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Portsmouth Information Release Approval Request

I. Document / Information Description (*to be filled out by the requestor*)

ID number: FBP-EM-PL-0026 FSS/PORTS- **Originated date:** August 2013

Document title or identification: Decontamination and Decommissioning and Facility Support Services Prime Contractors Joint Emergency Planf for the Portsmouth Gaseous Diffusion Plant Piketon, Ohio

Original author(s) / organization: Fluor-B&W Portsmouth, LLC

Format: ☒ Document (____ total # pages) ☐ Transparencies / presentations
☐ Photos (____ # prints) ☐ Electronic media (type: ____)

Audience: ☒ Public / public meeting ☐ Private meeting ☐ Presentation to Congress
☐ Distribution list ☒ Internet publication ☐ Publication / press release

Requestor: Matt Vick **Date:** 1/29/2015
Legible signature or printed name and signature

II. Export Controlled Information Release Approved or Denied (*to be completed by the ECI reviewing official*)

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IV. Information Release Approved or Denied (*to be completed by the PORTS Classification Officer*)

☒ Approved for public release
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☐ Approved for publication on the internal network only (access restricted to network users only)
☐ **Not** approved for release
☐ Approved with restrictions (*describe*): Per Henry Thomas

2-2-15

Fluor-B&W | Portsmouth LLC

Decontamination and Decommissioning and Facility Support Services Prime Contractors Joint Emergency Plan for the Portsmouth Gaseous Diffusion Plant Piketon, Ohio

Date Issued – August, 2013

Prepared for the
U.S. Department of Energy
Portsmouth/Paducah Project Office

Prepared by
Fluor-B&W Portsmouth LLC
Managing
Decontamination and Decommissioning Activities at the
Portsmouth Gaseous Diffusion Plant
Under contract DE-AC30-10CC40017
for the
U. S. Department of Energy
Portsmouth Gaseous Diffusion Plant
Piketon, Ohio

Wastren-EnergX Mission Support, LLC
managing the Facility Support Services Activities at the
Portsmouth Gaseous Diffusion Plant
under contract DE-CI-0000004

APPROVALS

Fluor-B&W Portsmouth LLC

Decontamination and Decommissioning and Facility Support Services Prime Contractors Joint Emergency Plan for the Portsmouth Gaseous Diffusion Plant Piketon, Ohio

August 2013

Approval	Signature on File	8/07/13
	Steven D. Arnold, Emergency Management Manager Portsmouth GDP D&D Project Fluor-B&W Portsmouth LLC	Date
Approval	Signature on File	8/08/13
	Jan Preston, ESH&Q Director Portsmouth GDP D&D Project Fluor-B&W Portsmouth LLC	Date
Approval	Signature on File	8/13/13
	Dennis Carr, Site Project Director Portsmouth GDP D&D Project Fluor-B&W Portsmouth LLC	

Approval	Signature on File	8/07/13
	Matt Miller, ESH&Q Manager Wastren-EnergX Mission Support, LLC (WEMS)	Date
Approval	Signature on File	8/08/13
	Damon Detillion, Project Manager Wastren-EnergX Mission Support, LLC (WEMS)	Date

REVISION LOG			
Revision Number	Revision Date	Description of Changes	Pages Affected
0	03/29/11	Initial Issue	All
1	10/30/12	Annual Update	All
2	8/13/13	Updated references and titles; updated template; Updated information on Emergency Planning Zones, Local Emergency Director responsibilities, Mutual Aid Agreement list, and EOC training requirements. Added information regarding PORTS Exemption to DOE Order 151.1C, use of DOE Assessment Criteria, and clarified use of performance indicators.	All

CONTENTS

TABLES

FIGURES

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ACRONYMS

ADC	Authorized Derivative Classifier
AIHA	American Industrial Hygiene Association
ALARA	As Low As Reasonably Achievable
ALOHA	Areal Location of Hazardous Atmospheres
ARG	Accident Response Group
BJC	Bechtel Jacobs Company LLC
BIO	Basis of Interim Operations
BWCS	Babcock & Wilcox Conversion Services, LLC
CAAS	Criticality Accident Alarm System
CAT	Category
CFR	Code of Federal Regulations
CM	Crisis Manager
CMR	Crisis Management Room
CP	Command Post
CSX	CSX Corporation (railroad transportation company)
D&D	Decontamination and Decommissioning
DCF	Dose Conversion Factor
DHS	U.S Department of Homeland Security
DOE	U.S. Department of Energy
DMSA	DOE Material Storage Area
DSA	Documented Safety Analysis
EAL	Emergency Action Level
EIC	Emergency Information Center
EAP	Emergency Action Plan
EAS	Emergency Alert System
EOC	Emergency Operations Center
EM	Emergency Management
EMA	Emergency Management Agency
EMHS	Emergency Management Hazards Survey
EMS	Emergency Medical Services
EPHA	Emergency Planning Hazards Assessment
EPI	Emergency Public Information
EPIP	Emergency Plan Implementing Procedure
EPZ	Emergency Planning Zone
ERAP	Emergency Readiness Assurance Plan
ERO	Emergency Response Organization
ERPG	Emergency Response Planning Guide
ESH&Q	Environmental, Safety, Health and Quality
ETS	Environmental Technical Services
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigation
FBP	Fluor-B&W Portsmouth LLC
FEMA	Federal Emergency Management Agency
FGR	Federal Guidance Report
FRMAC	Federal Radiological Monitoring and Assessment Center
FSS	Facility Support Services
FUEF	Formerly Uranium Enrichment Facilities

ACRONYMS (Continued)

GCEP	Gas Centrifuge Enrichment Plant
GDP	Gaseous Diffusion Plant
GET	General Employee Training
GFS&I	Government Furnished Services and Items
gpm	gallons per minute
HAZMAT	Hazardous Materials
HIPAA	Health Insurance Portability and Accountability Act
HP	Health Physics
HQ	Headquarters
HS	Hazard Survey
IC	Incident Commander
ICS	Incident Command System
INA	Immediate Notification Area
JPIC	Joint Public Information Center
LED	Local Emergency Director
LEPC	Local Emergency Planning Committee
LPP	LATA/Parallax Portsmouth, LLC
MAA	Mutual Aid Agreements
MARCS	Multi-Agency Radio Communications System
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheets
NARAC	National Atmospheric Release Advisory Center
NEST	Nuclear Emergency Support Team
NFPA	National Fire Protection Association
NIMS	National Incident Management System
NRC	U.S. Nuclear Regulatory Commission
NRF	National Response Framework
NRP	National Response Plan
OANG	Ohio Army National Guard
OEMA	Ohio Emergency Management Agency
OEPA	Ohio Environmental Protection Agency
ORO	Oak Ridge Operations
OSHA	Occupational Safety and Health Administration
OVEC	Ohio Valley Electric Corporation
PA	Public Address
PAG	Protective Action Guide
PAR	Protective Action Recommendations
PIA	Public Information Advisor
PORTS	Portsmouth Gaseous Diffusion Plant
PPPO	Portsmouth Paducah Project Office
PSS	Plant Shift Superintendent
PWS	Public Warning System
RAP	Radiological Assistance Program
REACTS	Radiation Emergency Assistance Center/Training Site
RCRA	Resource Conservation and Recovery Act
RSI	Restoration Services Inc.
SAE	Site Area Emergency

ACRONYMS (Continued)

SCBA	Self-contained Breathing Apparatus
STE	Secure Telephone Equipment
TEDE	Total Effective Dose Equivalent
TEEL	Temporary Emergency Exposure Threshold
TSR	Technical Support Room
UDS	Uranium Disposition Services, LLC
USEC Inc.	American Centrifuge Plant
U.S. EPA	U.S. Environmental Protection Agency
WEMS	Wastren-EnergX Mission Support, LLC.

1. INTRODUCTION

1.1 PURPOSE OF THE PORTS DECONTAMINATION AND DECOMMISSIONING AND FACILITY SUPPORT SERVICES PRIME CONTRACTORS JOINT EMERGENCY PLAN

The *USEC-02 Portsmouth (PORTS) Emergency Plan*, (herein after referred to as the *USEC-02 Emergency Plan*) the guiding document used as the basis of the Portsmouth Gaseous Diffusion Plant (PORTS) Emergency Management Program, was developed and is maintained by USEC Inc. American Centrifuge Project (ACP) in accordance with 10 Code of Federal Regulations (CFR) 70.22. In the agreement between DOE and the Nuclear Regulatory Commission (NRC), USEC Inc., was given the responsibility for maintaining the Emergency Plan, while Fluor-B&W Portsmouth LLC. (FBP) was charged with the implementation of the USEC-02 Emergency Plan on the reservation.

The *USEC-02 PORTS Emergency Plan* was written to meet the NRC rules; consequently, the *USEC-02 PORTS Emergency Plan* does not adequately address all of the requirements of DOE Order 151.1C. An exemption from the DOE Order requirement for a three-tiered emergency classification matrix is an example of the differences between the NRC and DOE regulatory environment. For this reason, PORTS DOE contractors, Fluor–B&W Portsmouth LLC (FBP) and Wastren-EnergX Mission Support, LLC (WEMS) have developed a joint emergency plan, *Decontamination and Decommissioning (D&D) and Facility Support Services(FSS)Prime Contractor Joint Emergency Plan for the Portsmouth Gaseous Diffusion Plant* (FBP-EM-PL-00026: FSS/PORTS-20) which provides an overall description of the PORTS DOE Emergency Management Program.

The Joint Emergency Plan flows down the FBP and WEMS emergency management program and incorporates the additional requirements of DOE O 151.1C. This plan, when used in conjunction with the *USEC-02 PORTS Emergency Plan*, incorporate the elements of DOE Order 151.1C, and are applicable to all incidents requiring emergency response involving the DOE contractor management of assets on the PORTS DOE reservation. This plan is not a standalone plan. This plan, together with the main body of the USEC-02 Emergency Plan, (see Appendix A of this plan) satisfies the requirements of DOE Order 151.1C, *Comprehensive Emergency Management System*

PORTS Decontamination and Decommissioning (D&D) and Facility Support Services (FSS) Prime Contractors Joint Emergency Plan has been revised to provide a comprehensive description of emergency preparedness and response to operational emergencies at PORTS. This plan is a consolidation of the Fluor-B&W Portsmouth LLC (FBP) and Wastren-EnergX Mission Support, LLC (WEMS) Emergency Plans for their respective operations at PORTS. The purpose of this plan is to provide the U.S. Department of Energy (DOE) community with a consistent, effective, and efficient emergency management operation that, should an emergency occur, will protect the health and safety of workers, responders, the public, and the environment.

1.1.1 Update of the Plan

The FBP Environmental, Safety, Health & Quality Director, the FBP Security & Emergency Services Manager, along with the FBP Emergency Management Manager and WEMS Environment, Safety, Health & Quality Manager, are responsible for ensuring that this plan and associated procedures are prepared, reviewed annually, and revised when required. Furthermore, they are responsible for ensuring the plan and procedures are integrated within the overall PORTS emergency preparedness program.

1.1.2 Distribution of Copies

Controlled copies of the plan are distributed internally to DOE/Portsmouth Paducah Project Office (DOE/PPPO), selected FBP and WEMS personnel, Plant Shift Superintendents (PSS) Office, Babcock & Wilcox Conversion Services, LLC. (BWCS), and USEC Inc. Fire Safety/Emergency Management Manager. Externally, controlled copies of the plan are distributed to the Ohio Army National Guard (OANG).

The FBP Emergency Management Manager oversees the listing for the distribution of copies of the plan (see Table 1). At the annual review of the plan, the distribution list is reviewed and appropriate changes are made.

Table 1. Emergency Plan Distribution List

Internal (PORTS)	
DOE-Portsmouth/Paducah Site Office* (PORTS)	FBP Emergency Management Manager*
FBP Site Project Director*	WEMS Project Manager*
FBP ESH&Q Director	WEMS Deputy Project Manager
FBP Business Services Director	WEMS FSS Manager
FBP Environmental Remediation Director	WEMS Mission Support Services Manager
FBP Site Maintenance, Infrastructure and D&D Projects Director	WEMS Facility Support Service Manager
FBP Planning and Sitewide Integration Director	WEMS ESH&Q & Training Programs Manager *
FBP Regulatory Planning and Stakeholder Affairs/Public Affairs Director	WEMS Quality Manager
FBP Occupational Safety & Health Manager	WEMS Records Management Manager*
FBP Quality Assurance Manager*	PORTS Emergency Operations Center (EOC) (2)*
FBP Nuclear Safety Manager*	Plant Shift Superintendent (PSS)*
FBP Public Affairs Manager*	BWCS Emergency Management*
FBP Records Management and Document Control Manager*	USEC Inc. Fire Services/Emergency Management Manager
FBP Security & Emergency Services Sr. Manager*	Environmental Technical Services (ETS) Contractor - Restoration Services Incorporated

External	
DOE/PPPO* (Lexington)	OANG

* Denotes controlled copy distribution. All other copies are "Information Only" copies.

1.2 SCOPE

This plan has been developed to describe the PORTS D&D and FSS Prime Contractors' Emergency Management Program and their response to operational emergencies that may occur in the DOE PORTS non-leased facilities. This plan does not cover Energy or Emergency Assistance emergencies.

This plan is to be used for all PORTS facilities, under the management control of FBP or WEMS. BWCS emergency operations are covered under the BWCS Emergency Plan (DUF_6-BWCS-PLN-045).

1.3 CONCEPT OF OPERATIONS

FBP emergency management services and resources are provided to DOE, DOE contractors and subcontractors, and to USEC Inc. in accordance with work authorizations regarding emergency management program services. These services include the implementation of the emergency management program under DOE regulation. The FBP-managed Emergency Management Program

covers the PORTS site. Emergency planning, execution, and implementation of emergency planning activities for DOE facilities are the responsibilities of the respective Facility Managers with assistance and planning coordination by the FBP Emergency Management staff.

USEC Inc. leases portions of the PORTS facilities and site from the DOE and conducts activities in the Lead Cascade in support of uranium enrichment projects for the construction and deployment of the American Centrifuge Plant (ACP). These activities are regulated by the Nuclear Regulatory Commission.

Each staffed facility has a Local Emergency Director (LED) assigned to effectively cope with local emergencies and obtain assistance from the Emergency Response Organization (ERO).

PORTS uses an Incident Command System (ICS) based on the Department of Homeland Security National Incident Management System (NIMS) to ensure that emergency groups function as a team during emergencies. The Incident Commander (IC) is the PORTS Plant Shift Superintendent (PSS) on duty. The IC relies heavily on the LED and plant emergency response personnel during emergencies.

The basis for emergency planning in DOE facilities is the Hazards Survey (HS). An Emergency Planning Hazards Assessment (EPHA) is developed for those facilities whose inventories exceeded the DOE recognized threshold levels of hazardous materials (HAZMAT). A complete description of this process may be found in Section 1.4.1.1 of this plan.

1.3.1 Direction and Control

A lead and incident contractor site management approach is used for purposes of emergency management. The lead contractor is responsible for site wide emergency plan implementation and response. The lead contractor staffs the majority of the ERO positions. The lead contractor is FBP. The responsible individual for implementing initial response is the PSS.

FBP is the PORTS Decontamination and Decommissioning (D&D) contractor. WEMS is the PORTS Facility Support Services (FSS) contractor

1.4 SITE DESCRIPTION

PORTS is located on a 3,711 acre DOE-owned reservation in sparsely populated, rural Pike County in south central Ohio, which is approximately 70 miles south of Columbus, Ohio. PORTS consists of approximately 190 buildings including leased facilities. These facilities occupy approximately 500 acres of the operating area. DOE facilities, as covered by this plan, include: offices, Former Uranium Enrichment Facilities (FUEF), Resource Conservation and Recovery Act (RCRA) waste storage, mixed waste storage, radiological areas, chemical storage areas, and groundwater treatment facilities.

1.4.1 DOE Facilities

The *Basis for Interim Operations for PORTS Former Uranium Enrichment Facilities* is a central component of the DOE safety basis for limited operations, surveillance and maintenance activities, deactivation and pre-decontamination and decommissioning activities, and limited decontamination and decommissioning activities. Additionally, decontamination and uranium recovery activities, laboratory activities, waste storage and handling facilities, utility and support buildings support the missions of FBP and WEMS.

The X-326 Building RCRA Permitted Storage Unit is intended for the storage of high assay uranium-bearing hazardous and/or polychlorinated biphenyl wastes until further processing for uranium recovery, write off under discard limit, or treatment through a permitted process is obtained. The wastes include aqueous laboratory solutions, spent laboratory solvents, and decontamination solutions from other buildings at PORTS. All storage areas have appropriate containment structures and comply with regulatory design requirements for storing wastes.

FBP maintains areas within the X-326, X-330, and X-333 Buildings designated as DOE Material Storage Areas (DMSAs). These areas contain non-RCRA waste and DOE legacy items.

1.4.1.1 HS and EPHA

HSs and facility-specific EPHAs were prepared, maintained, and used for emergency planning purposes as required by DOE Order 151.1C. Facilities with hazards that screen above the DOE threshold limits in the HS will have the hazards analyzed and documented in an EPHA.

HSs and EPHAs are maintained so that they accurately reflect the changes in the facility design, operations, safety features, HAZMAT inventories, and features of the surrounding area.

These assessments are the basis for consequence assessment and development of the Emergency Action Levels (EAL). EALs identified through the EPHA process are incorporated in the site classification procedure. Hazards Assessments are reviewed at least every three years or as necessitated by facility changes. EALs are reviewed annually and updated as necessary.

All de-leased facilities returned to DOE had a HS completed to support preparation of the BIO and an EPHA was developed for the FUEF. USEC Government Services prepared, and DOE approved, an EPHA for the Former Uranium Enrichment Facilities (FUEF) in 2010 and FBP prepared an EPHA for the FUEF for DOE approval in 2011.

A site-wide HS is conducted every three years for DOE non-leased and de-leased facilities. An individual facility HS may be developed for a new facility or whenever changes in a facility's operation or hazardous material inventory occur.

The HS for the former non-leased facilities is published as a freestanding document, *Hazards Survey for the Former Non-Leased Facilities Portsmouth Gaseous Diffusion Plant, Piketon, Ohio,* FBP-EM-HS-00001. The HS for the FUEF is currently being developed, but most of the survey information can be found in the BIO and BIO hazard analysis support documents in the interim.

The HSs for non-leased facilities determined that 59 facilities had the potential for events or conditions that would be categorized as operational emergencies in accordance with the criteria of DOE Order 151.1C, but would not require classification. Eight facilities had the potential for operational emergencies that would be classified as an Alert or Site Area Emergency (SAE). Table 2 of this plan shows the results of the quantitative analysis.

Table 2. HS/EPHA Analysis Results

HS Results	
Number of Facilities Surveyed	93
Number of Facilities with Operational Emergencies only	59
Number of Facilities with Classifiable Emergencies	8
EPHA Results	
Number of EPHA documents developed (2003-2011)	22*
Number of Facilities that did not require additional emergency planning	12
Number of Facilities that required additional emergency planning	5
Number of Facilities that have been leased or are not currently under WEMS or FBP management	5

* Some facilities were combined with similar or co-located facilities for EPHA development.

FUEF HS Results	
Number of Facilities Surveyed	180
Number of Facilities with Operational Emergencies only	60
Number of Facilities with Classifiable Emergencies	18
FUEF EPHA Results	
Number of EPHA documents developed (2010-2011)	2*
Number of Facilities that did not require additional emergency planning	18
Number of Facilities that required additional emergency planning	0

*FUEF facilities were all addressed in one EPHA document; facilities requiring emergency planning were already addressed.

Table 3 of this plan shows the list and location of hazards for the identified non-leased facilities and FUEF at PORTS based upon the quantitative assessment performed during the development of the EPHAs for these facilities. Most hazards identified in the EPHA are located in CAT II facilities.

Table 3. PORTS Dominant Potential Operational Emergencies

Facility	Emergency Class			Radionuclide/Chemical/ Biological Agent/Toxin-Material
	GE[1]	SAE	A	
X-326, X-330, X-333	NA[1]		X	Chemical—Uranium—Criticality
X-342, X-344, Cylinder Yards	NA[1]	X	X	Chemical—UF6—Criticality
X-342B Fluorine Generation	NA[1]	X	X	Chemical—Fluorine/HF
X-345	NA[1]	X	X	Chemical—UF6 — Criticality
X-611E	NA[1]	X	X	Chemical—Chlorine
X-705, X-700, X-710, X-720	NA[1]		X	Criticality—Chemical—Uranium
X-744G	NA[1]	X	X	Chemical—Uranium—Criticality
XT-847	NA1		X	Criticality

[1] General Emergency classification is not used at PORTS.

The EPHA analysis of the hazards in the CAT II facilities identified an Emergency Planning Zone (EPZ) for each facility. The EPZs were determined by selecting the most severe analyzed event that is not beyond design basis and quantitatively analyzing the information to determine a minimum and maximum EPZ. To aid in emergency planning and response, the EPZ should conform to the physical and jurisdictional realities of PORTS and surrounding area whenever possible. A summary of the EPZ distances are found in Table 4 of this plan.

Table 4. EPZs identified in EPHA analysis

Building Title	Hazards Identified	EPZ Identified
X-345 Special Nuclear Material Storage Area	UF_6 Criticality	The recommended EPZ corresponds to a radius of 150 m (492 ft) from the center of the facility.
X-326 L-Cage and X-326 DOE Material Storage Area	Criticality	The recommended EPZ for the X-326 corresponds to a radius of 66m (217 ft), the minimum distance to the security fence, from the center of the building.
X-744G and X-747G Non-Uranium Enrichment Services Activity Storage and Office Buildings	Uranium Criticality	The recommended EPZ corresponds to a radius of 680 m (2230 ft), the distance to PORTS boundary, from the center of the facility.
X-705E Oxide Conversion Area	Criticality	The current protective actions defined by USEC in the event of a criticality include protecting a 200 foot radius. A radius of 61 meters (200 feet) is recommended as the facility EPZ.
FUEF Facilities	UF_6 ,Cl_2	The current EPZ specified by USEC-02 Emergency Plan is approximately two miles. The recommended EPZ for the FUEF corresponds to the 2-mile Immediate Notification Zone (INZ) for the DOE reservation. In 2013, an engineering analysis was developed to determine the EPZ for some outlying facilities at PORTS. Due to the analysis, adjustments in the size of the IEZ on the northern border of the site are being considered,

EPHAs are reviewed on a three year cycle, or as needed whenever inventories or operations in each facility change significantly, to determine if the EPHA needs to be revised. If necessary, the EPHA is revised and the updated analysis information is reviewed for application and implementation in all emergency planning activities related to that facility. The next EPHA review will be conducted in FY 2014.

No operations immediately adjoining the DOE reservation have been identified as currently maintaining an inventory of materials that would be considered external hazards to PORTS. There is a potential for a hazardous material release to impact the reservation from off-site as U.S. Highway 23 and the Norfolk Southern Railway are located directly west of PORTS boundary and U.S. Highway 32 is located due north of PORTS. All three routes are major transportation corridors that carry HAZMAT on a daily basis.

1.4.1.2 Contractors

FBP is the D&D contractor for the DOE non-leased and de-leased PORTS facilities.

WEMS is the FSS contractor for DOE.

BWCS is the uranium disposition contractor for DOE.

Restoration Services Inc. (RSI) is the Environmental Technical Services (ETS) contractor for DOE.

USEC Inc. leases, manages, and will operate the American Centrifuge Plant located at PORTS.

Only the FBP and WEMS operations are covered by this Plan.

1.4.2 Physical Attributes of PORTS

1.4.2.1 Geography

The general location is an area of steep to gently rolling hills, with average elevations of 120 ft above the Scioto River Valley. The steep hills characteristically are forested, while the rolling hills provide marginal farmland. With the exception of the Scioto River and its floodplain, the floodplains and valleys are narrow and are occupied by small farms.

1.4.2.2 Topography and geology

PORTS is located near the southern end of the Scioto River basin, about 2 miles (3 km) east of the Scioto River and 20 miles (33 km) north of Portsmouth, Ohio, where the Scioto River joins the Ohio River. PORTS occupies an upland area in the valley of the pre-glacial Portsmouth River, which is bounded on the east and west by ridges of low-lying hills that have been deeply dissected by present and past drainage features. The plant nominal elevation is 670 ft (204 m) above the mean sea level, 130 ft (40 m) above the normal stage of the Scioto River, and 90 to 130 ft (27 to 40 m) above the mile-wide Scioto River floodplain.

Immediately east of PORTS the surface slopes gently upward to rolling plateau having elevations of 770 to 780 ft (235 to 238 m). Hills, 1.5 to 2 miles (2.4 to 3.2 km) east of PORTS, reach elevations between 1000 and 1100 ft (305 and 335 m). Elevations for several miles around PORTS vary from 500 feet (150 m), in some lowlands, to about 1100 feet (335 m) in higher ridges and hills. Another significant landform is the small valley formed by Little Beaver Creek, which flows in a northwesterly direction across PORTS just north and east of the main plant area.

1.4.2.3 Population distribution

The areas adjacent to PORTS are largely agricultural with a relatively low population density. Agricultural use and forested land account for approximately 90% of the area surrounding the plant. The remaining 10% is taken up by industrial, commercial, and residential land use.

With the exception of the host county of Pike, counties adjacent to the plant include Scioto, Jackson, Ross, Highland, and Adams. Nearby cities and their approximate distance from PORTS include the following: Chillicothe, 25 miles north, Portsmouth, 22 miles south; Waverly, 7 miles north; and Jackson, 26 miles east. Communities closest to PORTS include the unincorporated towns of Piketon, Beaver, and Lucasville. PORTS is in a rural, low-population area. The plant is well separated from high-density, high-growth-rate areas that might complicate emergency preparedness efforts.

An emergency planning area, known as the Immediate Notification Area (INA), has been established by agreement with Pike County and State of Ohio officials. It was established to aid in warning off-site populations of events with potential health or safety impact. The INA extends approximately 2-miles from the center of the plant. The INA is covered by a Public Warning System (PWS).

No other installations or facilities, such as schools and prisons that would require special precautionary measures, are located in the immediate areas surrounding the plant. Small businesses in close proximity of PORTS include those in Piketon, the OVEC offices, located just west of PORTS, the State Highway Department office and garage and other small businesses dispersed throughout the area. There are no known problems or threats foreseen from these facilities or operations.

There are no unrelated industrial, commercial, institutional, or residential structures within the plant property. DOE leases facilities on-site to the OANG. The OANG does not store weapons on-site. There are no other military installations located near PORTS.

1.4.2.4 Meteorology

Located west of the Appalachian Mountains, the region around PORTS has a climate essentially continental in nature, characterized by moderate extremes of heat and cold and wetness and dryness. July is the hottest month, with an average monthly temperature of 74°F (23°C), and January is the coldest month, with an average temperature of 30°F (-1.1°C).

The predominant winds at PORTS are from the south or southwest and at times, from the north. The average wind speed is about 5 mph (8 km/h). Moisture in the area is predominantly supplied by air moving northward from the Gulf of Mexico. Precipitation is abundant from March through August and sparse in October and February. The average annual precipitation is 40.4 in. (103 cm). Snowfall occurrence varies from year to year but is common from November through March. The average annual snowfall for the area is about 22 in. (57 cm).

1.4.2.5 Natural phenomena

Occasionally, heavy amounts of rain associated with thunderstorms or low-pressure systems will fall in a short period of time. The U.S. Weather Bureau has published values of the total precipitation for durations from 30 minutes to 24 hours and return periods from 1 to 100 years.

On the average, most recent data indicates approximately 16 tornadoes per year are reported in Ohio each year, but the totals vary widely from year to year (e.g., 61 in 1992 and 0 in 1988). Pike County has had four tornadoes touch down since 1950.

1.4.2.6 Transportation system

The primary roadways near PORTS are U.S. Highway 23 and State Route 335, which traverse a roughly north-south course, with U.S. 23 passing just west of PORTS and State Route 335 passing just east of PORTS. State Highway 32/124, traverses an east-west course roughly two miles (3 km) north of PORTS.

Rail transportation in the area is provided by Norfolk and Southern, running north-south and passing about 1320 ft (402 m) west of the PORTS boundary; and CSX Railroad System, running north-south and passing four miles (6 km) north of the PORTS boundary. A rail spur enters PORTS from the north and branches to several areas inside the fence.

The Pike County Airport is located about 11 miles (17.7 km) north-northeast of PORTS. No commercial flights or cargo shipping occurs there. The 4900-ft (1493.5-m) runway supports single-and twin-engine planes and small jets. The Greater Portsmouth Regional Airport, located about 14.5 miles (20 km) southeast of PORTS, provides only light plane service (Class I airport) and has no scheduled commercial flights. The nearest commercial airport is Port Columbus International in Columbus, Ohio.

1.4.2.7 Utility system

On-site utility transmission systems include those for electricity, sanitary water, wastewater, firewater, and natural gas. Wastewater is treated to meet effluent standards of the National Pollutant Discharge Elimination System and then discharged to the Scioto River. The source, treatment, and disposition of wastewater at PORTS are identified and charted in individual drawings located in Engineering Records.

Sanitary and firewater are pumped from wells and the X-608 pump house to the X-611 water purification plant. Sanitary water is distributed through the X-612 water tower (250,000 gallons) and firewater is distributed by way of a series of booster pumps and the X-640-2 water tower (300,000 gallons).

The natural gas line enters the reservation at the property boundary and the East Access road. The line follows the East Access road to the Perimeter Road. It then follows the Perimeter Road south to a point approximately 6000 ft south of the entrance to the X-206 parking lot. It then runs west to the X-3002 Building.

Electrical power is supplied from the X-530A Switchyard, which is operated and maintained by FBP. Various facilities have backup diesel generators and uninterruptible power supply systems.

Fuel and process gases (e.g., propane and acetylene) are contained in commercial cylinders and delivered to PORTS by truck.

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2. EMERGENCY RESPONSE ORGANIZATION

2.1 ORGANIZATIONAL STRUCTURE

Management and implementation of the Emergency Management Program is provided by FBP. FBP is responsible for the safe operation of the site and is responsible for day-to-day management and operation of PORTS facilities. Management and implementation of the Emergency Management Program is provided by FBP. FBP is the lead organization responsible for managing the overall direction and control of emergency responses at PORTS, including responses to other DOE contractors, DOE subcontractors, and USEC Inc.

DOE Prime Contractors are responsible for overall compliance of the Emergency Management Program with DOE Order 151.1C and implementation of the *USEC-02 PORTS Emergency Plan.* In order to accomplish this, the FBP Emergency Management Manager oversees the daily, routine operations of the FBP Emergency Management staff. The FBP Emergency Management Manager is a counterpart to the USEC Inc. Fire Safety/Emergency Management Manager. The FBP Emergency Management Manager reports to the FBP Security and Emergency Services Manager, who maintains overall responsibilities for emergency preparedness for FBP. FBP and WEMS complete emergency management requirements independent of those required to implement the USEC-02 Emergency Plan, such as Emergency Readiness Assurance Plans (ERAP), HS and EPHAs, Facility Emergency Packets, Emergency Plan Implementing Procedures (EPIP), and Emergency Action Plans (EAP).

The FBP Emergency Management Manager ensures that these independent actions are integrated into the emergency management program.

2.1.1 On-site ERO

The on-site ERO is divided into functional groups as follows:

Field ERO
EOC Cadre, and
Joint Public Information Center (JPIC) Cadre.

Members of these groups are assigned to on-scene response locations and emergency response centers such as the EOC or the JPIC.

Other on-site functional groups may be called in to provide specific expertise to the ERO.

2.1.2 Facility Managers

Facility Managers are responsible for anticipating potential emergencies within their areas, minimizing the risk of potential emergencies, and preparing for those emergencies should they occur. Facility Managers are responsible for preparing emergency packets for applicable facilities, ensuring the training of personnel within their facilities, ensuring that building emergency plans are in place (as needed), and being knowledgeable about all activities and special considerations which may affect emergency responders within their purview.

The FBP Facility Management Responsibilities Matrix listing the FBP Facility Managers and Backup Facility Managers is maintained by the FBP Engineering Group. The WEMS Facility Responsibility Matrix listing the WEMS Facility Managers and Building Operators is maintained by the WEMS Facility Support Services Manager.

2.1.3 Local Emergency Director (LED)

The LED is the Facility Manager, or designated by the Facility Manager, and is responsible for the initial emergency actions during an event. The LED is responsible for advising emergency response personnel about the event until the IC is on the scene. Upon arrival of the IC, the LED assists the IC by providing facility specific information and technical assistance during the emergency situation.

In the absence of the LED or for an emergency in an unoccupied facility, the Fire Services Shift Commander fulfills the LED role. However, for all significant emergency incidents pertaining to an unoccupied building, the IC may call the Facility Manager to provide technical assistance with the emergency.

2.1.4 Emergency Management Committees

The FBP Drill and Exercise Coodinator chairs the Emergency Management Drill and Exercise Committee, which includes members from FBP organizations, WEMS, BWCS, and USEC Inc. The members of the committee work closely to ensure all requirements of both the DOE and U.S. Nuclear Regulatory Commission (NRC) are included in full-participation and/or biennial exercise and the series of annually required drills for all of PORTS.

A protective action committee comprised of various Emergency Management Managers and other members of the ERO is used to review and develop EALs for hazards identified through the EPHA process. The EALs are then integrated into the site emergency classification procedure.

The FPB EM Manager chairs the PORTS Emergency Management Council, established in 2005, which includes members from the EM organizations of FBP, WEMS, USEC Inc., BWCS, and DOE/PPPO and the organizational manager responsible for each emergency management group. This council meets monthly to update and identify issues of concern and future needs of the membership groups and the effects on PORTS emergency management program.

2.2 EMERGENCY DIRECTION AND CONTROL

The PORTS Emergency Response Organization (ERO) is responsible for taking immediate mitigative and corrective actions to minimize the consequences of an incident to workers, public health and safety and the environment. The ERO is staffed with trained personnel who respond to events and are required to participate in formal training, drills and exercises. The incident type and severity dictate the level of ERO activation.

The PORTS ERO has specific functions and responsibilities, depending on the incident, and level of responses needed to mitigate the event. These responsibilities include: determination of emergency class, emergency activities, consequence assessment, medical support, emergency public information (EPI), activation and coordination of on-site response resources, security, communications, administrative support, coordination and liaison with off-site support and response organizations.

The initial ERO consists of the appropriate shift personnel with the PSS or designee as IC. Upon classification of the emergency as an Alert or SAE, the IC becomes the Crisis Manager (CM) and maintains overall control of the plant during the emergency until relieved. Once the EOC is operational, the CM duties shift from the Incident Commander to the EOC.

Figure 1 of this plan shows the organization chart for the PORTS Field ERO. The majority of the field ERO is FBP and DOE subcontractor personnel. The LED reports to the Command Post (CP) and assists in the mitigation of the event.

Fig. 1 PORTS Field ERO

2.2.1 Succession of Authority

The order of succession for the CM position is identified in an EPIP and includes the following:

- PSS
- IC
- Crisis Manager (Crisis Managers are designated by the Site Project Director and trained and qualified as CM.)

The IC conducts transition and turnover of command and control authority and responsibility of the CM function in a formal manner by use of specially developed procedural checklists and, if possible, face-to-face briefings.

2.3 EMERGENCY MANAGEMENT OPERATIONS

EPIPs set the parameters for the actions and activities used in the implementation of the USEC-02 *PORTS Emergency Plan*. These actions include, but are not limited to:

- Declaration of an emergency
- Activation of the EOC
- Emergency response
- Reentry
- Event termination

The IC, upon notification of an event, activates the field ERO for response to the scene and mitigation of the incident. Using criteria found in the EPIPs, the IC determines the level of response required and determines if the event meets the proper EAL criteria to classify the event as an Alert or a SAE. Upon determination of event classification, the IC or designee makes notifications to off-site agencies and activates the EOC Cadre.

Activation of the EOC cadre is done by the PSS office through use of a pager system. EOC cadre members, on duty, respond to the EOC to assist with the resolution of the event issues. The EOC can be staffed and become operational in approximately 20 to 30 minutes during a normal Monday through Thursday, day shift, and non-holiday day. During off-shift hours, the EOC is operational within one hour from the time the pagers are activated. The EOC can be declared operational when the following minimum staffing personnel have arrived and been briefed:

- CM
- Notification Advisor
- Environmental, Safety and Health Advisor
- Operations Advisor
- EOC Director

2.3.1 Emergency Response Personnel

DOE-PPPO/PORTS, FBP, WEMS, other DOE contractor and subcontractor personnel, and USEC Inc. participate in emergency response activities. This includes field response and serving on the EOC and JPIC cadres. Additionally, subject matter experts may be called on to provide technical advice to the Incident Commander or EOC Crisis Manager.

EOC cadre positions are staffed to allow 24 hours a day/seven days a week operational coverage, if needed, by three rotating teams and relief personnel.

2.3.1.1 Crisis Management Room (CMR)

The DOE PORTS Representative is assigned to the EOC cadre to fulfill the position of DOE Site Representative in the CMR. This position is responsible for the oversight of DOE activities and may confer with the CM and DOE contractor management representatives on response activities to DOE facilities. The DOE Site Representative can provide approval for initial press releases.

Other positions in the CMR can be staffed by a combination of FBP, WEMS, and USEC Inc. representatives. EOC cadre members in the CMR perform strategic planning, communicate with regulatory agencies, and review emergency classification and protective action recommendations.

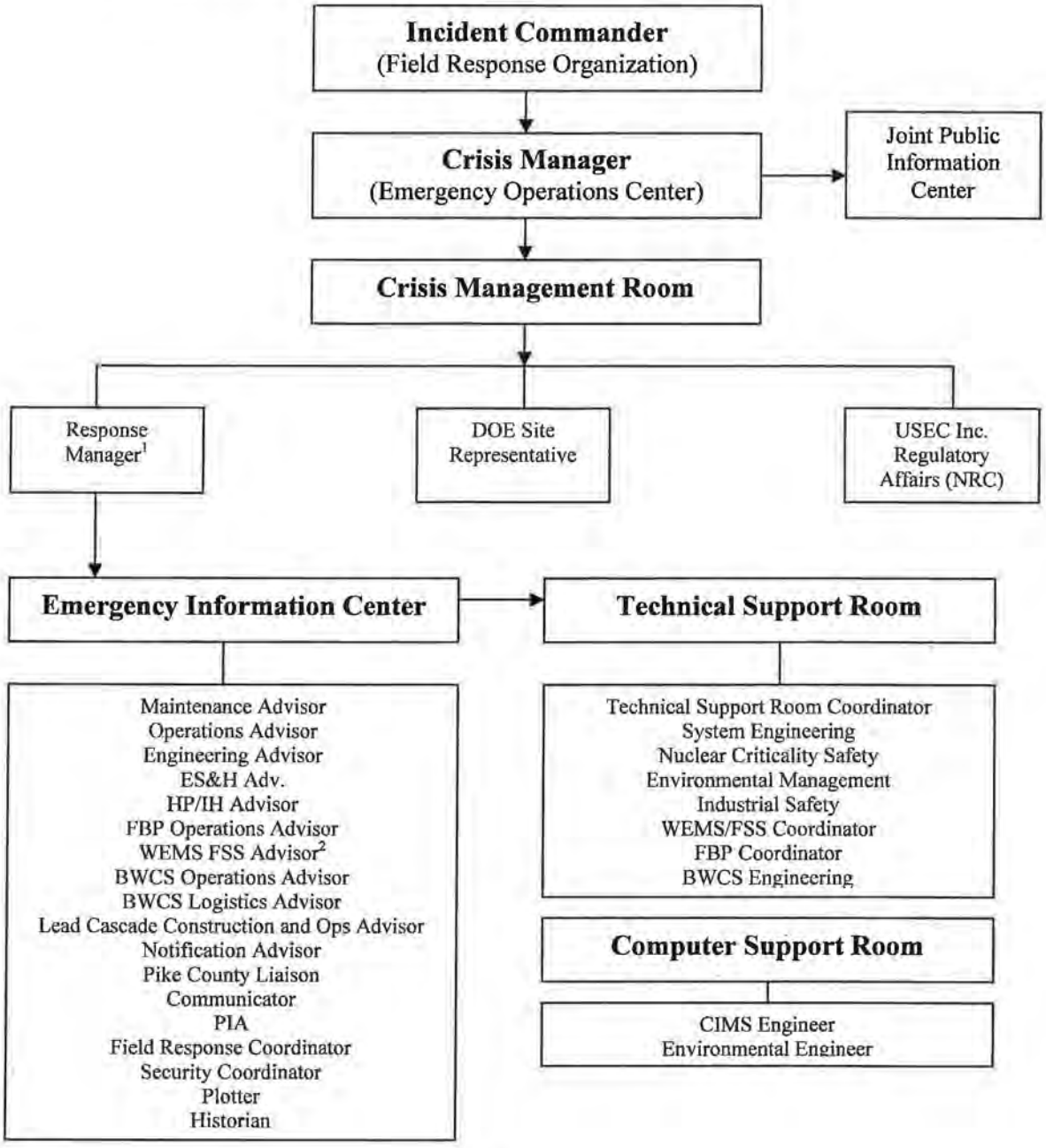
2.3.1.2 Emergency Information Center (EIC)

EOC cadre positions in the EIC are staffed by a combination of FBP, WEMS, BWCS, and USEC Inc. personnel. EOC cadre members in the EIC provide interface with operations and maintenance support personnel, security and fire services, perform emergency notifications, and develop emergency public information.

2.3.1.3 Technical Support Room (TSR)

EOC cadre positions in the TSR are staffed by FBP, WEMS, BWCS, and USEC Inc. personnel. TSR cadre members provide technical expertise in engineering, radiological/hazardous materials monitoring and assessment, and nuclear criticality safety.

Figure 2 of this plan depicts the relationships of the PORTS ERO. Lists of the EOC Cadre teams are located in Appendix B of this plan.



Notes:

[1] The Response Manager may be located in either the EIC or the CMR.
[2] WEMS FSS Advisor are trained to the CM level. The position holder may assume the role of DOE Contractor Response Manager if the event is in a non-leased or de-leased area.

Fig. 2 PORTS ERO

3. OFF-SITE RESPONSE INTERFACES

3.1 OVERVIEW

The severity of some emergencies on-site may warrant the use of off-site individuals, organizations, and agencies. As a result, agreements with off-site support agencies have been developed and are maintained by FBP.

FBP and USEC Inc. Emergency Management interface with off-site Federal, state, and local emergency response agencies and organizations, as needed. The FBP Emergency Management Manager ensures that required emergency planning activities are coordinated with off-site organization and agencies.

These support services include medical assistance, fire control, evacuation, law enforcement, and ambulance services. As the primary provider of emergency services at PORTS, FBP maintains and is responsible for updating Mutual Aid Agreements (MAA) with several surrounding communities for joint support for emergencies. When the PSS or CM determines that off-site law enforcement, fire, or Emergency Medical Services (EMS) support is needed, the appropriate organization is notified and assistance is requested.

FBP and USEC Inc. Emergency Management personnel offer to meet at least annually with off-site response agencies to review emergency plans and procedures. These meetings also include discussions of plant EALs, notifications, and the overall response coordination process.

A list of agencies that have Memorandums of Understanding (MOU) and/or MAAs with FBP is found in Table 5 of this plan.

Table 5. FBP MAA and MOU

Organization	Type of Services Provided
Pike County Firefighters Association (2)	Firefighting and use of county radio repeater
Pike County Emergency Medical Service	EMS
Pike County Sheriff	Law Enforcement Services
Adena Pike Medical Center (formerly Pike Community Hospital)	Medical Services, including contaminated victims
Adena Regional Medical Center	Medical Services, including contaminated victims
Southern Ohio Medical Center	Medical Services, including contaminated victims
Eastern School District	Reception Center for plant evacuees
Western Local School District	Reception Center for plant evacuees
Waverly City School District	Reception Center for plant evacuees
Valley Local School District	Reception Center for plant evacuees
Word Alive Fellowship/Miracle City Academy	JPIC facility
Scioto County Sheriff	Use of radio frequencies
Scioto County Fair Board	Alternate JPIC facility

3.2 FEDERAL AGENCY INTERFACES

The DOE/PPPO in Lexington, Kentucky, provides nuclear safety oversight for activities involving DOE non-leased and de-leased facilities and operations and activities involving uranium enriched to greater than 10% U^{235}. Events involving DOE operations or property are reported to DOE Headquarters (HQ) Watch Office and DOE/Oak Ridge Operations (ORO) within 15 minutes of event classification. After the 15 minute notifications are complete, the on-site DOE PPPO is notified.

DOE maintains various emergency response assets capable of providing radiological monitoring and support assistance during an emergency on-site or relating to transportation emergencies. These assets include the Accident Response Group (ARG), Nuclear Emergency Support Team (NEST), Federal Radiological Monitoring and Assessment Center (FRMAC), Aerial Measuring System (AMS), National Atmospheric Release Advisory Center (NARAC), Radiation Emergency Assistance Center/Training Site (REAC/TS) and Radiological Assistance Program (RAP).

The NRC serves as Lead Federal Agency at PORTS. The NRC provides regulatory oversight over the USEC Inc. Lead Cascade uranium enrichment activities to ensure compliance with the License requirements. The NRC Operations Center is notified of any classified emergency immediately after notification of the appropriate off-site organizations, within one hour. The NRC evaluates the protective actions taking place and coordinates with USEC and DOE to ensure that all reasonable and appropriate actions are being taken to protect the public health and safety.

The Federal Bureau of Investigations (FBI) has jurisdictional authority for safeguards and security emergencies involving the violation of federal criminal law. A representative of the FBI may assume command and control of this type of an emergency. The FBI Hostage Rescue Team or the regional Special Weapons and Tactics team may also be provided, as requested. The FBI will coordinate all responding Federal law enforcement agencies.

The following federal agencies may also be involved in the emergency response at PORTS:

Federal Aviation Administration (FAA). FAA restricts airspace over the plant at the request of the CM or the PSS as appropriate.

U.S. Department of Homeland Security (DHS)-Federal Emergency Management Agency (FEMA). FEMA is the primary federal government agency for the administration of planning, preparedness, operational coordination, and recovery programs.

U.S. Environmental Protection Agency (EPA). The EPA is the major federal government agency for the regulation and control of pollution and waste management programs. The U.S. EPA provides a federal on-scene coordinator for significant HAZMAT incidents.

U.S. Occupational Safety and Health Administration (OSHA). OSHA is the primary federal government agency for the regulation of non-radiological worker safety.

3.3 STATE OF OHIO INTERFACES

The State of Ohio's *Emergency Response Annex for Events at DOE Facilities* provides guidance for state agency incident responses at PORTS. The Ohio Emergency Management Agency (OEMA) coordinates overall state response and oversight for the local implementation of recommended protective actions.

The OEMA also assists the Governor in formulating policies, establishing priorities, gathering and analyzing information, monitoring and executing planned actions, and directing modifications as necessary.

The State of Ohio has a permanent EOC facility that has been designed and equipped to be the direction and control center for all major emergencies in the state. The EOC is manned 24 hours a day/seven days a week, by operations duty officers. These duty officers are notified within 15 minutes of a classifiable event at the PORTS reservation. The state duty officer has the capability to provide almost instantaneous communications with key state officials.

Other State of Ohio agencies that may have an interest or emergency response responsibilities during an event at PORTS include, but not limited to, the following: The Ohio State Highway Patrol provides support to off-site local law enforcement agencies as requested. The Ohio Department of Health coordinates hazard assessment and is the principal contact for technical information and recommendation of protective actions. The Ohio Environmental Protection Agency (OEPA) oversees removal and disposal of hazardous waste generated as a result of a PORTS emergency.

3.4 LOCAL GOVERNMENT INTERFACES

The Pike County Commissioners have overall responsibility and authority for conducting county emergency responses and emergency exercises. They serve as the officials-in-charge during an emergency and are supported by the county EOC staff. The county EOC is located at the Pike County Airport, which is approximately 11 miles north of PORTS.

The Pike County Emergency Management Agency (EMA) Director serves as the Chief of Staff for the county EOC. The director is responsible for coordinating local government EM planning and response activities, and ensuring that the county EOC is fully functional.

The Pike County Commissioners and/or the Pike County EMA Director can authorize the opening and staffing of the county EOC. The EOC may be opened and staffed for an actual emergency or on the threat of an emergency. Minor emergency incidents may be directed by agency officials from their normal offices.

Pike County authorities can also request the opening and staffing of the JPIC to ensure that the public and media can obtain information during an emergency. The JPIC can be activated and operated for both PORTS and county (non-plant related) incidents, if necessary.

Local law enforcement, fire service, and EMS assistance is coordinated with the county EMA Director and various agency staff in the county EOC.

Notification points have been established for each local government entity. Local government entities coordinate response efforts from the Pike County EOC.

3.5 TRIBAL ORGANIZATIONS

No tribal organizations have emergency response or regulatory control responsibilities relevant to the PORTS DOE facility.

3.6 PRIVATE ORGANIZATIONS

FBP maintains a MOU with the Word Alive Fellowship/Miracle City Academy. Under the contract, Word Alive Fellowship/Miracle City Academy provides facilities that would house the JPIC in the event of an incident that was serious in nature or that created greater media interest. The JPIC could be activated for a plant or county event. FBP also has a Letter of Agreement with the Scioto County Fair Board for use of their facilities as an alternate JPIC facility.

3.7 MAA and MOU

All MAAs and MOUs with off-site support agencies have been developed and are maintained by FBP. These support services include law enforcement, medical assistance, firefighting, evacuation, and ambulance services, as discussed below. As the primary provider of emergency services, FBP Emergency Management maintains and is responsible for updating MAAs with several surrounding communities for joint support for emergencies. MOUs are reviewed annually and revised as needed. MAAs are re-written and signed every four years.

The MAA/MOU documents are on file with the FBP EM Organization in the X-1020 EOC Building at PORTS.

A listing of these documents is found in Table 6 of this plan.

Table 6. PORTS MAA and MOU STATUS

MOU/MAA	Date of agreement	Expiration	Date of renewal
Pike County Firefighters Association[1] (Firefighting)	09/30/11	Perpetuity	
Southern Ohio Medical Center	09/30/11	09/30/15	Prior to expiration date
Adena Pike Medical Center (formerly Pike Community Hospital)	09/30/11	09/30/15	Prior to expiration date
Adena Regional Medical Center	09/30/11	09/30/15	Prior to expiration date
Pike County Emergency Medical Service	09/30/11	09/30/15	Prior to expiration date
Word Alive Fellowship JPIC	09/30/11	09/30/15	Prior to expiration date
Eastern School District	09/30/11	09/30/15	Prior to expiration date
Western School District	09/30/11	09/30/15	Prior to expiration date
Waverly City School District	09/30/11	09/30/15	Prior to expiration date
Valley Local School District	09/30/11	09/30/15	Prior to expiration date
Pike County Sheriff's Department	09/30/11	09/30/15	Prior to expiration date
Pike County Repeater System	09/30/11	09/30/15	Prior to expiration date
Scioto County Fair Board	04/11/13	04/11/17	Prior to expiration date

[1]In lieu of the revised MAA, a Notice of Substitution Agreement for Mutual Aid for Fire Protection was approved in 2011.
[2] The Pike County School District Superintendent advised FBP that he could no longer sign agreements for the individual schools. Agreements were signed in 2011 with Eastern and Western School Districts for Reception Centers

3.8 OFF-SITE MEDICAL FACILITIES

The primary off-site medical facilities are Adena Pike Medical Center, Southern Ohio Medical Center, and Adena Regional Medical Center. These hospitals have agreed to accept patients for evaluation and treatment of injuries, radiation exposure, and effects of toxic agents.

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4. CATEGORIZATION AND CLASSIFICATIONS

4.1 GENERAL

A single emergency classification system is in place at PORTS. Emergencies are classified by the IC/CM through a site-wide standardized system that uses EALs as trigger points for equating an incident to a specific emergency classification. The classification system is based on the requirements of 10 CFR 70 and is comprised of two classification categories: Alert and Site Area Emergency (SAE).

PORTS received a DOE Emergency Classification System exemption (RI 70-7001) in January 1997, to implement NRC 10 CFR 76.91 emergency classification system. This exemption stands in effect as long as NRC regulated activities are in operation at PORTS. DOE Headquarters updated the exemption on July 15, 2009. A request to continue the exemption was prepared and submitted to DOE-HQ by DOE/PPPO in June of 2011.

On September 30, 2011, in a letter from Joseph J. Krol, Associate Administrator for Emergency Operations at DOE Headquarters to William E. Murphie, Manager, Portsmouth/Paducah Project Office (PPPO), PORTS was granted an exemption to DOE Order 151.1C regarding the emergency categorization/classification process once the gaseous diffusion plant operations ceased. The exemption allowed PORTS to continue using the categorization/classification scheme that had been used when operations were regulated by the NRC under USEC.

During a DOE assessment of the categorization/classification process in March, 2013, a request for clarification on the scope of the approved exemption was requested from DOE NNSA. The interpretation received from NNSA indicated that "...the DOE contractor(s) at those locations [Portsmouth and Paducah] are exempt from all requirements in Section 11 (Categorization and Classification) of the DOE O151.1C CRD. The exemption approved for Portsmouth allows the contractor to continue to follow the event classification requirement contained in 10 CFR 70.22 (i)(3), after USEC's activities under the NRC license are terminated and decontamination and decommissioning activities are performed by a Department of Energy contractor."

PORTS Plant Shift Superintendent (PSS)/Incident Commander (IC) is responsible for determining whether operational emergencies not requiring further classification meet the reportability requirements of FBP-QP-PRO-00019, *Occurrence Reporting and Processing*.

Operational emergencies, as defined by DOE Order 151.1C, have been incorporated into the emergency classification system used at PORTS. The classification system allows the Incident Commander to categorize and classify an event in a timely manner. Under most circumstances, the categorization and classification of the event is completed as quickly as possible. Most events are classified within 15 minutes of the time of recognition/identification/discovery; however, each event has its own dynamics and classification of the event may exceed the 15 minute time frame on occasion.

4.2 DEFINITIONS

A classified emergency is an emergency level defined by EALs that differentiate the degree of severity, depending on the actual or potential consequence of the emergency. At PORTS, the two levels of classified emergency classifications are Alert and SAE.

4.2.1 Alert

An Alert is an incident that has led, or could lead, to a release to the environment of radioactive or other hazardous material. Such a release is not expected to require response from an off-site response organization to protect the general public off-site. An Alert involves emergency situations that could have a direct effect on the health and safety of plant personnel.

4.2.2 SAE

A SAE is an incident that has led, or could lead, to a significant release to the environment of radioactive or other hazardous material. Such an incident could require a response by an off-site agency to protect people off-site. The declaration of an SAE requires the full activation of the ERO.

4.3 CRITERIA FOR EMERGENCIES REQUIRING CLASSIFICATION

For those emergency events that are not classified as an Alert or SAE, FBP maintains the responsibility and capability for assessment of the event, implementing appropriate protective actions, and ensuring that off-site officials are informed of potential or actual consequences within 15 minutes after event recognition/identification/discovery, if necessary.

Criteria for each level of emergency classification for the DOE contractors are developed using the HS and EPHA process. Potential Alert and SAE events are identified in the hazards analysis and that information forms the basis for the development of the EALs.

DOE Order 151.1C is used as the hierarchy reference at PORTS to develop Hazards Survey (HS), EPHA, and EAL documentation.

4.4 EMERGENCY ACTION LEVELS

EALs are specific, predetermined, observable criteria (such as alarms or instrument set points) used to detect, recognize, and determine the emergency classification. Facilities that contain quantities of chemical and radiological hazardous materials, and have the potential to create a classifiable emergency as identified in hazards assessments, are included in FBP-EM-PRO-00020, *Emergency Classification*. This procedure is distributed as a controlled document by FBP.

FBP, WEMS, and other DOE contractors participate in a joint site-wide contractors committee to develop EALs for their respective facilities. The EALs for the non-leased and de-leased facilities on-site are developed in a manner consistent with the EAL matrix to allow the PSS/IC to quickly and effectively identify the criteria needed for classification of the event and ensure effective protective actions are taken in a timely fashion.

EALs developed through EPHAs that are not currently included in the classification procedure are added, and training is given to PSS Office personnel responsible for classifying emergencies.

Upon notification of an emergency, the PSS becomes the IC, implements ICS, and initiates the emergency response. Using the criteria as set forth in the EPIP, the PSS makes a determination if the event meets the criteria for an Alert or SAE.

Upon the declaration of an Alert, the IC does the following:

- Assumes the CM duties until the EOC is operational.
- Establishes command and control of the emergency scene.
- Implements on-site protective actions.
- Activates the EOC Cadre.
- Notifies off-site authorities.

Upon the declaration of a SAE, the IC does the following:

- Assumes the CM duties until the EOC is operational.
- Establishes command and control of the emergency scene.
- Implements on-site protective actions.
- Activates the EOC Cadre.
- Notifies off-site authorities.
- Recommends to the Pike County Sheriff's Office, as appropriate:
  - To activate the PWS.
  - To activate the Emergency Alert system (EAS).
  - Any PAR necessary (e.g., shelter in place, etc.).
- Activates the JPIC.

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5. NOTIFICATIONS AND COMMUNICATIONS

5.1 NOTIFICATIONS

Prompt notification of on-site personnel, emergency responders, and off-site organizations and agencies is critical during an emergency event. The PSS is responsible for notifying the ERO using the plant radio system, pagers, Public Address (PA) system, and/or the plant telephone system.

The PSS or designee is responsible for initial and subsequent notifications to off-site organizations in accordance with federal and state regulations. When the EOC becomes operational, this duty is transferred to the EOC cadre.

Notification to the appropriate county and state authorities are prompt, normally within 15 minutes after the event is declared an Alert or SAE. This notification is made by telephone or, if the phone system is not operational, by radio. Notifications to off-site authorities are provided periodically as new information becomes available.

The notification process is further detailed in procedure FBP-EM-PRO-00013, *Notification for Classified Emergencies*.

5.1.1 Off-site Notifications

Upon declaration of an Alert or an SAE, the PSS or designee, conducts initial emergency notifications to off-site authorities as soon as possible, normally within 15 minutes of declaration. The following federal, state, and local agencies are notified as a minimum:

- Pike County EMA Director
- Pike County Sheriff's Office/Local Emergency Planning Committee (LEPC)
- OEMA
- DOE/HQ Watch Office
- DOE/Oak Ridge Operations Center (DOE/OROC)

Both USEC-HQ and the NRC Operations Center are notified immediately after notification to the appropriate state and local agencies, but not later than one hour after the declaration of an Alert or SAE, if the event occurs in USEC Inc. leased space.

5.1.2 On-site Notifications

Members of the PORTS ERO are notified to respond to an emergency by pagers, radios, PA system and telephones.

Plant personnel, not assigned to the ERO, receive notification of an on-site emergency condition by one of eight emergency signals followed by further instructions over the plant's PA system.

5.1.3 DOE Assets

Events involving DOE operations or property are reported to DOE PORTS and DOE/ORO. DOE Headquarters maintains various emergency response assets capable of providing radiological monitoring and support assistance during an emergency. Access to these DOE assets in an emergency are coordinated through DOE/ORO.

5.1.4 Field and Headquarters EOC Notifications

The PSS or designee notifies DOE/ORO and DOE/HQ by telephone within 15 minutes of the declaration of a classified emergency. These notifications are simultaneously through the use of a conference call connection made through the PORTS PSS Office.

DOE/PPPO office personnel will be contacted by the DOE Site Representative position in the PORTS EOC as soon as possible after the EOC becomes operational.

5.2 COMMUNICATIONS

Reliable and redundant communication systems provide PORTS with the means to notify on-site personnel as well as off-site organizations and agencies of an emergency event.

The communications systems at PORTS include, but are not limited to, the following:

- Ring Down system (for notifications),
- Commercial telephone system,
- Facsimile machines,
- PWS
- Radio repeater networks for plant groups,
- Mobile communications system
- PA system
- Email

The PORTS Emergency Response Organization is equipped with radios that include the frequencies for local agencies that provide mutual aid response support to the site. These frequencies are available in hand-held, mobile, and base radio equipment. The PORTS ERO also maintains Multi-Agency Radio Communications System (MARCS) radio equipment to provide communication interoperability with various state and other offsite agencies that may be responding to the site.

The communication systems used for emergency notifications are tested on a regular basis. EOC and JPIC cadre pagers are used by all cadre members as routine communication devices on a daily basis. If the pager does not operate properly, the cadre member notifies WEMS Telecommunications to have the pager repaired or replaced. EOC and JPIC pagers are tested on a quarterly basis with the results documented by the Emergency Management group.

The notification phone list is also tested on a quarterly basis by calling each number listed on the form and verifying the phone number(s) and contact points are accurate and up to date. The results of this surveillance are also documented by the Emergency Management group.

Communications devices and other equipment in the EOC are inventoried and tested on a quarterly surveillance schedule. The results are documented by the FBP Emergency Management group. The plant PA system is tested on a daily basis by the X-300 Console Operator.

The PWS is scheduled for surveillance activities on a weekly silent testing schedule by the Emergency Management group. Maintenance and inspection of the PWS is conducted quarterly by various on-site skilled trade workers in the electronic maintenance group. Audible testing of the PWS is conducted on a semi-annual basis.

5.2.1 Secure Communications

The PORTS ERO has the capability for secure communications using secure terminal equipment (STE). STE telephones are available in the X-1020 EOC and the X-300 Plant Control Facility.

6. CONSEQUENCE ASSESSMENT

Hazards and consequence analyses reflected in the DOE Documented Safety Analysis (DSA) report (hazards analysis) are the basis for DOE emergency preparedness planning (FBP/PORTS-444/R4). An NRC Notice, promulgating 10 CFR Part 70, "concluded that off-site emergency preparedness should be based on chemical toxicity from a large UF_6 release." This conclusion was based on an NRC regulatory analysis of emergency preparedness requirements for other nuclear fuel cycle facilities regulated by the NRC.

The USEC-02, *PORTS Emergency Plan* is based on an evaluation of the risks associated with various accident scenarios for DOE and USEC Inc. facilities. These risks are identified in the site-specific hazard analyses of PORTS facilities and other potential emergency situations at PORTS. Those analyses concluded that the most extreme credible scenario would be an accident involving a large UF_6 release. The analyses included consideration of the risks associated with potential release of other hazardous radioactive and non-radioactive materials stored or used on-site. These hazardous materials are identified in Material Safety Data Sheets (MSDSs); the chemical inventory; information from the Safeguards and Security Plan; Spill Contingency Control and Countermeasures Plan; and Hazardous Waste Contingency Plans.

FBP develops the revisions to the site-wide *Hazards Survey for Former Non-Leased Facilities Portsmouth Gaseous Diffusion Plant, Piketon, Ohio,* (FBP-EM-HS-00001) for facilities at PORTS. EPHAs have been developed for those facilities that were identified in the PORTS survey. Each Facility EPHA is published as a free-standing document. The EPHA documents were written to the requirements of the DOE O 151.1C. A listing of the EPHA documents with classifiable events analyzed is shown in Table 7 of this plan.

Table 7. EPHA documents

Document number	Building	Hazards identified
FBP-EM-EHA-00001	X-345 Special Nuclear Material Storage Area	UF_6 Criticality
FBP-EM-EHA-00002	X-326 L-Cage and X-326 DOE Material Storage Area	Criticality
FBP-EM-EHA-00003	X-744G Bulk Non-UESA Storage Building and Associated Outside Storage	Uranium Criticality
FBP-EM-EHA-00008	X-705E Oxide Conversion Area	Criticality
POEF-FBP-008	FUEF Facilities	UF_6 Criticality Uranium Fluorine Hydrogen Fluoride Chlorine Chlorine Trifluoride

Each type of credible accident or event that could result in an emergency associated with these hazards has been identified and analyzed to assess the potential consequences to plant workers, the public, the environment, and on-site and off-site property.

This plan is applicable to radiological and non-radiological accidents or other emergencies that could occur at PORTS including the following:

- HAZMAT releases involving toxic or radioactive materials;
- Equipment failures and industrial accidents;
- Natural phenomena, such as tornadoes, earthquakes and fires; and
- Security related events, such as bomb threats and civil disturbances

EPIPs identify the specific indicators to be monitored in an emergency, describe the monitoring capability, and identify the basis for adequacy.

6.1 CONTINUOUS CONSEQUENCE DETERMINATION

Chemical releases are modeled in the EOC by using the Aerial Location of Hazardous Atmospheres™ (ALOHA™) code. The ALOHA™ computer program is a tool for estimating the movement and dispersion of gases within a few miles of the incident. The model estimates pollutant concentrations downwind from the source of a spill, taking into consideration the toxicological and physical characteristics of the spilled material. ALOHA™ also considers the physical characteristics of the spill site, the atmospheric conditions, and the circumstances of the release. The ALOHA™ model has two separate dispersion models contained within the code: (1) a Gaussian model for use with gases that are neutrally buoyant; and (2) a Heavy Gas model for those gases that are heavier than air. ALOHA™ only models the first 60 minutes of a release. After that time, meteorological conditions are likely to have changed.

ALOHA™ will calculate source terms and associated downwind concentrations for the following three situations:

- Direct release (gas release)
- Puddle release (basic spill where ALOHA™ calculates the evaporative rate)
- Tank ruptures (ALOHA™ takes into account, and calculates, the release rate of liquid or gas)

HotSpot Health Physics Codes has been incorporated in to the consequence assessment software library. HotSpot, developed by Lawrence Livermore National Laboratory (LLNL), was created to provide emergency response personnel and emergency planners with a fast, field-portable set of software tools for evaluating incidents involving radioactive material. The software is also used for safety-analysis of DOE facilities handling nuclear material. HotSpot provides a fast and usually conservative means for estimation of the radiation effects associated with the short-term (less than 24 hrs) atmospheric release of radioactive materials.

HotSpot incorporates Federal Guidance Reports (FGR) 11, 12, and 13, Dose Conversion Factors (DCFs) for inhalation, submersion, and ground shine. FGR-12 DCF values are used for submersion and ground shine. In addition to the inhalation 50-year Committed Effective Dose Equivalent DCFs, acute (1, 4, 30 days) DCFs are available for estimating deterministic effects. This acute mode can be used for estimating the immediate radiological impact associated with high acute radiation doses (applicable target organs are the lung, small intestine wall, and red bone marrow).

Computer stations have been added in the TSR to allow chemical releases to be modeled using the National Atmospheric Release Advisory Center (NARAC) facility and its resources.

The NARAC provides tools and services that map the probable spread of hazardous material released into the atmosphere. The NARAC web site allows users to enter event information, request NARAC model predictions, run local models, and display model results with geographical information. Computationally intensive calculations, including three-dimensional model simulations and data processing, are performed on computers at the NARAC Facility. The results obtained from these calculations include the fifteen-minute time-weighted-average concentration for non-radiological materials and the Total Effective Dose Equivalent (TEDE) for radiological materials.

6.2 COORDINATION

In the event of an emergency, the IC has personnel and resources to assist and/or advise in the assessment of the situation. The IC will base the assessment on all available information including process knowledge, MSDSs, models of air, surface water or groundwater flow patterns, and specific health based environmental criteria or limits which may be exceeded.

Environmental surveillance air sample data may be collected and evaluated. By utilization of the existing databases and trained personnel, the IC will be able to assess both the direct and indirect effects potentially caused by the emergency. Personnel are routinely available to the IC for advice and consultation. Skills and experience include chemistry, biology, engineering, industrial hygiene, safety, regulatory compliance, process engineering and operations, health physics, medicine, and other sciences.

State and local officials are advised of the parameters for the ALOHA™ models and can model the release using their own equipment. This allows the state and local agencies to verify the PORTS release dispersion model and to determine the necessary protective actions they may need to implement.

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7. PROTECTIVE ACTIONS AND REENTRY

During emergencies the IC, designee, and/or CM must determine the best possible means to limit exposure of on-site and off-site personnel to potential or actual threats, such as radioactive or toxic materials that may be accidentally released in the environment. Guidelines are provided to limit the exposure to personnel. The Protective Action Guides (PAG) published by the Environmental Protection Agency (EPA) is specified as the applicable consequence thresholds for radiological exposures. The Acute Exposure Guideline Levels-2 (AEGL-2) published by the EPA and the Emergency Response Planning Guides-2 (ERPG-2) published by the American Industrial Hygiene Association (AIHA), and the Temporary Emergency Exposure Threshold-2 (TEEL-2) developed by DOE are identified, in order of preference, as the corresponding consequence thresholds for chemical hazards. Specific procedures have been developed for the protection of on-site and off-site personnel.

Protective actions for on-site personnel (including visitors and contractor personnel) include alerting, accountability, sheltering in place, evacuation, monitoring, and decontamination.

The accountability process is designed to ensure that all personnel have been accounted for during or after an emergency event. Accountability can be requested for an area, facility, or for the plant wide population.

Sheltering is the movement of personnel into buildings and/or designated shelter areas. This protective action is appropriate as a dose reduction method for situations such as radiological releases of a short duration, or natural phenomena, such as high wind and tornado warnings.

Procedures are in place for evacuation of personnel from affected facilities in the event of an emergency. EAPs posted in all occupied facilities provide directions for the specific evacuation routes and pre-designated assembly points for facility personnel. In the unlikely event of a need to evacuate the entire site, pre-designated reception centers, at various offsite locations, are available for plant personnel.

For the protection of the general public in the area surrounding the reservation, a 2-mile INA has been established. PORTS can assist the county ERO in notifying the neighboring public to shelter in place or to provide instructions for the public to evacuate the area through the activation of the Public Warning Siren System (PWS).

When sheltering-in-place is the recommended action for residents living within the INA, the Pike County Sheriff's Dispatcher activates the PWS. The PWS consists of five outdoor warning sirens and tone alert radio receivers. The five sirens can produce different alerting tones as well as broadcast voice messages. The activation of the public warning system alerts the neighboring residents to shelter-in-place, and tune to the local area EAS broadcast radio stations. Off-site personnel receive emergency planning information and other plant mailings on a regular basis from the Emergency Management and Public Affairs organizations.

7.1 Protective Action Guidelines (PAG)

PAGs that provide exposure guidelines for radiological emergencies at PORTS are prepared in conformance with DOE-approved guidelines and are consistent with the U.S. EPA's PAGs summarized in EPA 400-R-92-001, *Manual of Protective Action Guides and Protective Action for Nuclear Incidents* (EPA 1991).

The PORTS radiation exposure guidelines are listed below:

- Doses to all workers during emergencies, to the extent practical, are limited to 5 rem;
- Justifications for exposing workers beyond the 5 rem limit include conditions that prevent the rotation of workers or other commonly used dose-reduction methods. Approval is first obtained from the contractor management and the head of the responsible DOE field organization;
- Emergency exposures for the protection of valuable property are limited to 10 rem;
- Emergency exposures for life saving activities and the protection of large populations are limited to 25 rem;
- Emergency exposures in excess of 25 rem are authorized only for rare situations when such exposure is unavoidable in order to carry out lifesaving operations or to avoid extensive exposure to large populations;
- An emergency operation in which the dose will exceed 25 rem, to the whole body, will be undertaken only on a volunteer basis, and with approval from the Crisis Manager and the Radiation Protection Manager;
- The volunteer shall be fully aware of the risks involved, including the numerical levels of dose at which acute effects of radiation will be incurred and the numerical estimates of the risks of delayed effects; and
- Details for providing this information and for documenting an individual's willingness to volunteer are in an EPIP.

Protective Action Recommendations (PAR) are listed in the EALs that sets forth the criteria for classifying the event as an Alert or a SAE. PARs are based on the analysis of the event criteria by the IC and PARs for both on-site and off-site populations which are available, if needed.

Each time the status of the emergency changes, on-site protective actions and off-site PARs are reviewed and modified accordingly. The same systems used to announce initial protective actions are used when changes need to be communicated.

FBP maintains procedures that establish criteria for termination activities related to protective actions.

7.2 Acute Exposure Guideline Levels and Emergency Response Planning Guides

For hazardous material/toxic gas release incidents, the IC and emergency response personnel assess the incident and take appropriate protective and mitigative response actions, including evacuation of the affected area, sheltering-in-place, etc., based on available information. Tools available to the IC include MSDS, emergency response guidebooks, professional industrial hygiene guidance, and meteorological conditions.

During an on-site UF_6 release, the resulting hydrolysis reaction products are uranyl fluoride (UO_2F_2) particles and hydrogen fluoride (HF). The radiotoxicity of uranium is insignificant when compared with the chemical toxicity of HF and uranium. Therefore, exposure control during an emergency involving UF_6 will be based on chemical toxicity.

The AEGL-2 and -3 values for UF_6 should take precedence in estimating health impacts from UF_6 and UO_2F_2. This preference for AEGL values over TEEL values reflects a greater level of confidence associated with AEGLs, which are developed through a rigorous, peer-reviewed assessment of basic toxicological data.

Exposure guides for toxic and hazardous chemicals have been incorporated into the EPIPs and are consistent with the AEGLs, established by the EPA and the ERPGs established by the American Industrial Hygiene Association for extremely hazardous chemicals.

7.3 RECORDS

EPIPs establish requirements for ERO positions to maintain logs of event related information. These documents may be used at a later date if review and reconstruction of event responses are necessary. All event logs and other documents generated by response activities are collected at the end of the incident and processed for record storage.

Procedure-generated records related to emergency hazardous material exposures, medical treatment, follow-up surveys, and long-term tracking of health effects from over-exposures are the responsibility of FBP. The procedures used by these departments in daily operations to coordinate the exchange of information for documentation purposes (i.e., levels of toxic chemical exposure and resultant medical treatment) are also used for activities related to the emergency response. Medical, dose tracking, or other emergency response-related records are retained.

7.4 PERSONNEL ACCOUNTABILITY AND EVACUATION

Upon notification of the need for accountability, plant site entities assemble data on the location of their respective company personnel and visitors. That information is then reported back up the chain of accountability reporting points. The accountability process at PORTS allows for the accounting of all on-site personnel within 45 minutes (not to exceed 60 minutes).

In the event that an evacuation is required, alarms, PA, and radio announcements will be initiated. This notification will include, if time permits, the identification of special conditions, locations of areas to be avoided, and, if necessary, instructions for sheltering-in-place. Upon notification of an emergency, plant personnel, visitors, and contractors, not assigned to an emergency response position, proceed to a designated monitoring station (radiological event only) or assembly point.

7.5 REENTRY

The IC is responsible for determining the need and associated requirements for reentry to a facility during an emergency event. No entry is made into any facility or area affected by an emergency condition unless approved by the IC. If on-scene personnel or Incident Command Sector Officers determine that an immediate action is required prior to the arrival of the IC on the scene, the IC must be contacted and give an approval prior to the entry being made. If an entry is to be made, the IC will assemble a reentry team made up of ERO field members. Teams are briefed prior to entry on their specific mission, route ingress/egress, dangerous area(s), personal protective clothing/equipment required, and stay times associated with radioactive exposure control or HAZMAT.

The IC determines when conditions warrant a declaration of "All Clear" of a non-classified emergency. The IC will then direct that an "All Clear" announcement be given to signify that resolution of the emergency has occurred and conditions have returned to normal status. Facility personnel will then be allowed to reenter the facility.

Reentry requirements for a building or area involved in a classified emergency event will be coordinated between the IC, the CM, and the Recovery Manager assigned to the event. When the requirements have been decided and reentry has been approved, the IC will then direct that an "All Clear" announcement be given to signify that resolution of the emergency has occurred and conditions have returned to normal status. Facility personnel will then be allowed to reenter the facility.

7.6 Emergency Planning Zones (EPZ)

EPZs are determined by the analytical process used in the EPHA development process. A complete description of this process is discussed in Section 1.4.1.1 of this Plan. Protective actions required for the facilities within this area, in the event of an emergency, will be determined by the IC.

7.7 COMMUNICATION

The communication process used to notify federal, state and local ERO of the necessary actions required for their protection or for which they are responsible for informing the public is covered in detail in Section 5.1.1 of this Plan.

7.8 TERMINATION OF PROTECTIVE ACTIONS

Each time the status of the emergency changes, the on-site protective actions and off-site PARs are reviewed and modified accordingly. The same notification and communication systems that are used to announce initial protective actions are used when changes need to be communicated.

Procedures are maintained that establish criteria for termination activities related to protective actions.

7.9 SHUTDOWN OF OPERATIONS

The responsibility for the safe operational shutdown of the incident facility rests with the LED or Facility Manager, who uses emergency operating procedures for this purpose.

8. EMERGENCY MEDICAL SUPPORT

8.1 SYSTEM

PORTS maintains emergency medical coverage consistent with the activities being conducted on-site. In an emergency, off-duty medical personnel are notified and directed to required locations, if needed. The PSS or designee notifications include alerting appropriate occupational health services and medical personnel in the event of emergencies ranging from industrial accidents to toxic or radiological releases.

8.2 STAFF

A plant first aid facility is maintained on-site during the day shift (Monday through Thursday), excluding weekends and holidays. This facility has the supplies, equipment, and personnel to treat most minor injuries. Medical personnel assess patient conditions; provide necessary emergency care and/or arrange for appropriate supplemental treatment.

Health Services personnel provide medical coverage during the day, with plant firefighters providing emergency medical coverage the remainder of the time. Health Services personnel may be called on-site during off shifts as deemed necessary.

Fire Services organization provides PORTS ambulance services staffed by trained Emergency Medical Technicians (EMT) and Paramedics. Additional ambulance support is available from off-site EMS. Emergency air ambulance service is also available upon request for transport of injured non-contaminated personnel.

8.3 EQUIPMENT

Emergency decontamination equipment for injured personnel and responder decontamination is carried in ambulances and fire trucks. Additional equipment and neutralizing solutions are stored in the X-1007 Fire Station and the X-720 Building.

Gross decontamination of responders may be accomplished by using safety showers or sanitary showers in the affected or nearby buildings. Decontamination solutions are readily available for use.

8.4 TRANSPORTATION AND EVACUATION

Transportation of injured persons, including contaminated victims, to an off-site medical facility is normally handled through the Fire Services group. In the event that a plant ambulance is not available, the Pike County EMS will provide this service. FBP has a MAA with this organization.

PORTS has Letters of Agreement with the following off-site medical facilities:

- Adena Pike Medical Center (formerly Pike Community Hospital), Waverly, Ohio;
- Southern Ohio Medical Center, Portsmouth, Ohio; and
- Adena Regional Medical Center, Chillicothe, Ohio.

These hospitals have agreed to accept radiation/HAZMAT-related patients for emergency medical and surgical treatment.

All patient information collected by PORTS EMS personnel is shared with the receiving medical facility in accordance with the Health Insurance Portability and Accountability Act (HIPAA).

8.5 MASS CASUALTY EVENTS

A mass casualty event is an event that would overwhelm the capabilities of the PORTS emergency medical personnel to provide adequate and effective treatment of injured personnel. If a mass casualty event should occur, PORTS would coordinate the transportation of injured persons, including contaminated victims, with the Pike County EMS.

Pike County EMS and Adena Pike Medical Center (formerly Pike Community Hospital) would coordinate with other area hospitals, if necessary, for the transfer and subsequent treatment of the patients. Patients would be transported or directed to other area hospitals based on the type of injury or contaminated injury and the capabilities of the area hospital.

8.6 COMMUNICATIONS

At PORTS, emergencies can be reported in the following manner:

- Calling 911 on any plant telephone;
- Dialing (740) 897-2444 on cellular telephones;
- Calling the PSS on the plant radio system;
- Pulling a Fire Alarm Box, located around PORTS;and
- Sending a messenger for help.

Reporting of any emergency event on-site is covered in the General Employee Training (GET) that employees of all companies working on-site are required to attend.

The PSS/IC or designee is responsible for coordinating requests for notifying off-site emergency response teams, ambulances, and other agencies, as needed.

9. EMERGENCY TERMINATION AND RECOVERY

When corrective and protective actions have established an effective control over the situation, and emergency conditions no longer exist, the emergency response shifts into the recovery phase. It is the responsibility of the CM to determine when the recovery phase of the emergency can be initiated.

The DOE PORTS Manager is responsible for ensuring the adequacy and appropriateness of recovery operations involving non-leased portions of the facility.

9.1 CRITERIA

The CM uses the following criteria for terminating an emergency and beginning recovery operations:

- Conditions no longer meet any EAL.
- The affected facility/area is in a stable condition and can be maintained in that condition indefinitely.
- Fire or other similar emergency conditions no longer constitute a hazard.
- Releases of hazardous materials to the environment have ceased or are controlled.
- Discussions with the ERO and appropriate off-site agencies identify no valid reason to continue in an emergency classification.

Upon termination of the event, recovery actions may be initiated.

9.2 RECOVERY

The nature and extent of the emergency determines what recovery operations are required and the extent of the recovery organization that must be formed. A recovery plan must be flexible enough to adapt to the existing condition. It is not possible to anticipate in advance all conditions that may be encountered as a result of an emergency.

Selected ERO staff members, as identified in procedures, are responsible for performing necessary recovery planning. If appropriate, the following items are addressed before the downgrade or termination of an emergency:

- Recovery tasks
- Recovery strategy
- Recovery organization assignments
- On-site logistics support needs
- Off-site logistics support needs (including special resources or capabilities)

9.2.1 Recovery Organization

Prior to termination of an emergency and deactivation of the ERO, the CM appoints a Recovery Manager. A recovery organization is established to implement recovery plans. The Recovery Manager has overall responsibility for recovery activities, including ensuring that all safety equipment is checked and restored to normal conditions and evaluation and retaining ALARA records. Other duties of the Recovery Manager include coordination of interactions with vendors and contractors; approval of special procedures and related training; interfacing with off-site federal, state, and local officials; and assignment of responsibility for compiling, evaluating, and ensuring retention of all records associated with the event.

The DOE Site Representative or designee is responsible for ensuring the adequacy and appropriateness of recovery operations involving non-leased portions of the facility.

When recovery operations begin, a thorough radiological evaluation of the affected facility will be conducted. Personnel radiation exposures during restoration activities shall be maintained in accordance with the As Low As Reasonably Achievable (ALARA) principle and plant Radiological Protection procedures shall be followed during restoration activities.

If the event is in a DOE facility, the records will be filed with the FBP Records Management Document Control Center and maintained in accordance with the appropriate records management procedures.

10. PUBLIC INFORMATION

FBP maintains and updates the *Portsmouth Gaseous Diffusion Plant Emergency Public Information (EPI) Plan* (FBP-EM-PL-00019). The purpose of the Portsmouth EPI Plan is to establish a basis for providing timely, accurate, and relevant information to PORTS personnel and the public who may be affected by an emergency at PORTS. A detailed explanation of the Public Information Organization is available in the *Portsmouth Gaseous Diffusion Plant Emergency Public Information (EPI) Plan.* A comprehensive description of the JPIC and its operations is found in procedure FBP-EM-PRO-00018, *JPIC Concept of Operations.*

10.1 PUBLIC INFORMATION ORGANIZATION

The primary responsibilities of key members of the EPI organization are identified as follows:

- **CM** provides overall guidance to the plant Public Information Advisor (PIA) and approves all news releases and talking points prior to distribution.
- **DOE Site Representative** provides guidance to the plant Public Information Advisor (PIA) and approves all news releases and talking points prior to distribution.
- **PIA** reports to the PORTS CM and directs and coordinates EPI activities. The PIA coordinates the preparation, approval signature of the CM and DOE Site Representative, and the release of all EPI to the JPIC.
- **JPIC Manager** is responsible for the overall operation of the JPIC, the release of timely and accurate information to the public and media, and responses to media and public inquiries.
- **Contractor Spokesperson** serves as the Lead Spokesperson role in the event the emergency occurs in their specific DOE contractor-managed facility or area. As the Lead Spokesperson, he/she conducts the initial staff briefing prior to the JPIC Manager declaring the center operational and conducts news briefings and follow-up interviews as required.
- **DOE Spokesperson** serves as the point-of-contact for any media inquiries about DOE actions and policies.
- **Outside Agency Public Information Officers** assist the JPIC Manager by coordinating jointly with the JPIC Manager in the release of information to the media, providing information to the public within their jurisdictions, and participating as spokespersons for their representative agencies in news briefings.

10.2 PUBLIC INFORMATION FACILITIES

The JPIC facility is located at the Word Alive Fellowship/Miracle City Academy facility just north of U.S. Highway 32 near Piketon, Ohio. The facility is the designated location for the dissemination of official information about emergency events to the media or the general public.

An alternate JPIC facility is located approximately 6 miles south of the site at the Scioto County Fairgrounds, just north of Lucasville, Ohio.

JPIC accommodates the following activities:

- Coordination of information with interfacing federal, state, and local organizations and spokespersons;
- Press releases and media briefings; and
- Work space for PORTS public information personnel, interfacing organization personnel, and representatives of news media organizations.

10.3 PLANTSITE PERSONNEL AND PUBLIC EDUCATION

Plant personnel are required to complete GET training modules every two years at PORTS. The GET module includes Emergency Management information including:

- Emergency alarm signals,
- Evacuation instructions,
- Accountability information,
- Criticality Accident Alarm System (CAAS) activations, and
- An overview of the plant Emergency Management systems.

In addition, plant personnel are kept informed of changes in the Emergency Management program through informational e-mails, postings, briefings, and required reading materials. Employees of FBP are informed of any changes in the evacuation routes, shelter areas or other emergency response information through updated Emergency Action Plans (EAP) and briefings.

FBP Emergency Management and Public Affairs groups periodically distribute information to the public. Topics include the PORTS' emergency response programs, protective action guidelines, and the Immediate Notification Area. The public is also kept informed of general preparedness, exercise information and other plant activities conducted to ensure public and environmental health and safety.

Emergency public information calendars and/or brochures are mailed to plant neighbors within the Immediate Notification Area. This information includes topics on sheltering, locator services, risks and hazards at PORTS, and appropriate radio frequencies and/or television stations used for EPI.

Additional copies are provided to state and county emergency response agencies, as requested, for further dissemination. Because of the rural nature of the Immediate Notification Area, special education programs for transient or foreign-speaking populations are not necessary.

10.4 PUBLIC INQUIRIES

In the event of an emergency, public inquiries and rumor control functions regarding the event are answered through the JPIC telephone bank operators.

10.5 SECURITY

In emergency events, all press releases and talking points for distribution are reviewed by an Authorized Derivative Classifier (ADC). The ADC determines that the documents and/or material are either unclassified and can be released, or classified as Restricted Data, Formerly Restricted Data, or National Security Information in accordance with existing guidance or source documents and cannot be released.

10.6 DOE FIELD AND HEADQUARTERS REVIEW COORDINATION

In emergency events, all press releases and talking points for events involving DOE facilities are developed by the PIA in the EOC. The press release is reviewed and approved by the DOE Site Representative in the EOC. The DOE Site Representative is responsible for coordinating the reviews of the press releases with the PIA staff in the Lexington office of the PPPO and at DOE-Headquarters.

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11. EMERGENCY FACILITIES AND EQUIPMENT

11.1 EMERGENCY FACILITIES

Emergency response facilities have been pre-designated and equipped for use in an emergency. In some instances, emergency response facilities are continuously staffed, performing "routine" response-related activities, such as handling requests for ambulances or dispatching security personnel.

Other facilities fall into two categories. Dedicated facilities are immediately available to support emergency operations upon arrival of staff. A non-dedicated facility has procedures in place to convert it into the appropriate configuration to support emergency response activities in a timely manner.

11.1.1 Emergency Operations Center (EOC)

The EOC is located in the X-1020 Building. It is a dedicated on-site facility for the overall management of the emergency response.

The PSS or designee activates the EOC for Alerts and SAEs. In addition, the EOC may be activated for other situations at the discretion of the PSS. Once operational, the EOC provides coordination and management for the emergency response and communications with federal, state, local, and other off-site organizations. The CM directs activities at the EOC.

11.1.2 Alternate EOC

An alternate EOC is located in the X-300 Plant Control Facility. This facility is used in the unlikely event that the primary EOC becomes uninhabitable due to a radiological/toxic materials release, or other reasons.

11.1.3 Emergency Response Facilities

The Plant Control Facility (X-300) is used to maintain surveillance and control of operational processes, conduct incident assessment, mitigation, and initially direct protective actions.

The Command Post is a marked vehicle or area equipped with communications, capabilities, and other resources needed to manage the incident.

11.1.4 Technical Support Center

PORTS does not operate a separate Technical Support Center; however, this support is provided by EOC cadre staffing in the EOC Technical Support Room. Additionally, subject matter experts may be requested to report to the EOC as needed.

11.1.5 Joint Public Information Center

The JPIC is the designated location for the dissemination of official emergency information to the media and to the public. The primary JPIC is setup in a non-dedicated facility at the Word Alive/Miracle City Academy complex located just north of the site off State Route 32.

11.1.6 Off-site Communications Center

PORTS does not operate an off-site communications center. The Mobile Communications Vehicle can be used to provide mobile communications capabilities that can serve as an alternate communications center.

11.1.7 Decontamination Facilities

Specific facilities, resources, and provisions for the decontamination of personnel, vehicles, and equipment are located in various areas of PORTS.

11.1.8 Medical Facilities

The FBP Health Services organization staffs the X-670 Medical Trailer that serves as a first aid station. The staff treats minor injuries and can facilitate additional treatment as necessary through offsite medical facilities. The X-1007 Fire Station is equipped to provide medical services when the X-670 Trailer is not staffed.

11.1.9 Security Control Center

The X-104 Building serves as a focal point for security activities during an emergency. The X-104 Building is operated on a 24-hour basis and is immediately available to support emergency security operations.

11.2 EMERGENCY EQUIPMENT

11.2.1 Communications Equipment

The communications systems are designed to ensure the reliable, timely flow of information and action directives between all parties having a role to play in the mitigation of emergencies. Reliability is provided via redundancy, dedicated communication equipment, and routine use and testing of many of the systems, which lowers the probability of undetected system failures. Essential communication links are manned continuously and are periodically tested to ensure availability. The communication systems in place include the following:

- Commercial telephone lines
- Facsimile machines
- Secure terminal equipment
- Radio repeater networks for plant groups
- Mobile communications systems
- Local emergency response agency radio networks
- PA System
- Cellular telephones
- Pagers
- PWS

11.2.2 Heavy Construction Equipment

Heavy construction equipment is available on-site. The use of such equipment and other resources can be coordinated through members of the EOC cadre.

11.2.3 Decontamination Equipment

Emergency decontamination equipment is carried in the plant emergency vehicles. Additional equipment and neutralizing solutions are stored in the X-1007 Fire Station or the X-720 Maintenance Building.

11.2.4 Alarm Equipment

Alarms include bells, whistles, and horns that sound in a variety of ways depending on the nature and extent of the emergency. For example, in the event of an emergency, a personnel accountability alarm may be sounded (seven rings on a bell, repeated three times) and/or, if an evacuation is necessary, a horn will sound with a continuous blast.

Emergency communications may also be accomplished by means of hand held two-way radios. A dedicated emergency frequency is assigned, and an alternate frequency may be used if necessary. All personnel who have use of a two-way radio are instructed in its proper use.

Criticality accident alarms have been placed in those areas and facilities containing fissile material as described in the DSA. The criticality accident alarm system provides for radiation detection and an alarm system to alert plant personnel.

Radiation dose rate and contamination survey instruments used are appropriate to measure the types and energies of radiation encountered at PORTS. Instruments capable of supporting radiography operations are also maintained in the inventory.

11.2.5 Rescue Team Equipment

Fire Services personnel maintain Level A, chemical-resistant encapsulating suits. They receive special training in the use, testing, and inspection of this equipment. Respiratory protection includes organic vapor half and full-face respirators, and self-contained breathing apparatus (SCBAs).

Level B equipment is worn by responding firemen and consists of complete fire turnout gear and positive pressure SCBA. Additional SCBA gear is available on fire apparatus excluding the ambulances.

11.2.6 Sanitation and Survival Equipment

Portable sanitation facilities are available from existing PORTS resources. Survival equipment (i.e., nuclear attack survival kits) has been removed from all locations on-site and is no longer available.

11.2.7 Transportation Equipment

The area surrounding PORTS is primarily rural. A public transportation system for use by commuting employees does not exist. FBP and WEMS operate a fleet of government vehicles that can be used in an emergency.

11.2.8 Personnel Protection Equipment

PORTS maintains a wide variety of personal protective equipment including protective clothing and respiratory protection. Protective clothing includes Tyvec® and cloth coveralls, aprons, shoes, boots, and various types of gloves and headgear. Respiratory protection includes organic vapor half and full-face respirators, and SCBAs. The level of protection needed is based on the nature of the released material, taking and evaluating instrument readings for that material, and consulting with the PSS/IC, fire captain, and safety personnel so that all potential hazards are considered.

11.2.9 Gas and Liquid Monitoring Equipment

Designated plant emergency vehicles respond to the accident scene. They contain necessary emergency equipment and supplies to ensure personnel and monitoring equipment are readily available to emergency personnel. Equipment and supplies include count and dose rate meters for measuring radiation levels and portable air samplers.

Monitoring stations are strategically located on-site for use during radiological events. Emergency monitoring equipment is stored and always available at each monitoring station.

In addition to radiological monitoring equipment, the plant maintains emergency monitoring instrumentation for chemically toxic material releases. This instrumentation is maintained in dedicated emergency response vehicle kits but may also be retrieved from an inventory of routinely used monitoring equipment.

11.2.10 Damage Containment Equipment

Damage containment equipment and supplies, (i.e., sand bags, booms, shielding materials, etc.) are available from existing PORTS resources.

11.2.11 Fire-Fighting Equipment

FBP operates and maintains the X-1007 Fire Station at PORTS. This is a full time dedicated fire department with the following equipment:

- 1250 gallons per minute (gpm) Pumper and 500 gal. booster tank,
- 1500 gpm Pumper and 1000 gal. booster tank,
- 1000 gpm Pumper with a 500 gal. booster tank,
- 300 gpm Mini-Pumper pump and 300 gal. booster tank,
- 4-wheel drive heavy rescue vehicle,
- Emergency equipment truck,
- Several pickup trucks, and
- Two ambulances.

There are two separate fire water distribution systems at PORTS. The high-pressure fire water system services all sprinkler systems and the fire hydrants in the Gas Centrifuge Enrichment Plant (GCEP) areas of the plant. The low-pressure system is also the sanitary water system and services the fire hydrants in the GDP area of the plant. Fire hydrant spacing on both systems is nominally 300 ft.

Along with the fire protection systems at PORTS, each building is equipped with portable fire extinguishers. National Fire Protection Association (NFPA) Class A, B, C or combination extinguishers can be found in most areas.

11.2.12 Emergency Power Equipment

Except for emergency lighting in the event of power failure, not all DOE facilities have backup emergency power equipment.

11.2.13 Logistic Support Equipment

Logistic Support Equipment used in site-level facilities is listed in various FPB procedures. Folders containing maps, reference documents, telephone directories, etc., are maintained in the EOC.

TRAINING AND DRILLS

The FBP Emergency Management Manager is responsible for oversight of the Emergency Management training program. A series of course modules has been developed for on-site training programs. Initial and refresher training for all EOC and JPIC cadre members is conducted by the FBP Emergency Management staff.

Procedure FBP-EM-PRO-00015, *Emergency Management Training*, establishes the requirements for the formal Emergency Management Training Program. The Emergency Management Training Program details schedules, lesson plans, and training frequency for each position.

All personnel involved in emergency planning possess experience or a combination of experience, training, and education commensurate to their job assignment. Management is responsible for each individual's training plan and identifies any required additional technical course requirements.

FBP Training provides general training for FBP and DOE personnel. WEMS Training provides General Employee Training (GET) and RadWorker training for all site personnel. WEMS is also the support training group for Information Technology (IT) and Security training.

12.1 COURSES

All PORTS personnel, (DOE, FBP, WEMS, BWCS, USEC Inc., and subcontractors, excluding visitors, and tenant organizations) who are allowed unescorted access, are required to complete GET on a biennial basis to ensure they are aware of the proper responses to emergencies. The subjects covered include the following:

- Emergency plant safety objectives and priorities
- Ways to report emergencies
- Recognition and correct responses to plant alarm signals
- Evacuation guidelines for radiological and non-radiological emergencies
- Methods of personnel accountability
- Personnel responsibilities during emergencies

12.2 TRAINING REQUIREMENTS

A formal training program, which includes classroom, self-study guides, and tabletop and functional drills, has been developed for the ERO and support personnel. The ERO receives training commensurate with assigned emergency response positions. This training program ensures the continued EM training of persons who respond/participate during a plant emergency.

The PORTS ERO cadre personnel receive annual training to include, but not limited to: emergency plan implementing procedure updates, lessons learned, and other instructional topics that enhance their knowledge and performance in their respective cadre positions. In addition, all ERO personnel are required to participate in at least one drill/exercise per calendar year.

Specialized initial and refresher Emergency Management training is provided and includes the following categories:

Emergency Management Overview. This course provides an orientation to the PORTS Emergency Management Program. Subjects covered in this training include emergency response, responsibilities and authorities, requirements, facilities and equipment overview and off-site interface summary.

EOC Concept of Operations Training. This course covers the operation of the EOC during an operational or declared emergency, including the interface with the IC and an overview on communications with on-site support groups and off-site agencies. This course is provided initially with biennial retraining requirements.

Credible Emergencies. This course covers responses to bomb threats, tornadoes, or earthquakes. This course is provided initially.

Criticality and Radiation Emergencies. This course covers responses to criticality and radiation emergency responses. This course has biennial training requirements.

Emergency Management Drill and Exercise Participation. This course covers the drill and exercise program and is provided initially with biennial retraining requirements.

Emergency Classification and Protective Actions. This course covers the event classification systems and PORTS EALs. This course also provides instruction on on-site and off-site protective actions and is provided annually to members of the ERO who serve as CM or IC. Other ERO members who are required to take this training must take initial and biennial classroom courses.

Meteorological Projection. This course is an introduction to plume modeling capabilities to enhance on-site and off-site protective action recommendations.

Emergency Notifications/Communications. This course is provided to those personnel who are responsible for preparing, approving, and/or conducting emergency notifications to on-site and off-site authorities. This course is provided initially with biennial retraining requirements.

Reentry and Recovery Operations. This course covers the reentry and recovery operations that take place during and after the resolution of the event. This course has biennial training requirements.

Emergency Response. This course provides an overview of emergency response activities being directed from areas other than the EOC.

Emergency Public Information. This course covers the activation, set-up, and operation of the JPIC. The course provides instruction on the development, approval, and release of emergency public information. This course is provided initially with biennial retraining requirements.

ICS. This course provides a familiarization with the NIMS compliant ICS that is used during emergency events at PORTS.

NIMS and National Response Framework Awareness. These courses provide senior management personnel a familiarization with the NIMS ICS and the National Response Framework (NRF) and how they may be involved in an emergency event at PORTS. These courses are the DHS web-based training modules, IS-700a, *NIMS: An Introduction* and IS-800b, *NRF: An Introduction.*

Table 8 of this plan identifies the training courses required for each EOC and/or JPIC position.

Table 8. PORTS Emergency Management Training Summary

Functional area	Frequency	Type of personnel	Total number Requiring Training	
			WEMS	FBP
JPIC		JPIC Cadre	5	57
EOC		EOC Cadre	9	79
Classification		EOC Cadre	5	24
Notification	(B)	EOC Cadre	5	19
EOC Concepts of Operations	(B)	EOC Cadre	9	79
Natural Phenomena		EOC Cadre	9	70
Bomb Threat		EOC Cadre	9	70
Reentry and Recovery Operations	(B)	EOC Cadre	9	65
Criticality and Radiation	(B)	EOC Cadre	9	65
ICS		EOC Cadre	4	4
Meteorological Projections		EOC Cadre	4	21
NIMS and NRP		EOC Cadre	4	4
Drills and Exercises	(B)	EOC and JPIC Cadre	14	136
Emergency Response		EOC Cadre	9	79
Spokesperson Training		JPIC Cadre	4	11
News Writer Training		JPIC Cadre	4	8
Telephone Bank Training		JPIC Cadre	0	19
JPIC Concept of Operations	(B)	JPIC Cadre	5	57
EOC Annual Training		EOC Cadre	9	79
JPIC Annual Training		JPIC Cadre	5	57

(B) Denotes biennial retraining

12.3 EXAMINATION

ERO training includes a written examination to determine a student's level of retention of the enabling objectives. Participants must score a minimum of 80% on the examination to complete the course.

12.4 RECORD KEEPING

FBP has a formal record retention program, which is the primary record maintained for ERO members, support personnel, and off-site agency response organizations. Training is documented by hard copy records and entered into an electronic database maintained by the FBP Training Organization.

Members of the Emergency Management staff are able to access training records and track upcoming due dates of training requirements. Emergency Management provides a monthly training calendar and other training sessions to accommodate members of the ERO.

12.5 OFF-SITE PERSONNEL

Vendors and sub-contractors who have frequent access to PORTS must meet the requirements established in the applicable plant procedures.

Training is not required for visitors. However, all visitors on-site and within the security areas are escorted by properly badged personnel (PORTS policy escort requirements). Badged personnel are required to ensure the proper conduct and safety of the people they escort both under normal operating conditions and any declared emergency.

12.6 OFF-SITE TRAINING SUPPORT

No off-site training programs are approved for use. However, ERO members may receive additional training that is useful and pertinent to the particular skills needed for the position. Some training courses from the DOE Emergency Operations Training Academy (EOTA) are used to supplement the individual's skill sets on certain topics.

12.7 OFF-SITE PERSONNEL TRAINING

Training is offered biennially by letter of invitation to off-site emergency support organizations that may be called upon to respond to emergencies at the plant. These agencies include local fire, law enforcement, ambulance, and hospital services. Personnel from other plant groups such as Training, Radiation Protection, Security, PSS, and Fire Services provide assistance as needed. This training includes the following topics as a minimum:

- Site-specific information on hazards, on-site and off-site protective actions, and emergency response from personnel or organizations augmenting the ERO.
- Orientation tours of the PORTS Reservation.
- Information briefings for the news media on operational emergencies, PORTS specific hazards and responses, PORTS points of contact, and procedures for the release of emergency information.

12.8 INSTRUCTOR TRAINING AND QUALIFICATION

EM staff training instructors meet the training qualification requirements identified in plan training procedures. The FBP Emergency Management Manager ensures that Emergency Management training instructors are qualified prior to teaching.

12.9 DRILLS

The FBP Emergency Management Manager has overall responsibility for implementing a coordinated program of emergency drills and exercises identified in the Emergency Management Drill and Exercise Program procedure (FBP-EM-PRO-00037). The procedure requires emergency management to promulgate a drill and exercise schedule annually, which identifies drill/exercise category, shift/group, and tentative dates. Management personnel are responsible for ensuring that employees under their oversight are available to participate in drills and exercises. Personnel are required to participate in drills and exercises in a safe and realistic manner.

Drills are hands-on instruction sessions aimed at developing, maintaining, and/or testing a specific emergency response capability or function. A drill is an element of formal training courses. A drill is often a component of an exercise and may be used for training or evaluation purposes. Drills may be used to prepare for exercises as well as resolve deficiencies or develop improvements in specific functional areas identified in previous exercises.

12.9.1 Evaluation and Corrective Action

Persons trained in drill control and drill evaluation participate in the conduct of the drills program. Controllers and evaluators are assigned to various locations if a drill involves simultaneous activities at more than one location. Evaluators are provided with criteria, based upon procedural requirements and lines of inquiry from DOE Emergency Management Guides, for acceptable performance to evaluate the participants.

All exercise identified deficiencies, findings, and observations are problem reported, and if unable to be quickly remedied incorporated into a corrective action plan. The resolution of the problem reports are tracked through the Integrated Tracking System (ITS).

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EXERCISES

An exercise is a training session that tests the integrated capability of all or most of the basic elements existing within the emergency plan and EPIPs. Exercises use scenarios that are wider in scope than drills and may involve off-site response personnel and agencies.

Plant personnel plan and conduct biennial exercises. Off-site response organizations and the DOE are invited to observe or participate in these scheduled events. Biennial exercise scenario manuals are sent to DOE-PPPO at least 45 days in advance of the scheduled exercise date.

13.1 EXERCISES

An exercise is a comprehensive performance test of the integrated capability of most aspects in the Emergency Management program. Exercises test the adequacy and effectiveness of the following:

- Plans and procedures
- Facilities and equipment
- Organizational command and control
- Implementation procedures
- Notification and communication networks
- Emergency equipment
- ERO personnel performance
- Overall emergency response program performance

The FBP Emergency Management Manager has overall responsibility for implementing a coordinated program of emergency drills and exercises. Management personnel are responsible for ensuring that their employees are available to participate. Personnel are required to participate in drills and exercises in a safe and realistic manner.

The Emergency Management Drill and Exercise Committee assist in exercise scenario development, establishing a planning schedule, and identifying participants and evaluators. The committee is chaired by the Drill and Exercise Coordinator and consists of members representing the areas of security, fire services, PSS staff, and others as appointed. DOE requirements are included in the drill and exercise scenarios.

ERO members are required to participate in drills and exercises on an annual basis. This requirement can be met if ERO personnel are activated to respond to an emergency and meet response objectives, keep records, and critique the response.

A comprehensive description, including frequency and types of drills/exercises, can be located in procedure FBP-EM-PRO-00037, *Emergency Management Drill and Exercise Program.*

Evaluation and Corrective Actions

Formal critiques are conducted for players, controllers and evaluators following each drill or exercise. FBP Emergency Management personnel are assigned facilitators conduct these critiques.

Emergency Management screens all critique comments. Critique items that have safety significance indicate a regulatory violation or reflect serious deficiencies in plan content or implementation are identified and a Problem Report is initiated. Resulting corrective actions are tracked in the FBP Integrated Tracking System (ITS) in accordance with plant procedures.

The remaining critique items are submitted to the Emergency Management Drill and Exercise Committee, which determines their validity and determines the appropriate method for corrective actions as required by an EPIP. Emergency Management tracks corrective actions identified by the Drill and Exercise Committee through completion or implementation.

The FBP Emergency Management Manager reviews all issues that originate from drills or exercises, including those that were identified due to deficiencies in facilities and equipment, or technical issues in the respective areas of the EOC/JPIC. Additionally, the FBP Emergency Management Manager reviews any issues related to the performance of the EOC and JPIC cadre staffs. Issues are tracked in the site integrated tracking system as findings or observations and tracked through resolution.

WEMS Quality Assurance group periodically evaluates participation in drills/exercises and enter any issues into their corrective action tracking system.

13.2 OFF-SITE COORDINATION

Exercises may include participation by off-site federal, state, and local response agencies. Response organizations within the INA are given the opportunity to participate in a PORTS exercise at least annually. However, actual participation is at the discretion of the organization. The level of participation for off-site agencies is determined as part of an exercise preparation, in consultation with off-site agencies.

These agencies include, but are not limited to:

- U.S. DOE Headquarters
- U.S. DOE/ORO
- U.S. DOE/PPPO
- NRC
- OEMA
- State of Ohio Department of Health
- OEPA
- State of Ohio Highway Patrol
- Pike County EMA
- Pike County Sheriff's Department
- Pike County EMS
- Pike County HAZMAT Team
- Pike County Firefighter's Association
- Scioto County EMA
- Various other state and local agencies depending on scenario.

14. PROGRAM ADMINISTRATION

14.1 EMERGENCY MANAGEMENT PROGRAM ADMINISTRATORS

14.1.1 USEC

USEC Inc. Emergency Management is responsible for maintaining and updating USEC-02, *PORTS Emergency Plan*, as appropriate.

14.1.2 FBP

The FBP Security and Emergency Services Manager (Acting) for PORTS is:

Wayne Russ Hohs II
3930 US Route 23 South
P.O. Box 548
Piketon, OH 45661
Telephone: (740) 897-4108

The FBP Security and Emergency Services Manager is responsible for ensuring compliance with commitments and ensuring that managers provide personnel under their supervision to serve as members of the ERO.

The FBP Emergency Management Manager for PORTS is:

Steven Arnold
3930 US Route 23 South
P.O. Box 548
Piketon, OH 45661
Telephone: (740) 897-4109

The FBP Emergency Management Manager is responsible for the daily operation and implementation of the Emergency Management Program and administering a program that protects employees, the public, and the environment. Additionally, the Emergency Management Manager ensures that plans and procedures are integrated with the USEC-02 *PORTS Emergency Plan*.

14.1.3 WEMS

The WEMS ESH&Q Manager for PORTS is:

Matt Miller
WEMS
P.O. Box 307
Piketon, OH 45661
Telephone: (740) 897-3828

The WEMS ESH&Q Manager, with assistance from the FBP Emergency Management Manager, is responsible for ensuring the joint emergency plan and associated procedures for DOE non-leased facilities are prepared, reviewed annually, and updated when major changes require revision.

14.2 DOCUMENT CONTROL

The requirements for an annual review and updating of the *Decontamination and Decommissioning and Facility Support Services Prime Contractor Joint Emergency Plan for the Portsmouth Gaseous Diffusion Plant* (FBP-EM-PL-00026: FSS/PORTS-20) is governed by the *Emergency Management Program* procedure (FBP-EM-PRO-00025) and are contract deliverables for both the D&D and FSS Contractor contracts.

Records are received, processed and stored in accordance with the DOE guidelines in DOE Order 243.1, *Records Management Program.* All Emergency Management documents are entered into the Records Management/Document Control system and are distributed as Controlled Copy documents.

The *Records Disaster Prevention, Mitigation and Recovery Plan* (FSS/PORTS-0305) provides guidance to assist in vital records disaster prevention, mitigation, and recovery, for DOE and DOE Contractors. This plan establishes the framework for dealing with emergency situations and disaster recovery involving records in a measured and responsible manner.

14.3 PROGRAM ASSESSMENTS

Program assessment is an ongoing process for managers to assess the performance of their area of responsibility, identify potential improvement areas, determine compliance with requirements and review expectations of organization goals and objectives. The assessment processes are described in procedures FBP-QP-PRO-00010, *Management Assessment,* FBP-QP-PRO-00011, *Independent Assessment,* FBP-QP-PRO-00014, *Surveillances,* and FBP-QP-PRO-00023, *Inspections.*

DOE Order 151.1C requires that an assessment of the DOE identified 15 elements of the Emergency Management Program be conducted each year. FBP Emergency Management utilizes criteria from the DOE Emergency Management Guides to ensure the elements are assessed to DOE requirements.

The FBP Emergency Management staff performs various assessments of the Emergency Management program throughout each year. The FBP Emergency Management Manager ensures that all Emergency Management Program elements are reviewed. Additional management assessments may be completed by the WEMS Quality organization as the opportunity arises.

The Emergency Management program is also subject to additional assessments performed by outside organizations (i.e., independent, DOE, NRC, etc.). In addition, USEC Inc. provides documentation of any NRC assessments and reports to the FBP Emergency Management Manager.

14.4 PERFORMANCE INDICATORS

The FBP Emergency Management Program uses performance indicators, derived from programmatic data and/or evaluation results, to track the readiness of the program. Performance indicators are developed to focus on specific aspects of selected emergency management activities to measure the readiness status of the program.

Performance indicators used at PORTS include the following aspects of the program:

- Hazard Surveys
- Emergency Planning Hazard Assessments
- Internal Evaluations
- Corrective Actions
- ERO Activations
- Categorization and Classification
- Notifications, and
- ERO Qualifications

Emergency Management Performance Indicators are compiled and reviewed on a quarterly basis. Actions may be taken to prevent potential deficiencies that show up as a result of the review of the indicators.

The following list identifies the EOC Cadre. All cadre members have completed the training required to allow them to staff a position in the EOC.

Cadre members are assigned to teams in order to ensure EOC coverage of the duty roster:

EMERGENCY OPERATIONS CENTER CADRE

Position	Alpha	Bravo	Charlie	Qualified Relief
Crisis Management Room				
Crisis Manager	Bob Nichols√+	**Jim Anzelmo√+**	Sandy Fout√+	Gary Workman√+ Toni Brooks√+
Response Manager	Dave Fosson+	Gary Workman+	Pam Potter+	Toni Brooks+
Regulatory Liaison	Roy Holliday	Jon Corrado	Kelly Coriell	**Doug Fogel** Mark Cade **Al Stone**
DOE Site Representative	Dee Powell Tony Takacs Matt Vick John Saluke	Dee Powell Tony Takacs Matt Vick John Saluke	Dee Powell Tony Takacs Matt Vick John Saluke	
Emergency Information Center				
Runner	Denise Austin	Denise Austin Regina Peters	Regina Peters	
Plotter	Eric Anderson Chris Burkitt	Eric Anderson	Chris Burkitt	
Public Information Advisor	Michelle Teeters	**Marty Redden**	Jack Williams	
gineering Advisor *	**Charles Gamm+**	**Stephanie McLaughlin+**	Don Weber+	**Rachele Strickland+**
Operations Advisor	Jack Snyder √+	Lynn Wilber√+	Jack Tully√+	
Maintenance Advisor	Dick Robinson	Tom Kramer	Jim Folsom	John Albright Rick Walls Dean Bussa
Lead Cascade Construction and Operations Advisor	Ted Coulter	Marty Ford	Rob Jacobs	Joe Deffenbaugh
BWCS Operations Advisor	Andy Elliot	Sheldon Hurst	Tim Warren	Tom Marshall Tim Huey
BWCS Logistics Advisor	Tom Marshall	Jodie Spriggs	Phil Borris	
FBP Operations Advisor	Tim Poe	Ken Whittle	Mike Eversole	
WEMS Facility Support Services Advisor	Phil Moore	Tony Canterbury	Dan Longpre	
Environmental, Safety & Health Advisor	Sharon Grooms√+	**Debby Perez√+**	Matt Miller√+	
Notification Advisor	**Andrea Davis√+**	John Ross√+	Hollie Eichenlaub √+	
Communicator	Keith Wines	Carl Wagner	Charlie Bearhs	
istorian	Kathy Hutchison	Marilyn Cook	Mimi Clausing	Charlene Barch
Field Response Coordinator	Bill Johnson	**Jim Boyce**	**Steve May**	Rudy Spaeth
Security Coordinator	Brad Haynes	TJ Wallace	B Haynes/TJ Wallace	

EMERGENCY OPERATIONS CENTER CADRE				
Position	**Alpha**	**Bravo**	**Charlie**	**Qualified Relief**
Technical Support Room				
TSR Coordinator	Robin Gilliland+	**Ed Wagner+**	**Gary Crandall+**	Rick Mains
Environmental Management	Nathan Banks	**Greg Goslow**	Ryan Conkel	Carolyn Hamilton
Nuclear Criticality Safety	Donna D'Aquila **Jason Bolling**	Donna D'Aquila	**Jason Bolling**	
System Engineer	**Ellen Stone**	Kregg Uhrig	Bill Develin	**Norm Kruckenberg**
FBP Coordinator	Daniel Mains Chris Guilliams	Daniel Mains	Chris Guilliams	
Industrial Safety	Adam Bradley	Kim Brown	Tom Bennington	Roger Stephenson – Monday thru Friday, Day Shift
Health Physics/Industrial Hygiene	Steve Balko	Mike Klingaman	**Steve Howie**	Jim Thompson Rob Dupras
WEMS Coordinator	Steve Arnold	Bob Anderson	**Jim Sevens**	
BWCS Engineer	Robert Neuman	Robert Neuman Roger Shoberg	Roger Shoberg	
Computer Support Room				
Environmental Engineer	Kathy Easter	Robert Blythe	Ken Horsley	Eric Foster
CIMS Engineer	Refer to rotation schedule[1]			
EOC Director	Stephen Corwin√	Cindy Quillen√	Steve Skeens√	Cheryl Bauer√
Pike County Liaison	Dwayne McCloskey	Bernie Carrick	**Roger Steckel**	

June 20, 2013
Approved by: Steve Arnold, Manager, FBP Emergency Management

* Dewey Godfrey will transition to Engineering Advisor

GREEN: AUTHORIZED DERIVATIVE CLASSIFIER QUALIFIED
BLUE: EXPORT CONTROLLED INFORMATION QUALIFIED
RED: BOTH ADC AND ECI QUALIFIED

LISTING OF PORTS JPIC CADRE

The following list identifies the PORTS JPIC cadre. All cadre members have completed the training required to allow them to staff a position in the JPIC.

JOINT PUBLIC INFORMATION CENTER (JPIC) CADRE				
	ALPHA	BRAVO	CHARLIE	Qualified Relief
JPIC Manager	Rusty Yates	Sue Fulk	Rob Beverly	
Assistant to JPIC Manager	Elizabeth Lamerson	Julie Needham	Bryan Corbin	
USEC Spokesperson	Mario Robles	Rick Foster	Angie Duduit	
DOE Spokesperson	Greg Simonton Johnny Reising	Greg Simonton Johnny Reising	Greg Simonton Johnny Reising	
FBP Spokesperson	Jerry Schneider	Jeff Pinkerton	Jason Lovins	
WEMS Spokesperson	Tim Burton	Carrie Reed	Alicia Dyke	Amanda Spriggs
BWCS Spokesperson	Russ Hall	Josie Blackmon	Ken Collier	
Technical Advisors	Jeff Woodard (Ops) Clyde Dulin (HP)	Pam Baird (Ops) Rob Litten (HP)	Dick Armstrong (Ops) Dan Ruggles (IH)	Butch Jones
Equipment and Logistics Coordinator	Dave Riepenhoff	Ernie Diller	Dewey Godfrey	
Administrative Support Supervisor	Cindy Kneisley	Leesa Fogel	Cheryl Whitt	
Administrative Support Staff	Debi Shewbrooks Anita O'Connor	Rachel Costilow Shannon Joseph Jonna Jenkins	Juanita Beck Rhonda Foster Judy Summers	Emily Leffler
Media Liaison	Mark Scott	Ken Adkins	Kevin Ragland	
Media Monitoring	Donna Crabtree	Chris Hobensack	Ray Parker	
Access Control	Susan Curley	Becky McGraw	Wendi Perry	Robin Halverson, Monday thru Friday, Day Shift
Security	Erica Wiley	Jimmie Conn	Jeff Cottle	
Rumor Control	Vicki Alley	Connie Maynard	Karen Bentley	Frank Machesky
Telephone Bank Supervisor	Barbara Halcomb	Mabel Tanner	Janet Young	
Telephone Bank Operators	Donna Acord Randy Waugh Tina Medved Angie Strickland John Hamer	Karen Davis Joy Thompson Randy Spradlin	Carla Buckler Carisa Kremin Varinia Lewis Ruthie Carter	Sharon Reeves Monday thru Sunday, Day Shift

JOINT PUBLIC INFORMATION CENTER (JPIC) CADRE	ALPHA	BRAVO	CHARLIE	Qualified Relief
JPIC Manager	Rusty Yates	Sue Fulk	Rob Beverly	
Asst to JPIC Manager	Elizabeth Lamerson	Julie Needham	Bryan Corbin	
USEC Spokesperson	Mario Robles	Rick Foster	Angie Duduit	
DOE Spokesperson	Greg Simonton Johnny Reising	Greg Simonton Johnny Reising	Greg Simonton Johnny Reising	
FBP Spokesperson	Jerry Schneider	Jeff Pinkerton	Jason Lovins	
WEMS Spokesperson	Tim Burton	Carrie Reed	Alicia Dyke	Amanda Spriggs
BWCS Spokesperson	Russ Hall	Josie Blackmon	Ken Collier	
Technical Advisors	Jeff Woodard (Ops) Clyde Dulin (HP)	Pam Baird (Ops) Rob Litten (HP)	Dick Armstrong (Ops) Dan Ruggles (IH)	Butch Jones
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1/3/13 Approved by: Steve Arnold, Manager, FBP Emergency Management

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