, INL EOC, state and local agencies with which the INL has MOUs, and the NRC.

Anyone associated with the EM process may request a change to the plan. The TMI-2 ISFSI Manager regulates all changes to the document. The TMI-2 ISFSI Manager, ICP EM Program Manager, or INTEC Emergency Planner has the responsibility to request revisions to the plan as outlined in Section 1.1.1.

All changes to the plan require formal *10 CFR 72.44* evaluation and DOE-ID approval prior to issuance.

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13. TRAINING AND DRILLS

This section describes the training provided to the INTEC ERO personnel on how to respond to an emergency.

13.1 ERO Training

Personnel who are assigned to an INTEC ERO position in INTEC ECC must be equipped with the knowledge and position-specific skills for his/her position before responding as a qualified member of the ERO. The curriculum is modularized so that ERO personnel receive training specifically designed to meet the needs of that position's duties. Training for each position includes general information on emergency management orientation, position activation, communications, and position-specific practical application.

The program is designed to train INTEC ERO members to function as a team. Practical exercise scenarios are based on credible ICP emergencies as defined in hazards assessments.

Training provided to fire department personnel, medical personnel, and other technical specialists is limited to ERO orientation topics such as chain-of-command, ERO structure, and communication flow.

13.2 Outline of INTEC ERO Training Activities

The INTEC ERO is comprised of INTEC personnel whose work assignments and experience provide the background, expertise, and authority necessary to perform the functions of their respective positions during an emergency. ERO operations are based on an Incident Command System, which consists of the following four functional areas of command, operations, logistics, and planning:

- Command—The command function is responsible for overall management and control of an incident.
- Operations—The operations function is responsible for coordination and management of direct mitigation activities.
- Logistics—The logistics function is responsible for obtaining personnel, equipment, supplies, and services in direct support of mitigation activities.
- Planning—The planning function is responsible for the collection, assessment, and dissemination of technical information.

Qualified personnel are trained in the portions of the emergency plan and its implementing documents appropriate for their positions. Training is provided in the following subject areas: log keeping, emergency communications and equipment, emergency classification, notifications, facility-specific operations

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and hazards, exposure control, protective actions, reentry planning, recovery planning, consequence assessment, and accountability.

13.2.1 INTEC ERO Initial Training Requirements

The ICP EM Program Manager maintains a formal training program for the qualification of INTEC ERO. First INTEC ERO personnel receive general information regarding ERO assignment requirements and orientation, and then they are trained in the specific functions according to position. Opportunity to practice the use of facilities, equipment, appropriate procedures, and checklists is provided during training.

13.2.2 Requalification Requirements

Requalification training is conducted on an annual basis (calendar year). Instruction is based on topics/tasks identified as retrain items during job analysis (retrain topics are identified as “annually” or “biennially” trained); lessons learned during drills, exercises, and actual events; and changes to plans and procedures. Deficiencies and weaknesses identified during drills, exercises, and actual events are remediated during these sessions.

Emergency plan and procedure changes are distributed to INTEC ERO members throughout the year in the form of assigned reading in addition to requalification training discussions. Assigned reading is determined according to position duties, and is distributed to affected INTEC ERO members. Completion of assigned reading is tracked in Training Records and Information Network (TRAIN).

13.2.3 Requalification Extensions

When a requalification period must be extended for an INTEC ERO member, it must be approved by EM Program Manager.

When the qualification lapses, the ERO member cannot be included in the duty rotation and cannot be called to respond.

13.3 Controller/Evaluator Training

Personnel selected to perform the controller and evaluator responsibilities and functions during a drill/exercise are required to complete the Controller/Evaluator Course prior to performing the controller/evaluator assignment. The course provides the basic concepts and guidelines on proper conduct of control and evaluation during emergency drills and exercises. The course emphasizes the controllers’ and evaluators’ roles as they pertain to participant interactions, enforcing safety precautions, and adhering to prescribed controller guidelines.

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Evaluation methodology and exercise critique execution and format are also described.

Drill/exercise controller and evaluator qualification is accomplished by attending controller and evaluator training and is maintained by participating in a drill/exercise as a controller or evaluator at least once every 3 years.

13.4 General Employee Emergency Response Training

INTEC general population is provided initial and annual emergency response action training as part of the INL Site Access Training and ESH&QA/Integrated Safety Management/Voluntary Protection Program Annual Awareness Training.

13.5 Drills and Exercises

A coordinated program of drills and exercises is an integral part of the ICP EM program. See Section 13 and Section 14 of this plan.

13.6 Resources and Facilities

13.6.1 Training Development

A Systematic Approach to Training (SAT) is used to design training based on a job analysis of specified ERO position checklists and emergency plan implementing procedures.

13.6.2 Training Facilities

Training for INTEC ERO members is most effectively delivered in the ECC. Classroom and lab training experience can be combined for optimal learning and retention by trainees. Computer-based training stations are established to support the delivery of training modules available for that type of individualized instruction.

13.6.3 Training Aids

The INTEC ECC contains phones, two-way radios, computers, printers, fax machines, and status boards that are available for use in training.

The use of actual equipment found in the INTEC ECC is essential to trainees' successful performance during actual events, drills, or exercises. Therefore, instructors are strongly encouraged to hold training in the INTEC ECC whenever possible.

Visual aids such as overhead transparencies, computer-generated visual images, handouts, wall charts (posters), flip charts, and videotapes are used to support the delivery of training.

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13.7 Facility Management

Facility management is responsible to ensure that personnel are assigned to fill required INTEC ERO positions and that they attain and maintain qualification through attending and participating in the ERO Training and Drill and Exercise Programs.

13.8 ERO Training Program Elements

13.8.1 SAT

SAT provides a comprehensive approach for developing and conducting training programs. The SAT consists of five phases: analysis, design, development, implementation, and evaluation. The first four phases are generally sequential, with the output of one phase providing the input to the next. The evaluation phase is interactive and is applied throughout the process. The phases overlap when lessons are actually being developed.

13.9 EM Training Program Application

13.9.1 Exception from Training/Credit for Previous Experience

Qualified personnel (who have satisfactorily completed training programs comparable in content and in performance standards) may be exempted from portions of training on an individual case basis. Exceptions from training will be based on a review of historical training records (e.g., transcripts) and personal interviews. The ICP EM Program Manager must approve any training exception.

13.9.2 Training Staff Qualification

The EM training staff must have completed the training staff qualification program commensurate with job assignment.

In addition, ICP EM program staff will maintain instructional skills proficiency by teaching at least one of the courses for which they are qualified at least once a year.

The ICP EM Program Manager will impose additional qualification requirements or waive any requirements in writing on an individual basis through consideration of the job assignment and other existing qualifications.

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13.9.3 Evaluation Methodologies

Trainee understanding of course concepts is regularly assessed through written exams, although not all ERO training courses include a written examination. For those courses that include examinations, trainees must answer a minimum of 80% of the exam questions correctly to pass. Some ERO training courses contain a practical component used by the instructor to determine trainee mastery of course concepts. Trainee performance is further assessed in the required annual drill participation.

When a trainee fails a written exam (receives a grade lower than 80%), he/she will be required to take a second version of the exam following a review of the objectives for exam items answered incorrectly. This review is generally conducted by the instructor that taught the class the individual attended. If the trainee answers less than 80% of the second exam questions correctly, the trainee will be required to re-attend initial training on that topic and take the exam again.

13.10 EM Training Program Administration

13.10.1 EM Training Program Records

Individual training records are the records that document the completion of formal training for each individual. This includes training course completion records and qualification results.

The INTEC emergency planners are responsible for ensuring entry of training completion and qualification data into TRAIN by providing originals of training attendance rosters and original exams to the facility training coordinator.

Training program records are the materials used to conduct training, which may consist of original written lesson plans, and associated supporting materials and documents and electronic files of the same, instructional aids, etc., used in developing and delivering training.

13.10.2 Initial ERO Qualification Administration

13.10.2.1 Facility-Specific Requirements

Prior to appointment to an INTEC ERO position, personnel shall have completed all INTEC specific training requirements. The INTEC Area Project manager is responsible to ensure all INTEC specific training is completed prior to the appointment of personnel to INTEC ERO positions.

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13.10.2.2 Time Limit for Initial Qualification

Initial qualification duration for an INTEC ERO position must not extend over a period of more than 1 year beginning on the date of the first ERO course attended. This includes participating in a drill in the assigned position.

Individuals previously qualified in an INTEC ERO position may be assigned to new positions that require additional initial training. Those individuals must have consistently maintained qualification in the previous position (annual participation in the ERO requalification training and participating in a drill) and complete any additional qualification training and participate in a drill in the new position within 1 year of the date of the first ERO course attended to complete qualification for the new assignment.

13.10.2.3 Verification of Initial Qualification

Initial INTEC ERO qualification will be verified on TRAIN prior to issuing qualification certificates. If training and/or drill requirements are incomplete according to TRAIN records, no certificate will be issued.

13.10.3 ERO Position Equivalent Qualification

In the event that an INTEC ERO position is temporarily unstaffed through employee absence, termination, or illness, it is necessary to have qualified personnel available to fill those positions in an emergency. Therefore, a list of substitute personnel based on required training equivalencies is maintained.

13.11 Drills

A drill is a supervised “hands-on” training session, which may be evaluated, for individuals or teams that develop or maintain a specific operational or emergency response capability. Drills are conducted to provide emergency response training in a particular operation and to forecast an organization’s capability to respond effectively to an emergency. Drills may be used to maintain proficiency of INTEC ERO members, prepare for exercises, resolve deficiencies, improve performance, and mentor individuals in specific functional areas. Drills may also be used to validate the closure of corrective actions required because of audits, exercises, or other similar activities.

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Drills are of sufficient scope, duration, and frequency to ensure adequate training and proficiency for all elements applicable to the ICP emergency management program. Drills address specific activities as appropriate to the mission of the ICP, such as notification, emergency communication, fire, medical response, hazardous material detection and monitoring, security events, personnel accountability, evacuation, event categorization, decontamination, facility activation, public information, and radiological control. Radiological/Health Physics, Medical and Fire Drills will be conducted annually. *(10 CFR 72.32(a)(12))*

Drills of sufficient complexity will be conducted at INTEC to allow all essential INTEC ERO members to participate in at least one drill or exercise per year.

13.11.1 Tabletop Drills

Tabletop drills consist of supervised training that involves “talking through” responses and instructions with minimal performance activities.

13.11.2 Functional Drills

Functional drills consist of a supervised instruction period that involves walking through and completing actual response actions using response equipment. Drill controllers present the scenario information and control activities. Performance can be evaluated if required.

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14. EXERCISES

The ICP EM exercise program is designed: to validate all elements of the ICP Emergency Management Program over a 5-year period by initiating response to simulated, realistic emergency events and conditions in a manner that, as nearly as possible, replicates an actual event. Planning and preparation for an exercise uses an effective, structured approach that includes documentation of specific objectives, scope, time lines, injects controller instructions and evaluation criteria for a realistic scenario. Each exercise is conducted, controlled, and evaluated. An effective and reliable critique process has been established that includes gathering and documenting observations of the participants. Corrective action items identified as a result of the critique process are incorporated into the Exercise After Action Report.

Each exercise emphasizes emergency events that minimize the use of generic nonspecific simulations in the scenario. Scenarios are a sequence of events that are technically accurate and have measureable objectives.

The Emergency Management Program Manager designates an exercise coordinator, who leads and coordinates planning and execution of exercises.

14.1 Exercises

For the purposes of the drill and exercise programs, the ICP is considered one facility and, as such, one exercise per year will be conducted to test and demonstrate integrated emergency response capability. The individual facility at which the annual exercise is initiated will be rotated so that each facility will be able to participate in an exercise at least once every 6 years.

The exercises conducted at the ICP do not include every facility at the ICP. Therefore, the ISFSI might not be part of a particular exercise. However, the requirements of *10 CFR 72.32(a)(12)(ii)* are implemented as part of the ICP drill and exercise program.

Biennially, an exercise involves offsite participation, which implements the recommendation in *10 CFR 72.32(a)(12)(ii)* for biennial exercises. These exercises will include NRC notification despite the fact that the NRC licensed facility (INL TMI-2 ISFSI) may not be part of the INL exercise.

14.1.1 Evaluation and Corrective Action

An evaluation group is established for each exercise to assess the performance of the exercise participants against the objectives of the exercise.

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Evaluators are provided training to ensure they have a general understanding of the objectives, scenario, security and safety issues, and an in-depth understanding of their respective areas of responsibility.

Objectives and criteria are established for each exercise to assess performance of the participants against the objectives that are applicable to their functions. Evaluation criteria and references are in the form of standardized evaluation forms. Instructions on use of the forms are provided for evaluators in the exercise package.

A critique is conducted at the conclusion of each exercise to allow participants to share their observations, discuss positive and improvement-needed aspects, and suggest refinements or changes to emergency plans or procedures. Each exercise is critiqued per *10 CFR 72.32 (a)(12)(ii)* using individuals not having direct implementation responsibility for conducting the exercise. Each critique must evaluate the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the response. Deficiencies found by the critiques must be corrected.

The report prepared after each exercise documents the exercise scope, objectives, and recommendations for improvement actions. The ICP EM organization develops an action plan to implement appropriate lessons learned, improvement items, weaknesses, and deficiencies. Facility management develops corrective actions for those items that are facility issues. ISFSI management will be directly involved in exercise issue corrective action plan development and resolution process for those issues identified in exercises for which the TMI-2 ISFSI takes credit for *10 CFR 72.32* compliance.

14.2 Offsite Coordination

Interface support for drills and exercises in which the state, local, public and tribal authorities may participate is facilitated by an INL public safety liaison. Interface support for drills and exercises in which federal agencies may participate is provided by the DOE-ID. Interface support for drills and exercises in which the local media may participate is provided by an INL public affairs office.

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14.3 Implementation

14.3.1 Organization and Responsibilities

For the elements under its jurisdiction, INTEC management is responsible for continued support of the emergency management program through development, conduct, and post-exercise activity, including implementing corrective actions to resolve identified deficiencies.

The responsibilities of the emergency management organization include developing and maintaining a coordinated program of drills and exercises integral to the emergency management program.

An exercise planning group is typically assigned for each exercise. Group members are familiar with exercise concepts, their respective emergency plans and procedures, and the current status and needs of the facility EM program. They have the authority and capability to commit and coordinate the necessary resources from their respective organizations. The planning group responsibilities include:

- Identifying and scheduling all activities associated with the exercise
- Determining scope, objectives, participants, and schedule for the exercise
- Developing general scenario guidelines for the exercise
- Coordinating administrative, logistic, safety, and security activities.

The planning group is typically assigned far enough in advance of an exercise to coordinate drills before the exercise.

14.3.2 Exercise Participants

Participants consist of actors, players, controllers, evaluators, and observers. The planning process includes identifying the participating organizations and specific individuals. An effective means of identifying various categories of participants in drills and exercises is accomplished through the use of color-coded armbands or other distinctive wear. All personnel without the color-coded wear are considered to be players.

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Players include actors and members of the INTEC ERO and they comprise the majority of participants in a drill or exercise. Other participants include controllers, evaluators, and observers.

Controllers shall be trained individuals with prior drill/exercise participation and expertise in the areas to be demonstrated. They are responsible for the safe and effective conduct of drills and exercises.

Evaluators shall be trained individuals with prior participation and expertise in the areas to be demonstrated. They are responsible for observing, evaluating, and critiquing exercises, including the performance of the exercise controllers.

Observers may be present for official and/or educational purposes. The attendance of observers, their locations, and their rules of conduct will be directed by a controller.

14.3.3 Drill/Exercise Planning Process

The scope of drills includes operational aspects to support the emergency plan, implementing procedures, and operations training. Drill objectives may include specific activities such as: notification, emergency communication, fire, medical response, hazardous material radiological control, security events, personnel accountability, evacuation, emergency categorization, decontamination, facility activation, public information, and reentry/recovery.

Objectives for tabletop drills may be selected from the current ERO job task list, or the ICP Emergency Response Performance Assessment Criteria functional objective list used for functional drills and exercises. The type of objective is dependent upon the training need and scope of the drill.

Each objective for a functional drill or exercise is developed from the ICP Emergency Response Performance Assessment Criteria. Each objective represents a response capability (program element) required for an ERO. The standards of performance are referenced to the criteria to ensure personnel are evaluated to predefined tasks, training, procedures, and implementation plans.

Exercises include more complex and integrated events beyond simply the operational aspects of process or facility control. Exercises test the integration of emergency management program elements involved in the response and, depending upon design, may include both onsite and offsite activities.

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During the developmental stages of a drill/exercise, the scenario development group will determine which criteria are applicable for the selected objective, based upon the scope.

Factors included in planning are personnel and facility safety, security, exercise confidentiality, simulation, and realism.

14.3.4 Scenario and Drill/Exercise Package

The scenario is the sequential information that identifies and details the simulated emergency events, timing of specific activities, expected player responses and related data. To ensure the credibility of the scenario, information from the following sources may be used:

- Hazards assessments
- Safety analysis reports
- Critique reports from actual emergencies
- Past exercise packages
- Occurrence reports
- Facility operating experience
- Identified weaknesses and deficiencies from inspections or appraisals.

Drill/exercise packages are prepared to provide the mechanisms to conduct and evaluate the drill/exercise. Packages are closely controlled to prevent premature disclosure to participants.

14.3.5 Preparation Activities

A formal training program will be conducted for the individuals participating as controllers and evaluators in a drill/exercise. Emphasis is placed on safety, security, and controller and player interface; including criteria for controllers to intercede in player actions.

Key players may receive a briefing for drills or exercises that include information on:

- Rules of conduct
- Expected player performance (including acknowledgment that they have received and understood message information or the controller by repeating it back to the controller who provided the input)

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- Safety and security
- Activities approved to be simulated or walked-through
- Methods for participant identification
- Special administrative, logistic, or communications arrangements in effect during the drill/exercise.

The player briefing shall *not* include any information related to the scenario. An e-mail message is sufficient for this briefing.

Controllers and evaluators shall receive a predrill/exercise briefing to provide familiarity with the scenario, expected participant actions, and their duties and responsibilities. They will also function as safety monitors.

14.3.6 Conducting the Drill/Exercise

At any time, the chief controller can suspend or terminate the drill/exercise for one of three conditions:

1. Players successfully reach the appropriate termination point, consistent with the purpose, scope, and objectives.
2. The drill/exercise deviates to the extent that the objectives cannot be adequately demonstrated.
3. A real event/alarm occurs during the drill/exercise such that continuation is not practical.

Scenario information, data, and evidence should be presented to the players as it would be found, measured, or indicated, with maximum realism. Props should be used to provide visual evidence as appropriate, if no safety or environmental concerns are present. If possible, the event should appear to the players as if it were actually occurring. If emergency procedures call for the use of protective equipment or clothing, the actual protective equipment and clothing should be used during the event. Players should be provided with scenario information commensurate with the occurrence of specific events or specific actions taken by the players. Information should be provided to players by controllers, to control the progress of a drill/exercise.

Free play is an extension of realism, and players should be permitted to make decisions and take actions they consider appropriate to the scenario. Controllers should allow the players to proceed with appropriate actions and should notify the chief controller that a deviation is occurring. If the players' intended actions compromise safety or

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security, the controller should intervene to stop the action and should document the intended action.

Prompting occurs when players attempt to complete a performance function and the controller provides assistance to ensure satisfactory completion of a task or function. Controllers should not prompt participants until the need is warranted.

- Drill controllers **shall** prompt or correct participants in completing their performance functions. Drills are training and shall be treated as such unless an evaluated drill is being conducted.
- Exercise controllers **shall not** prompt or correct participants in completing their performance functions.

Communications equipment and procedures shall be used and evaluated during drills/exercises. Communication shall clearly indicate that the event is a drill or exercise. Where available, voice paging messages may be given to facility personnel informing them of the drill/exercise. All communications must be in compliance with security practices. Personal information, such as the actual names or phone numbers of individuals, shall not be transmitted on systems that can be monitored by the public or the media (e.g., radio, cell phone, or satellite phone).

Any transmittable (i.e., not face to face) communications during a drill or exercise will begin and end with the statement “**This is a drill.**”

14.3.7 Evaluating the Drill/Exercise

Drills and exercises are evaluated through the use of critiques and eliciting participant observations. Identifying deficiencies and areas for improvement with a final report will be done following an evaluated drill/exercise.

The licensee shall critique each exercise using individuals not having direct implementation responsibility for conducting the exercise. Critiques of exercises must evaluate the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the response. Deficiencies found by the critiques must be corrected per *10 CFR 72.32 (a)(12)(ii)*.

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15. REFERENCES

10 CFR 20, 2007, “Standards for Protection Against Radiation,” *Code of Federal Regulations*, Office of the Federal Register, February 8, 2007.

10 CFR 72, 2007, “Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste,” *Code of Federal Regulations*, Office of the Federal Register, August 20, 2007.

DOE O 151.1C, 2005, “Comprehensive Emergency Management System,” U.S. Department of Energy, November 2, 2005.

DOE/ID-10166-R3, “Environmental Compliance Planning Manual At The Idaho National Engineering Laboratory, Volumes I, II & III.”

EPA, 1998, “Manual of Protective Action Guides and Protective Actions for Nuclear Incidents,” presented by the Environmental Protection Agency at NASA Headquarters, June 10–11, 1998.

MCP-3480, 2007, “Environmental Instructions for Facilities, Processes, Materials and Equipment,” Rev. 13, Idaho Cleanup Project, March 20, 2007.

PLN-2012, “ICP Emergency Plan/RCRA Contingency Plan.”

Public Law 99-499, 1986, Title III, “The Emergency Planning and Community Right-to-Know Act of 1986,” U.S. Environmental Protection Agency, October 17, 1986.

SAR-II-8.4, 2007, “TMI-2 Safety Analysis Report Table of Contents,” Rev. 25, Idaho Cleanup Project, April 12, 2007.