SECTION B

FACILITY DESCRIPTION

This section provides a general description and overview of the hazardous waste management facility along with a discussion of physical characteristics, as required by 40 CFR 270.14 (b). This description is intended to provide the reader with an overview of the facility.

B-1 General Description (40 CFR 270.14 (b) (1))

William C. Meredith Company, Inc. (WCM) is located at 2335 Lawrence Avenue in East Point, Fulton County, Georgia. The facility is located at Latitude N33º 41' 46" and Longitude W84º 26' 27" within East Point city limits. The facility is set on approximately 25.8 acres of land. Wood treating operations are limited to approximately 3.21 acres. The remainder of the site property is primarily utilized for finished product storage and transport. A wooded buffer is located near the western and northwestern property boundaries.

WCM is a wood preservation company that has been in operation at this location since 1921. Wood products treated currently include power and telephone utility poles. Historically, treated wood products also included utility conduit, cross arms, and ground wire molding, timbers and lumber.

Hazardous wastes generated during the wood preserving operation include wastes described under codes K001 and F032. K001 sludge waste is generated from wood preserving and during wastewater treatment. K001 is formed by water, wood fiber, sap, and dirt that is removed during wood steam conditioning and combined with small amounts of the pentachlorophenol preservatives from the treating cylinders. Creosote was previously a contributor to the K001 sludge but is no longer used by this facility. F032 waste is generated at the plant during tank, equipment, sump, and drip track clean-up.

Currently, F032 and K001 waste residuals are filter pressed during pretreatment for solidification and are then placed in a -20- cubic yard lined roll-off container. Roll-offs are transported off-site by licensed carriers to a hazardous waste disposal facility within 90 days of waste generation. Recent process modifications included the addition of a steaming cylinder for untreated poles and the incorporation of a new wood preservative DCOI (4,5-Dichloro-2-N-Octyl-4-Isothiazolin-3-One) intended to replace PCP.

Prior to 1986, K001 sludges were stored in a surface impoundment located immediately north and adjacent to the treatment area. The surface impoundment was later designated by the Georgia Environmental Protection Division (EPD) as a Hazardous Waste Management Unit (HWMU) subject to RCRA requirements for closure and post-closure care. After approval of a Closure Plan, K001 sludges and contaminated soils were biologically treated in-situ and stabilized prior to backfilling and final capping of the unit. The HWMU was certified closed in December 1989.

Since the HWMU was not “clean closed”, a RCRA Hazardous Waste Facility Permit for Post-Closure Care (Part-B Permit) was required. WCM was issued its first Part B Permit on September 30, 1988 (HW-062D). This permit was amended on March 30, 1993 to incorporate a corrective action program. On March 14, 1997 an additional amendment to the permit was issued for post-closure care. The -10- year permit was renewed on September 30, 1998 and November 8, 2010. This revised Permit is provided to satisfy requirements for an additional 10 year up-date to the existing permit.

Based on conversations with past employees, from 1921 to 1980 areas surrounding the closed surface impoundment and, in the center, and north ends of the property were gradually filled in with unknown materials from offsite. Prior to 1954 when the north end of the property was still owned by the Central of Georgia Railway, the railroad cut the red clay embankment on the northeast corner of the property to install tracks to the GE warehouse at the end of Lawrence Street. The fill dirt that was created was placed in the low area of the northwest corner of the property to create level storage areas. There are no company records regarding fill from offsite, where it was placed, or when it was received. Railroad ballast fill and construction debris has been identified on the surface and in subsurface soils derived from prior assessments.

B-2 Topographic Map (40 CFR 270.14 (b) (19))

Figure B-1 was prepared as a modified E-size drawing using a scale of 1 inch = 30 feet. A contour interval of 1 inch = 5 feet was used to accommodate elevation changes. A distance of 1,000 feet is shown around the facility and hazardous waste management unit (HWMU). Figure B-2 was added to better illustrate the 1,000-ft radius around the entire facility and some of the surrounding properties. The property slopes toward the north from an elevation of approximately 1040 feet above mean sea level (msl) at the southern boundary to a low of approximately 980 feet msl at the northwest boundary near Empire Street. The original topographic surface taken from a 1925 topographic map is provided on Figure B-1 to illustrate surface conditions prior to property development.

Prior to 1921, when W.C. Meredith Company purchased the land from Central of Georgia Railroad, a natural surface drainage depression was present from Lawrence Street (now Lawrence Avenue) to the current intermittent stream bed behind the W.C. Meredith Company main office. At some point prior to 1921, the Central of Georgia Railroad installed a storm drainage pipe from the city road drain across the property and made a berm across the natural surface drainage depression to support a rail line connecting businesses north of the property. The berm created a surface depression for surface water retention until the low area was backfilled after 1928. Storm drainage was later re-routed after installation of the existing 36-inch storm drain owned by the City of East Point, as shown on Figure B-1.

B-2a General Requirements (40 CFR 270.14(b)(19))

The following information is noted on Figure B-1 to meet the regulatory requirements:

- Scale and date (40 CFR 270.14(b)(19)(i)) – see map legend
- 100-Year Flood Plain Area (40 CFR 270.14(b)(19)(ii)) – see map notes
- Surface Waters (40 CFR 270.14(b)(19)(iii)) – see section below
- Surrounding Land Use (40 CFR 270.14(b)(19)(iv)) – see section below
- Wind Rose (40 CFR 270.14(b)(19)(v)) – see section below
- Map Orientation (40 CFR 270.14(b)(19)(vi)) – refer to north arrow on map
- Legal Boundaries (40 CFR 270.14(b)(19)(vii)) – see section below
- Access Control (40 CFR 270.14(b)(19)(viii)) – see section below
- Injection/Withdrawal Wells (40 CFR 270.14(b)(19)(ix)) – see section below
- Buildings and Other Structures (40 CFR 270.14(b)(19)(x)) – labeled on figure
- Drainage and Flood Plain Control Barriers (40 CFR 270.14(b)(19)(xi)) – see section below
- Location of the Treatment or Disposal Unit(s) & Decontamination Areas (40CFR 270.14(b)(19)(xii)) – see below
- Location of Solid Waste Management Units (40 CFR 270.14(d)(1)(i)) – see section below

Additional details pertaining to selected bulleted items are provided in the following underlined sections in the order shown. A description of other features and facilities on the property is also provided in this section.

Surface Waters: An intermittent tributary fed by storm water drainage is located on the west-northwest side of the property. This tributary was originally joined by a small spring fed creek that crossed the property. This creek was later routed into a 36-inch culvert which carries storm water from Lawrence Avenue under the Meredith property where it discharges and flows behind the office building. The valley depression surrounding the creek was filled over the years to allow use of the property. The intermittent tributary presently flows west-northwest and exits the WCM property onto the Southern Wood Piedmont (SWP) property where the tributary/stream deepens and flows into another culvert at the boundary between SWP and Mullins Paving Company. The stream joins a branch of South Utoy Creek approximately 550 feet below the Mullins Paving property. South Utoy Creek eventually flows into the Chattahoochee River.

Surrounding Land Uses: The WCM plant site surrounding the closed hazardous waste surface impoundment is used as a wood preserving business. Other industry lies southwest, north, and east of the facility. The rest of the surrounding area is commercially developed with scattered residential areas on the outlying fringes.

The current uses/ownership of surrounding properties located within the 1,000 foot radius is shown on Figures B-1 and B-2. Historical use information for these properties is also provided where available based on a review of environmental databases, city directories, and historical maps included in the Section B appendix. Current and historical property use of the surrounding area derived from these historical sources is also identified on the Aerial View of Vicinity map included in Section A.

Wind Rose: The wind rose provided consisted of meteorological data collected at Atlanta Hartsfield Airport (the nearest weather station) approximately 4 miles southeast of the WCM facility. The wind rose graph depicts an annual distribution and should not be used for daily or monthly estimations. The prevailing wind direction depicted on the wind rose is to the west-northwest with a strong component to the east.

Legal Boundaries of the Hazardous Waste Management Unit (HWMU) Boundary: The closed HWMU treatment cell consists of approximately 15,353 square feet (ft^2). The cell was treated to a depth of -15- feet. The total volume of stabilized K001 hazardous waste in the cell is 750 cubic yards (y^3) or 20,250 cubic feet (ft^3).

Access Control: The facility is surrounded by a fence except for the spaces on the east side of the property where the Southern Railway mainline track goes through the edge of the property. A guardhouse/office is situated at the southern Lawrence Street entrance where there is no fence. There are two other entrances leading into the plant, one on the north end of Empire Avenue and the other on the east side of Lawrence Street. Both of these entrances pass the pole yard office.

Injection and Withdrawal Wells: The site has no injection wells and one groundwater extraction well (PW-1) used in conjunction with pump-and-treat system. (*Note: Additional groundwater extraction/recovery wells will be installed during expansion of the existing pump-and-treat system, as described in Section E*). Extraction wells (also designated as PW-) are located on the closed Southern Wood Piedmont property adjacent to and west of the facility (See Figure B-1). No other injection or withdrawal wells including public or private water wells are located on adjacent properties or within 0.25 mile of the facility (see Figure A-1).

Drainage and Flood Plain Control Barriers: Drainage trenches and culverts are used to divert runoff from higher elevations from flooding the surface impoundment. General drainage on the property is toward the intermittent creek/culvert drainage ditch (the lowest elevation of the property) which starts behind the main office and flows northwest through the wooded area to a culvert under Mullins Brothers property. The soil cap on the closed HWMU is higher than the surrounding terrain to avoid run-on flooding and to drain rainwater off the capped area. Runoff from the adjacent treating and tank storage areas is discharged to the City of Atlanta POTW sewer system following pre-treatment in the facility's wastewater treatment system.

Location of Treatment or Disposal Unit(s) & Decontamination Area

The HWMU is a disposal unit created by a surface impoundment being closed with wastes left in place in 1989. The closed surface impoundment disposal unit is located in the center of the facility property adjacent to the northwest retaining wall of the wood treatment area. The permitted disposal area is labeled “Hazardous Waste Landfill Cell” on Figure B-1. The equipment cleanup area is the steel drip pans located in front of (on the south end) the treating cylinders shown on Figure B-1.

Location and Description of Solid Waste Management Units: A total of -11- Solid Waste Management Units (SWMUs), including the HWMU added as SWMU #11, have been identified at this facility. SWMU locations are depicted on Figure B-1. SWMU names are as follows:

1. *PROCESS TANK FIELD AREA INCLUDING CREOSOTE TRUCK UNLOADING AREA*
2. *TREATING ROOM UNDER ROOF*
3. *SOIL AREAS BETWEEN THE CONCRETE PAD UNDER #0 TREATING CYLINDER AND THE CONCRETE FOUNDATIONS UNDER #1 CYLINDER*
4. *RAILROAD TRACK “KICKBACK” DRIPPAGE AREA*
5. *OLD CREOSOTE STORAGE TANK*
6. *COOLING WATER POND*
7. *FOUNDATION RETAINING WALL UNDER #1 CYLINDER*
8. *OIL SHED*
9. *OLD GOLDFISH POND*
10. *STREAM AND CULVERT AREA*
11. *HWMU*

Further details concerning the history and sampling data collected on the SWMUs is provided in Section J.

Storm, Sanitary, and Process Sewers:

Storm Sewers: As previously mentioned, a -36- inch diameter City of East Point storm sewer pipe runs under the WCM property starting at the low point of Lawrence Street approximately 50 feet south of Nabell Avenue and ending in the drainage at the intermittent creek approximately -100- feet north of monitoring well MW-3.

The initial -350- feet of the storm water concrete pipe was installed from Lawrence Street to a point approximately -15- feet east of monitoring well MW-11 prior to 1921 when the Central of Georgia Railroad constructed a rail line through the property. On January 25, 1965, WCM granted the City of East Point a -20- foot wide easement -275- feet long to construct an extension of the existing city storm sewer pipe. This extension ran from approximately -15- feet east of monitoring well MW-11 using a -36- inch diameter corrugated galvanized pipe to the existing intermittent creek drainage. Starting in 1965, offsite fill was brought in to cover the storm sewer pipe to allow storage of utility poles.

Facility storm water collected from rainwater/surface run-off around the two steel treating drip pans and in the treating area secondary containment area is pumped to the waste water pretreatment facility. Following treatment, these fluids are discharged to the City of Atlanta POTW through the six inch sanitary sewer line (See Figure B-1).

Sanitary Sewers: The facility has a six inch PVC/cast iron sanitary sewer line which starts at the east side of the process treating area secondary containment wall and runs east underground to the city sanitary sewer connection at Lawrence Street just south of Nabell Avenue. One leg of the sanitary sewer also runs west off this connection roughly parallel to Lawrence Street and connects to the yard office and wash house buildings near the eastern entrance to the property.

Process Sewers: Process water and ground water is pumped to the facility wastewater pretreatment facility prior to discharge to the City of Atlanta POTW. The plant wastewater pretreatment facility operates under an industrial pretreatment permit from the City of Atlanta Department of Watershed Management (See Section A appendices). K001 waste water and groundwater treatment sludge and F032 processing waste residuals are filter pressed during pretreatment to solidify the waste and are then placed in a -20- cubic yard lined roll-off container for disposal at a hazardous waste disposal facility every 90 days or sooner.

Loading and Unloading Areas: All handling of K001 and F032 hazardous waste is done within the cement diked area containing the treating tank areas and the wastewater pretreatment system. The -20- cubic yard roll off waste containers are filled under the filter press and are loaded onto the waste disposal truck on the concrete pad. The empty roll-off box is stored on the concrete diked pad under the filter press.

Fire Control Facilities: Five City owned fire hydrants are located directly across from the plant on Lawrence Street. One city fire hydrant is located on Empire Avenue across from the plant. A 1.5” city water valve and 40 feet of hose is located at the front of the treating room by the #1 cylinder door and in the boiler room. A 1” city water hose (100 feet) connected to 3,000 psi pressure washer (with 100 feet of hose) is located inside at the center rear of the treating room. In addition, a 1” city water hose (100 feet) is located at the rear of the tank field next to the filter press stairs.

B-2b Additional Information for Topographic Map (40 CFR 270.14(c)(3))

A brief description of groundwater flow and the extent of regulated constituents is provided in this section and was added to the Figure B-1, where space permitted. A more in-depth description of these topics is provided in Section E.

- Description of Uppermost Aquifer and Hydraulically Connected Aquifers Beneath Facility (40 CFR 270.14(c)(2)

East Point and surrounding areas are located in the Piedmont Physiographic Province. The site and surrounding properties are underlain by metamorphic schists, amphibolites, and gneisses of the Clarkston Formation (McConnell & Abrams, 1984). The site and surrounding properties do not utilize groundwater in the underlying formations as an aquifer source. The findings of previous investigations indicate that the upper aquifer unit (or water-bearing unit) beneath the site consists of a combination of a soil-saprolite unit, partially weathered rock (PWR), and some portion of the fractured bedrock. Competent bedrock has been identified at depths of 60-65 feet below ground surface (ft-bgs).

Regulated constituents in groundwater have been detected in fractured bedrock zones located at depths greater than 175 ft-bgs and possibly as deep as 200 ft-bgs (MW-3B). The extent of hydraulic connection between fractured bedrock zones and the upper aquifer unit residing in shallow saprolite-PWR has not been established.

- Groundwater Flow Direction (40 CFR 270.14(c)(2))

The groundwater flow direction in the uppermost aquifer is to the northwest in the direction of the unnamed tributary, as shown on Figure B-1. The calculated average horizontal groundwater flow velocity between MW-6R and MW-12 was 0.0018 feet per day (ft/day) or 0.657 feet per year (ft/year), using the April 2023 sampling data.

A vertical flow velocity (Vv) or seepage velocity was calculated between residuum and PWR (top of bedrock zones) using the gradient distance between 1) MW-7 & MW-7A and 2) MW-8 and MW-8A, taken as the midpoint of each screened interval. The velocity (Vv) was calculated at 0.0019 ft/day or 0.663 ft/year between MW-7 and MW-7A and 0.0024 ft/day or 0.876 ft/year between MW-8 and MW-8A. A deeper seepage velocity (Vvv) was also calculated using the gradient between 1) MW-7A & MW-7B and 2) MW-8A & MW-8B for the fractured bedrock.

The velocity (Vvv) was calculated at 0.00036 ft/day or 0.13 ft/year between MW-7A and MW-7B and 0.00012 ft/day or 0.044 ft/year between MW-8A and MW-8B. In addition, the deepest bedrock seepage velocity (Vvvv) was calculated using the gradient between 1) MW-7B & MW-7B2 and 2) MW-8B & MW-8B2. The velocity (Vvvv) was calculated at 0.0000099 ft/day or 0.0036 ft/year between MW-7B and MW-7B2 and 0.0000020 ft/day or 0.00073 ft/year between MW-8B and MW-8B2. *(Note that these calculations were derived assuming fluid flow through a homogeneous, isotropic porous medium that does not account for flow through secondary pathways (including fracture pathways); therefore, these flow estimates should be considered approximate.)*

- Waste Management Areas (40 CFR 270.14(c)(3))

The HWMU and location of -10- SWMUs are shown on Figure B-1. Process wastes are kept secure in the treatment area prior to off-site disposal. No other waste management areas are located on the property.

- Property Boundaries (40 CFR 270.14(c)(3)) – Refer to Figure B-1

- Point of Compliance Location (40 CFR 270.14(c)(3); 264.95(a))

The Point of Compliance (POC) is by definition a vertical surface located at the hydraulically down-gradient limit of the HWMU, extending into the uppermost aquifer. POC wells, MW-5R, MW-6R, and MW-11, were installed after closure of the HWMU to monitor the down-gradient migration of the dissolved plume at the POC boundary. The POC line is depicted on Figure B-1 as a "thick" line at the north end of the HWMU, slightly south of the POC wells.

- Location of Groundwater Monitoring Wells (40 CFR 270.14(c)(3); 264.97)

A total of 27 groundwater monitoring wells are located on-site as shown on Figure B-1.

- Extent of Groundwater Contaminant Plumes (40 CFR 270.14(c)(4)(i))

The extent of regulated constituents in groundwater is discussed in Section E and is illustrated on numerous supporting figures. Due to space limitations, plume lines were not provided on Figure B-1.

B-3 Facility Location Information (40 CFR 270.14 (b) (11) and 264.18)

B-3a Seismic Requirements (40 CFR 270.14(b)(11)(i)(ii), 264.18(a)

Seismic requirements only apply to new facilities.

B-3b Flood Plain Requirements (40 CFR 270.14(b)(11)(iii)(iv);264.18(b)

A review of a recent FEMA National Flood Insurance Rate Map indicates the facility and surrounding area within a 1,000 foot radius is located outside of the 100 year flood plain boundary in the FEMA Flood Zone designation "Zone C". Zone C is defined as an area of minimal flood hazard with a less than one percent chance for annual flooding. The intermittent creek that flows off the property to the northwest is identified as "Unnamed Tributary 3". This tributary eventually enters into an identified flood plain where it discharges into South Utoy Creek greater than 0.25 miles from the site boundary. A copy of a current FEMA map is provided as Figure B-3.

B-3b(1) Demonstration of Compliance (40 CFR 270.14(b)(11)(iv);264.18(b)

This section does not apply since the facility is located outside of the 100 year flood plain boundary.

B-4 Traffic Patterns (40 CFR 270.14 (b)(10)

Access to the facility is from Interstate 85 west to State Highway 166 east, and right on Main Street. After a distance of approximately 1 ¼ miles on Main Street, a right turn is made at Lawrence Street and the plant entrance is on the left approximately 0.25 mile from the intersection. All roads on the property are unpaved but are accessible to two-way traffic. Figure B-4 shows the on-site traffic flow on the property.

Estimated Number/Types of Vehicles (40 CFR 270.14 (b)(10)): Vehicles consist mostly of front-end loaders and trucks driven around the wood treating operations area. Approximately 10 semi-trailers enter the facility each day. Two front-end loaders and a hydraulic knuckle-boom are used throughout the plant on a constant basis. Most cars are confined to the office parking lot and northeast entrance off Lawrence Street.

Traffic Control Signs and Signals (40 CFR 270.14(b)(10)): Traffic is controlled by equipment operators stopping and yielding right of way to other vehicles. Hand signals are utilized when needed. Due to the limited amount of vehicular traffic on the property traffic signs are not required.

Road Surface Composition and Load Bearing Capacity (40 CFR 270.14(b)(10)): All roads on the property are unpaved but are constructed using -9- to -12- inches of compacted granular aggregate base at the surface. The roads are capable of bearing loads up to 50,000 pounds per axle. The bulk tanker truck used to deliver treating chemicals to the tank storage area has a curb weight of 28,000 pounds. Assuming delivery of 7,500 gallons to the storage tanks, the tanker will weigh approximately 91,000 pounds. The flatbed truck used to deliver wood poles to or from the facility has a curb weight of 30,000 pounds. The loaded flatbed truck will weigh approximately 80,000 pounds. Likewise, hazardous waste trucks weigh 80,000 pounds. Therefore, the facility roads can bear the weight of the trucks.

The East Point public city roads, Lawrence Street and Empire Avenue that abut the facility property and provide entrance and egress for the facility are constructed of eight inch compacted stone base, four inches of base asphalt concrete binder, and two inches of asphalt or concrete topping. These roads are capable of bearing loads up to 50,000 pounds per axle.