



January 7, 2014
ACO 14-0002

ATTN: Document Control Desk
Ms. Christiana Lui, Director
Division of Security Policy
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

American Centrifuge Plant
Docket Number 70-7004; License Number SNM-2011
Submittal of Changed Pages of the Emergency Plan for the American Centrifuge Plant

Dear Ms. Lui:

Purpose

In accordance with 10 *Code of Federal Regulations* (CFR) 70.32(i), American Centrifuge Operating, LLC (ACO) hereby submits to the U.S. Nuclear Regulatory Commission (NRC) changed pages of the Emergency Plan for the American Centrifuge Plant (ACP) as Enclosure 1 of this letter.

Background

Currently, the NRC-accepted Emergency Plan in effect at the U.S. Department of Energy reservation in Piketon, Ohio is USEC-02, *Portsmouth Gaseous Diffusion Plant (PORTS) Emergency Plan*, which ACO credited within Chapter 8.0 of the License Application for the Lead Cascade Facility. Changed pages for this site-wide Emergency Plan are currently submitted to the affected off-site response organizations and will remain effective until implementation of the Emergency Plan for the ACP. Upon full implementation of the new site-wide Emergency Plan and in accordance with 10 CFR 70.32(i), ACO will begin supplying changed pages to the affected off-site response organizations through the controlled distribution process.

Discussion

The changes noted in Enclosure 1 have been reviewed in accordance with 10 CFR 70.32 and have been determined not to decrease the effectiveness of the applicable plan. Revision bars in the right hand margin depict changes from the previous revision submitted to the NRC.

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NSIRDZ

Ms. Christiana Lui
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Action

No specific action is requested concerning this submittal.

Contact

If you have any questions regarding this matter, please contact me at (740) 897-2343.

Sincerely,

A handwritten signature in black ink, appearing to read "Vernon J. Shanks". The signature is fluid and cursive, with the first name "Vernon" being the most prominent.

Vernon J. Shanks
Regulatory Manager

Enclosure: As Stated

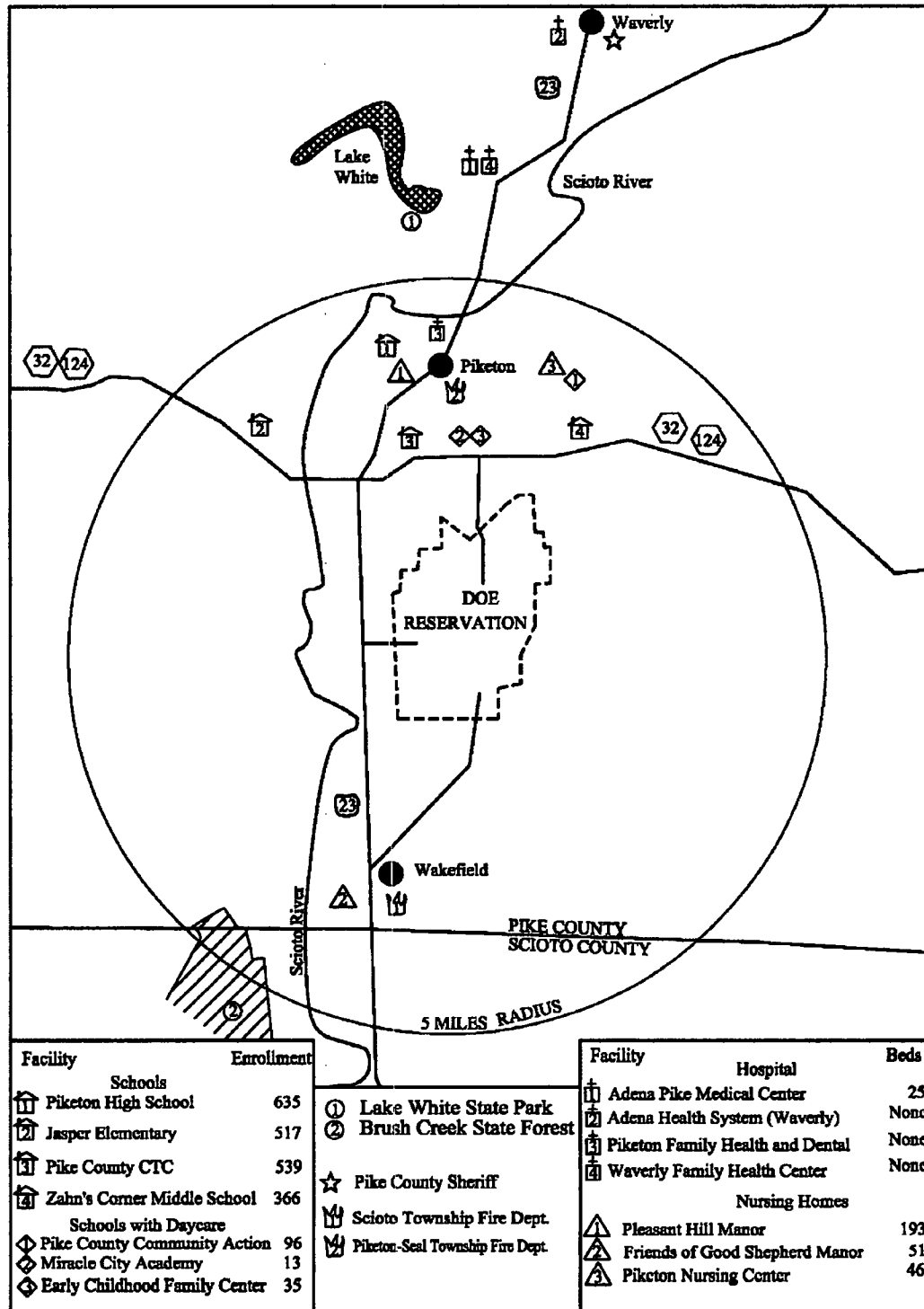
cc: J. Downs, NRC HQ
J. Hickey, NRC Region II
L. Pitts, NRC Region II
O. Siurano, NRC HQ
B. Smith, NRC HQ

Enclosure 1 to ACO 14-0002

Changed Pages of the Emergency Plan for the American Centrifuge Plant

**Information contained within
does not contain
Export Controlled Information**

**Reviewer: R.S. Lykowski
Date: 10/18/13 & 11/22/13**



CP-EP F1-4, Rev. 1

Figure 1-4 Special Population Centers and Off-Site Emergency Response Organizations within Five Miles of the U.S. Department of Energy Reservation

off-site notifications, including the NRC. The specifics of this notification process are described in Section 3.3 of this plan. Additional information on emergency communications equipment is provided in Section 6.2 of this plan.

The IC, or Crisis Manager once the EOC is operational, directs reservation personnel to take appropriate protective response actions based on the assessment of the emergency. During an SAE, protective actions for reservation personnel may range from evacuating a particular building or area to a full reservation evacuation, based on emergency conditions. Specific protective actions are described in detail in Section 5.4 of this plan, and more thoroughly in designated procedures.

During an SAE, additional emergency support may be necessary to augment the ERO. The IC normally makes the determination of need for and subsequently requests assistance from off-site emergency support organizations. The various off-site emergency support organizations and agencies that may be requested to provide assistance are listed in Section 4.3 of this plan.

The Crisis Manager monitors emergency conditions during an SAE for potential changes in the emergency classification. The Crisis Manager may downgrade the emergency class to an Alert or may terminate the emergency and begin recovery operations when specific termination criteria have been reached.

Table 3.2-2 provides the bases for the EALs and protective actions for SAEs.

3.2.3 Other Emergency Events

For those emergency events that do not meet the criteria of an Alert or SAE, the Licensee 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, if necessary.

3.3 Information To Be Communicated

Upon declaration of an Alert or an SAE, the IC conducts initial emergency notifications, by procedure, to off-site authorities as soon as possible, normally within 15 minutes of declaration. Additional emergency information is provided to off-site authorities periodically as new information becomes available. Notifications to off-site authorities are provided when a change in emergency classification occurs and when protective action recommendations are required. An example of the form used for off-site notifications is included in the appropriate procedures for emergency notification.

Trained individuals in accordance with specific procedures, convey information to off-site authorities. The information provided in emergency notifications includes plant status conditions; radiological/hazardous materials release data, recommendations for protective actions to be implemented by off-site response organizations, and other applicable emergency information as necessary. Protective response actions off-site are the responsibility of governmental authorities. Off-site protective action recommendations for the different types of

postulated emergencies requiring protective measures are discussed in detail in Section 5.4.2 of this plan.

The IC ensures that, at a minimum, the following Federal, State, and local agencies are notified as soon as possible, normally within 15 minutes of the initial emergency declaration:

- Pike County Emergency Management Agency (EMA) Director,
- Pike County Sheriff's Office/Local Emergency Planning Committee (LEPC),
- Ohio EMA, and
- DOE-Oak Ridge Operations.

Upon the issuance of protective action recommendations, the ERO may request verification callbacks from State and local agencies responsible for implementing off-site protective actions to ensure that the recommendations are understood. Callbacks also enable the ERO to receive information regarding off-site protective action implementation.

Based on the nature and status of the incident, in addition to the primary agencies listed above, other off-site organizations may be notified of emergency conditions. These include the following:

- Scioto County Sheriff's Office/LEPC,
- Scioto County EMA Director,
- Ohio EPA Emergency Response Center,
- U.S. National Response Center, and
- U.S. Occupational Safety and Health Administration (OSHA).

The NRC Operations Center is notified immediately after notification of the appropriate state and local agencies but no later than one hour after the declaration of an Alert or an SAE.

USEC-Headquarters is notified immediately after the declaration of an emergency, but no later than ninety minutes.

Once the EOC is operational, a dedicated open communications telephone line will be maintained with the NRC Operations Center. This communications line is used during a declared emergency (Alert or SAE) to keep the NRC Operations Center current as the event is occurring.

4.3.1 Medical Support

In certain instances, medical emergencies may require the transport of an injured person to an off-site medical facility. The on-site ambulance normally provides transportation of injured persons to the medical facility.

In the event the on-site ambulance is not available, the off-site emergency medical providers may provide for the transportation of injured persons to an off-site medical facility. This may include contaminated injured on-site workers. Ambulances are equipped with radios to maintain communications with local hospitals. The primary medical facilities for injured personnel with or without contamination are Adena Pike Medical Center, Southern Ohio Medical Center, and Adena Regional Medical Center Hospital. Figure 1-4, of this plan, depicts those hospitals within the five-mile radius of the reservation. These hospitals have agreed to accept injured personnel or victims of radiation/hazardous materials-related accidents for emergency medical and surgical treatment and observation.

4.3.2 Fire Support

When the IC or Crisis Manager determines that off-site fire support is needed, the applicable off-site fire departments are notified by telephone call or radio transmission to the Pike County Sheriff's Office.

The off-site fire departments include Beaver Fire Department, Benton Township Fire Department, Camp Creek Fire Department, Elm Grove Fire Department, Jackson Township Fire Department, Pebble Township Fire Department, Pike Forest Fire Department, Piketon-Seal Township Fire Department, Scioto Township Fire Department, Stockdale Fire Department, and Waverly Fire Department. Figure 1-4, of this plan, depicts those fire departments within the five-mile radius of the reservation. These fire-fighting groups have agreed to furnish the DOE reservation with fire-fighting personnel and necessary resources upon request. Fire-fighting personnel are under the direction and control of the IC, who retains responsibility for the overall on-scene emergency response effort. In instances when off-site fire-fighting assistance is needed to fight a fire involving radioactive materials or HAZMAT, knowledgeable members of the ERO provide radiological/toxicological information and assistance. USEC also honors a mutual aid agreement with the Pike County Firefighter's Association.

4.3.3 Law Enforcement Assistance

The nature of an emergency may require that the local law enforcement agencies be activated to assist in the emergency response effort. The Pike County Sheriff's Office (location depicted in Figure 1-4 of this plan) provides local law enforcement assistance through a written agreement. The emergency support may include the following:

- Furnishing personnel and equipment as necessary to supplement the Protective Force Personnel;
- Controlling access to areas affected by the emergency; and
- Directing area evacuation.

4.4 Coordination with Participating Government Agencies

Coordination between the State, local, and plant emergency plans serves to better ensure the safety and health of the general public. It also enables emergency organizations to participate in the emergency effort with a minimum of confusion and hesitation. During an emergency effort, participating agencies must have a clear picture of their responsibilities, which are provided for in their respective emergency plans and procedures.

The Licensee's Emergency Management coordinates required emergency planning activities directly with these organizations and agencies. Emergency Management personnel offer to meet at least annually with off-site response organizations to review emergency plans and procedures and any changes relevant to the DOE reservation's Emergency Management program. EALs, notifications, and the overall response coordination process are discussed at these meetings. Response roles of the key agencies are summarized in this section.

4.4.1 State of Ohio Government Interfaces

The State of Ohio's Hazardous Materials Emergency Support Functions #10, with its DOE Attachment for events at DOE facilities, provides guidance on dealing with incidents and outlines the State response to incidents at the reservation. The Ohio Emergency Management Agency (EMA) is responsible for coordinating overall State response and assisting in the local implementation of recommended protective actions. The Ohio EMA also assists the Governor and other state agencies in formulating policy; establishing priorities; gathering and analyzing information; monitoring the execution of planned actions; and directing modifications, as necessary. The Ohio State Highway Patrol provides support to off-site law enforcement agencies as requested. The Ohio Department of Health coordinates radiological hazard assessment and is the principal contact for technical information and recommendations of protective actions regarding radioactive materials. The Ohio EPA coordinates chemical hazard assessment and is the principal contact for technical information and recommendations of protective actions regarding toxic materials. The Ohio EPA also oversees removal and disposal of hazardous waste generated as a result of an emergency.

The State of Ohio has a permanent EOC that has been designed and equipped to be the direction and control center for major emergencies in the State. The State of Ohio EOC is manned 24 hours a day by operations duty officers and has the capability to provide prompt communications with key State officials.

4.4.2 Local Government Interfaces

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

The Pike County EMA Director serves as the chief of staff for the county EOC staff. The director is responsible for ensuring that the county EOC is fully functional. In addition, the

director is responsible for coordinating local government emergency management planning and response activities.

The Pike County Commissioners and Pike County EMA Director can authorize the opening and staffing of the county EOC. The county EOC may be opened and staffed on the threat of an emergency or because of an actual emergency. Agency officials from their normal workstations may direct minor emergencies.

Pike County authorities can also authorize the opening and staffing of the JPIC to ensure that the public and media can obtain information during an emergency.

Local law enforcement and fire assistance is coordinated with the director and staff in the county EOC.

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

4.4.3 Federal Government Interfaces

4.4.3.1 U. S. Nuclear Regulatory Commission

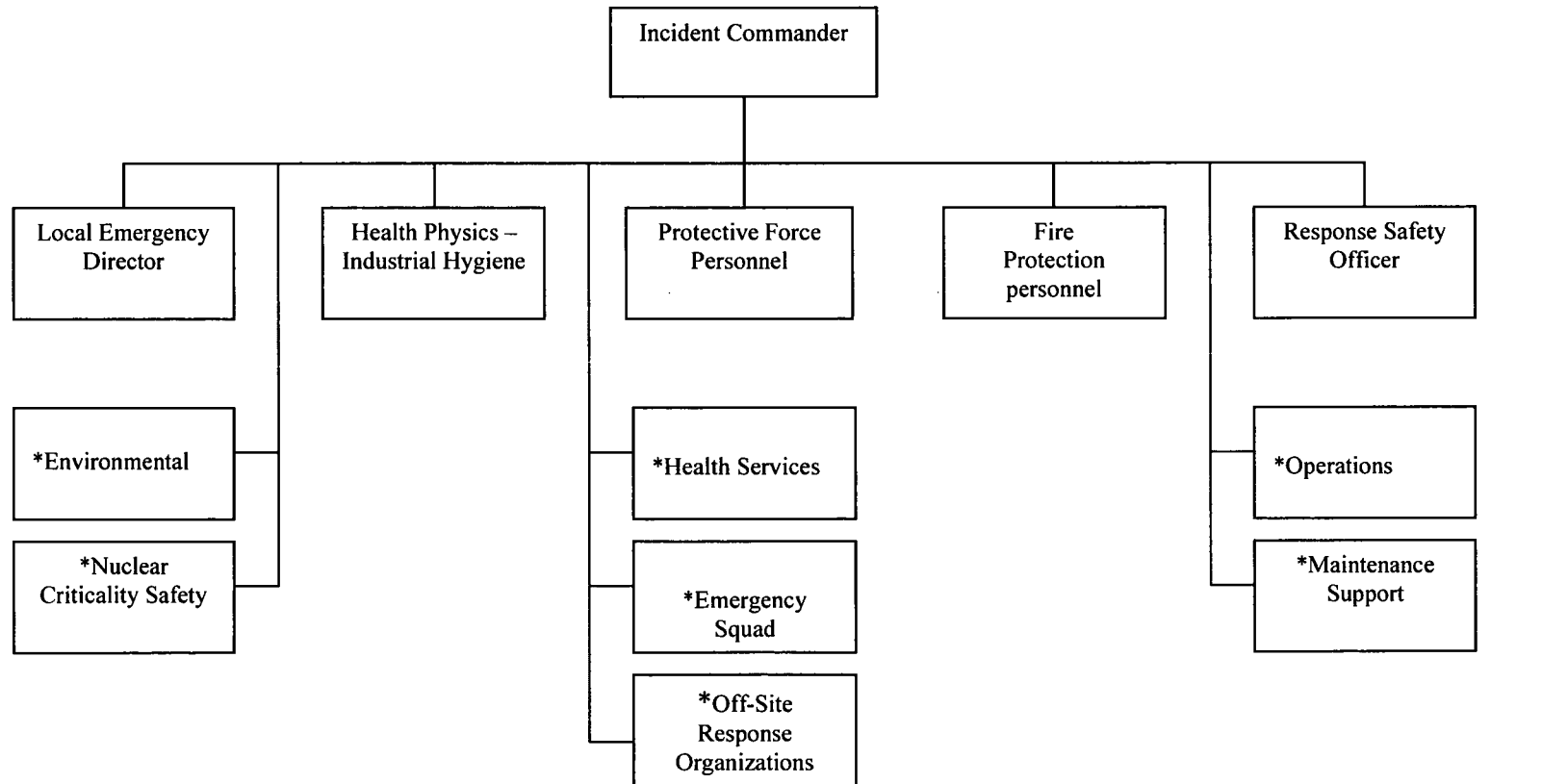
The NRC has established licensing requirements applicable to Licensee operations to protect the public health and safety from radiological hazards; to provide for the common defense and security; and to ensure adequate safeguards. The NRC also provides regulatory oversight over uranium enrichment activities to ensure compliance with these requirements, including the emergency planning requirements set forth in 10 CFR 70.22 and 76.91. The NRC Operations Center is notified of any emergency promptly after notification of the appropriate off-site organizations, within one hour after the declaration of an Alert or SAE. The NRC evaluates the protective actions taking place and coordinates with the Licensee and DOE to ensure that reasonable and appropriate actions are being taken to protect the public health and safety.

4.4.3.2 U. S. Department of Energy

The DOE provides nuclear safety oversight for those activities on-site involving DOE environmental management and operations. Events involving DOE operations or property are reported to DOE's Portsmouth, Project Office, DOE Oak Ridge Operations Center duty officer, and DOE-HQ operations center. The DOE maintains various emergency response assets capable of providing radiological monitoring and support assistance during an emergency.

4.4.3.3 Federal Bureau of Investigation

The Federal Bureau of Investigation (FBI) has jurisdictional authority for safeguards and security emergencies involving violations of Federal criminal law. A representative of the FBI may assume command and control of these types of emergencies. The FBI Hostage Rescue Team or regional Special Weapons and Tactics team may also be provided if requested. The FBI will coordinate responses from Federal law enforcement agencies.

Figure 4-1 Field Emergency Response Organization

* If required, Incident Commander requests appropriate personnel to assist, depending on location, type, and magnitude of emergency.

direction from the IC or the Crisis Manager. The mobile communications vehicle may also be used as an alternate EOC.

The X-1020 building serves as a focal point for security activities during an emergency. The X-1020 building is operated on a 24-hour basis. The Security Console Operator is responsible for coordinating activities and communications. The Security Console Operator performs the following functions:

- Dispatches Protective Force Personnel,
- Maintains communications with the Protective Force Personnel at the emergency scene,
- Advises Protective Force Personnel management, and
- Advises the EOC staff.

Note: The Security Console Operator may have additional resources to direct in the event of a site-wide emergency. These resources will be Protective Force Personnel. In an emergency the Security Console Operator directs the initial response of all resources.

6.1.5 Decontamination Facilities

The primary facilities for personnel decontamination are the plant medical facility and X-1007 Fire Station, both operated by the United States Enrichment Corporation. Resources and provisions for the decontamination of vehicles and equipment are maintained. Decontamination equipment is designed and equipped to handle potential decontamination requirements identified during an emergency.

6.1.6 Joint Public Information Center

The JPIC is the designated location for the dissemination of official information about the emergency to the media and to the public. JPIC operations are described in designated procedures. The JPIC accommodates the following:

- Coordination of information with interfacing Federal, State, and local organizations and spokespersons;
- Press releases and media briefings; and
- Work space for JPIC personnel, interfacing organization personnel, and representatives of the news media.

The JPIC is located at the Word Alive Fellowship / Miracle City Academy as shown in Figure 1-4 of this plan.

Protection procedures. As appropriate, other types of dosimeters (e.g., finger rings and direct-reading dosimeters) are used.

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

Instrumentation includes alpha/beta count rate and scaler instrumentation as well as ion chambers used to evaluate personnel exposure.

Radiological instruments are calibrated routinely as specified in procedures.

Designated emergency vehicles responding on scene containing necessary emergency equipment and supplies ensure that personnel and monitoring equipment are readily available to emergency personnel. This equipment and supplies include count rate monitors for measuring contamination, dose rate monitors for measuring radiation, and portable airborne monitors. This equipment is tested daily.

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

In addition to radiological monitoring equipment, emergency-monitoring instrumentation for chemically toxic material releases is maintained. These instruments are maintained in dedicated emergency response vehicle kits and will also be supplied from the inventory of routinely used monitoring equipment.

The primary source of meteorological information is the X-120H New Weather Station consisting of a tower with a data terminal, a data acquisition system, and meteorological sensors. This system measures wind speed, humidity, wind direction, and temperature. Refer to Figure 1-1 for the location of the X-120H New Weather Station. Meteorological data is used to ensure safe emergency scene response (from the upwind direction), facilitate plume dispersal modeling, and to enable appropriate protective action recommendations in the event of an airborne release.

Weather forecasting information is also available via commercial telephone call to the National Weather Service in Wilmington, Ohio. Weather forecasts are used to inform personnel of impending related hazards and driving hazards.

11.0 REFERENCES

1. U.S. Nuclear Regulatory Commission, NUREG-1520, *Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility*
2. U.S. Nuclear Regulatory Commission, Regulatory Guide 3.67, *Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities*
3. USEC-02, Portsmouth Gaseous Diffusion Plant Application for United States Nuclear Regulatory Commission Certification, Safety Analysis Report, Volumes 1 and 2
4. USEC-02, Portsmouth Gaseous Diffusion Plant (PORTS) Emergency Plan
5. LA-3605-0003, Integrated Safety Analysis Summary for the American Centrifuge Plant
6. U.S. Environmental Protection Agency, 400-R-92-001, *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents*
7. American Industrial Hygiene Association, *Emergency Response Planning Guides (ERPGs)*
8. U.S. Environmental Protection Agency, 40 CFR Part 68, Appendix A, *Table of Toxic Endpoints*
9. American National Standards Institute/American Nuclear Society 8.3-1997, *Nuclear Criticality Accident Emergency Planning and Response*, 1997
10. American National Standards Institute/American Nuclear Society 8.3-1986, *Criticality Accident Alarm System*, 1986
11. American National Standards Institute/American Nuclear Society 8.23-1997, *Nuclear Criticality Accident Emergency Planning and Response*, 1997
12. U.S. Department of Energy Oak Ridge Operations - Office of Environmental Management, *Final Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth, Ohio Site*, DOE/EIS-0360, June 2004
13. Lawrence Livermore National Laboratory, *The Engineering Analysis Report for the Long-Term Management of Depleted Uranium Hexafluoride*, Volumes 1 and 2, Revision 2, Depleted Uranium Hexafluoride Management Program, UCRL-AR-124080, May 1997
14. Depleted Uranium Hexafluoride Conversion Facility Documented Safety Analysis, DUF6-X-G-DSA-001, Revision 2

Letters of Agreement are maintained at the plant for the following off-site response organizations.

1. Adena Regional Medical Center Hospital |
2. Eastern School District |
3. Pike County Emergency Medical Service
4. Pike County Firefighter's Association |
5. Adena Pike Medical Center |
6. Pike County Sheriff's Office |
7. Southern Ohio Medical Center
8. Valley Local School District |
9. Waverly City School District |
10. Western Local School District |
11. Word Alive Fellowship / Miracle City Academy |

Off-site Response Organization Comments

Pursuant to the requirements of 10 CFR 70.22(i)(4), this enclosure provides any comments received from the off-site response organizations' review of the proposed draft Emergency Plan for the American Centrifuge Plant. Comments received by these organizations have been incorporated into this plan. This plan was submitted to the following off-site response organizations.

Off-Site Response Organization

Pike County Emergency Management Agency

Pike County Sheriff's Office/Pike County Local Emergency Planning Committee

Pike County Health Department

Pike County Firefighter's Association

Pike County Emergency Medical Service

Scioto County Emergency Management Agency

Southern Ohio Medical Center

Adena Pike Medical Center

Adena Regional Medical Center Hospital

Word Alive Fellowship / Miracle City Academy

Waverly City School District

Pike County Schools (Eastern School District/Western Local School District)

Valley Local School District

Ohio Emergency Management Agency

Ohio State Highway Patrol

To manage an unlikely event requiring the use of this plan, the plant has procedures that serve to protect not only employees, but also through coordination with appropriate off-site Emergency Response Organizations, the plant's neighbors as well.