VIA EMAIL AND UPS – SIGNATURE REQUIRED

The Honorable Katherine Hammack
Assistant Secretary of the Army
    Installation, Energy and Environment
Office of the Assistant Secretary of the Army
110 Army Pentagon, Room 3E464
Washington, DC 20310-0110

Re: RCRA Section 7003 Unilateral Administrative Order
Fort Gillem, Lake Forest, Clayton County, Georgia

Dear Ms. Hammack:

Enclosed please find a Unilateral Administrative Order (Order) issued to the United States Department of the Army (Army) by the United States Environmental Protection Agency (EPA), regarding actions that the Army must take to address contamination in the property surrounding the former Fort Gillem, located in Forest Park, Clayton County, Georgia. The Order is issued pursuant to Section 7003 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6973.

The Order becomes final and effective within eleven (11) calendar days of its receipt unless, within ten (10) calendar days of receipt, a conference is requested with the EPA Assistant Administrator of the Office of Enforcement and Compliance Assurance. In addition, the Order requires that, within five (5) calendar days of the Effective Date of the Order, the Army notify, in writing, the EPA Project Manager of its intent to comply with the Order. If the Army does not provide written notification to the EPA Project Manager within that time frame, it will be deemed a violation of the Order.
If you have any questions about the Order, please have a member of your staff contact Cathy Amoroso at (404) 562-8637, or for legal questions, please contact Martha Brock at (404) 562-9546. You may also contact me at (404) 562-8313 or by email at farmer.alan@epa.gov.

Sincerely,

G. Alan Farmer
Director
RCRA Division

Enclosure

cc: Judson H. Turner, Director, Georgia Environmental Protection Division
    David Kling, Director, EPA Federal Facilities Enforcement Office
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 4

IN THE MATTER OF:

United States Department of the Army,
Respondent
Fort Gillem,
Forest Park, Georgia
CERCLIS NO. GA0210020046,
Facility

U.S. EPA DOCKET NO.
RCRA-04-2014-4251

Proceeding under Section 7003(a) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6973(a)

UNILATERAL ADMINISTRATIVE ORDER

I. JURISDICTION

1. This Administrative Order ("Order") is issued to the United States Department of the Army ("Respondent") by the United States Environmental Protection Agency ("EPA") pursuant to the authorities vested in the Administrator of EPA by Section 7003 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act and by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6901 et seq. (hereinafter collectively referred to as "RCRA"). The authority vested in the EPA Administrator has been delegated to the Regional Administrator of EPA, Region 4, who in turn has redelegated this authority to the Director of the Resource Conservation and Recovery Act Division, Region 4. Notice of this Order has been provided to the State of Georgia through the Environmental Protection Division ("Ga EPD"), as required by Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).

II. PARTIES BOUND

2. This Order shall apply to and be binding upon Respondent, its agents and assigns, and upon all other persons and entities who are under the direct or indirect control of Respondent.

3. Respondent shall provide a copy of this Order to all of its supervisory personnel, contractors, laboratories, and consultants retained to conduct or monitor any portion of the work
performed pursuant to this Order within seven (7) days of the Effective Date of this Order or date of such retention, whichever is later. Respondent shall condition all contracts with the aforementioned on compliance with the terms and conditions of this Order. Respondent shall instruct all supervisory personnel, contractors, laboratories, and consultants retained to conduct or monitor any work pursuant to this Order to perform such work in accordance with the requirements of this Order.

III. DEFINITIONS

4. Unless otherwise expressly provided herein, terms used in this Order that are defined in Section 1004 of RCRA, 42 U.S.C. § 6903, shall have the meaning assigned therein. In addition, whenever the terms listed below are used in this Order or the appendices attached hereto, the following definitions shall apply:


b. "Day" shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business on the next working day.

c. "Effective Date" shall mean the effective date of this Order as provided in Section XXVI (Effective Date) herein.

d. "EPA" shall mean the United States Environmental Protection Agency and its successor departments, agencies and instrumentalities.

e. "Facility" or "Site" shall mean the property known as the former Fort Gillem, identified as EPA ID No. GA0210020046 in the Federal Hazardous Waste Compliance Docket, inclusive of both the "excess" or "closed" portion of Fort Gillem and the active Army installation, known as the Gillem Enclave, located in Forest Park, Georgia. The definition excludes the previously transferred portion of the property with EPA ID No. GAN000400922, Former U.S. Army Fort Gillem Partial Areas 400, 500, 600.

f. "Order" shall mean this Unilateral Administrative Order and all appendices attached hereto. In the event of a conflict between this Order and any appendix, the terms of this Order shall control.

g. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral or an upper or lowercase letter.


i. "Resident" shall mean a person who considers the property as his primary domicile, or other persons who also reside at that location.
j. "Respondent" shall mean the United States Department of the Army.

k. "Section" shall mean a portion of this Order identified by a Roman numeral.

IV. FINDINGS OF FACT

5. The former Fort Gillem ("Site" or "Facility") is located in Forest Park, Georgia, approximately 10 miles south of the central business district of the City of Atlanta and 8 miles southeast of Fort McPherson, in Clayton County. The Site consists of approximately 1400 acres and extends approximately 2.5 miles from east to west and 1.5 miles from north to south, and is located between Georgia Highway 54 (Jonesboro Road) and U.S. Highway 23 (Moreland Avenue), and is identified in the Federal Hazardous Waste Compliance Docket as GA0210020046.

6. The former Fort Gillem's primary missions, which lasted from the 1940s until the base was closed in 2011 under the Base Realignment and Closure Act (BRAC) V, were training and materiel supply from World War II through the Persian Gulf conflict. The installation was responsible for providing the Army with weapons and equipment, research and development, procurement, production, storage, distribution, inventory management, maintenance, and disposal of surplus and waste materials during both peacetime and wartime. These activities resulted in soil, sediment, surface water, and groundwater contamination.

7. Solid wastes and hazardous constituents associated with past operations at the former Fort Gillem include strong acids, bases, solvents, heavy metals, pesticides, waste oils and material associated with laboratory operations and vehicle maintenance.

8. As a result of the BRAC V (enacted 2005), part of the former Fort Gillem was closed and identified for transfer outside the federal government, and part was retained as a military enclave. The "Gillem Enclave" is supported by Fort Gordon, U.S. Army Installation Management Command, Atlantic Region, U.S. Army.

9. As part of its Installation Restoration Program (IRP), the Respondent has identified areas of potential contamination on the Facility (Appendix A), including:
   - FTG-01, North Landfill Area
   - FTG-02, SE Area Dump Site
   - FTG-04, 900 Area Solvent Disposal Pit
   - FTG-07, Southeast Burial Sites, Burial Site No. 1
   - FTG-08, SEBS, Burial Site No. 2
   - FTG-09, SEBS, Burial Site No 3
   - FTG-10, SEBS, Burial Site No. 4
   - FTG-13, Western Sewage Treatment Plant

The Respondent's previous environmental investigations have documented off-site surface water, groundwater, and soil gas contamination by volatile organic compounds, particularly
trichloroethene (TCE), tetrachloroethene and 1,1,2,2-tetrachloroethane, originating from various IRP sites, as more specifically described below. Relatively large contaminated groundwater plumes with maximum concentrations exceeding 100 times the maximum contaminant level (MCL) under the Safe Drinking Water Act originate from the FTG-09 and FTG-01 sites. TCE and other contaminants in groundwater have migrated beyond the Site boundary from the FTG-04, FTG-07, FTG-10 and FTG-13 areas into the adjoining residential neighborhoods.

10. North Landfill Area (NLA), FTG-01. General Description.

a. The North Landfill Area (FTG-01, NLA) is a 300+ acre area that the Respondent used for waste disposal from 1941 to the mid-1970s and encompasses 356 burial locations, trenches and pits. Portions of the area were used for disposal, landfilling, trenching, burning, indiscriminant burial and surface disposition. Exploratory trenching, drum removals and other excavation work confirms the presence of metals, solvents, waste petroleum, waste motor oil, XXCC3 powder (carbon tetrachloride and chloroform) and volatile organic compounds (VOCs), semivolatile organic compounds and pesticides as well as drums, tanks, medical supplies, debris and a former burn pit in this area.

b. As early as 1979, Army investigations document that soil, sediment, surface water and groundwater have been impacted by buried material in this area. Four dissolved-phase groundwater plumes are associated with the NLA, three of which have migrated off the former Fort Gillem property into adjacent residential areas. Surface water streams (Eastern Stream, Western Stream and Conley Creek) which flow off-site and into the adjoining residential neighborhoods contain site-related contaminants, including volatile organic compounds.

c. By 1992, groundwater contamination with trichloroethene and other contaminants was confirmed in adjacent residential areas. Trichloroethene and related volatile organic compounds were the contaminants of concern. In 1994, residents in the impacted areas were provided connections to municipal water supply. Subsequent investigation of off-site groundwater plumes have documented trichloroethene, tetrachloroethene, 1,1,2,2-tetrachloroethane above health-based standards.

d. In 2011, the Army and Ga EPD discovered a private well in use at 1822 Slate Road, approximately 300 feet north of the Facility boundary. Upon sampling, trichloroethene and cis-1,2-dichloroethene were found in the private drinking water well. The Army provided a connection to the municipal water system.

e. Several contaminants have been detected in soil gas in the North Landfill Area (NLA, FTG-01), including: dichlorobenzene, 1,1-dichloroethane, trichlorofluoromethane, vinyl chloride, methylene chloride, ethylbenzene, trichloroethene, benzene, toluene, xylene, chlorobenzene, trans-1,2-dichloroethene, isopropyltoluene, tetrachloroethene and 1,2-dichloropropane, as documented since at least 1993. Phase I and II RI of Four Study Areas at the NLA, Ft Gillem, April 1995.

f. Soil investigations, including post-extraction confirmatory sampling conducted in the NLA in 2010, document several contaminants, including: benzene 1,330 ug/kg (Ga HSRA 20
g. Four groundwater contamination plumes, three of which have migrated beyond the Site boundary and into surrounding property, are associated with the NLA. Groundwater contaminants have been documented since at least 1995, and include benzene 380 ug/l (MCL 5 ug/l); carbon tetrachloride 198 ug/l (MCL 5 ug/l); chloroform 2,800 ug/l (MCL 80 ug/l); cis-1,2-dichloroethene 430 ug/l (MCL 70 ug/l); 1,1,2,2-tetrachloroethane 1,790 ug/l (cancer risk screening concentration, Superfund Chemical Data Matrix 0.34 ug/l); trans-1,2-dichloroethene 281 ug/l (MCL 100 ug/l); trichloroethene 6,150 ug/l (MCL 5 ug/l); 1,2,2-trimethylbenzene 15 ug/l (screening level 15 ug/l); and vinyl chloride 805 ug/l (MCL 2 ug/l). Final Progress Report North Landfill Area Site Wide Data Evaluation, April 2003.

h. 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, tetrachloroethene, toluene, ethylbenzene, and xylene were detected in soil gas in residential areas directly north of the NLA near Slate Road and Mallard Road in Clayton County, in 2003.

i. The Army is currently conducting an air study outside of the former Fort Gillem boundary in areas of known or suspected groundwater contamination. Soil gas collected in August 2014 in residential areas beyond the north boundary of the Site show elevated levels of several contaminants, including: 1,2,4-trimethylbenzene (58 ug/m3); 1,3,5-trimethylbenzene (65 ug/m3); 1,2-dichloropropane (28 ug/m3); benzene (12 ug/m3); chloroform (8.2 ug/m3); naphthalene (12 ug/m3); xylene (110 ug/m3); tetrachloroethene (51 ug/m3); trichloroethene (1.3 ug/m3); and toluene (32 ug/m3). These contaminants are consistent with the contaminants or class of contaminants found on the Fort Gillem property, in various environmental media, during previous investigations of Fort Gillem.

j. The Army’s air study also includes air sampling inside homes and businesses as well as sampling of the ambient, or outdoor, air. These samples were collected in July and August 2014 from several homes in residential areas adjacent to the north and northwest boundary of the former Fort Gillem.

k. The study described in Paragraph 10.i and 10.j is on-going. Data is available and has been evaluated for 17 homes. Of these homes, EPA has determined:

1. At least nine homes warrant prompt mitigation due to crawl space or indoor air concentrations exceeding health-based benchmarks. Six homes require monitoring, and two require additional evaluation.
2. In the nine homes that warrant prompt mitigation, 1,2,4-trimethylbenzene has been detected in the crawl space or indoor air above the established health-based benchmark of 14.6 ug/m³. The concentrations in these nine homes range from 17 ug/m³ to 140 ug/m³. The concentrations in the sub-slab and crawl space of these homes is higher than the air in the homes. TCE, tetrachloroethene, 1,1,2,2-tetrachloroethane, benzene, ethylbenzene, toluene, xylene, chloroform and naphthalene contribute to the risk in some of the homes. TCE was detected in three homes at concentrations ranging from 0.24 ug/m³ to 0.78 ug/m³.

3. In the study area where these homes are located, 1,2,4-trimethylbenzene is also present at elevated concentrations in soil gas (40 ug/m³ to 58 ug/m³).

4. In one location, ambient air is impacted by VOCs, including TCE at a concentration of 1.4 ug/m³.

11. **South East Burial Sites (aka FTG-02, FTG-07, FTG-08, FTG-09, FTG-10). General Description.**

a. Waste disposal occurred in several areas in the southern portion of the former Fort Gillem, and are known collectively as the “South East Burial Sites” (SEBS) and individually as FTG-02, FTG-07, FTG-08, FTG-09 and FTG-10. The approximate western boundary of this area is FTG-09, approximately located at the intersection of 1st Street and Boundary Rd. The approximate eastern boundary of this area is FTG-02, and extends approximately to the eastern boundary of the Facility at Moreland Avenue. The north boundary of this areas is FTG-07 near the former Defense Reutilization and Management Office (DRMO) and bounded to the north by Hood Avenue and the rail road corridor. The southern boundary of the SEBS is the south boundary of the Facility (Appendix A).

b. FTG-02 is located in the southeast corner of the former Fort Gillem, adjacent to the Georgia Air National Guard tract. The site was used as a dump for petroleum, oil, and lubricants (POL) and rubber products during the approximate timeframe of 1949 to 1960. Investigative work performed by the Georgia Air National Guard indicated soils in the area have been contaminated with lead, barium, cadmium, POL, and polynuclear aromatic hydrocarbons. Groundwater in this area likely flows south and west towards Joy Lake.

c. FTG-07 is located west of Buildings 307 and 308 on the southern border of the installation. Rubber and unspecified medical waste was reportedly disposed here around 1972. The area is situated in a natural drainage upslope from Upton Creek. FTG-10 is located in the southeast central part of the installation, southwest of Buildings 309 and 310. This area was used to dispose rubber products, chemicals, stripping compounds, battery acid, and acid during the approximate period of 1948 to 1964. A tributary of Upton Creek flows through FTG-10 and at a point 800 feet south enters Lake Stephens, a Site impoundment. FTG-07 and FTG-10 are miscellaneous disposal sites, with co-mingled contaminated chlorinated VOCs and aromatic VOCs. Contaminated groundwater from this area migrates in a southward direction towards Joy Lake, and underlies the residential area east of Joy Lake and south of the former Fort Gillem boundary. Contaminated groundwater discharges into Joy Lake. Contaminated surface water
migrates from Stevens Lake to Joy Lake. Storm water runoff from this area of the Site enters the residential area. *Final Expanded Site Inspection Southeast Burial Sites, August 1996.*

d. FTG-08 is located on the southern boundary of the Site, south of Stevens Lake, and east of FTG-09. Disposal of medical waste, medical supplies and food products occurred in this area between 1964 and 1972. Subsurface contamination associated with FTG-08 is addressed with FTG-09.

e. FTG-09 was reportedly used for disposal of rubber products and food waste from 1948 to 1964 and is also the location of a demilitarized leaking 500-kilogram, German-made, mustard filled aerial bomb (WWII era). “Mustard” refers to a chemical weapon compound. Decontamination activities at the former Fort Gillem associated with the decommissioning of this bomb, involved the use of chlorine compounds and 1,1,2,2-tetrachloroethane, and are believed to be the primary source of the soil, soil gas and groundwater contamination on- and off-site. The FTG-09 source area is located approximately 50 feet north of the former Fort Gillem boundary fenceline, near 2nd Street and Boundary Road. The resulting groundwater plume has migrated off-site, under the residential area west of Joy Lake and south of the Site boundary, and extends in a south/east direction beyond Forest Parkway. The down-gradient extent of the plume is under investigation by the Army. An interim groundwater and soil vapor extraction and treatment system operates inside the Site boundary, and removes volatile organic compounds from soil and groundwater in the FTG-09 source area. The groundwater plume associated with FTG-09 discharges to Joy Lake and unnamed tributary to Upton Creek and Upton Creek.

f. Due to contaminated groundwater, in 2001 the Army provided connections to the municipal water system to residents near the south boundary of the Facility, east and west of Joy Lake.

g. Several contaminants have been detected in soil gas on the Site, along the south boundary of the facility at the SEBS (FTG-02, FTG-07, FTG-08, FTG-09, FTG-10) since at least 1996, including, but not limited to: benzene, ethylbenzene, xylene, toluene, 1,1-dichloroethene, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, trichloroethene, chloroform, 1,1,2-trichloroethane, methylene chloride, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, dichlorobenzene and naphthalene. *Final Expanded Site Inspection of the Southeast Burial Sites, Fort Gillem, GA dated August 1996 Draft Remedial Investigation Report, FTG-09 Study Area, Appendix A Soil Gas Results, Shaw Environmental Inc., March 2005.*

h. Several contaminants have been detected in soil on the Site, along the south boundary of the Facility and co-located with the SEBS including: methyl ethyl ketone (2-butanone), 1,2,4-trimethylbenzene, dichlorobenzene, vinyl chloride, benzene, carbon tetrachloride, chloromethane, carbon disulfide, 1,1,2,2-tetrachloroethene, 1,1,2-trichloroethane, tetrachloroethene, 1,2-dichloroethene, 1,1-dichloroethene, toluene, chloroform and methylene chloride, as documented since at least 1996. *Final Expanded Site Inspection of the Southeast Burial Sites, Fort Gillem, GA, August 1996.*
i. Groundwater contamination associated with the SEBS (FTG-02, FTG-07, FTG-08, FTG-09, FTG-10) located near the southern Site boundary and beyond the Site boundary includes:

- 1,1,2,2-tetrachloroethane 76,000 ug/l (cancer risk screening concentration, Superfund Chemical Data Matrix, 0.34 ug/l);
- 1,2-dichloroethene 16,000 ug/l (MCL 70 ug/l);
- 1,3-dichlorobenzene 210 ug/l;
- 1,2,4-trimethylbenzene 190 ug/l (screening level 15 ug/l);
- 1,3,5-trimethylbenzene 52.2 ug/l;
- chloroform 170 ug/l (MCL 80 ug/l);
- cis-1,2-dichloroethene 1,700 ug/l (MCL 70 ug/l);
- methylene chloride 99 ug/l (MCL 5 ug/l);
- tetrachloroethene 560 ug/l (MCL 5 ug/l);
- trans-1,2-dichloroethene 3,500 ug/l (MCL 100 ug/l);
- trichloroethene 11,000 ug/l (MCL 5 ug/l);
- vinyl chloride 490 ug/l (MCL 2 ug/l).


j. In 2003, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, trichloroethene, tetrachloroethene, toluene, and xylene were detected in soil gas in residential areas outside the boundary of the former Fort Gillem directly south of, and associated with, the SEBS near 1st Avenue, 3rd Avenue, 1st Street, 2nd Street, 4th Street, 5th Street and Cook Avenue.

k. The Army is currently conducting an air study in residential areas outside the southern Site boundary in areas of known or suspected groundwater contamination. The samples of soil gas collected in August 2014 shows elevated levels of several contaminants, including:

- 1,2,4-trimethylbenzene 190 ug/m3;
- 1,3,5-trimethylbenzene 280 ug/m3;
- 1,2-dichloropropane 280 ug/m3;
- benzene 45 ug/m3;
- carbon disulfide 12 ug/m3;
- chloroform 12 ug/m3;
- cis-1,2-dichloroethene 11 ug/m3;
- ethylbenzene 82 ug/m3;
- methyl ethyl ketone 110 ug/m3;
- naphthalene 290 ug/m3;
- tetrachloroethene 33 ug/m3;
- toluene 650 ug/m3;
- trichloroethene 33 ug/m3;
- xylene 560 ug/m3.

These contaminants are consistent with the contaminants or class of contaminants found on the Fort Gillem property in various environmental media during previous investigations of Fort Gillem.

l. The Army’s air study also includes air sampling inside homes and businesses as well as the ambient, or outside, air in residential areas adjacent to the southern boundary of the Site. Indoor air samples were collected in July, August and September, 2014 from several homes in this area.

m. The study described in Paragraph 11.k and 11.l is on-going. Among the findings of the study to date are:

1. East of Joy Lake (FTG-7/10 area). Data is available and has been evaluated for eleven homes. Of those homes, EPA has determined:

a. At least four homes warrant prompt mitigation due to crawl space or indoor air concentrations above health-based benchmarks; three warrant additional monitoring, and four require further evaluation.

b. In four homes, 1,2,4-trimethylbenzene has been detected in the crawl space or indoor air above the established health-based benchmark of 14.6 ug/m3. The concentrations in these four homes range from 41 ug/m3 to 110 ug/m3. The concentrations in sub-slab and crawl space of these homes is higher than the air in the
homes. TCE, 1,3,5-trimethylbenzene, benzene and chloroform also contribute to the risk in some homes. TCE is present in one home in this area at 1.8 ug/m3.

c. The chemical 1,2,4-trimethylbenzene is present at elevated concentrations in soil gas (44 ug/m3 to 190 ug/m3).

2. West of Joy Lake (FTG-09 area). Data is available and has been evaluated for eight homes. Of those homes, EPA has determined:

a. At least six homes warrant prompt mitigation due to crawl space or indoor air concentrations above health-based benchmarks; 2 warrant additional monitoring.

b. Six homes in the FTG-09 study area had concentrations of 1,2,4-trimethylbenzene detected in the crawl space or indoor air above the established health-based benchmark of 14.6 ug/m3. The concentrations in these six homes range from 22 ug/m3 to 69 ug/m3. TCE, tetrachloroethene, trichloroethane, dichloroethane, cis-1,2-dichloroethene, methylene chloride, xylene, hexane and naphthalene also contribute to the risk in some homes. TCE is present in at least 6 homes in this area, ranging from 0.2 ug/m3 to 2.9 ug/m3.

c. 1,2,4-trimethylbenzene is present at elevated concentrations in soil gas (13 ug/m3 to 140 ug/m3).

d. Trichloroethene was detected at 2 micrograms/m3 in an ambient (outside) air sample.

12. Gillem Enclave Area. General Description. The Gillem Enclave Area includes several identified areas where the past waste handling activities have resulted in the contamination of soil and groundwater, including FTG-04 and FTG-13. FTG-04 includes the Solvent Disposal Pit and the Building 900 Area. FTG-13 is the Western Sewage Treatment Plant (WSTP).

a. The Solvent Disposal Pit has been identified as a source of chlorinated solvents and other synthetic organic compounds which have been released into the soil and groundwater as a result of past operations. Approximately 1,000 cubic yards of petroleum hydrocarbon and solvent-contaminated soil have been excavated from the Solvent Disposal Pit.

b. The now-removed 900 Building was the largest building in the 900 area industrial complex. The building served as one of the former depot’s locations of aircraft maintenance. Wastes from the activities in the 900 depot building may have also been discharged into the Solvent Disposal Pit.

c. A 1995 investigation (Expanded Site Inspection) concluded that the 900 Building floor drain system and the Solvent Disposal Pit were sources of VOCs contamination to the shallow aquifer. Trichloroethene was detected at 512 ug/l in the groundwater, which is above Safe Drinking Water Act Maximum Contaminant Levels (MCLs) of 5 ug/l. Draft Summary of Findings Report, 900 Area Solvent Disposal Pit, June 2001. In addition, groundwater was
detected at the facility boundary in excess of the MCL. *FY05 Fort Gillem, Atlanta, Georgia, Installation Action Plan.*

d. The Western Sewage Treatment Plant, located in the northern part of the Gillem Enclave, was in operation from 1951 to 1978. The waste streams entering Western Sewage Treatment Plant (WSTP) consisted mainly of sanitary waste from post operations. However, during the early 1970s, the WSTP intermittently received industrial waste diverted from the Industrial Waste Treatment Plant. A 1994 investigation (Expanded Site Inspection) showed localized, elevated levels of petroleum hydrocarbons and elevated trichloroethene in the soil gas in this area. Tetrachloroethene was detected in a sludge drying bed. In groundwater, trichloroethene above MCLs was detected at the WSTP and at the installation (now the Gillem Enclave) boundary, and was also found in bedrock and saprolite (the weathered soil zone). Solvents were detected in surface water off the installation and north of the WSTP.

e. At least two groundwater plumes of trichloroethene and other VOCs are known to have migrated from the Enclave portion of the former Fort Gillem, northward into nearby residential areas outside of the Site boundary. The plumes are associated with the former solvent disposal pit and a former western sewage treatment plant (FTG-04 and FTG-13). The areal extent of each plume is unknown. There is potential for trichloroethene and other site-related contaminants to migrate into homes and other buildings, discharge into ambient air and discharge into local surface water (springs, creeks, streams).

f. As the ongoing air study at the North Landfill Area and the South East Burial Sites at the Site demonstrates, where the handling of waste materials in support of the former Fort Gillem mission has resulted in the contamination of soil and groundwater, it is likely to be associated with elevated levels of contaminants in the soil vapor, and in some cases ambient (outdoor) air and the air inside the homes in adjoining neighborhoods. The sampling of homes in both the Northern (NLA) and Southeastern (SEBS) study areas has revealed the presence of those contaminants inside the homes above health-based levels. A study of the neighborhoods adjoining the Enclave Area to determine the current risks to residents is, therefore, warranted.

13. **Summary.** Hazardous constituents present in soils, sediments, surface water and groundwater at the Site include the constituents described in the above paragraphs. These constituents have been identified in the soils, sediments, surface water, groundwater, and soil vapor onsite. In addition, these constituents have been identified in the soils, sediments, surface water, groundwater, soil vapor, indoor air and ambient air in and around residential properties near the Facility.

a. Exposure to these hazardous constituents may present an actual or potential harm to human health or the environment through pathways including direct contact with soil and sediments, through ingestion of surface water or groundwater, or inhalation of vapors found inside the home (indoor air) or outside the home (ambient air). A summary of the health effects associated with some of these substances is appended to this Order as Appendix B and incorporated herein by reference.
b. Indoor air may come to be contaminated by vapor intrusion from contaminated subsurface material, including contaminated soil, contaminated soil gas or contaminated groundwater. Indoor air can also be contaminated by ambient air entering a building. Ambient air can become contaminated by migration of soil vapors into the ambient air, or by discharge of contaminated groundwater to the surface such as springs, ditches, creeks, streams and lakes. Ambient air can also be impacted by discharge of volatile organic compounds directly to the air.

c. Potential pathways of exposure to groundwater and vapors emanating from groundwater contaminants in the residential setting adjacent to the Facility include: direct inhalation of volatile organic compounds intruding from contaminated groundwater into residences and ingestion, dermal absorption and inhalation of contaminated groundwater and vapors from wells. Where contaminated groundwater discharges to the surface water via springs, streams, lakes and other surface water bodies, potential pathways of exposure include direct inhalation of chemical vapor from surface water and into ambient air and dermal absorption of contaminated surface water. Potential pathways of exposure to soil contaminants in the residential setting adjacent to the Facility include: direct inhalation of chemical vapor intruding from contaminated subsurface soil (soil vapor) into residences and ambient air.

d. Receptors who must be considered in this residential setting include adults and children, with sensitive populations in women of child-bearing age and pregnant women. In addition, both young children and the elderly may be included in a sensitive population group.

e. Contaminants related to the former Fort Gillem site have been found in the soil gas, groundwater, surface water and air in the neighborhoods adjoining the former Fort Gillem, which is the study area discussed in Paragraphs 10.j – 10.1 and 11.k – 11.m. Contaminants in indoor air in some homes in the residential area surrounding the former Fort Gillem exceed the levels that require mitigation.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

14. Respondent is a Federal Agency of the United States, as defined in Section 1004(4) of RCRA, 42 U.S.C. §6903(4).

15. Respondent is a “person” as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

16. The term “solid waste” is defined at Section 1004(27) of RCRA, 42 U.S.C. § 6903(27), as “any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities.”

17. The term “hazardous waste” is defined at Section 1004(5) of RCRA, 42 U.S.C. § 6903(5) as “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical or chemical or infectious characteristics may pose a substantial threat or potential
hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed.”

18. The term “disposal” is defined at Section 1004(3) of RCRA, 42 U.S.C. 6903(3), as “the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.”

19. RCRA Section 7003(a), 42 U.S.C. § 6973(a), specifies that when receiving evidence that the past or present handling, storage, treatment, transportation, or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, EPA may issue an order against “any person” who has contributed or is contributing to such handling, storage, treatment, transportation, or disposal of the solid waste or hazardous waste.

20. Respondent is a department of the executive branch of the Federal Government and is subject to the requirements of Section 6001 of RCRA, 42 U.S.C. § 6961.

21. Based on the foregoing Section IV Findings of Fact, EPA has determined that material disposed of in burial trenches, pits, soil and groundwater at the Site is “solid waste” within the meaning of Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

22. Based on the foregoing Section IV Findings of Fact, EPA has determined that at least some of material disposed of in burial trenches, pits, soil and groundwater at the Site is “hazardous waste” within the meaning of Section 1004(5) of RCRA, 42 U.S.C. §6903(5).

23. Based on the foregoing Section IV Findings of Fact, and pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a), EPA has determined that Respondent contributed to the handling, storage, treatment, transportation or disposal of solid waste and/or hazardous waste at the Site.

24. Based on the foregoing Section IV Findings of Fact, and pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a), EPA has determined that Respondent’s handling, storage, treatment, transportation, or disposal of solid waste and/or hazardous waste at the Site may present an imminent and substantial endangerment to public health.

25. The work required by this Order is necessary to protect public health within the meaning of Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).

VI. ORDER

26. Based on the foregoing Findings of Fact, Conclusions of Law and Determinations, and the full administrative record, and pursuant to the authority in Section 7003 of RCRA, 42 U.S.C. § 6973, EPA has determined that the activities required by this Order are necessary to protect human health and/or the environment. IT IS HEREBY ORDERED that Respondent perform all
actions required by this Order and comply with all provisions in this Order and any document or plan developed under this Order. Respondent shall fully cooperate with EPA representatives in carrying out all actions required by this Order as well as all provisions in this Order.

VII. WORK TO BE PERFORMED

27. General Description of Work to be Performed. The work required by this Order evaluates whether indoor and/or ambient air in residential and other properties surrounding the former Fort Gillem contains hazardous constituents, documents the levels of such constituents, determines the level of risk posed by those constituents to the residents, owners, employees, students and invitees of the properties surrounding the former Fort Gillem, and mitigates any unacceptable risk to those persons. In addition, the work required by this Order identifies all private drinking water wells and springs in the area covered by this Order, evaluates whether wells or springs surrounding the former Fort Gillem contain hazardous constituents, documents the levels of such constituents, and takes all appropriate action to expeditiously mitigate any unacceptable risks to persons using such wells or springs.

28. Well and Spring Survey. Within twenty-one (21) days of the Effective Date of this Order, Respondent shall conduct and submit to EPA a survey of all water wells and springs (any groundwater discharges to surface) within the area depicted in Appendix C. The area to be surveyed is 2,000 feet north of the northern perimeter at the former Fort Gillem; 2,000 feet north and 2,000 feet west of the north and west perimeters of the Facility toward Jonesboro Rd; 3,000 feet south from the south perimeter of the facility; and any additional areas as further directed by EPA. A well and spring survey is not required east of the east boundary of the Facility (Moreland Avenue). The well survey shall determine if residents within the areas of the off-site groundwater plumes [known or inferred plumes associated with FTG-01 (west, central and east), FTG-09 and southeast burial sites, FTG-07/10 and southeast burial sites, FTG-04 and FTG-13] have a private well, and must address details including: well location (Global Positioning System (GPS) coordinates), well depth, well construction, age and condition, and use(s). Points of groundwater discharge to surface water, such as natural springs and seeps, shall be identified, including location, condition and uses.

29. Well Sampling. Within fifteen (15) days after submitting the well survey as described in Paragraph 28, Respondent shall sample and analyze water from all such wells from the survey in Paragraph 28 for volatile organic compounds by EPA method 8260B, including all compounds that can be determined by 8260B and all compounds amenable to analysis by 8260B, and shall, within 45 days after submitting the well survey, report the results of such sampling and analysis to EPA.

30. Provision of Alternate Water Supplies. The Army shall, immediately upon receiving sampling results, supply an alternate drinking water source to any resident who is not otherwise connected to the city water supply by connecting such resident to the city water supply, if contaminants are present in the resident’s well above Maximum Contaminant Levels (MCLs) of the Safe Drinking Water Act or, in cases where an MCL has not been established, above health-
based levels, such as U.S. EPA Regional Removal Management Levels. Until such connection is demonstrated to EPA to be established, Respondent shall provide bottled water.

31. **Spring Sampling.** Within fifteen (15) days after submitting the spring survey as described in Paragraph 28, Respondent shall sample water and ambient air from all natural springs and seeps from the survey identified in Paragraph 28 for volatile organic compounds by EPA method 8260B, including all compounds that can be determined by 8260B and all compounds amenable to analysis by 8260B for water samples and volatile organic compounds by EPA method TO-15 for air samples. Respondent shall report the results of such sampling to EPA within 72 hours of obtaining the preliminary laboratory results. Ambient air samples shall be collected four to five feet above the point of groundwater discharge to the surface (breathing zone). The spring sampling shall determine if any identified springs contain volatile organic compounds and if those compounds are being released into ambient air.

32. **Spring Work Plan.** In the event that the sampling in Paragraph 31 indicates the presence of contaminants identified above in springs, Respondent shall, within sixty (60) days of submitting the spring survey to EPA, submit to EPA a Spring Work Plan to evaluate and address the contamination.

33. The Respondent shall continue to implement the Final Vapor Intrusion Study Work Plan, Fort Gillem, FTG-01, FTG-07/10, FTG-09, June 2014, (VI Study Work Plan), approved by Ga EPD on July 7, 2014 (Appendix D), as amended below, and shall implement the Final Fort Gillem Response Action Outline, Technical Memorandum, July 2, 2014 (Technical Memo, Appendix E).

34. Within 3 days of the Effective Date this Order, Respondent shall provide to EPA any already-existing data and consolidated reports generated to date during execution of the VI Study Work Plan and/or Technical Memo and any earlier investigations of the areas covered by this Order, not previously submitted to EPA.

35. Per this Order, EPA amends the VI Study Work Plan, as follows:

a. The Technical Memorandum, (Appendix E) is hereby made a part of the VI Study Work Plan and modifies the VI Study Work Plan.

b. Within fourteen (14) days of the Effective Date of this Order, Respondent must complete sample collection for the “set one” locations and “replacement” locations. “Set one” locations are specified in the VI Study Work Plan. “Replacement” locations are listed in Appendix F.

c. Within thirty (30) days of the Effective Date of this Order, Respondent must propose to EPA for its review and approval “set two” sample locations, per the VI Study Work Plan and EPA’s previous guidance on selecting “set two” locations.

d. Within twenty-one (21) days of the Effective Date of the Order, Respondent must submit to EPA for its review and approval a revised schedule for conducting the sampling under the Order which expedites implementation of the Fort Gillem Vapor Intrusion Study. The revised
schedule shall include an acceleration of the schedule for collecting “set two” data. For “set two” sample locations and any other future residential air sampling, potential sources of indoor air contamination will be evaluated and removed from the homes or other buildings prior to collection of air samples.

e. Within seven (7) days of the Effective Date of this Order, Respondent shall submit to EPA for its review and approval a Mitigation Plan, as referenced in Section 5.6 of the VI Study Work Plan, to address the mitigation measures that will be utilized at impacted buildings or outdoor areas, including an Operation and Maintenance Plan for any mitigation systems.


36. Respondent shall initiate mitigation measures no later than seven (7) days of the Effective Date of this Order or twenty-one (21) days of receipt of the data, whichever is later, for:

   a. any residential property with indoor air, including crawl space air, or any ambient air location, with concentrations of contaminants at or above the “Tier II Vapor Intrusion Screening Level (VISL) Target Indoor Air Concentrations” established in the July 2, 2014 Technical Memorandum, “Final Fort Gillem Response Action Outline” Table 1, Appendix E of this Order; and

   b. any residential property with indoor air, including crawl space air, or any ambient air location, with concentrations of contaminants with a cumulative cancer risk due to multiple contaminants of $1 \times 10^{-4}$ or hazard index of 3 for any single target organ.

37. Respondent shall initiate mitigation measures no later than (7) days of the Effective Date of this Order or twenty-one (21) days of receipt of the data, whichever is later, for any non-residential property where sampling data indicates concentrations in indoor air, including crawl space air, or ambient air of contaminants at or above the cumulative cancer risk due to multiple contaminants of $1 \times 10^{-4}$ or hazard index of 3 for any single target organ.

38. Within three (3) days of receipt of analytical data obtained under the VI Study Work Plan, whether obtained before or after the Effective Date of this Order, Respondent shall submit the analytical data to the EPA.

39. Within three (3) days of receipt of analytical data, Respondent shall evaluate the data for residential buildings, identify homes with indoor air concentrations that meet or exceed one or more “Tier I Evacuation Level Air Concentration” or “Tier II VISL Target Indoor Air Concentration” level (Appendix E) and submit this information to EPA.
40. Within twenty-four (24) hours of data evaluation described in paragraph 39, Respondent must evacuate or mitigate any home for which indoor air meets or exceeds an immediate action level, as described in "Tier I Evacuation Level Air Concentration" (Appendix E).

41. Within fifteen (15) days of the Effective Date of this Order, Respondent shall submit for EPA review and approval a work plan to study the ambient air, indoor air, subslab and crawl space air and soil gas for the off-site areas associated with FTG-13 and FTG-04 (Gillem Enclave). The off-site study area shall include residential areas overlying the known or suspected groundwater plumes associated with FTG-4 (solvent disposal pit) and FTG-13 (Western Sewerage Treatment Plant). The air study shall determine if residences, offices, schools, nursing homes, businesses, etc. in proximity to the former Fort Gillem and, specifically, near the areas identified as FTG-04 and FTG-13, are being exposed to site related VOC contaminants in indoor air, and must address details including: crawl space and sub-slab air monitoring, indoor air monitoring, ambient air and soil gas monitoring. Once approved by EPA, Respondent shall immediately implement this work plan and take action as scheduled within the approved work plan.

42. Within sixty (60) days of the Effective Date of this Order and semi-annually thereafter until the work required by this Order is complete, Respondent shall send to all residents living in neighborhoods adjoining the Site a newsletter providing current information regarding studies and cleanup actions underway to address the off-site VOC contamination.

43. Within thirty (30) days of the Effective Date of this Order or thirty (30) days of receipt of data, whichever is earlier, Respondent shall transmit via U.S. mail a notice letter to each resident and/or owner of property that was sampled. The notice letter shall be consistent with the EPA Region 4 Standard Operating Procedure for Communicating Environmental Data to Property Owners and Tenants, October 2010 (Appendix G) advising residents of the findings from the air or water sampling, potential hazards associated with the air or water, and advising them of any mitigation or other actions planned. Prior to transmitting any notice letter, Respondent shall submit notice letter to EPA for its review and approval. The letters shall be provided to EPA at the time they are transmitted to the resident or owner.

44. Respondent shall immediately (within 72 hours of receipt of data) notify residents in homes with indoor air concentrations at or above the Tier 1 thresholds for immediate action. Such notification shall describe the specific contaminants that pose a risk to human health at the notified household and any actions that will be taken to address those contaminants. Tier I levels are listed in the Technical Memorandum (Appendix E).

45. Within ten (10) days of receipt of data, Respondent shall notify residents when contaminants are found in their homes at indoor air concentrations greater than the Tier II levels. The notification will describe the specific contaminants found in their indoor air that exceed Tier II levels, and any mitigation actions that will be taken. Tier II levels are listed in the Technical Memorandum (Appendix E).
46. Within sixty (60) days of the Effective Date of this Order, Respondent shall issue, by publication in a local newspaper of general circulation, a written warning concerning use of contaminated well water for drinking (ingestion) purposes using the language and general content described in 40 CFR §141.32. This notice shall indicate that Respondent is providing a permanent hook-up to a public drinking water source to residences in the well survey area (described in paragraph 28) whose wells have been tested and have been shown to exceed health-based standards for drinking water. The notice shall also state that homes and other buildings in the neighborhoods adjoining the former Fort Gillem are being evaluated for the presence of air contaminants, and that the Army will be taking actions to mitigate exposure to elevated levels of air contaminants. Additionally, Respondent shall include in the public notice that an Administrative Order has been issued by the EPA. The notice shall be published every six months beginning within thirty (30) days of the Effective Date of the Order until work required by the Order is complete and the Order is closed.

47. Within sixty (60) days of the Effective Date of this Order, Respondent shall submit to EPA for review and approval a Land Use Control Implementation Plan, which will describe the need for any long-term land use controls to ensure that the current and/or future use of the property covered by this Order is consistent with protection of human health, the objective of such land use controls, and the specific land use controls that will be utilized.

48. All work undertaken pursuant to this Order shall be performed in accordance with the EPA-approved terms and schedules, and in a manner consistent with EPA’s Field Branches Quality System and Technical Procedures, which is available at: http://www.epa.gov/region4/sesd/fbqstp/, including, but not limited to, SESDPROC-305-R3 and SESDPROC-307-R3. All investigative, sampling and analytical work undertaken pursuant to this Order shall be performed in accordance with an EPA-approved quality assurance project plan consistent with the Uniform Federal Policy for Quality Assurance Project Plans, March 2012.

49. Within ten (10) days of the Effective Date of this Order, Respondent shall notify the EPA Project Coordinator in writing of the name, title, and qualifications of the engineer, hydrologist, geologist, or environmental scientist who will direct the project and of any contractors or consultants and their personnel to be used in carrying out the terms of this Order.

50. All work performed pursuant to this Order shall be under the direction and supervision of a Professional Engineer, hydrologist, geologist or environmental scientist with expertise in hazardous materials sampling/removal/hazardous waste cleanup and/or corrective action. Respondent’s contractors and consultants shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible.

51. Within sixty (60) days of Respondent’s completion of the work required under this Order, Respondent shall submit for EPA review and approval a report documenting such completion.

52. Meetings. Once the Order is effective, the EPA may, at its discretion, schedule meetings with Respondent to discuss the Order. These meetings may, at EPA’s discretion, include other stakeholders.
53. **Monthly Progress Reports.** In addition to the other deliverables and reports required by this Order, Respondent shall provide monthly progress reports to the EPA by the 15th day of each month. At a minimum, the monthly progress reports shall (1) describe the actions which have been taken to comply with this Order during the preceding month, (2) describe any work required by this Order that is planned for the next two months and the schedules relating to such work, and (3) describe all problems encountered, any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

54. **Off-Site Shipment of Waste Material.** "Waste material" shall mean any "hazardous substance" as defined under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), any pollutant or contaminant as defined under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33), or any "solid waste" as defined under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27). Respondent shall, prior to any off-site shipment of Waste Material from the Site or from any area on which work was performed under this Order to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to EPA's Designated Project Manager. In shipping Waste Material off-site, Respondent shall comply with all applicable legal requirements, including RCRA's hazardous waste determination requirements and land disposal restrictions. Before shipping any Waste Material to an off-site location:

a. Respondent shall include in the written notification the following information: (1) the name and location of the facility to which the Waste Material is to be shipped; (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. Respondent shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

b. The identity of the receiving facility and state will be determined by Respondent following the award of the contract for performing the work under this Order. Respondent shall provide the information required by Subparagraphs 54.a and 54.c as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

c. Respondent shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent shall only send Waste Material from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

VIII. **EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS**

55. All plans, reports, and other deliverables, required by this Order shall be submitted by Respondent for EPA's review and approval in accordance with this Section. Two hard copies
and one electronic copy of all deliverables shall be submitted to the EPA and one hard copy and one electronic copy of all deliverables shall be submitted to the Ga EPD. After review of any plan, report, or other item submitted by Respondent for approval pursuant to this Order, EPA shall notify Respondent that it either (a) approves the submission; (b) approves the submission with specified conditions; (c) disapproves, in whole or in part, the submission and directs that Respondent modify the submission; (d) will modify the submission to cure deficiencies and provide it to Respondent for implementation; or (e) any combination of the above.

56. In the event of approval, approval upon conditions, or EPA modification of a plan, report, or submission, Respondent shall proceed to take any action required by the plan, report or other item, as approved or modified by EPA. Following EPA modification or approval of a submittal or portion thereof, Respondent shall not thereafter alter or amend such submittal or portion thereof unless directed by EPA.

57. Upon receipt of a notice of disapproval, Respondent shall, within fourteen (14) days (or such longer time as specified by EPA in this Order or in such notice), correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the receipt of a notice of disapproval, Respondent shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA.

58. If EPA disapproves a resubmitted plan, report or other item, or portions thereof, EPA may again direct Respondent to correct the deficiencies. Consistent with Paragraph 55 above, EPA shall also retain the right to modify the plan, report or other item, and Respondent shall implement any such plan, report or item as corrected or modified.

59. If upon resubmission, a plan, report, or item is disapproved or modified by EPA because of a material defect, Respondent shall be deemed to have failed to submit such plan, report or item timely and EPA may deem any such failure a violation of this Order.

60. All plans, reports and other items submitted to EPA under this Order shall, upon approval or modification by EPA, be incorporated into and enforceable under this Order. In the event EPA approves or modifies a portion of a plan, report or other item submitted to EPA under this Order, the approved or modified portion shall be incorporated into and enforceable under this Order.

61. Respondent is responsible for preparing deliverables acceptable to EPA. Neither failure of EPA to expressly approve or disapprove of Respondent’s submissions within a specified time period, nor the absence of comments, shall be construed as approval by EPA.

IX. ADDITIONAL WORK

62. EPA may determine, or Respondent may propose, that certain tasks, including additional investigatory work or modifications to procedure or methodology, are necessary in addition to or in lieu of the tasks included in Section VII of this Order to meet the purposes set forth in this Order. If EPA determines that additional work is necessary, EPA will specify in writing the basis for its determination. Within thirty (30) days after the receipt of such determination,
Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work. If required by EPA, Respondent shall submit for EPA approval a work plan for the additional work. Such work plan shall be submitted within thirty (30) days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. Upon approval of a work plan, Respondent shall implement such work plan in accordance with the schedule and provisions contained therein.

X. QUALIFICATIONS OF RESPONDENT'S PERSONNEL AND AGENTS

63. All work performed by Respondent pursuant to this Order shall be under the direction and supervision of individual(s) who have demonstrated expertise in hazardous waste and site investigations and remediation, as described in Paragraph 50. In addition, Respondent shall ensure that in any circumstance in which a license is required, only licensed individuals shall be retained to perform any work required under this Order.

XI. PUBLIC REVIEW OF ADMINISTRATIVE RECORD

64. The Administrative Record supporting the issuance of this Order and any written decisions or determinations made by EPA pursuant to this Order will be available for public review by contacting the EPA Project Manager, Cathy Amoroso, at:

U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30021
Phone: (404) 562-8637

XII. ON-SITE AND OFF-SITE ACCESS

65. Nothing in this Order shall be construed to limit or otherwise affect EPA’s right of access and entry pursuant to any applicable laws and regulations, including RCRA and CERCLA.

66. Nothing in this Order shall be construed to limit or otherwise affect Respondent’s liabilities and obligations to perform the directed actions, including actions beyond the Site boundary, notwithstanding lack of access. EPA may determine that additional measures must be taken to address releases beyond the Site boundary if access to off-site areas cannot be obtained.

67. Respondent shall make available to EPA for inspection, copying or photographing, all records, files, photographs, documents or any other writing, including monitoring and sampling data (including raw data, upon EPA request) that pertain to any work undertaken pursuant to this Order.
XIII. RETENTION OF RECORDS

68. Respondent shall preserve for a minimum of ten (10) years after termination of this Order all data, records and documentation in its possession or in the possession of its divisions, officers, supervisors, employees, agents, contractors, successors, and assigns which relate in any way to this Order or to solid or hazardous waste management at the Site. Respondent shall make such records available to EPA at its request. Respondent shall also maintain records pertaining to the work being performed pursuant to this Order and shall make such records available to EPA for inspection upon request.

XIV. PROJECT MANAGERS

69. The EPA designates as its Project Manager for this Order:

Cathy Amoroso
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30021
Phone: (404) 562-8637

EPA reserves the right to change the designated Project Manager at any time, and will provide notice to Respondent should such change occur.

70. Within ten (10) days after the Effective Date of this Order, Respondent shall designate a Project Manager and the name of at least one individual as an alternate who may function in the absence of the designated Project Manager. Respondent’s Project Manager shall be responsible for overseeing the implementation of this Order. Respondent may change its designated Project Manager after providing written notice of such change to EPA, including the appropriate contact information for the new designated Project Manager.

XV. NOTICES

71. For purposes of this Order, all written communications, notices or submissions required by this Order shall be directed to a person specified by each party. EPA hereby designates its Project Manager to receive all notices required under this Order.

72. Within five (5) days after the Effective Date of this Order, Respondent shall designate a person to receive such written communications, notices, or responses to submissions required by this Order and shall provide a mailing address for such person.

73. Any notice, report, certification, data presentation, or other document submitted by Respondent pursuant to this Order which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Respondent’s compliance or noncompliance with any requirement of this Order shall be certified by a duly authorized representative of
Respondent. A person is a “duly authorized representative” only if: (1) the authorization is made in writing; (2) the authorization specifies either an individual or position having responsibility over the work to be performed pursuant to this Order, and (3) the written authorization is submitted to the Project Manager designated by EPA, in accordance with Section XIII of this Order. The certification required by this Paragraph shall be in the following form:

I certify that, to the best of my knowledge and belief, the information contained in this written certification and in any documents accompanying this certification is true, accurate and complete.

In making this statement, where I have not made an independent review of all statements contained therein, I have relied in good-faith on information, statements, and representations furnished to me by employees or contractors of the U.S. Army. Based on my inquiry of the person or persons (or the supervisors of such persons) directly responsible for gathering the information contained in this written certification and in any documents accompanying this certification, this document is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant potential penalties for submitting materially false information, including the possibility of fines and imprisonment for knowing violations.

Signature:
Name:
Title:

XVI. RESERVATION OF RIGHTS

74. EPA expressly reserves, without limitation, all of its statutory and regulatory powers, authorities, rights, remedies and defenses, both legal and equitable, which it may have.

75. EPA expressly reserves all rights that it may have, including the right to disapprove of work performed by Respondent pursuant to this Order, to require Respondent to correct any work disapproved by EPA, and to direct Respondent to perform tasks in addition to those required pursuant to this Order.

76. This Order shall not be construed as a covenant not to sue, or as a release, waiver, or limitation of any claims, rights, remedies, defenses, powers and/or authorities which EPA has under RCRA, CERCLA, or any other statutory, regulatory or common law authority of the United States.

77. This Order shall not limit or otherwise preclude EPA from taking any additional legal action against Respondent should EPA determine that any such additional legal action is necessary or warranted.

78. Notwithstanding compliance with this Order, Respondent is not released from any claims EPA may have for costs, and EPA reserves the right to seek reimbursement from Respondent for any such costs it incurs. Compliance with this Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.
XVII. OTHER APPLICABLE LAWS

79. Respondent shall undertake all actions required by this Order in accordance with the requirements of all applicable local, state, and federal laws and regulations. Respondent shall obtain all required permits or approvals as necessary to perform the work required by this Order.

80. Any reports, plans, specifications, schedules, or other submissions, including any attachments thereto, required by this Order are, upon written approval by EPA, incorporated into this Order. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, and attachments shall be considered a violation of this Order.

81. No informal advice, guidance, suggestions or comments by EPA regarding reports, plans, specifications, schedules, or any other writings submitted by Respondent shall be construed as relieving Respondent of its obligations to obtain written approval, if, and when, required by this Order.

XVIII. OPPORTUNITY TO CONFER

82. Should the Army wish to confer with the EPA regarding this Order, either through submission of written materials or through a direct meeting, the Assistant Secretary of the Army must, within ten (10) days of Respondent's receipt of this Order, file a written request addressed to the EPA Assistant Administrator for the Office of Enforcement and Compliance Assurance (OECA) seeking an opportunity to confer. The opportunity to confer with the Administrator provided by Section 6001(b) of RCRA has been delegated to the Assistant Administrator of OECA. The written request should be served on the EPA Assistant Administrator with a copy to the Director of EPA's Federal Facilities Enforcement Office and the Regional Counsel for EPA Region 4. A letter requesting a direct meeting should specifically identify those issues which the Respondent wishes the EPA Assistant Administrator to consider.

83. If Respondent requests a direct meeting, the EPA Assistant Administrator for OECA will contact the Assistant Secretary of the Army to convene a meeting as soon as possible.

84. After a direct meeting or receipt of written materials, the EPA Assistant Administrator for OECA will issue a written decision with appropriate instructions regarding the finality of this Order. This decision shall be made part of the Administrative Record for the Order.

XIX. ENFORCEMENT

85. The failure of Respondent to comply with any provision of this Order shall be considered a violation of this Order.
XX. TERMINATION

86. This Order and all of its terms and provisions shall remain in effect until all of the activities called for by this Order are completed and Respondent is so notified in writing by EPA. Such notice shall be signed by the Director, RCRA Division, Region 4. Respondent may request that EPA Region 4 provide Respondent with such notice, and shall supply EPA with such information, including certifications, as EPA may specify.

XXI. GENERAL PROVISIONS

87. Nothing in this Order constitutes a satisfaction or release from liability with respect to any conditions or claims arising as a result of past, current or future operations, ownership or use of the Site by Respondent, its agents, officers, supervisors, directors, successors or assigns.

88. Nothing in this Order affects any right, claim, interest, defense, or cause of action of EPA with respect to Respondent or any third parties.

XXII. NOTICE OF NON-LIABILITY OF EPA

89. EPA shall not be deemed a party to any contract involving Respondent and relating to activities at the Site, and EPA shall not be liable for any claim or cause of action arising from or on account of any act, or the omission of Respondent, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Order.

XXIII. NOTICE OF INTENT TO COMPLY

90. Respondent shall notify EPA’s Project Manager in writing of whether it intends to comply with this Order by no later than five (5) days after the Effective Date of this Order. Respondent shall be deemed in violation of this Order if it fails to provide written notification to EPA’s Project Manager of Respondent’s intent to comply within the time period noted above.

XXIV. ANTI-DEFICIENCY ACT

91. Nothing set forth in this Order shall require Respondent to violate the Anti-Deficiency Act, 31 U.S.C. § 1341 et seq.

XXV. MODIFICATION

92. If EPA determines that modification to the work specified in approved work plan(s) or other reports developed pursuant to this Order is necessary to achieve and maintain the Performance Standards or to carry out and maintain the effectiveness of the remedy set forth in the Final Decision, EPA may require that such modification be incorporated in the appropriate
work plan(s) or other reports. Respondent shall implement any work required by any modifications incorporated in the work plans or other reports developed pursuant to this Order.

XXVI. EFFECTIVE DATE

93. This Order shall become effective within eleven (11) days of Respondent’s receipt of this Order if no conference with the EPA Assistant Administrator is requested pursuant to Section XVIII, above. If a conference with the EPA Assistant Administrator is requested in the time and manner provided in Section XVII above, this Order shall become effective to the extent, and within the time, specified in the EPA Assistant Administrator’s decision.

IT IS SO ORDERED:

[Signature]

G. Alan Farmer
Director
RCRA Division
EPA Region 4

[Date]

September 24, 2014