BECHTEL PARSONS BLUE GRASS
A Joint Venture of Bechtel National, Inc. and Parsons Government Services Inc.

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)

Environmental Document

Attachment G – Contingency Plan and Emergency Procedures

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Acronyms/Abbreviations

Acronym	Definition
BGAD	Blue Grass Army Depot
BGCAPP	Blue Grass Chemical Agent-Destruction Pilot Plant
CFR	Code of Federal Regulations
CHB	container handling building
CLA	chemical limited area
CMA	Chemical Materials Agency
CON	control room
CRS	Control Room Supervisor
CSI	compliance schedule item
decon	decontaminate
DoD	Department of Defense
DOT	Department of Transportation
EC	emergency coordinator
EOC	emergency operations center
EONC	enhanced on-site container
ERC	Emergency Response Commission
ERT	Emergency response team
GB	nerve agent sarin, isopropyl methylphosphonofluoridate
H	blister agent mustard made by the Levinstein process, bis(2 chloroethyl) sulfide or 2,2' dichlorodiethyl sulfide (also called mustard agent)
HAZMAT	hazardous material
HSA	hydrolysate storage area
IAW	in accordance with
JM&L LCMC	Joint Munitions & Lethality Life Cycle Management Command
KAR	Kentucky Administrative Regulation
KY ERC	Kentucky Emergency Response Commission
MDB	munitions demilitarization building
OSIC	on scene incident commander
PEO ACWA	Program Executive Office – Assembled Chemical Weapons Alternatives
PPE	personal protective equipment
RCRA	Resource Conservation and Recovery Act
RQ	reportable quantity
SCO	scene control officer
SCWO	supercritical water oxidation
SPB	supercritical water oxidation (SCWO) processing building
SPM	Shift Plant Manager
TSDF	treatment, storage, and disposal facility
U.S.	United States

VX	nerve agent, O-ethyl S-(2-diisopropylaminoethyl) methylphosphonothiolate
WTS	waste transfer station

1.0 CONTINGENCY PLAN AND EMERGENCY PROCEDURES

401 Kentucky Administrative Regulation (KAR) 39:090, Sections 1; and 40 Code of Federal Regulations (CFR) 264.50-264.56 and 264.196

The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Control Room (CON), in accordance with (IAW) 401 Kentucky Administrative Regulation (KAR) 39:090, maintains a copy of this Contingency Plan. This plan minimizes hazards to human health or the environment due to fires, explosions, and unplanned sudden or non-sudden releases of hazardous wastes or hazardous waste constituents to air, soil, surface water, or groundwater. BGCAPP monitors and provides for spill prevention, controls, countermeasures, and management of hazardous wastes, and unplanned discharges as outlined in Attachment F, Procedure to Prevent Hazards. The BGCAPP Contingency Plan serves as a standalone document but does rely on the resources and personnel of the Blue Grass Army Depot (BGAD), upon which BGCAPP is a tenant.

This Contingency Plan describes the response by BGCAPP personnel to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater at the facility. This plan contains information IAW the requirements of 401 KAR 39.090 and 40 CFR 264 Subpart D. Since the BGCAPP facility is located on a United States (U.S.) Army installation, Army environmental regulations apply to BGCAPP, and this document complies with these requirements as well.

2.0 GENERAL INFORMATION

401 KAR 39:090, Section 1; and 40 CFR 264.52 and 264.56

BGAD is located in the Blue Grass region of east central Kentucky in the approximate center of Madison County. BGAD encompasses 14,596 acres and is approximately 30 miles southeast of Lexington, 85 miles southeast of Louisville, and 90 miles south of Cincinnati, Ohio. It is adjacent to the southeastern portion of Richmond, Kentucky, and approximately 5 miles southeast of the center of Richmond and 10 miles northeast of Berea, Kentucky. Agricultural land, industrial land uses, low-density residential areas, some commercial activities, and public areas surround BGAD and include some recreational activities and areas.

BGAD, a U.S. Army installation, is a Tier 1 Joint Munitions & Lethality Life Cycle Management Command (JM&L LCMC) depot with a primary function of providing munitions, chemical defense equipment, and special operations support to the Department of Defense (DoD). The BGAD mission includes storage of conventional munitions for training and major force deployment and serving as the Army's major storage site for chemical defense equipment. The conventional munitions operations at BGAD include shipping and receiving, storage, maintenance, inspection, and demilitarization. The JM&L LCMC and the Chemical Materials Agency (CMA) are organizations subordinate to the Army Materiel Command (AMC).

This Contingency Plan and the associated emergency procedures are applicable to BGCAPP. Bechtel Parsons Blue Grass (BPBG) (a joint venture) designed, constructed, and operates the BGCAPP facility. BGCAPP is a tenant of BGAD and is located adjacent to the ACWAstorage area and wholly within the BGAD's boundary. BGCAPP has its entrance from KY Highway 52 and is approximately 19 acres in size. Figure 1 is a topographical map that shows the location of BGCAPP and the surrounding areas. Figure 2 shows the hazardous waste Transportation routes used by the facility. The BPBG team contracted to design, construct, and operate the BGCAPP facility to destroy the remaining BGAD chemical weapons stockpile.

The destruction of the chemical weapons stockpile results in the generation of secondary wastes during treatment. Products of explosive and chemical agent neutralization (explosive and agent hydrolysates) are stored in the hydrolysate storage area (HSA) tanks and then shipped off-site for disposal and water that is recycled and reused in the plant. The inorganic compounds are separated during water recycling and shipped offsite to an appropriately permitted, commercial treatment, storage, and disposal facility (TSDF) for disposal (i.e., about 30 percent of the volume being recycled is removed as reverse osmosis (RO) reject that contains the concentrated inorganic compounds).

Construction and initial operation of BGCAPP was under a Resource Conservation and Recovery Act (RCRA) research program permitted under the research, development, and demonstration (RD&D) Kentucky Permit number KY 8 213 820 105 to ensure the integrated processes function efficiently and provide adequate levels of waste treatment and management.

The munitions stockpile includes rockets or projectiles (filled with the chemical agents nerve agent sarin, isopropyl methylphosphonofluoridate [GB] or nerve agent, O-ethyl S-(2-diisopropylaminoethyl) methylphosphonothiolate [VX]) and projectiles (filled with blister agent mustard made by the Levinstein process, bis(2 chloroethyl) sulfide or 2,2' dichlorodiethyl sulfide [H], also called mustard agent).

Munitions are loaded from storage into enhanced on-site containers (EONCs) and moved over a restricted access road to the BGCAPP container handling building (CHB). BGCAPP stores the EONCs in the CHB until the waste contained within the EONCs is processed.

In addition, the BGCAPP design and construction allows treatment of non-stockpile chemical agent in Department of Transportation (DOT) containers and secondary waste (e.g., containers, equipment, personal protective equipment [PPE], and wipes) that has contacted agent during normal operations.

BGCAPP includes hazardous waste storage and treatment tanks, container storage and Subpart X units in the following buildings and areas:

- CHB
- MDB
- HSA
- SPB and associated waste storage tanks (SCWO Tank Area – STA)
- Waste Transfer Station (WTS) outside CLA
- Container Storage Facility (CSF)

Figure 6 shows these hazardous waste treatment and storage areas and the transportation routes for incoming chemical agent munitions, incoming hazardous materials, and outgoing hazardous wastes.

3.0 EMERGENCY COORDINATOR (EC)

401 KAR 39:090, Section 1; and 40 CFR 264.52(d) and 264.55

The primary Emergency Coordinator (EC) for the BGCAPP organization on the installation is the Plant Manager (PM) or designee. The CON has a dedicated phone directly to the EOC or designated Manager on duty. For the purposes of this document, references to the EOC may also refer to the manager on duty when the EOC is not formally available. The BGAD Commander serves as the Initial Response Force Commander (IRFC). During any event, information is provided to the BGAD Commander on the nature and extent of the event. The EC, in coordination with the CON and EOC provide all information required for external notifications and make requests for any additional resources needed for the type of response action. Mutual aid agreements (MAAs) provide for specialized external assistance from outside entities (e.g. medical, fire), should the need arise, and are requested by the BGAD Commander. The EC is available during daily operations on-site and can be reached by radio and PA, during off shift hours the EC can be reached by phone. The Plant Managers contact information will be provided by title and phone number only for the sake of privacy and Main Plant Facility employee security due to the sensitive nature of the operations.

BGAD follows the National Incident Management System (NIMS) Incident Command System (ICS) protocols for response actions and BGCAPP falls within the BGAD ICS. As such, the command and signal BGCAPP Emergency Response Organization (ERO) has been delegated to the Plant Manager. BGCAPP has an internal outlined ICS. The Main Plant Facility has trained and equipped facility personnel to assist the emergency response team (ERT) assigned to each of the operating shifts. If a fire, explosion, spill, or release occurs at the Main Plant, the SPM, or alternate, on duty at the time of the emergency becomes the Main Plant On Scene Incident Commander (OSIC). The responsibilities of the ICS include: The authority and responsibilities of the primary and alternate OSICs include:

1. Coordinating overall incident responses
2. Assessing the immediate threat to human health or the environment within and beyond the boundaries of the installation
3. Determining whether the emergency involves a spill of a reportable quantity (RQ) of waste
4. Determining when to notify off-site agencies
5. Ensuring proper cleanup equipment and procedures are available
6. Providing assistance, personnel, and equipment for response to emergency situations and commits resources as needed based upon the situation
7. If needed, requesting the initiation of MAAs through BGAD for additional specialized resources.

4.0 IMPLEMENTATION

401 KAR 39:090, Section 1; and 40 CFR 264.51(b)

The Main Plant Facility OSIC implements the Contingency Plan when a fire, explosion, or release of hazardous waste or hazardous material could threaten human health or the environment.

The implementation of the Contingency Plan occurs in the following specific situations at the discretion of the Main Plant Facility OSIC:

1. A fire or explosion occurs at or on the route to BGCAPP
2. A fire threatens BGCAPP or the route to the facility
3. A fire or potential explosion involving BGCAPP or en route to the facility threatens off-site areas
4. Use of water or chemical fire suppressant on a fire could result in contaminated run-off
5. An imminent danger exists that an explosion could occur, causing a safety hazard due to flying fragments or shock waves
6. An imminent danger exists that an explosion could result in a release of hazardous constituents from BGCAPP
7. A spill of hazardous material or wastes results in a fire, explosion, or potential fire or explosion
8. A spill of hazardous material or wastes is contained on site, but may potentially contaminate soils, groundwater, or surface water resources

The Bechtel Parsons Blue Grass (BPBG) Team provides to BGAD copies of the BGCAPP Contingency Plan and revisions for use and/or distribution to organizations that may support or be involved in an emergency response at BGCAPP. The BPBG Team ensures distribution of the Plan copies to the following areas (as a minimum):

1. BGAD, Commander, Fire Department, Environmental Office, Directors, Chiefs, and Tenant Organizations
2. Local Emergency Planning Committee (LEPC) of Madison County, to include local authorities and hospitals
3. Kentucky Emergency Response Commission
4. Kentucky Department for Environmental Protection, Division of Waste Management
5. EPA Region IV (if requested)

5.0 EMERGENCY RESPONSE PROCEDURES

401 KAR 39:090, Section 7; and 40 CFR 264.56

Attachment F – Procedures to Prevent Hazards provides guidance for avoiding a spill or unplanned release of hazardous materials. This Contingency Plan provides for those incidents not prevented by Attachment F and includes emergency notification requirements, support organizations, and emergency response procedures. Main Plant Facility personnel are properly trained and will provide emergency response for hazardous material spills and non-agent releases at the Main Plant Facility.

5.1 Notification

401 KAR 39:090, Section 1; and 40 CFR 264.56(a)(1)-(2)

The CON receives a report from the first responder or supervisor when a fire, explosion, or release of hazardous material occurs at or near the Main Plant Facility and provides prompt notification to EOC via red phone. CON personnel are responsible for reporting, coordinating, and controlling all contingencies and operate under the authority of the OSIC. For any event triggering the ICS, the following will be provided to the OSIC:

- Location of event
- Materials or wastes involved, initial suspected quantity and extent of potential for contamination of soil, air or water
- Known injuries and estimated risk of human health and
- Initial actions taken by the first responder

The CON manages the logistics and resources required for response to an emergency. CON operators serve as an interface between the OSIC, the Scene Control Officer (SCO) and the CON. Main Plant is operational twenty-four (24) hours a day, seven (7) days a week and notifications for ICS related personnel are conducted via PA and Radio. The CON will request the assembly of the ERT and any required support elements of the ICS (e.g. environmental, safety) at the direction of the OSIC.

The OSIC will determine the extent of emergency response actions and provide notifications and updates to the EOC. External agency notifications are made by the EOC or BGAD Environmental in accordance with Federal, State and Army requirements. If an event threatens public health or the environment outside the facility, external notifications will be made to neighboring community emergency response organizations by the EOC or BGAD. Emergency Notification numbers and agencies contacted initially in are found in Table 5-1, below.

Table 5-1: OFF-Facility Emergency Notification Numbers

Agency	Notification Number
National Response Center (NRC)	(800) 424-8802
Madison County Emergency Management Agency	(859) 624-4787
Kentucky Emergency Management (KYEM)/ Kentucky Emergency Response Commission (ERC)	(800) 255-2587

5.2 Identification of Hazardous Materials (HAZMAT)

401 KAR 39:090, Section 1; and 40 CFR 264.56(b)

The BGCAPP OSIC notifies the BGAD EOC and provides information gathered from initial reports of observers and workers. Following initial notification, the OSIC activates the BGCAPP ERT and gathers additional information to identify and characterize the nature and extent of the hazardous materials involved in the emergency. All materials and wastes at the BGCAPP facility are clearly marked and identified. The BGCAPP OSIC, in consultation with environmental compliance, can identify and quantify the hazardous waste released by any of the following methods, as appropriate:

- Consulting shift personnel in the vicinity of the emergency
- Personal visual observations
- Reviewing operating records (for wastes in storage)

The OSIC relies on the initial reports of personnel and workers observing the emergency to provide information about the extent of the release. The OSIC uses the information gathered to provide an initial briefing and subsequent updates to the ERT Leader for the CON to provide to the EOC. The ERT assembles and conducts reconnaissance to report additional information from the scene of the emergency. The OSIC uses this new information to further characterize the material(s) released, the source, and to quantify the amount and areal extent of any environmental release.

5.3 Hazard Assessment

401 KAR 39:090, Section 1; and 40 CFR 264.56(c)

The OSIC assesses possible hazards, direct and indirect, to human health and the environment. This assessment may consider the following:

1. A primary hazard considered for each emergency is the possibility of chemical agent exposure due to the presence of residual chemical agent within the BGCAPP facility.
2. The possible hazards associated with fires (i.e., unless chemical agents are involved) include the initiation of explosions, burns, smoke inhalation, and ignition of vegetation and adjacent buildings.
3. Spills of hazardous materials introduce the possibility of impacts to human health and the environment as releases may flow into nearby waterways (e.g., the unnamed tributary of Muddy Creek or the BGCAPP storm water impoundment) and subsequently affect the environment and human health.
4. If the release is airborne or may become airborne, the BGAD EOC can model the release and determine whether there is any potential impact to areas surrounding BGAD.

Prior to the initiation of agent operations and during routine operations, the EOC calculates the Maximum Credible Event (MCE) for the Main Plant Facility. BGADand the BPBG Team use this information to make evacuation decisions concerning Main Plant Facility personnel, BGCAPP Main Plant personnel, BGAD personnel, and areas outside the BGAD boundaries. This modeling information also serves as a basis for decisions concerning notifications to local, state, and/or federal agencies.

5.4 Control Procedures

401 KAR 39:090, Section 1; and 40 CFR 264.56

5.4.1 Main Plant OSIC

The general duties of the Main Plant OSIC, or his or her alternate, during an emergency are:

1. Use BGCAPP alarms and communication systems to notify and safely direct remaining BGCAPP personnel.
2. Notify the BGAD EOC/ and the BGCAPP EC in the event an emergency condition or incidental spill develops at BGCAPP.
3. Identify the character, exact source, amount, and extent of materials released from the stack, spills, fires, or explosions.
4. Assess possible hazards, both direct and indirect, to human health or the environment.
5. Notify the BGAD EOC if BGCAPP has an environmental release or fire that could threaten human health or the environment beyond BGCAPP.

6. Take all reasonable measures necessary to ensure fires and releases do not occur, recur, or spread to other areas of BGCAPP.
7. Monitor equipment for leaks, pressure buildup, ruptures, etc., as appropriate, if BGCAPP operations stop in response to an emergency.
8. Instructs control personnel to stop BGCAPP Facility operations in response to an emergency.
9. Provide for treating, storing, or disposing of recovered waste and contaminated material after an emergency.
10. Ensure wastes potentially incompatible with the released material are not treated, stored, or disposed until cleanup procedures are complete within the area(s) affected by the event.
11. Ensure, in the area(s) of BGCAPP affected by a release, all emergency equipment used during the emergency is replaced or cleaned and fit for its intended use before operations resume.
12. Ensure the notification to the Plant Manager has been made. All external notifications are made by the EOC and BGAD personnel.

5.4.2 Main Plant Shift Personnel Supporting the OSIC

BGCAPP shift personnel with the additional duty of supporting the BGCAPP OSIC during emergencies include the following:

5.4.2.1 Main Plant Scene Commander Officer (SCO)

The SCO receives direction from, and reports to, the Main Plant Facility OSIC. Immediately upon initiation of the Contingency Plan, the OSIC designates an Area Supervisor to be the SCO. The SCO then reports to the scene of the event and establishes an on-scene command post, assumes control of the activities of the first responders, and coordinates the actions of the ERT. The SCO continually updates the OSIC and CON of the status of the emergency.

5.4.2.2 Main Plant Control Room Supervisor (CRS)

The CRS assumes responsibility for operation of the CON as the SPM assumes the responsibilities of OSIC. The CRS also facilitates emergency response support activities. The CON shuts down BGCAPP System operations and takes other actions as directed by the BGCAPP Facility OSIC. BGCAPP CON is the central point of contact for reporting, coordinating, and controlling all BGCAPP contingencies and operate under the authority of the OSIC. The CON notifies the EOC and manages the logistics and resources required for an appropriate response to the emergency. BGCAPP CON report to and advise the OSIC and serve as an interface between the OSIC and the SCO.

5.4.2.3 Emergency Response Team (ERT) Leader

The ERT Leader receives direction from, and reports to, the SCO. Each shift has an individual assigned as an ERT Leader. The ERT Leader directs the activities of the ERT. The ERT Leader and the SCO can be the same person.

5.4.2.4 Emergency Response Team

Each shift has trained personnel assigned as ERT members. The ERT is comprised of personnel trained and equipped to respond to accidents, emergencies and incidents involving hazardous material or hazardous waste at the Main Plant. The ERT, in line with the ICS, is organized to allow the appropriate level of response to a contingency. ERT members receive direction from the ERT Leader.

The ERT mitigates uncontrolled chemical agent and hazardous material or waste releases by assisting with the identification, stopping the release, assessing the extent of contamination, and performing the appropriate collection and containerization of wastes for disposal.

5.4.2.5 BGCAPP Safety Officer

The shift safety representative becomes the Safety Officer after implementation of the Contingency Plan. The Safety Officer reports to the SCO to provide safety assessments and advice (e.g., required PPE and response equipment). The Safety Officer has the authority to alter, suspend, or terminate any activities immediately dangerous to life and health or that involve an immediate danger to personnel.

5.4.2.6 Environmental Compliance Specialist

The Environmental Compliance Specialist reports to the SCO to assist with the determination of types and quantities of wastes or materials requiring the need for external notifications to be performed by the EOC or BGAD Environmental. They assess environmental impacts and provide technical advice in the areas of spill cleanup, property decontamination, packaging waste materials, and waste disposal.

5.4.3 Emergency Situations

The following paragraphs describe the emergencies that may affect BGCAPP and provide some general response information for each.

5.4.3.1 Explosions

Design of plant areas handling munitions or energetics materials contains and limits the effects of an explosion. Operational procedures control the flow and amounts of munitions and energetics in specific areas so as not to exceed the blast design specifications of any given location. Munitions handling areas have fire suppression sprinkler and deluge systems installed to suppress fires associated with these operations and munitions and decrease the risk of explosions. If an explosion occurs within the MDB waste processing areas, the OSIC orders the waste processing systems to be shut down and placed in a “safe” mode, and workers to evacuate as soon as practical. If the explosion occurs elsewhere on BGCAPP or BGAD, the OSIC decides, in coordination with the BGAD EOC, whether the nature, location, and size of the explosion warrant an evacuation and/or the placing of the BGCAPP waste processing systems in “safe” mode. Under the direction of the OSIC, the CON initiates system shut down and begins stopping waste feeds to waste processing systems. Routine work in the blast area ceases and the priority becomes evacuation and treatment of injured workers.

If the explosive hazard is too great, all BGCAPP personnel immediately evacuate and all efforts focus on mitigating blast damage and controlling the fire.

5.4.3.2 Fire

The design of BGCAPP provides fire protection through automatic sprinklers, water deluge systems, non-aqueous systems, and a fire alarm notification system. Design of chemical agent handling areas provides for the collection of both water from fire suppression and hazardous waste liquids within the lined containments and sumps of the waste management areas. BGCAPP design provides fire hydrants throughout the plant to support firefighting by the BGAD Fire Department. Trained BGCAPP personnel use fire extinguishers to address smaller fires that handheld fire extinguishers can extinguish. The BGCAPP OSIC reports any fire on the BGCAPP footprint to the BGAD EOC. If a fire (other than a incipient stage fire easily controlled by handheld fire extinguishers) occurs within the MDB waste processing areas, the OSIC orders the waste processing systems to be shut down and placed in a “safe” mode, and the evacuation of workers as soon as practical. If the fire is easily extinguished or occurs elsewhere on BGCAPP/BGAD, the OSIC makes the decision (in coordination with the BGAD EOC) whether the nature, location, and size of the fire warrants the evacuation and/or shut down of BGCAPP waste processing systems. Under the direction of the OSIC, the CON initiates shutdown of systems and begins stopping waste feeds to processing systems.

Additional response is available from the BGAD ERT and BGAD Fire Department for BGCAPP fires, with the exception of those that handheld fire extinguishers can extinguish. The BGAD Fire Department receives notification of a BGCAPP fire via the CON red phone system. The BGAD Installation Spill Contingency Plan (ISCP) outlines the installation firefighting and ERT response capabilities. The BGAD Fire Department has mutual aid agreements with Madison County and City of Richmond Fire Departments and ERTs for additional support if the BGAD IRFC decides it is required.

5.4.3.3 Spills and Releases

The BGCAPP OSIC reports any reportable hazardous material spills/releases to the BGAD EOC. Routine work in the release area ceases and evacuation and treatment of injured workers begins.

The BGCAPP ERT responds to spills or releases of non-chemical agent hazardous material; the ERT includes BGCAPP employees specifically trained and equipped to respond to emergency incidents involving hazardous material or hazardous material constituents. Prevention of Recurrence or Spread of Fires, Explosions, or Releases

401 KAR 39:090, Section 1; and 40 CFR 264.56(e)

The OSIC remains in the CON for the duration of the emergency response. The CON remains under positive pressure due to the filtered air continuously introduced into it. The positive pressure in the CON protects personnel remaining in this location from airborne contaminants and allows the CON personnel to operate and monitor waste processing system controls, air monitoring systems, general plant systems (e.g., HVAC), communication systems, and CCTV cameras.

From the CON, the OSIC can oversee system shutdowns, response activities, and any fire- or explosion-related countermeasures or evacuations. The OSIC can ensure any wastes released from waste processing systems or stored containers are collected and placed into containers or portable tanks. The OSIC also ensures these contained wastes are properly stored and that other containers damaged or subject to damage during the emergency are removed and isolated to prevent additional releases or damage. The BGCAPP ERT, under supervision of the ERT Leader, performs this work and, if beyond the capabilities of the BGCAPP ERT, with support personnel and equipment provided by the BGAD Fire Department and BGAD ERT. The OSIC requests this additional support from the BGAD EOC.

Procedures for any operations involved in the emergency response should be re-evaluated (e.g., container management and transport, tank filling, tank and containment inspections, and emergency response) and revised if appropriate prior to resuming operations. Prior to placing the affected area back into service, an incident investigation and after-action assessment report with findings and recommendations (i.e., to reduce or mitigate a recurrence) is prepared by the BGCAPP OSIC. The EC reviews and approves the after action assessment report and ensures, prior to resuming waste operations, all damaged equipment is repaired or replaced and a safe environment is provided for BGCAPP personnel.

5.5 Storage and Treatment of Released Material

401 KAR 39:090, Section 1; and 40 CFR 264.56(g)

Immediately following the incident, BGCAPP arranges for treatment, storage, or disposal of recovered waste, contaminated soil, surface water, and any other contaminated material. For larger incidents, uses BGAD support or in-place contracts with approved/qualified contractors with applicable specialty skills.

Explosive-contaminated waste generated from a spill or incident would be stored in an appropriately permitted area of BGCAPP. On-site storage would last only until an acceptable off-site disposal method is selected. BGCAPP uses the WTS to store non-explosive hazardous wastes prior to disposal off site.

BGCAPP uses its processes, to the maximum extent possible, for treatment of wastes produced during emergency response actions. However, BGCAPP uses appropriately permitted, commercial TSDFs for waste disposal and/or treatment if on-site processing/treatment is inadequate or not appropriate.

5.6 Incompatible Waste

401 KAR 39:090, Section 1; and 40 CFR 264.56(h)(1)

Waste containers or portable tanks from the emergency response event are stored within the affected area and, if the affected area contains wastes stored prior to the event, BGCAPP personnel ensure the stored wastes are compatible with the wastes from the emergency or remove the previously stored wastes. BGCAPP uses only new or thoroughly cleaned, “used” portable tanks/containers to contain hazardous materials/waste recovered during the emergency response. BGCAPP Environmental Department personnel ensure:

- Adequate characterization of wastes from the cleanup prior to storing with other wastes
- Wastes are not co-mingled with other BGCAPP wastes without taking adequate precautions
- Wastes are compatible with waste containers or tanks used for storage
- If the wastes from the cleanup must be stored near or in the same general area as other BGCAPP wastes, the following precautions apply:
  - Store liquids in either drums, tanks, or other containers in portable containments or on containment pallets
  - Do not store acidic wastes in unlined metal containers or tanks
  - Separate cleanup wastes from other stored wastes by a berm, dike, wall, containment pallet or other physical barrier so that wastes cannot co-mingle

5.7 Post-Emergency Equipment Maintenance

401 KAR 39:090, Section 1; and 40 CFR 264.56(h)(2)

During the decontamination process, personnel remove PPE used in the emergency response, and place the used PPE into plastic bags. ERT personnel provide information concerning the nature of the emergency response and the involved hazardous materials/waste so that Waste Management can characterize the waste for proper storage, treatment and disposal method(s).

Main Plant Facility personnel and other responders decontaminate non-disposable equipment, such as spark-proof tools, and vehicles. The selected decontamination site must minimize the exposure of uncontaminated employees, equipment, and the environment. The decontamination process consists of at least one wash and rinse and considers the extent of contamination and the type of equipment requiring decontamination. The wash/rinse waters are contained within a temporary/portable or permanent wash basin(s) of appropriate materials of construction and containment volume to prevent migration into the environment. Waste Management uses generator knowledge or collects samples of wash and rinse water and decontamination materials from the decontamination process for appropriate characterization, storage, treatment and disposal method(s).

Prior to resuming operations, the EC or OSIC, with the assistance of the appropriate consulting expertise (e.g. Safety, Environmental, ERT), from BGCAPP and/or BGAD, will conduct an inspection of all safety and emergency response equipment. The EC or OSIC ensures Facility personnel restock, clean, inspect, and prepare for subsequent use, all safety, decon, tools, spill equipment and PPE used in the emergency prior to restarting operations or resuming use of the affected areas.

6.0 CONTAINER SPILLS AND LEAKAGE

401 KAR 39:090, Section 1; and 40 CFR 264.171

If a release of hazardous waste or hazardous waste constituents results from a leaking container, the remaining contents of the container are either transferred to a new container that is in good condition, or the leaking container is placed into another container (i.e., over-packed). The trained responder cleans up the spills media after establishing control of the container leak; securing the initial container is the first priority. All waste containers are stored within secondary containment, providing an additional protective measure to contain spills or leaks.

7.0 TANK SPILLS AND LEAKAGE

401 KAR 39:090, Section 1; and 40 CFR 264.196

Upon discovery of a leak or spill from a tank or secondary containment system, personnel in the CON receive notification. The CON operators and BGCAPP ERT halt the flow of hazardous waste into the tank system or secondary containment as soon as it is safe to do so. Removal of waste from the tank or secondary containment occurs at the earliest practical time, but, in any case, within 24 hours of detection, to prevent the potential of further releases to the environment.

BGCAPP personnel perform decontamination of the containment, repairs, and inspections of the leaking tank or component prior to returning the system to service. The BGCAPP laboratory performs an analysis of wastes from the cleanup if generator knowledge is insufficient to characterize the wastes for disposal or reintroduction into the BGCAPP systems for treatment.

7.1 Cessation of Use: Prevention of Flow or Addition of Wastes

401 KAR 39:090, Section 1; and 40 CFR 264.196(a)

The BGCAPP ERT, the OSIC, and CON operators take the actions necessary to stop the flow of wastes into tank system(s) that have leaks or spills. As outlined above the priority is to stop the flow of waste materials into the tank system(s) or secondary containment(s). The BGCAPP ERT has the task of inspecting the system to identify source(s) of released wastes.

Following the emergency response, the BGCAPP EC ensures leaking tanks or tank systems are thoroughly inspected prior to placing back in-service (with or without repairs).

7.2 Removal of Waste from Tank or Secondary Containment

401 KAR 39:090, Section 1; and 40 CFR 264.196(b)

Following appropriate PPE and entry procedures, a portable pump removes as much as possible of the spill/leaked waste from the containment/sump. The BGCAPP ERT then uses squeegees, absorbents, and/or a wet-dry vacuum (with HEPA filter) to remove the remaining spilled/leaked waste.

The containment and the tank exterior are then deconned, inspected, and repaired (if necessary). The leaking tank or component is repaired and inspected prior to returning the system to service.

7.3 Containment of Visible Releases to the Environment

401 KAR 39:090, Section 1; and 40 CFR 264.196(c)

Inspections of the leak or spill areas are performed initially by the BGCAPP ERT and then subsequently (i.e., following the cleaning and decontamination of the spill area within 24 hours of detection of the leak or spill) by maintenance and operations personnel. Following appropriate PPE and entry procedures, BGCAPP personnel remove any visible contamination or waste remaining near the leaking tank system or within the containment to prevent migration to the environment. Notification and Reports, as required by permit conditions, are provided to appropriate regulatory agencies through the EOC by the BGAD Environmental Department.

7.4 Provisions of Secondary Containment, Repair, or Closure

401 KAR 39:090, Section 1 & 40 CFR 264.196(e)

BGCAPP repairs or closes leaking containments or tank systems to comply with EPA and KDEP requirements. These regulatory requirements include:

1. Repair tank system prior to placing back into service if the leak was from primary tank system into the secondary containment.
2. Provide secondary containment for any tank components, causing the leak, which are not available for visual inspection.

The tank system is placed back into service only after:

1. Removal of released waste
2. Needed repairs are completed

Verification the integrity of the tank system was undamaged during the leak or emergency response

The regulatory requirement concerning the provision of secondary containment for underground tanks does not apply to BGCAPP as all tank systems and tank system components are above ground and visible for inspection. BGCAPP takes tanks out of service until leaks are repaired.

7.5 Certification of Major Repairs

401 KAR 39:090, Section 1; and 40 CFR 264.196(f)

A Kentucky Professional Engineer (PE) certifies tank system repairs to leaking tank systems prior to placing them back in service. BGCAPP places the signed repair certification into the Facility Operating Record and retains the certification until closure of the facility.

8.0 PROVISIONS FOR SURFACE IMPOUNDMENTS, SPILLS, LEAKAGE AND SUDDEN FLUID LEVEL DROPS

401 KAR 39:090, Sections 1; and 40 CFR 264 Subpart K

Not applicable. This provision does not apply to BGCAPP; surface impoundments are not used at this facility.

9.0 PROVISIONS FOR LANDFILL LEAKAGE

401 KAR 39:090, Section 1; and 40 CFR 264 Subpart N

Not applicable. This provision does not apply to BGCAPP; landfills are not used at this facility.

10.0 REQUIREMENTS FOR HAZARDOUS WASTES F020, F021, F022, F023, F026, AND F027

401 KAR 39:090, Section 1; and 40 CFR Subpart N

Not applicable. This provision does not apply to BGCAPP, as BGCAPP does not place, treat, or generate these cited F wastes in on-site tank systems.

11.0 EMERGENCY EQUIPMENT

401 KAR 39:090, Section 1; and 40 CFR 264.52e

BGCAPP establishes procedures for hazardous waste management areas (e.g., <90 Day Storage Area and Satellite Accumulation Areas) and spill response kits for project equipment and hazardous material storage areas. Spill response kits contain appropriate materials to respond to the nature of the spill for the area in which it is located.

The BGCAPP site and facilities are equipped with storage tanks for fire water, to provide water for firefighting located throughout the site and sprinkler and deluge systems in the various facilities. Fire extinguishers are located throughout the site and inside the plant buildings.

The BGCAPP facility employs radio, telephone, and verbal/public address signals to advise employees outside buildings of an incident or potential fire, explosion, or release. Alarm systems for fire or unintended release of a hazardous material/waste/substance augment these communication means. BGAD operates a siren warning system to notify the installation and surrounding area and Madison County Emergency Management Agency of a chemical agent related incident.

On the BGCAPP site and facilities, decontamination equipment is located, for rapid response, near areas that might have explosions, fires, or releases. BGCAPP selects decontamination materials based on the type and quantity of the hazardous waste or material that might be involved in the emergency response at that location. Additional decontamination equipment and showers are available through the BGAD Fire Department and BGAD ERT, if required. Table 11-1 lists emergency response equipment and materials available in the event of an emergency at the BGCAPP and rocket motor storage facilities.

Table 11-1: BGCAPP Facility, Non-Chemical Agent Response Emergency Equipment

Emergency Equipment	
Description	**Location**
Fire Engine/HAZMAT Response	BGAD Fire Department
Fire Extinguishers	Throughout BGCAPP Facility and Within Vehicles
Fire Hydrants	Throughout BGCAPP Facility and Nearby the rocket motor storage facilities.
Absorbent Sheets/Bags/Pads	Pre-staged at Designated Locations
Containment Booms	Pre-staged at Designated Locations
Granular Absorbent	Pre-staged at Designated Locations
Ambulance	BGCAPP Main Plant Medical Clinic or BGAD Health Clinic
PPE	CSB/MDB/PMB/Laboratory
Containment Berms	Available on the BGCAPP site

Spill Kits	Pre-staged at Designated Locations
Emergency Medical Equipment	BGCAPP Main Plant Medical Clinic
Emergency Response Vehicle(s) and Trailer[1]	Main Plant ERTandBGAD Emergency Response Teams

NOTES:

[1] Emergency response vehicle(s) and trailer contain spill response materials for industrial and chemical agent spills/releases and emergency/rescue equipment including entry suits and self-contained breathing apparatus (SCBA).

12.0 COORDINATION AGREEMENTS

401 KAR 39:090, Section 1; and 40 CFR 264.52(c)

The BGCAPP facility, as a tenant activity of BGAD, does not enter into coordination agreements with organizations outside of BGAD. The Contingency Plan has been coordinated with each onsite agency with emergency response duties.

BGAD maintains agreements with the following offsite emergency support activities:

Baptist Health Richmond Hospital, Richmond, Kentucky

Berea Police Department, Berea, Kentucky

St. Joseph Berea Hospital, Berea, Kentucky

Clark County Regional Medical Center, Winchester, Kentucky

Kentucky State Police Post 7, Richmond, KY

Madison County Emergency Medical Services, Richmond, Kentucky

Madison County Fire Department, Richmond, Kentucky

Madison County Sheriff's Department, Richmond, Kentucky

Madison County, Kentucky; Meteorological data and Meteorological Services

Madison County, Kentucky; Mutual Support Agreement

Richmond Fire Department, Richmond, Kentucky

Richmond Police Department, Richmond, Kentucky

BGAD maintains current copies of the emergency support agreements. Note that the Madison County Emergency Management Agency keeps the copy of the Meteorological Data and Services support agreement.

13.0 EVACUATION PLAN

401 KAR 39:090, Section 1; and 40 CFR 264.52f

BGCAPP, in conjunction with the BGAD EOC, identifies primary and alternate evacuation routes from the BGCAPP site to selected accountability points (also known as Assembly Points or Rally Points). BGAD identifies the specific routes and accountability points at the beginning of the workday and modifies the routes and accountability points, throughout the day, based on activities and weather conditions. (See Figure 4 Evacuation Routes Map.)

BGCAPP posts the evacuation route and assembly point at the entrance to the facility and updates the route and assembly point throughout the work period. Each building/area on the BGCAPP site has evacuation routes and assembly points posted for that building/area, updated as required. BGCAPP posts signs along the evacuation routes that indicate the route and the associated assembly point for that route. Fire alarms, the BGAD siren warning system, and/or radio/voice communicate the need to evacuate to the designated assembly point.

The OSIC directs evacuation from the BGCAPP site based on information obtained from reports of a fire, explosion, or unplanned release of a hazardous material or hazardous material constituent. The BOSIC may order a partial or full evacuation of BGCAPP to the designated assembly/ accountability point.

The BGAD EC directs evacuation from BGAD based on information provided by the BGAD EOC/EC. BGAD Regulation 385-4, Evacuation and Accountability, describes the notification and process for accomplishing a partial or total evacuation of BGAD.

If a fire, explosion, or unplanned release requires the evacuation of an area or the entire site, the BGCAPP OSIC immediately notifies facility personnel, visitors to the plant, and the BGAD EOC. The BGAD EOC notifies the appropriate local authorities, IAW existing guidance. The BGAD Environmental Department is also responsible for notifying the appropriate agencies (see Emergency Response Agency Notification List) in Table G-1.

14.0 REQUIRED REPORTS

401 KAR 39:090, Section 1; and 40 CFR 264.56(i)

BGCAPP personnel prepare a written follow-up report in addition to the verbal notifications initiated by the BGAD EOC. All emergencies that require the implementation of the BGCAPP Contingency Plan or that involve the release of a hazardous waste equal to or exceeding an RQ require a written report within 15 days to KDEP, Division of Waste Management. This report complies with the Incident Report format shown in Figure 5 and is sent to:

Energy and Environment Cabinet
Director, Division of Waste Management
Department for Environmental Protection
300 Sower Blvd
Frankfort, KY 40601

BGCAPP places a record of all emergencies requiring implementation of the Contingency Plan in the Facility Operating Record.

15.0 RECORDS

This document shall be retained IAW 24915-000-2KP-A03-00012, Records Retention and Turnover.

16.0 REFERENCES

- 24915-000-2KP-A03-00012, Records Retention and Turnover
- BGAD Regulation 385 4, Evacuation and Accountability
- Code of Federal Regulations, Title 29, Occupational Safety and Health Standards
- Code of Federal Regulations, Title 40, Protection of Environment
- Kentucky Administrative Regulation, Title 401, Energy and Environment Cabinet Department for Environmental Protection
- Occupational Safety and Health Administration (OSHA) 1910.120, Hazardous Waste Operations and Emergency Response

Figure 1 – BGCAPP Facility Location

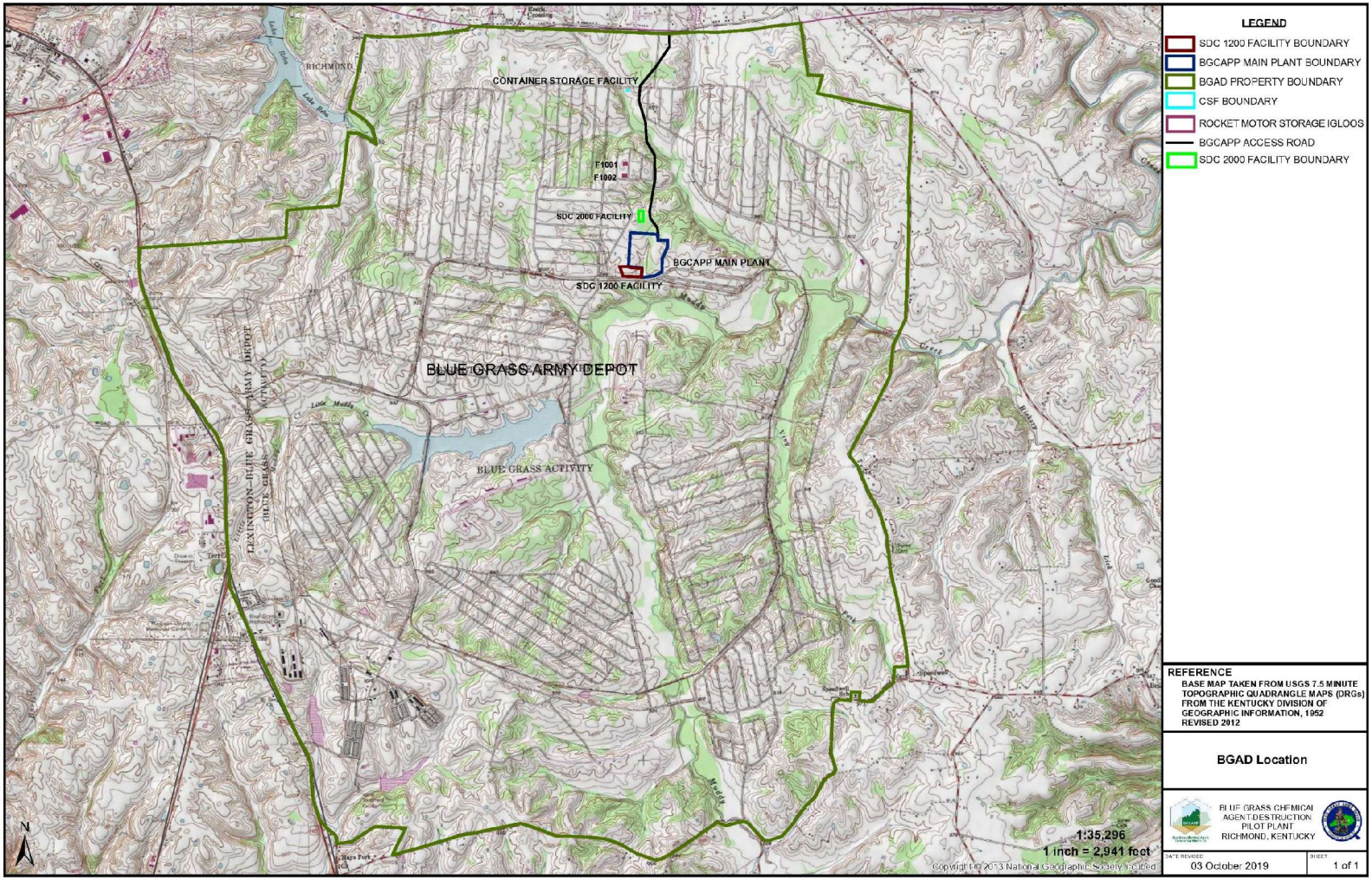
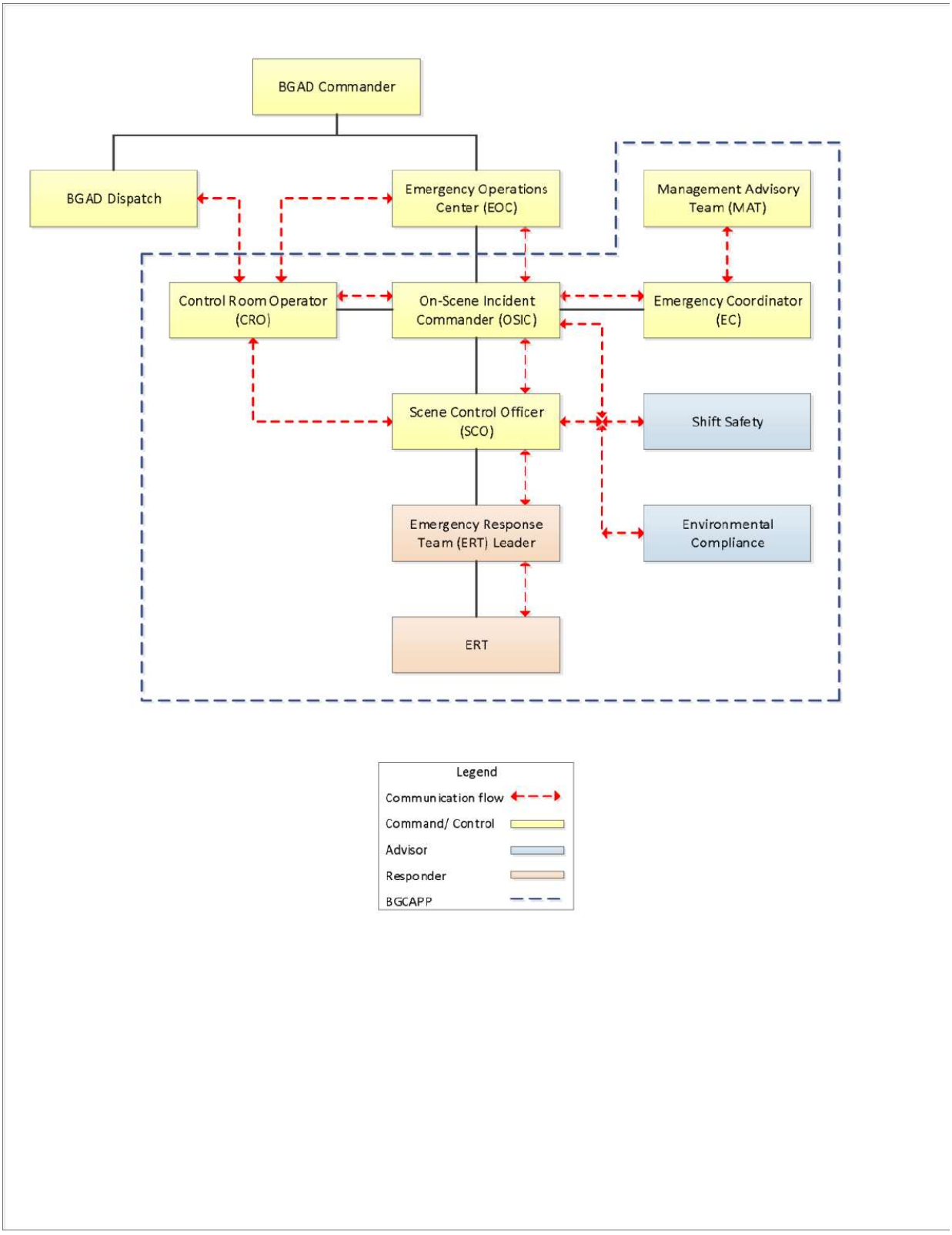


Figure 2 – Hazardous Materials/Waste Routes

1

Figure 3 – Integrated Response Organization



2

Figure 4 – Evacuation Routes Map

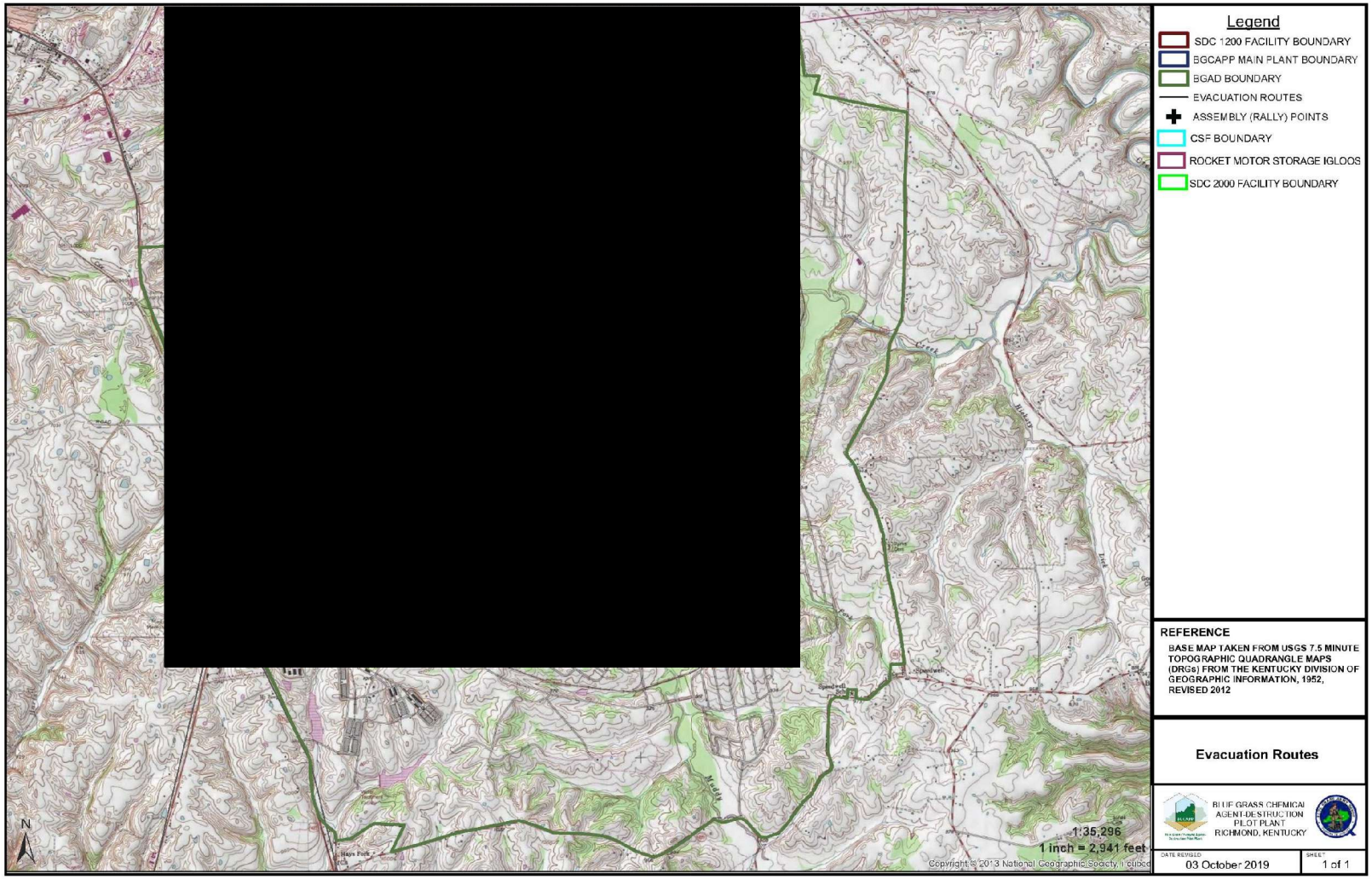


Figure 5 – Incident Report

Name, address and phone number of owner or operator

Name, address, and phone number of facility

Date, time, and type of incident (e.g., fire, explosion)

Name and quantity of material(s) involved

Extent of injuries (if any)

Assessment of actual or potential hazards to human health or the environment (if applicable)

Estimated quantity and disposition of material recovered from the incident

Printed Name_____

Signature_____Date_____

EXAMPLE

Figure 6 – Hazardous Waste Storage Areas