SITE SPECIFIC PLAN

PART 6, SCORERP



SAVANNAH RIVER SITE

December 2024

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I. INTRODUCTION

The Savannah River Site (SRS) Site Specific Plan, Part 6 of the South Carolina Operational Radiological Emergency Response Plan (SCORERP), provides for the guidance, coordination and utilization of state and other resources in support of local governments in the event of a radiological incident at the Department of Energy's (DOE) SRS, located in Aiken County. Savannah River Nuclear Solutions (SRNS) is the Emergency Services Management and Operating Contractor of this site for DOE. The SRS Site Specific Plan forms an integral part of the SCORERP and addresses matters pertaining directly to SRS not already addressed in the SCORERP Basic Plan.

II. PURPOSE

To protect the populace, environment and property in areas that may be affected by a radiological incident at SRS and to provide for off-site recovery.

III. SITUATION AND ASSUMPTIONS

A. Situation

- 1. SRS is a key DOE industrial complex that covers approximately 310 square miles of federally awarded land in western South Carolina. It is bounded by the Savannah River on the South Carolina/Georgia border and includes portions of Aiken, Allendale and Barnwell counties. The geographic coordinates are: 33° 15′ 05″ North Latitude and 81° 37′ 30″ West Longitude (See Figure 1).
- 2. During the Cold War, SRS served the nation by producing nuclear materials critical to its strong nuclear deterrent. While the need remains to continue this deterrence, the nation now faces additional challenges, including the proliferation of nuclear weapons and materials. The primary mission of SRS, since the Cold War period, has expanded from primarily a defense mission to one that includes environmental cleanup and the stabilization, storage, and preparation for final disposition of nuclear materials.
- 3. Of the five nuclear reactors originally constructed at SRS during the 1950s, none are operational. Two reactors are decommissioned, and three others have been reconfigured for storage of various nuclear materials.
- 4. Portions of Aiken, Allendale and Barnwell counties are within the 10-mile Emergency Planning Zone (EPZ) (See Figure 1). All of the affected counties have formulated detailed radiological emergency response annexes, as part of their County Emergency Operations Plans (EOPs), and these annexes fully support the operational framework of the SCORERP.
- 5. There are no prevailing wind directions in the SRS area.

B. Assumptions

- 1. A radiological incident could occur at SRS that may cause an off-site hazard to residents and property. Planning for a radiological incident will facilitate an effective response.
- 2. A radiological incident at SRS that presents off-site radiological hazards will involve the governments of Aiken, Allendale and Barnwell Counties of South Carolina. Therefore, state government will be required to provide direction, coordination and support in accordance with the State Code of Regulations 58-1 and 58-101.

IV. CONCEPT OF OPERATIONS

A. General

Under the direction of the Governor, South Carolina Emergency Management Division (SCEMD) and Aiken, Allendale and Barnwell Counties will coordinate off-site response to a radiological incident at SRS. Through the SCEMD Director and the State Emergency Operations Center (SEOC), the Governor will exercise direction and control of state emergency operations. The SCEMD Director will coordinate all state agencies, departments and local emergency response organizations mobilized pursuant to this plan. The South Carolina Emergency Operations Plan (SCEOP) designates Emergency Support Functions (ESFs) to ensure adequate response and efficient use of state resources. ESF responsibilities and procedures are contained in the SCEOP and its supporting Standard Operating Procedures (SOPs). In the event of a radiological incident at SRS, Federal Agencies will provide support to the State under the provisions of the Nuclear/Radiological Incident Annex (NRIA) to the National Response Framework

B. Specific

- 1. Alert and Notification
 - a. See Annex 1 (Alert and Notification)
 - b. Alert and Notification procedures are designed to inform and instruct the populace in emergency planning zones, and also to notify federal, state and local Radiological Emergency Response (RER) forces.
 - c. In the event of an incident at SRS, the primary means for notifying off-site response forces is the Emergency Notification Network (ENN), a dedicated communicated system. Backup to the ENN are commercial telephone lines and the Local Government Radio (LGR).
- 2. State Emergency Operations Center (SEOC)

- a. The SEOC, 2779 Fish Hatchery Road, West Columbia, South Carolina 29172 may be activated upon notification of an ALERT Emergency Classification Level (ECL). Direction and control of State emergency response forces will emanate from the SEOC.
- b. The South Carolina Department of Public Health (SCDPH) and South Carolina Department of Environmental Services (SCDES), under the auspices of ESF 8 and 10, will be co-located in the SEOC. A technical representative from SCDES will be dispatched to the SRS Emergency Operations Center (EOC) located at SRS Building 703-A (See Figure 1) and to affected county or counties. SCDES will also send representation to the Joint Information Center (JIC).
- c. SRS will provide a technical representative to the SEOC and county EOCs. SCEMD representatives will be dispatched to the SRS EOC and the JIC at SRS (See Figure 1) as well as to both host and risk county EOCs.
- d. SCEMD will provide REP and/or REM (Regional Emergency Manager) liaison officers to both host and risk county EOCs and the Southern Nuclear Emergency Operations Facility (EOF).

3. Local

County/Municipal governments are responsible for local radiological emergency response within their jurisdictions, except for technical radiological assessment. Once the SEOC personnel have validated requests and verified available resources, additional assets may be furnished to aid local agencies.

4. Traffic Management

- a. Upon declaration of a Site Area Emergency, ESF 16 (Emergency Traffic Management), led by the South Carolina Highway Patrol (SCHP), will coordinate the occupation of all Traffic Control Points (TCPs) by state and local law enforcement officers within the 10-mile EPZ. TCP locations are depicted in Figure 1.
- b. The security contractor at SRS will have responsibility for controlling access to the site.
- c. The South Carolina Department of Natural Resources (SCDNR) Law Enforcement Division (lead agency) in conjunction with the Georgia Department of Natural Resources (DNR) Law Enforcement Division and Burke County (Georgia) Emergency Management Agency (EMA) will conduct water patrol activities to evacuate hunters, fishermen and campers from the affected area of the

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- Savannah River (See Figure 1). The SCDNR will coordinate with the U.S. Coast Guard to secure the river.
- d. Only pre-designated forms of identification will be honored at security check points as outlined in SCORERP, Basic Plan, Attachment D.
- e. Local authorities are responsible for security and traffic control within their jurisdictions during all phases of a radiological incident. The Department of Public Safety will coordinate requests from local authorities when reinforcements are required.

5. Radiological Monitoring and Decontamination

- a. See SCORERP, Basic Plan, Annex 6 (Radiological Exposure Control)
- b. Properly-trained County teams will conduct radiological monitoring and decontamination of evacuees, emergency workers, vehicles and equipment with technical assistance provided by SCDES, as required.
- c. Aiken, Allendale, and Barnwell Counties have designated radiological monitoring and decontamination points. The location of each monitoring and decontamination point is contained within county EOPs.
- d. SCEMD is responsible for the calibration and maintenance of radiological monitoring equipment for Aiken, Allendale, and Barnwell counties.

6. Evacuation

- a. When a State of Emergency has been declared, the Governor may issue orders to evacuate all or portions of the 10-mile EPZ surrounding SRS (See Figure 1).
- b. Evacuation will be ordered at the General Emergency ECL unless it is deemed unsafe or unfavorable due to a hostile action-based (HAB) incident or impediment(s). Evacuations could be ordered at the Site Area Emergency or ALERT ECLs if the potential for further degradation of site conditions appears imminent.
- c. During a rapidly progressing incident, SRS officials may recommend evacuation to county authorities, who may then direct and coordinate the evacuation of impacted zones.

- d. The Sheriff (as chief law enforcement officer of the affected county) will, in coordination with the SCHP and other law enforcement agencies, coordinate evacuation activities in accordance with the affected county's EOP.
- e. Residential Population (based on the 2020 Census Data)

Population Densities			
Zone	Population		
G-7	701		
G-8	1821		
G-9	84		
G-10	0		
H-6	319		
H-7	1149		
H-8	443		
H-9	41		
H-10	2		
Total	4592		

- (1) Evacuation confirmation time will take between 4 -5 hours.
- (2) Population Distribution Map (See Figure 3).
- f. Evacuation Zones, Landmark and Boundary Descriptions (See Table to Figure 1)
- g. Aiken, Allendale and Barnwell counties have designated evacuation routes for persons living, working and transiting the 10-mile EPZ. These routes lead to reception centers/shelter areas (See Figure 1).
- h. The affected county will provide transportation for evacuees who do not have transportation and confined persons who require special transportation. State assistance may be requested. Special transportation needs are addressed in the Aiken, Allendale and Barnwell County EOPs.
- i. All evacuees will be processed through shelters or reception centers as outlined in Annex 2. Each evacuee will be monitored, registered and processed, including those who elect not to accept temporary shelters. For control and re-entry purposes, each county will maintain records for contact with evacuees. Temporary housing should be located at least five miles from the 10-mile EPZ outer boundary (15 miles from the nuclear facility site).

j. See SCORERP Basic Plan for reentry, return, and relocation information.

7. Radiological Exposure Control

See SCORERP, Basic Plan, Annex 6 (Radiological Exposure Control)

8. Transportation

- a. Due to the expanse of SRS, a buffer zone exists which reduces the impact of a radiological incident on the off-site populace. Only small portions of the EPZ extend beyond the SRS boundaries. The road system in these areas provides multiple primary and alternate routes for evacuation and accessibility to the area.
- b. Counties and municipal governments have plans for acquiring emergency transportation in the event of a radiological incident. The means for evacuating schools, jails, hospitals, nursing homes, the homebound and those without private transportation are identified in county plans.
- c. State transportation resources may be requested to augment county transportation requirements.

9. Medical

- a. See Annex 3 (Health and Medical Support)
- b. See SCORERP, Basic Plan, Annex 5 (Health and Medical Support)

10. Communications

- a. In the event of an emergency at SRS, the site is capable of notifying the state and local emergency response networks on a 24-hour basis. The SRS Emergency Director or his designee is responsible for notifying the State Warning Point (SWP)/SEOC and Aiken, Allendale and Barnwell County Warning Points or EOCs. Communications between the SRS and State and local Emergency Operations Centers (EOCs) are maintained through the following means:
 - (1) The Emergency Notification Network (ENN), a dedicated radio system connecting the SRS Operations Center (SRSOC) and EOC with the SWP/SEOC, State of Georgia, County EOCs and County Warning Points. ENN is used to provide initial and updated information concerning SRS status. ENN is also used to discuss activation of the NWR/EAS public notification systems and protective action decision-making.

- (2) Standard commercial and satellite telephone lines.
- (3) A radio channeled to the SCEMD Local Government Radio (LGR) network at the SRSOC, with the capability of communicating with SEOC and Counties.
- (4) A conference bridge is utilized for the purpose of ORO protective action discussions and decision making.
- officers b. County communications are responsible communications within their jurisdiction during a radiological incident. Their responsibilities include the activation of communications systems, the maintenance and operation of primary and alternate systems on a 24-hour basis, and reporting the system's status during an emergency. The responsible parties are:
 - (1) Aiken County: E911 Dispatcher (Communications Officer), responsible to the Coordinator, Emergency Management Agency.
 - (2) Allendale County: E911 Dispatcher (Communications Officer). responsible to the Director, Emergency Management Agency.
 - Barnwell County: E911 Dispatcher (Communications (3) Officer), responsible to the Barnwell County Sheriff, who coordinates with the Emergency Management Director.
- Communications with local governments within the 10-Mile EPZ c. will be tested monthly. Communications with federal emergency response organizations shall be tested quarterly. Communications between the site, state, local emergency operations centers, and field assessment teams shall be tested annually. Communication drills will also include the aspect of understanding the content of messages.

11. Training

County directors and directors of state agencies are responsible for assuring RER training is conducted in accordance with the SCORERP, Basic Plan, Annex 2 (Training).

- 12. **Drills and Exercises**
 - See SCORERP, Basic Plan, Annex 4 (Exercises and Drills) a.
 - Exercises are designed to test all elements of emergency b. preparedness plans pertaining to SRS and the capability of support

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elements in the 10-mile EPZ cited in such plans. An annual exercise will be conducted and will involve mobilizing state and local government personnel and resources adequate to verify capability to respond to an incident scenario (simulated emergency) at SRS. The exercise will be evaluated and critiqued by DOE personnel.

c. Drills are supervised periods of instruction designed to test, develop and maintain skills of individuals who form a part of radiological emergency response organizations. County directors shall ensure that drills are conducted by qualified instructors at the frequency listed in the SCORERP, Basic Plan, Annex 4, conduct drills.

V. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

- A. State (See SCORERP, Basic Plan, paragraph V)
- B. Local (See Aiken, Allendale, and Barnwell County EOPs)
- C. Organizational relationships (See Figure 4)

VI. ADMINISTRATION AND LOGISTICS

- A. See the South Carolina Emergency Operations Plan (SCEOP), Section IX, "Administration and Finance."
- B. Counties provide their own administrative and logistic support. Requests for augmentation may be submitted in accordance with SCEOP.

VII. DIRECTION AND CONTROL

A. SEOC

The SEOC is located at 2779 Fish Hatchery Road, West Columbia, South Carolina 29172.

- B. County Emergency Operations Centers
 - 1. Aiken: Aiken County Government Center, 1930 University Parkway, Aiken. South Carolina 29801.
 - 2. Allendale: Emergency Readiness Building, 911-B Main Street North, Allendale. South Carolina 29810.
 - 3. Barnwell: Barnwell County Administration Building, 57 Wall Street, Barnwell, South Carolina 29812.

C. Savannah River Site

The SRS EOC is located in Building 703-A. The Alternate EOC is located in Building 735-B, Room 130.



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TABLE 1 – SAVANNAH RIVER SITE 10-MILE EPZ MAP ZONE DESCRIPTIONS

State Traffic Control Points			
S-1: SC 125 and S-2-63			
S-2: SC 302 and SC 125			
S-3: SC 302 and US 278			
S-4: S-3-12 (Millet Rd.) and SC 125			

Aiken County Traffic Control Points			
AK-1: S-2-5 (Old Jackson Hwy) and Brown Road			
AK-2: S-2-5 (Old Jackson Hwy) and S-2-32 (Silver Bluff Road)			
AK-3: S-19 and US 278			
AK-4: S-2-57 (Green Pond) and US 278			

Barnwell County Traffic Control Points			
B-1: SC 278 and S-64.			
B-2: Hwy 39 and U.S. 278			
B-3: SC 64 and SC 70 and US 278			

Primary Evacuation Routes

G-7: SC 5 north to SC 302 north to Pine Log Road to South Aiken High School.

G-8: SC 125 north to SC 302 north to Pine Log Road to South Aiken High School.

G-9 and G-10: Brown Road north to SC 5 (Old Jackson Hwy), north on SC 5 to SC 302 (Silver Bluff Road), north on SC 302 to Pine Log Road to South Aiken High School.

H-6: US Hwy 278 south to Guinyard-Butler Middle School.

H-7: SC 3 northeast to US Hwy 278, north to Guinyard-Butler Middle School.

H-8, H-9, and H-10: SC 125 southeast to US Hwy 278, south to Allendale-Fairfax High School.

ZONES	LANDMARK DESCRIPTIONS	BOUNDARY DESCRIPTIONS
G-10	Cowden Plantation	In Aiken County: Sector G-10 is bordered on the north by a line from Grays Landing on the Savannah River to the intersection of the CSX track and Cowden Plantation Road; on the East by the Savannah River Site (SRS) boundary and the CSX track; on the south by the Savannah River and the SRS boundary; and on the west by the Savannah River.
G-9	Hankinson, Cowden Plantation	Bordered on the west by the Savannah River. On the north, start at the Savannah River at Silver Bluff. Follow Hankinson Road from the river until it deadends at SC5 (Main Street). Take SC5 into Jackson (southeast until the city limits). Draw a line approximately south to Landing Road (Road #299) at the Assembly of the Lord Church. Then draw a straight line to the SRS boundary at the unincorporated Jackson Town boundary (the place where Brown Road swings away from the SRS boundary). Follow the SRS boundary south to the CSX track. Follow the CSX track north to the Cowden Plantation Road. Follow the Cowden Plantation Road to Grays Landing at the Savannah River.
G-8	Jackson	Start at SC125 and the SRS boundary. Follow the boundary West and South to the unincorporated Jackson town boundary. (The place where Brown Road swings away from the SRS boundary.) Then draw a straight line from the SRS boundary to Landing Road (Route #299) at the Assembly of the Lord Church. Then draw a line approximately northeast, to the city limit of Jackson on Main Street (Route 5). Take Baker Street (Route 63) east to SC125 and follow SC63 to SC57. Then take SC57 back to the Southeast until it intersects with the SRS. Then follow the SRS boundary back to the start.
G-7	Jackson	Start at the intersection of SC5 and the unincorporated boundary of Jackson. Follow the boundary north to SC125. Take SC125 southeast to Dragstrip Road (Route #1409). Follow Route 1409 and then straight onto Route #1859 until US Hwy 278. Take US Hwy 278 east to the intersection of SC19. Follow the Sumter National Forest/SRS border back to the Southwest to SC57, which is the edge of Sector G-8. Now follow SC57 to the northwest to SC63, and then SC63 back to SC5.

ZONES	LANDMARK	BOUNDARY DESCRIPTIONS
	DESCRIPTIONS	
H-6	Barnwell County Airport	The starting point is Barnwell County SC68 at the boundary of SRS. Go east on SC68 to US Hwy 278. Go southeast on 278 (towards Barnwell) to Buck Creek. Follow Buck Creek and the Salkehatchie River south until it passes under SC64. Take SC64 west until it enters SRS. Follow the SRS boundary west and then north back to the starting point
Н-7	Snelling, Owens Crossroads, Lynhurst	The starting point is the intersection of SC Hwy 64 and SRS. Go east on SC64 to where it crosses the Salkehatchie River. Go South on the Salkehatchie River to where it passes under Barnwell County Route 69. Take Route 69 South and East to SC 3. Turn right on SC3 and follow it South to Barnwell County Route 39. Turn right and follow Route 39 to the Barnwell County-Allendale County line. Follow the county line west to SRS and follow the SRS boundary north to the starting point.
H-8	Allendale/Barnwell, Stenson Bridge, Dunbar Store	The starting point is the intersection of the Allendale County-Barnwell county line and Allendale County Route 65. Follow Route 65 south approximately 1.6 miles to the dirt road and turn right. Follow this road to Allendale County Route 45 and turn left. Take Route 45 South to SC125. Turn right on SC125 and follow it to the St. Mary's Church. Exclude the church and cemetery and go to the SRS boundary. Follow the SRS boundary north to the Allendale County-Barnwell County line and follow the County line east to the starting point.
H-9	Dunbar Store, Millett	The starting point is SC125 at the Creek Plantation Road. Follow SC125 East to Allendale County Route 17. Turn right and follow Route 17 to the dead-end at Route 12. Turn left onto Route 368. Follow Route 368 South to the Savannah River. The Savannah River is the west boundary. For the north boundary, follow Plantation Road from SC125 to the Savannah River.
H-10	Creek Plantation	In Barnwell County, Zone H-10 is bordered on the north by the SRS boundary and SC125 extending into Allendale County (the north boundary of H-10 leaves SC125 to go around St. Mary's Church and cemetery); in Allendale County on the east by Creek Plantation Road; on the south by the Savannah River; and in Barnwell County on the west by the SRS boundary.

FIGURE 1-SAVANNAH RIVER SITE 10-MILE EPZ MAP ZONE DESCRIPTIONS

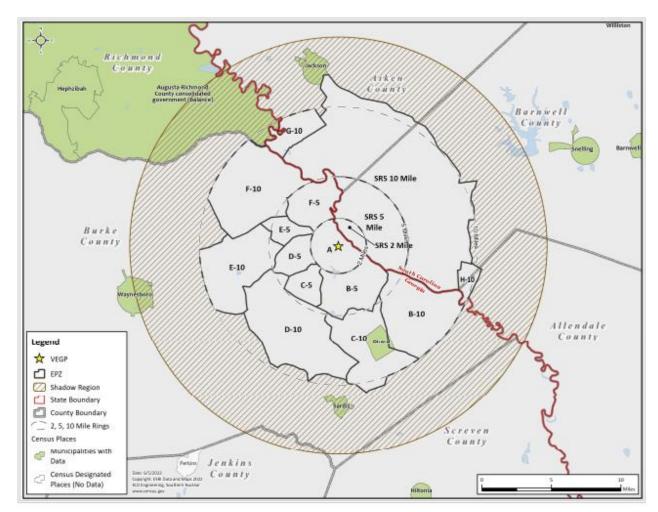


FIGURE 2 – SRS 10-MILE EPZ POPULATION DISTRIBUTION MAP

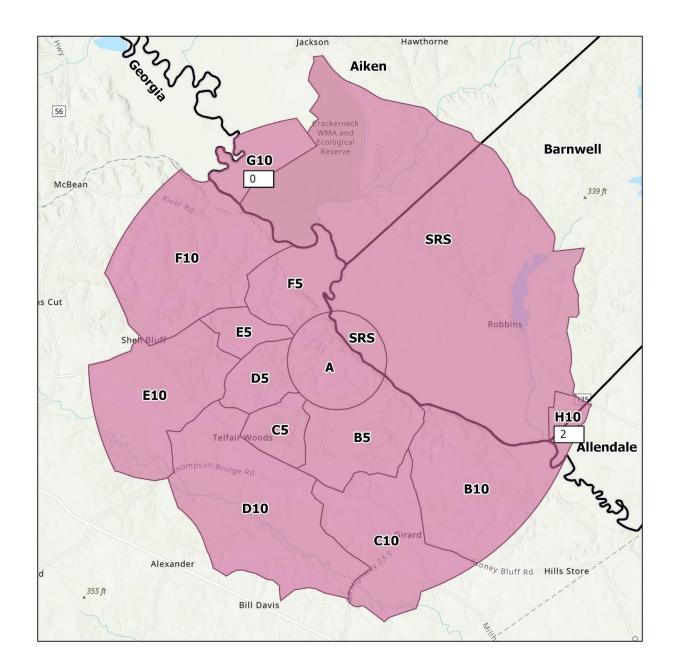
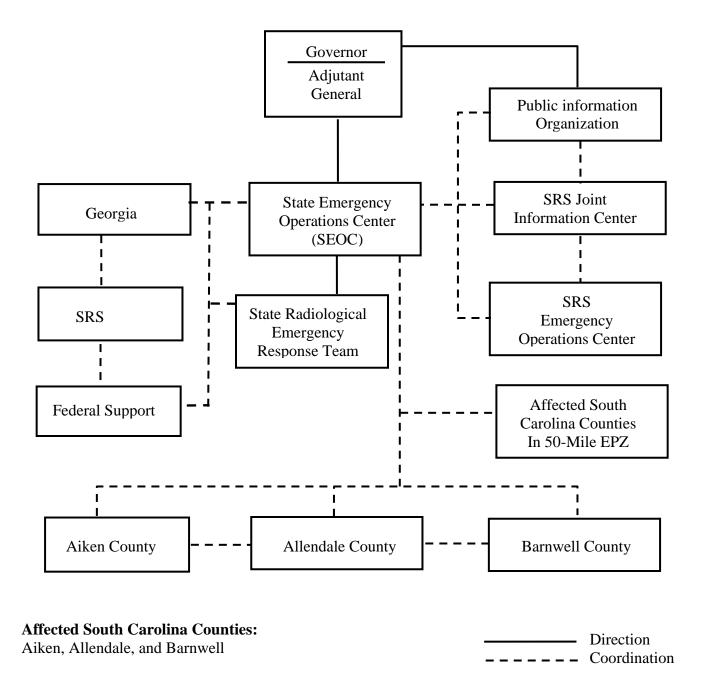


FIGURE 3 – ORGANIZATIONAL RELATIONSHIPS



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FIGURE 4 – EMERGENCY NOTIFICATION FORM

Fo	orm Rev. 07-27-20	21			cation F		Printed at 1054	Page 1 of 2
1. 2. 3. 4.	Type of Incident:	○ [A] Drill ○ [A] Radi	○ [B] Emergen blogical ○ [B]			Initial O Folk	ow-Up C [E] Other	Message #
5. 6.	Declaration: Emergency:	○ [A] N/A ○ [A] N/A	0	_	(Phone #) [C] Alert Terminated At	○ [D] Site Are	ea Emerg. (Eastern)	[E] General Eme
7. 8.	N/A Description / Rem	EPIP#: arks:		EAL#:		Appendix/At		(mindo yyyy)
9. 10.	Meteorological Da Recommended Offsite Protective Actions	[C] State	d Direction (from) ility Class ecommended Ac uate er-in-Place		quested at Thi	[D]	Speed (mph) Precipitation (typ	ne)
11.	Emergency Respo	nse Guide F	rotective Action:	□ N/A □	Isolation Zone	Dov	wnwind	
		12 through on: [B] M [C] St [D] Ty [E] St [F] St	ate: Solid	red for incid Soil Liquid ated (Stack)	Water-Pathwa Gaseous Ground mm/dd/yyyy)	sified as an Ale y: Note: "Stopped" reficontainer/building, s still offgassing fro		g., whether material plained in Line 8.
14.	Chemical Release Pounds or Gallons	Substance	N/A [B] To Be		○ [C] Default	t Source Term CAS N	um CERCLA	d Source Term A HS* EPCRA EHS*
15.	Projected Site Bou			To Be Deter		lew O Uncha	-	
16.	CED (mrem) Ingestion Pathway	Other Advisories		tion Time	(Eastern) E	TA @ SB (Easte C [C] Previou	•	on Hrs
17.	Approved By	Name		Title		Transmit Time/Da		mm/dd/yyyy

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FIGURE 5 – EMERGENCY NOTIFICATION FORM, cont. Page 2 of 2 Continue Description/Remarks

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