

2017 RCRA Permit Application

Section B – Facility Description

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2801 Cook Street, Brunswick, GA***

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B. FACILITY DESCRIPTION

B.1 GENERAL DESCRIPTION [40 C.F.R. § 270.14(b)(1)]

This permit application is for renewal of Permit HW-052 (D&S) issued by the Georgia Department of Natural Resources, Environmental Protection Division (“EPD”) on October 26, 2007, and subsequently amended. The permit is for an industrial facility located at 2801 Cook Street in Brunswick, Georgia. The permit covers (1) storage of hazardous wastes, (2) post-closure care of five closed surface impoundments historically used to manage wastewater from the manufacturing of toxaphene at the facility, and (3) corrective action requirements at the facility pursuant to the Resource Conservation and Recovery Act (“RCRA”).

The area where the facility is located consists of approximately 322 acres of real property, which is referred to hereinafter for purposes of this permit application as the “Facility.” There are two property owners / operators associated with the Facility, Hercules LLC (“Hercules”) and Pinova, Inc. (“Pinova”), referenced as Permittees. For RCRA purposes, both Hercules and Pinova use the same EPA identification number. As described in more detail in this permit renewal application, storage of hazardous waste for longer than 90 days by the Permittees is no longer necessary and accordingly, the permit application does not seek continued authorization for such storage as a permitted activity. Hazardous waste generated by both Permittees at the Facility will be temporarily stored on-site for 90 days or less in accordance with requirements applicable to large quantity generators of hazardous waste. Accordingly, the permit upon renewal is expected to cover post-closure and corrective action requirements only. The components of the permit renewal application therefore generally reflect the components for permit applications described in 40 C.F.R. § 270.28 (relating to applications for post-closure permits) with certain adjustments to account for the integration of post-closure requirements with corrective action requirements for groundwater. This portion of the permit renewal application contains a general description of the Facility as required under 40 C.F.R. § 270.14(b)(1) and specific information relating to the temporary storage of hazardous wastes.

The Facility is located adjacent to U.S. Highway 17, north of the Torras Causeway in Brunswick, Georgia. Adjacent land to the north and west of the Facility consists of single and multi-family residential properties. Commercial properties and a park are located to the south. Several industrial and commercial properties are located to the east across Glynn Avenue (U.S. Highway 17), as is Dupree Creek and a salt marsh.

The Facility is located within the city limits of Brunswick, Georgia at Latitude 31° 09' 57" N and Longitude 81° 28' 45" W. The City of Brunswick is located within Glynn County in the Coastal Plain Physiographic Province, which extends throughout Florida and northward into the Mid-Atlantic States.

B.1.a Facility History

The Yaryan Rosin and Turpentine Company began operations at the Facility in 1911, by constructing a plant to extract rosin from pine stumps via a steam-solvent distillation process to manufacture wood rosins, turpentine, and pine oils. Hercules purchased the Facility in 1920 (70 acres in size) and conducted manufacturing operations at the Facility (which grew to 322 acres in size) through January 2010 (NewFields, 2001). During all or some portion of this time, Hercules manufactured rosin-derived products, non-rosin products including carboxyl methyl cellulose, di-isopropyl benzene and Kymene (a wet-strength additive), and the pesticide toxaphene.

In conjunction with the manufacture of toxaphene, five surface impoundments were historically used to hold wastewater beginning in approximately 1971 (NewFields, 2001). Production of toxaphene ceased in 1980 and no hazardous wastes were placed in the impoundments after July 26, 1982. The impoundments were subsequently "closed by removal" in accordance with applicable standards under 40 C.F.R. Part 265 by removing all materials associated with the impoundments. The closure process was completed in 1984. In 1987, the United States Environmental Protection Agency ("EPA") promulgated regulations pursuant to the Hazardous and Solid Waste Amendments of 1984 retroactively imposing more stringent closure standards on certain hazardous waste management units that had already completed the closure process and had achieved "clean closure." Based on these more stringent closure standards, the closed surface impoundments subsequently became subject to post-closure requirements.

On June 3, 1987, Hercules applied for a hazardous waste permit to store up to 56,320 gallons of hazardous wastes in containers at the Facility for longer than 90 days. On December 31, 1987, EPD issued hazardous waste permit HW-052 authorizing storage of hazardous waste for more than 90 days at a hazardous waste storage unit ("HWSU") located on-site. In 1995, the hazardous waste permit was modified and reissued to include both storage of hazardous waste and post-closure care for the five closed wastewater surface impoundments. The permit was subsequently renewed and amended on multiple occasions to include site-wide corrective action requirements for thirty-nine solid waste management units ("SWMUs") and one area of concern ("AOC") identified at the Facility.

In January 2010, Hercules sold the southern portion of the Facility (the location of all active manufacturing units) to Pinova, which continues to operate the manufacturing units for the production of wood rosins and terpene oils for a wide variety of end uses. Hercules continues to own the remaining inactive portions of the Facility.

B.1.b Current Hercules LLC Operations

Hercules LLC owns approximately 170 acres within the northern and eastern portions of the Facility. The majority of the property is grass and tree-covered. Hercules has leased a portion of its property on the western perimeter to Golden Isles Wood Products for purposes of receiving non-hazardous, recyclable yard debris and other non-hazardous materials from various governmental, commercial and residential entities for blending and dispensing. Hercules allows Pinova to temporarily store untreated wood stumps on certain other areas of the Hercules property when necessary. Hercules also allows Pinova to store finished goods as necessary in the CMC Warehouse located adjacent to the property leased by Golden Isles Wood Products. The Marsh Wood Storage portion of the Facility is located to the east within a fenced area across U.S. Highway 17, and comprises approximately 26 acres of the 170 acres currently owned by Hercules (**Figure B-1**). This area was primarily utilized for stump-wood storage and as a buffer zone. South of the Marsh Wood Storage portion of the Facility across U.S. Highway 17, is an additional area approximately 19 acres in size that is part of the 170 acres currently owned by Hercules (**Figure B-1**).

Current Hercules operations consist of the management and implementation of post-closure care activities associated with the five closed surface impoundments and corrective action with respect to both Hercules and Pinova owned portions of the Facility.

As indicated above, storage of hazardous waste at the HWSU for more than 90 days is no longer necessary. On April 20, 2017, Hercules and Pinova sent a letter to EPD confirming that storage of hazardous wastes at the Facility for greater than 90 days will no longer occur as of April 24, 2017. Upon renewal of the permit, the HWSU will be used as a Central Accumulation Area (“CAA”) for purposes of staging hazardous wastes generated on-site for 90 days or less in accordance with requirements applicable to hazardous waste generators.

The Georgia hazardous waste program administered by EPD incorporates by reference federal requirements governing hazardous waste generators. The federal hazardous waste regulations covering

hazardous waste generators have recently been overhauled and reorganized in regulatory amendments issued by EPA entitled the *Hazardous Waste Generator Improvements Rule*. See 81 Fed. Reg. 85732 (Nov. 28, 2016). On August 30, 2017, the Georgia Board of Natural Resources took action to amend Georgia’s hazardous waste regulations, among other things, to incorporate by reference the requirements of the Hazardous Waste Generator Improvements Rule. Consequently, the revised federal requirements governing the temporary storage of hazardous wastes by hazardous waste generators as set forth in 40 C.F.R. Part 262 are applicable in Georgia pursuant to Georgia’s hazardous waste regulations as of September 28, 2017. These requirements apply to the use of the converted HWSA as a CAA for temporary storage of hazardous wastes generated at the Facility.

The revised regulatory requirements for temporary on-site storage of hazardous wastes (i.e., storage for 90 days or less) by hazardous waste generators contain many elements that are identical to or functionally similar to requirements that are applicable to storage of hazardous wastes at regulated units subject to hazardous waste permits. However, those requirements are implemented automatically by regulation instead of individually through permits. Key aspects of those requirements are discussed below in the context of the use of the CAA for temporary storage of hazardous wastes at the Facility.

Only hazardous wastes generated at the Facility are and will be temporarily stored at the CAA. At the current time, the hazardous wastes that are being temporarily stored at the CAA are limited to investigation-derived waste (“IDW”) that Hercules is generating in connection with ongoing post-closure and corrective action activities at the Facility. (The types of IDW that are being generated are described in more detail below.) Only IDW is expected to be temporarily stored at the CAA in the future. Hazardous wastes are placed in containers that are compatible with the characteristics of such wastes. The containers are moved to the CAA by vehicle using the internal road network at the Facility, including moving containers holding hazardous wastes from satellite accumulation areas to the CAA. During transport, the containers are closed. The internal road network allows vehicles to directly reach the CAA. No hazardous wastes will be imported from off-site third-party generators and temporarily stored at the CAA as would be the case for a commercial permitted hazardous waste storage facility. Accordingly, an analysis of traffic patterns outside of the Facility is unnecessary.

Because all of the hazardous wastes that will be temporarily stored at the CAA are being generated at the Facility, those wastes are subject to the detailed waste characterization and record-keeping requirements set forth in 40 C.F.R. § 262.11 and the manifesting requirements set forth in 40 C.F.R. Part 262, Subpart B. In addition, information regarding the types of hazardous wastes that are temporarily stored at the CAA will be provided to EPD on a regular basis through biennial reports that must be filed pursuant to 40 C.F.R.

§ 262.41. These requirements collectively ensure that hazardous wastes that are temporarily stored at the CAA will be properly identified and classified (including chemical and physical analysis of the wastes), and that records of such hazardous wastes are maintained and reported to EPD even in the absence of a permit covering hazardous waste storage activities at the Facility. As indicated above, no hazardous wastes will be imported from off-site third-party generators and temporarily stored at the CAA as would be the case for a commercial permitted hazardous waste storage facility thereby rendering unnecessary the preparation of a separate waste analysis plan for the hazardous wastes that will be temporarily stored at the CAA.

Operation of the CAA is subject to requirements set forth in 40 C.F.R. § 262.17(a). Among other things, these requirements address inspections of the CAA pursuant to 40 C.F.R. § 262.17(a)(1)(v), management standards for containers holding ignitable or reactive wastes pursuant to 40 C.F.R. § 262.17(a)(1)(vi), and management standards for incompatible wastes pursuant to 40 C.F.R. § 262.17(a)(1)(vii). For example, the CAA will be operated in a manner to prevent accidental ignition or reaction of ignitable or reactive wastes. Such wastes will be separated and protected from sources of ignition or reaction including but not limited to open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical, spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat.¹ Incompatible wastes and incompatible wastes and materials will not be placed in the same containers. Personnel training will be performed pursuant to 40 C.F.R. § 262.17(a)(7). Copies of relevant personnel training records will be retained in the remediation office at 2110 Stacy Street, Brunswick, GA and the Pinova office building at 2801 Cook Street, Brunswick, GA. In addition, 40 C.F.R. § 262.17(a)(6) requires large quantity hazardous waste generators such as Hercules to comply with standards in 40 C.F.R. Part 262, Subpart M. Those standards address preparedness, prevention and emergency procedures for large quantity generators, and substantially parallel the requirements in 40 C.F.R. Part 264, Subpart C (relating to preparedness and prevention) and 40 C.F.R. Part 264, Subpart D (relating to contingency plans and emergency procedures). A copy of the contingency plan required pursuant to 40 C.F.R. § 262.260 will be located in the remediation office at 2110 Stacy Street, Brunswick, GA and the Pinova office building at 2801 Cook Street, Brunswick, GA.

Once the CAA receives its final volume of hazardous wastes, it will be closed in accordance with applicable closure requirements for container storage areas. Deferral of closure in this manner is consistent with technical guidance issued by EPA. The federal hazardous waste generator regulations (incorporated by

¹ The management standards for containers holding ignitable or reactive wastes set forth in 40 C.F.R. § 262.17(a)(1)(vi)(B) are virtually identical to the requirements set forth in 40 C.F.R. § 264.17(a) (relating to ignitable and reactive wastes).

reference in Georgia's hazardous waste regulations) now expressly address in 40 C.F.R. § 262.17(a)(8) closure of hazardous waste accumulation areas used by large quantity generators. The performance standards for closure by removal (i.e., "clean closure") of central accumulation areas used for containers holding hazardous wastes in 40 C.F.R. § 262.17(a)(8)(iii) parallel the performance standards for closure by removal of container storage areas set forth in 40 C.F.R. Part 264, Subpart G and 40 C.F.R. § 264.178 (relating to closure of container storage areas). In particular, the closure performance standards in 40 C.F.R. § 262.17(a)(8)(iii)(A)(1) (relating to closure of hazardous waste accumulation areas) and 40 C.F.R. §§ 264.111(a) and (b) (setting forth general performance standards for closure of regulated units) are virtually identical. In addition, closure performance standards in 40 C.F.R. § 262.17(a)(8)(iii)(A)(2) (relating to closure of hazardous waste accumulation areas) and 40 C.F.R. §§ 264.178 (setting forth specific performance standards for closure of regulated container storage areas) are substantially similar. Hercules will also maintain appropriate financial assurance for the unit until closure is complete. These requirements are addressed in greater detail in Section E of this permit renewal application.

If closure of the CAA (i.e., the converted HWSU) does not achieve "clean" closure performance standards, Hercules anticipates that any post-closure care obligations for the unit can be addressed in conjunction with implementation of corrective action for the remaining SWMUs and AOCs, and associated groundwater. Environmental conditions are being addressed on a holistic basis rather than a "SWMU by SWMU" approach as part of the corrective action process. In addition, Hercules anticipates that post-closure care obligations for the five closed wastewater surface impoundments will be integrated and addressed through the corrective action process.

As part of implementing corrective action requirements at the Facility, Hercules generates IDW (investigation derived waste) on a routine and non-routine basis. The IDW is managed as hazardous waste as may be required. Hercules currently generates IDW through investigations and corrective actions at a rate of less than six 55-gallon drums per quarter from groundwater sampling and recovery from monitoring wells at the Facility. Hercules may also generate IDW consisting of soils on an episodic basis. Each of these sources/processes is described briefly in the following paragraphs.

- Purge water is generated from semi-annual groundwater sampling events. The purge water exceeds analytical criteria for benzene or chlorinated solvents and therefore is managed as characteristic hazardous waste. In addition, non-aqueous phase liquid ("NAPL") is recovered from monitoring wells. The purge water or NAPL is contained in 55-gallon drums or 5 gallon pails, then placed in a satellite accumulation area ("SAA") until full (50 gallons). The pails are either disposed of within 3 days of

becoming full or transferred to the CAA (the former HWSU) until shipped off-site within 90 days or less under 40 C.F.R. § 262.34(a).

- Contaminated soils may be accumulated episodically in larger quantities during corrective action or other activities such as installation of new monitoring wells or other wells associated with corrective measures. Those soils that are characteristic hazardous waste are collected in roll-off containers and transported by qualified transporters for off-site treatment or disposal within 90 days or less after being generated.
- Hercules' corrective actions, such as soil removal or groundwater monitoring activities, may generate IDW that contains toxaphene (D015) or other constituents requiring that the IDW be managed as hazardous waste. Such IDW will be managed in the same manner as described for purge water or contaminated soils above.

B.1.c Current Pinova, Inc. Operations

Pinova owns approximately 152 acres within the southern portion of the Facility. Pinova continues to operate the rosin / resin manufacturing processes located on-site.

In 2010, Pinova became a co-permittee on Permit HW-052 because some of the existing SWMUs were located on Pinova-owned property. However, as described in Section B.1.b, Hercules retains responsibility for implementing the corrective action process across both portions of the Facility. Pinova has never owned or operated the HWSU that triggered the initial issuance of this permit in 1987.

Pinova is registered as a large quantity generator of hazardous waste and may generate one waste stream associated with corrective measures:

- Contaminated soils may be accumulated episodically during soil disturbance activities associated with equipment repair or installation. All activities are coordinated and approved through Hercules. Soils generated that are characteristic hazardous waste are collected in roll-off containers and transported by qualified transporters for off-site treatment or disposal within 90 days or less of being generated.

Pinova also generates various waste streams associated with laboratory and manufacturing operations. As discussed above, these activities are not associated with the activities covered by the hazardous waste

permit and would not otherwise require a permit.

- The Quality Control Laboratory generates hazardous wastes including solvents and oils from materials used in various analytical tests. Waste is collected from each laboratory station and placed in 5-gallon cans located in the laboratory. When full, the waste is transferred to a properly labeled 55-gallon drum located in the laboratory 90-day storage area located behind the laboratory. All waste containers are tracked, inspected on at least a weekly basis, and shipped off-site in less than 90 days. These wastes are typically ignitable (D001) and may contain listed solvents such as acetone (F003) or methyl isobutyl ketone (F003). Certain D002 corrosive wastes may be generated on an episodic basis.
- Maintenance operations may generate small amounts of aerosol cans, paints, or other materials which are managed as hazardous waste when disposed of. Each shop has a satellite accumulation container. When full, the container is labeled, transferred to the hazardous waste 90-day storage pad and shipped off-site to a qualified facility for treatment or disposal. All waste containers are tracked, inspected on at least a weekly basis, and shipped off-site in less than 90 days.
- Production operations may generate waste on an episodic basis from equipment cleaning or process upsets. As applicable, waste would be placed directly into an appropriate drum or tote, labeled, and moved to the hazardous waste 90-day storage pad for shipment off-site to a qualified facility for treatment or disposal. Bulk liquid waste in process tanks or other large volumes may be pumped directly into a tote, labeled, and moved to the hazardous waste 90-day storage pad for shipment off-site to a qualified facility for treatment or disposal. Bulk liquid waste in process tanks or other large volumes may also be pumped directly into tank trucks for shipment off-site to a qualified facility for treatment or disposal. All waste containers are tracked, inspected on at least a weekly basis, and shipped off-site in less than 90 days.
- Universal waste is generated by maintenance activities and laboratory operations. Lamps are accumulated in a sealed storage container located outside of the Central Maintenance Shop. Batteries are accumulated in containers located inside of the Quality Assurance Laboratory or in the E&I Shop. Mercury-containing equipment such as thermometers is accumulated in containers located inside of the Quality Assurance Laboratory. These containers are shipped off-site to a qualified facility within one year of the accumulation start date. Any damaged or leaking waste is immediately placed in an appropriate drum, labeled as a hazardous waste, and transferred to the hazardous waste 90-day storage pad and shipped off-site to a qualified facility for treatment or disposal.

B.2 TOPOGRAPHIC MAP [40 C.F.R. § 270.14(b)(19)]

As provided for in 40 C.F.R. § 270.14(b)(19), a detailed topographic map designated as **Figure B-1** is included with this permit renewal application containing the information described in 40 C.F.R. § 270.14(b)(19). The detailed topographic map is at a scale of 1 inch = 200 feet. The detailed topographic map shows the boundaries of the Facility and identifies main roads and buildings, railroad tracks, surface waters, streams, drainage ditches, monitoring well locations, the area where the five closed wastewater surface impoundments formerly operated, and the location of the CAA. In addition, the topographic map shows the areas located within 1,000 feet outside of the boundaries of the Facility, surface water bodies, surrounding land uses, the 100-year flood plain boundary, the 500-year flood plain boundary, and the locations of production wells used in connection with current operations at the Facility conducted by Pinova. Surface elevation contour lines are provided at 2-foot intervals to estimate direction of surface water flow (which is perpendicular to the surface elevation contours). A wind rose showing conditions at the Brunswick – Golden Isles Airport in proximity to the Facility is included on the map as well.

The permit renewal application also includes a series of maps and figures pertaining to groundwater conditions at the Facility as part of Section C of the permit renewal application. The maps and figures included as part of Section C of the permit renewal application contain information described in 40 C.F.R. § 270.14(c). Because of how much information is to be included in the maps and figures and overall size of the Facility, the maps and figures included as part of Section C of the permit renewal application are intended to supplement the detailed topographic map presented as part of this portion of the permit renewal application.

B.3 LOCATION INFORMATION [40 C.F.R. § 270.14(B)(11)]

Pursuant to 40 C.F.R. § 270.14(b)(11), permit applications are to include information regarding seismic and flooding risks and steps to address such risks. This portion of the permit renewal application discusses the applicability and implementation of such requirements with respect to the Facility.

B.3.a Seismic Standard [40 C.F.R. §§ 270.14(b)(11)(i) and (ii)]

The Facility is located in Glynn County, Georgia, a political jurisdiction which is not listed in 40 C.F.R. Part 264 Appendix VI. Therefore, the seismic standard set forth in 40 C.F.R. § 264.18(a) does not apply.

B.3.b Flood Plain Standard [40 C.F.R. §§ 270.14(b)(11)(iii)]

Portions of the Facility are located within the 100-year flood plain, as indicated on **Figure B-1**. Barrier islands and several miles of salt marsh serve as a buffer from possible wave action. The 100-year flood plain corresponds to a flood elevation of 13 ft. above mean sea level (“AMSL”) and is based on the Federal Emergency Management Agency (“FEMA”) database and flood insurance rate maps, updated in 2006.

B.3.b.1 Hercules LLC – Flood Analysis and Contingency Procedures [40 C.F.R. § 270.14(b)(11)(iv)]

As noted above, upon renewal of the permit, the HWSU will be used as a CAA for purposes of staging hazardous wastes generated on-site for 90 days or less. This CAA is located outside the 100-year flood plain and outside of the 100-year flood velocity hazard area, as shown on **Figure B-1**.

When the former surface impoundments were excavated and closed, the ground surface elevation was raised above the 100-year flood plain by covering the closed impoundments to above the 13 foot contour, thereby protecting them from a 100-year flood. Like the CAA, the former impoundments are also located outside of the 100-year flood velocity hazard area, would not be subject to wave action, and would have a low vulnerability to erosion. The current topography and outline of the former surface impoundments are shown on **Figure B-1** at approximately 15 ft. above mean sea level.

The Hercules satellite accumulation areas are within the 100 year-flood plain, as shown in **Figure B-1**. Severe weather fronts affecting tidal characteristics present the most probable cause of potential flooding at the Facility. Information on timing and tidal crests is available from the U.S. Coast Guard Station 1, St. Simons Island, GA. During severe weather alerts, operating personnel monitor the weather reports for the local area. The Hercules Hurricane Preparedness Plan is used to direct activities before and during a tropical storm or hurricane that hits the area. This plan, which can be found in **Appendix B-1**, establishes procedures to follow in case of such an emergency.

In the event of a threat of flooding, hazardous wastes that are temporarily stored in satellite accumulation areas will be moved to the CAA to ensure that they are not impacted by flooding. The maximum storage capacity of the CAA is 48 55-gallon containers, which is more than sufficient to hold any hazardous waste that would need to be moved from satellite accumulation areas to the CAA. The Hercules Site Representative is available to move the hazardous wastes, as necessary. The description of the flood plan below provides the details for this contingent activity.

Flood Proofing and Flood Protection Measures [40 C.F.R. § 270.14(b) (11) (iv) (A) and (B)]

40 C.F.R. §§ 270.14(b)(11)(iv)(A) and (B) contain requirements that apply to hazardous waste that is managed in areas within the 100-year flood plain. Of the areas where hazardous wastes are managed, only satellite accumulation areas are located in areas subject to 100-year floods. Flood protection measures for satellite accumulation areas are not applicable because containers in those areas will be moved to the CAA prior to an imminent flood as discussed below.

Flood Plan [40 C.F.R. § 270.14(b)(11)(iv)(C)]

Plans are in place to move any hazardous waste from satellite accumulation areas within the 100-year flood plain (see **Figure B-1**) to the CAA prior to the onset of extreme weather conditions. On Hercules property, 5-gallon pails within drums located at satellite accumulation areas will be removed from the drums and both the pails containing hazardous waste and the empty secondary containment drums will be moved the day before a hurricane or other potential flooding event approaches. Approximately two hours will be required to move the pails and drums from the satellite accumulation areas to the CAA. A roof covering the entire CAA protects wastes from precipitation. The floor is constructed of removable steel floor planking over a secondary containment sump. Containers are stored directly on the floor planking or on wooden pallets approximately 44 inches by 52 inches by 5 inches high which are capable of handling approximately 2,500 pounds weight. Typical construction of the pallets consists of mixed hardwoods with top and bottom deck boards separated by stringers allowing transportation and handling by forklift trucks.

The CAA provides secondary containment for stored wastes with a 12-gauge steel liquid tight sump. The containment sump has a 757 gallon capacity (28% of the CAA storage capacity). Run-on into the containment system is prevented by the roof and walls around the entire storage building and an entrance elevation of 10 inches above ground surface. The CAA is further protected from run-on by surface storm drainage features in the vicinity.

Any spilled or leaked waste is removed in a timely manner either by re-drumming the waste or by using an absorption medium for its subsequent disposal as a hazardous waste. Over-size drums are kept on hand, into which leaking drums can be placed. The CAA area is totally enclosed by a cyclone fence and under the control of the Hercules Site Representative.

The CAA is not located in the 100-year flood plain and requires no further flood protection measures.

B.3.b.2 Pinova Inc. – Flood Analysis and Contingency Procedures [40 C.F.R. § 270.14(b)(11)(iv)]

Within the portion of the Facility owned by Pinova, the laboratory 90-day storage area and the hazardous waste 90-day pad are located within the 100-year flood plain. In the event of any potential emergency, a determination as to the level of threat will be made and drums containing hazardous waste will be secured in place or relocated as appropriate.

Severe weather fronts affecting tidal characteristics present the most probable cause of potential flooding at the plant. Information on timing and tidal crests is available from the U.S. Coast Guard Station 1, St. Simons Island, GA. During severe weather alerts, operating personnel monitor the weather reports for the local area. The Pinova Hurricane Preparation and Evacuation Plan is used to direct plant activities before and during a tropical storm or hurricane that hits the area and can be found in **Appendix B-2**.

Flood Proofing and Flood Protection Measures [40 C.F.R. § 270.14(b)(11)(iv)(A) and (B)]

40 C.F.R. §§ 270.14(b)(11)(iv)(A) and (B) contain requirements that apply to hazardous waste that is managed in areas within the 100-year flood plain. As discussed below and if the threat posed is severe enough, any waste container located in the two 90-day storage areas or temporarily staged on-site in a flood-prone area will be relocated to a secure area in the central portion of the plant which is above the 100-year flood plain if the threat posed is severe enough.

Flood Plan [40 C.F.R. § 270.14(b)(11)(iv)(C)]

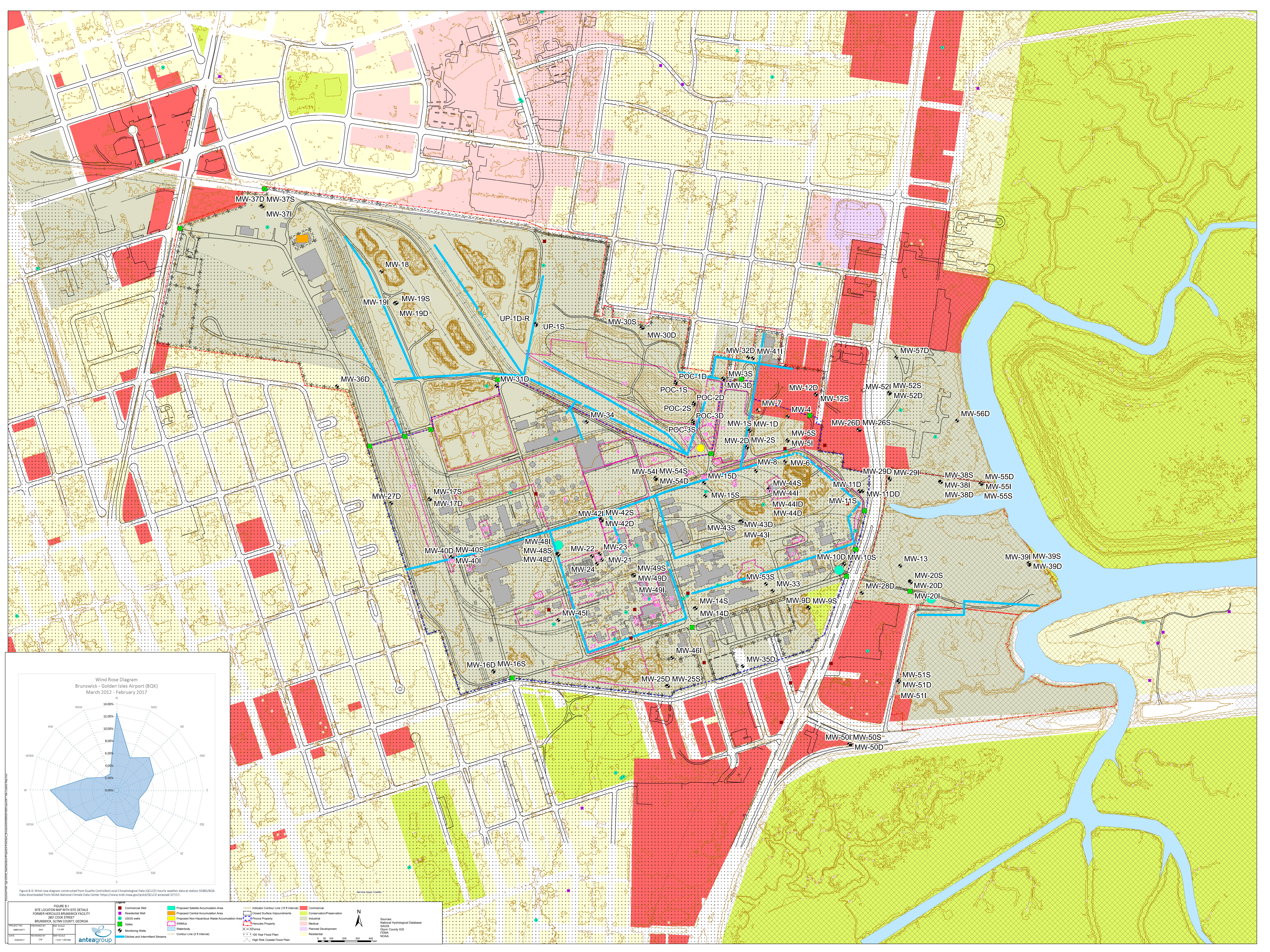
Plans are in place to move any hazardous waste from accumulation areas within the 100-year flood plain (see **Figure B-1**) in the event of an imminent flood potential. In the event of a threat of flooding, Pinova's Environmental Department will make every effort to ship all containers off-site to a qualified facility. Otherwise, all totes, drums, or pails stored in the 90 day storage areas will be temporarily relocated to a secure location inside of the Central Maintenance Shop until the storm is over. Any roll-off boxes temporarily staged on-site prior to disposal will also be moved to a paved area if they are located within a flood-prone area. Paved roads are available to minimize the possibility of spilling the hazardous waste or getting the truck or forklift stuck while moving waste containers.

B.4 REFERENCES

NewFields, 2001. Phase II RFI Report, Hercules Brunswick Facility, Hercules Inc, Brunswick Georgia, June.

Figures

Figure B-1 Site Location Map Including: Aerial Photograph, Land Use, Site Layout, FEMA Q3 Flood Data, and Brunswick Golden Isles Airport Wind Rose Diagram



MW-37D MW-37S
MW-37I

MW-18

MW-19I
MW-19D

UP-1D-R
UP-1S

MW-30S
MW-30D

MW-32D MW-41I
MW-3S
MW-3D

MW-7
MW-4

MW-12S
MW-12D

MW-26D MW-26S
MW-52I MW-52S
MW-52D

MW-56D

MW-8
MW-6

MW-2D MW-2S
MW-5S
MW-5I

MW-11D
MW-11S

MW-29D MW-29I
MW-29D MW-29I
MW-11DD

MW-38S MW-55D
MW-38I MW-55I
MW-38D MW-55S

MW-54I MW-54S
MW-54D

MW-15D
MW-15S

MW-44S
MW-44I
MW-44D

MW-11D
MW-11S

MW-11DD

MW-42I MW-42S
MW-42D

MW-43S
MW-43D

MW-44D
MW-44I

MW-10D MW-10S
MW-10D MW-10S

MW-13
MW-20S
MW-20D
MW-20I

MW-39I MW-39S
MW-39D

MW-40D MW-40S
MW-40I

MW-48I
MW-48S
MW-48D

MW-22
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MW-21
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MW-53D

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MW-14S
MW-14D

MW-9D MW-9S
MW-35D

MW-51S
MW-51D
MW-51I

MW-16D MW-16S

MW-25D MW-25S

MW-50I MW-50S
MW-50D

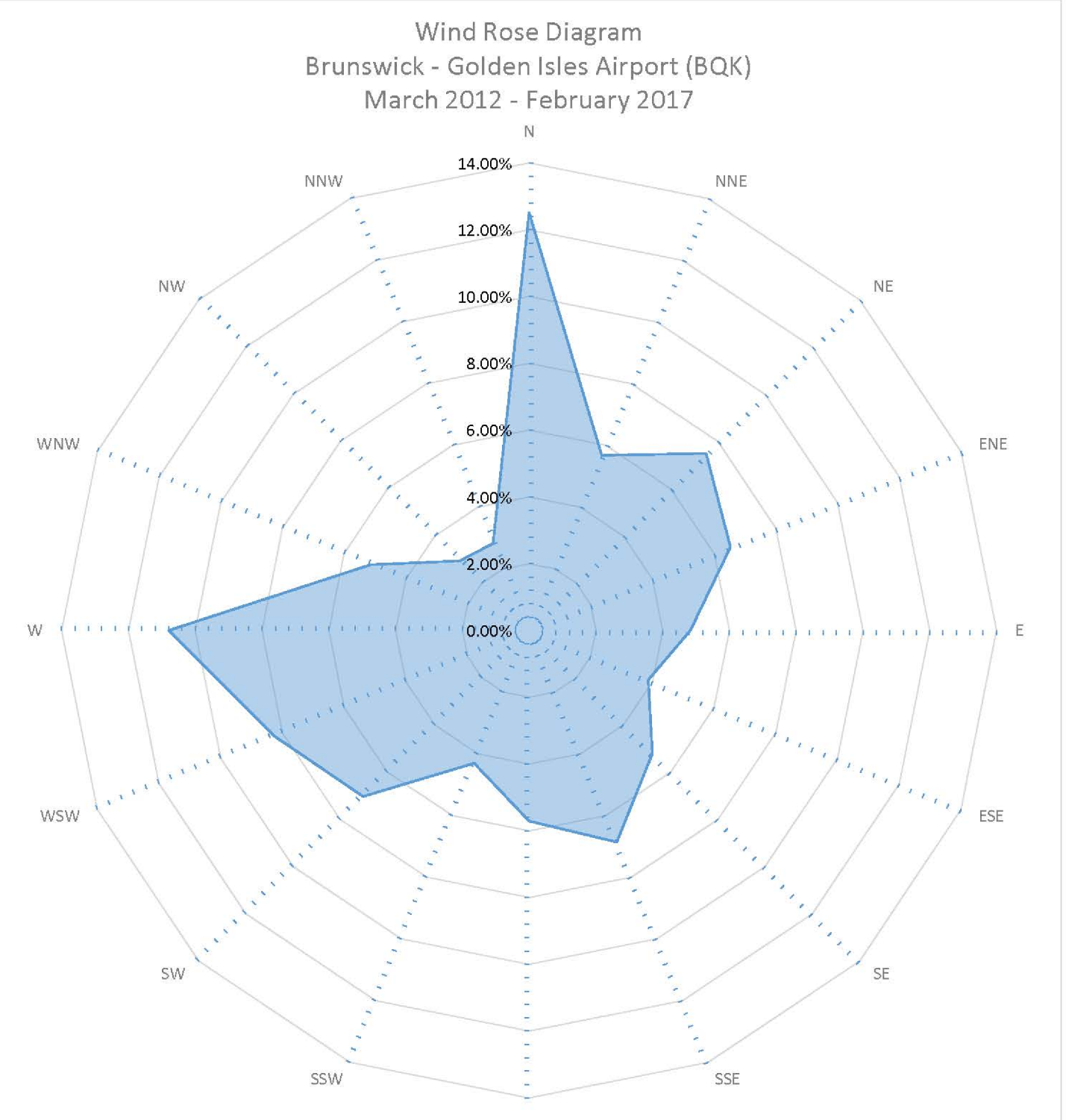


Figure B-5: Wind rose diagram constructed from Quality Controlled Local Climatological Data (QCLCD) hourly weather data at station 53883/BQK. Data downloaded from NOAA National Climate Data Center <https://www.ncep.noaa.gov/qclcd/qclcd53883/BQK>.

FIGURE B-1
SITE LOCATION MAP WITH SITE DETAILS
FORMER HERCULES BRUNSWICK FACILITY
301 COOK STREET
BRUNSWICK, GUNN COUNTY, GEORGIA

PROJECT NO: 10000077
DATE: 04/14/2016
REVISED BY: DM

SCALE: 1" = 100' (LOCAL)
SCALE: 1" = 200' (REGIONAL)

antegrup

<ul style="list-style-type: none"> Commercial Well Residential Well USGS Wells Wells Monitoring Wells Ditches and Intersecting Streams 	<ul style="list-style-type: none"> Proposed Satellite Accumulation Area Proposed Central Accumulation Area Proposed Non-Hazardous Waste Accumulation Area Stream Waterbody Contour Line (2 ft Interval) 	<ul style="list-style-type: none"> Indicator Contour Line (10 ft Interval) Closed Surface Impoundments Private Property Remains Property Distance 100 Year Flood Plain High Risk Coastal Flood Plain 	<ul style="list-style-type: none"> Commercial Conservation/Preservation Industrial Natural Planned Development Residential
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Source:
National Hydrological Database
SAGIS
Gunn County GIS
FEMA
NOAA

Scale: 0 100 200 300 400 Feet

Appendices

Appendix B-1 Hercules Hurricane Preparedness Plan

Appendix B-2 Pinova Hurricane Preparation and Evacuation Plan

Hurricane Preparedness Plan

Former Hercules Facility - Brunswick, GA

1.0 SCOPE

This Hurricane Preparedness Plan (HPP) addresses the necessary procedures, roles, and responsibilities to prepare for potential impacts of a severe storm or hurricane at the former Hercules Facility located at 2801 Cook Street in Brunswick, GA. Hercules operated the facility until the sale of the southern half of the parcel to Pinova Inc. (Pinova) in 2010. Hercules maintains a presence at the facility to manage corrective actions at 39 SWMUs and one AOC from historical disposal practices and/or former operations. Investigation derived hazardous wastes are generated through corrective actions. Hercules will store investigation derived hazardous wastes at three satellite accumulation areas (SAA) located within the 100 year flood plain. The existing Hazardous Waste Storage Unit (HWSU) and any potential future Central Accumulation Area (CAA) will be used under the following conditions:

- store hazardous wastes, if Hercules SAA's become full and disposal is not completed within 3-days or
- store hazardous wastes from Hercules and Pinova that are located within the 100 year flood plain when there is a Hurricane or flood warning as described herein.

The goal of this HPP is to ensure hazardous wastes stored at various Hercules and Pinova locations at the site are moved to the HWSU or CAA outside and above the 100-year flood zone. Both the HWSU and any potential future CAA are or would be located outside of the 100-year floodplain, minimizing the chances of severe weather causing a release. The designated Hercules Representative (Ian McCary of Antea Group) is responsible for RCRA compliance at the site and execution of the following HPP. Locations of the SAA, former HWSU, and planned CAA are shown on Appendix B-1, **Figure BB-1 Waste Generation Storage Plan**. **Figure B-4 - FEMA Q3 Flood Data** provides the boundaries for the latest 100 and 500-year floodplain.

2.0 APPLICATION

This HPP applies to the Hercules Site Representative and any additional Hercules contracted employees performing work while the location is threatened or impacted by a severe storm or hurricane.

3.0 ASSOCIATED DOCUMENTS AND MATERIALS

Please refer to **Appendix A – The Saffir/Simpson Hurricane Scale** for an explanation of comparison of hurricane categories and expected effects to infrastructure and the environment.

4.0 DEFINITIONS

Hurricane Season: The official Atlantic hurricane season begins on June 1st and ends on November 30th annually. This period has highest probability of generating severe weather such as tropical storms and hurricanes for the Brunswick, GA area.

Tropical Cyclone: A warm-core non-frontal synoptic-scale cyclone, originating over tropical or subtropical waters, with organized deep convection and a closed surface wind circulation about a well-defined center. Once formed, a tropical cyclone is maintained by the extraction of heat energy from the ocean at high temperature and heat export at the low temperatures of the upper troposphere

Tropical Storm: A tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1-minute average) ranges from 39 to 73 mph.

Hurricane: A tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1-minute average is greater than 74 mph.

Hurricane (Tropical Storm) Watch: A message from the National Weather Service that a specific area could experience hurricane (tropical storm) conditions within 36 hours.

Hurricane (Tropical Storm) Warning: A message from the National Weather Service that a specific area is expected to experience hurricane (tropical storm) conditions within 24 hours.

5.0 SEVERE WEATHER RESPONSE ACTIONS

The following sections detail the steps that the Hercules Representative will take should severe weather threaten the facility.

5.1 Storm Tracking

If severe weather is forecasted for the Brunswick, GA area the Hercules Representative will monitor the computer-modeled storm tracks from the National Weather Service to determine the expected strength and timeline of severe weather. The Hercules Representative subscribes to alerts from the National Weather Service for the Brunswick area via cell phone and a web browser application. These emergency alerts are push notifications, which require an input to remove from the device screen, ensuring maximum preparation time. Traditional weather resources (such as television and radio stations) will be monitored when severe weather is expected.

5.2 Site Preparation

In the event of a tropical storm or hurricane watch (or warning) the Hercules Representative will be responsible for the following actions to prepare for severe weather.

- IDW stored in SAAs within the 100-year floodplain will be moved to the HWSU (or proposed CAA after HWSU closure) which is located outside the 100-year floodplain. The IDW will be stored in DOT approved 5-gallon buckets located inside of 55-gallon drums at each of the 3 SAAs (**Figure BB-1**). This method of storage is to allow one

Appendix B-1 Hercules Hurricane Preparedness Plan

Former Hercules Facility

2801 Cook Street, Brunswick, GA

person to efficiently transport the IDW while minimizing the chances of a release due to pumping or moving full 55-gallon drums.

- The Hercules Representative will ensure that the SAAs, proposed CAA, and HWSU do not contain loose objects that could become hazards during strong winds. This includes drums, totes, containers, loose wooden or metal siding, wood or asphalt shingles, or other debris. The HWSU (and proposed CAA) are designed to provide shelter from hurricane force winds. Where possible loose containers will be bound together to reduce the potential for damage from wind.
- If a plant evacuation or shutdown due to severe weather is planned at the active Pinova Facility, the Hercules Representative will ensure that any electrical breakers in the HWSU, proposed CAA, and the site office (located at 2110 Stacy Street) are in the off position. The Hercules Representative will remove electronic devices (computer, monitors, printer/scanner) and secure the HWSU, proposed CAA, and the site office. The Hercules Representative will comply with any Pinova ordered evacuation timetable, however an earlier evacuation (after consulting with remote project management) may occur.
- Pinova will be responsible for transportation of hazardous wastes within the 100-year flood on Pinova property to the Hercules HWSU or CAA using a Pinova HPP.

Hurricane Preparation and Evacuation Plan Work Instruction

Document Number: WI-021-0016-501	Category: Safety	Owner: H&S Manager	Revision: 5
Division: PINOVA	Location:	Approval Status: Approved	Issued: 04/28/2014
Reference:	Next Review Date: 06/15/2017	Major Process:	
Review Period: 1 year(s)	Last Reviewed: 06/15/2016		

1.0 Scope

This work instruction addresses the necessary procedures, roles and responsibilities necessary to prepare the plant and protect the employees from the potential impacts of a severe storm or hurricane.

2.0 Application

This work instruction applies to all Brunswick plant employees in the event of a severe storm or hurricane requiring evacuation of the plant.

3.0 Associated Documents/Materials

Not applicable

4.0 Definitions:

4.1 Hurricane Season

The official Atlantic hurricane season begins on June 1 and ends November 30 of each year. During these months, the highest likelihood of tropical storms and hurricanes forming in the Atlantic Basin exists. Tropical storms are organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39-73 miles per hour (mph). Hurricanes are more severe tropical storms with sustained winds exceeding 74 mph. There is an average of eight tropical storms per year, of which four become hurricanes. Hurricanes making landfall in the area can seriously affect the East Coast of Georgia and Brunswick in particular.

4.2 Hurricane potential disaster scale

All Hurricanes are dangerous, but some are more so than others. The way storm surge, wind and other factors combine determines the hurricanes destructive power. To make comparisons easier and to make the predicted hazards of approaching hurricanes clearer, forecasters use a disaster-potential scale which assigns storms into categories

The Saffir-Simpson Hurricane Scale is a 1-5 rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor in the scale.

Category	Sustained Winds (mph)	Storm Surge (ft. above normal)	Effects
1	74 – 95	4-5	Minimal damage to trees, shrubbery, and mobile homes.
2	96 – 110	6-8	Considerable damage to trees, mobile homes, and piers; some damage to roofs.
3	111 – 130	9-12	Trees blown down or stripped of leaves; mobile homes destroyed; some damage to other buildings.

Category	Sustained Winds (mph)	Storm Surge (ft. above normal)	Effects
4	131 – 155	13-18	Extensive damage to windows, doors, and roofs, especially near shore; possible flooding.
5	> 155	>18	Small buildings overturned or blown away; severe structural damage to other buildings.

4.3 Hurricane Watch

A hurricane watch indicates the possibility that you could experience hurricane conditions within 36 hours.

4.4 Hurricane Warning

When a hurricane warning is issued this indicates that sustained winds of 74 mph are expected within 24 hours.

4.5 OPCON - Operational Condition.

The OPCON status is determined by the Brunswick LEPC. The level of activity and actions required will increase as the OPCON conditions change. OPCON conditions and definitions are as follows:

- a. OPCON 5 - issued 72 hours prior to the forecast arrival of the hurricane's eye.
- b. OPCON 4: issued 48 hours prior to the forecast arrival of the hurricane's eye.
- c. OPCON 3: issued 36 to 24 hours prior to the forecast arrival of the hurricane's eye (depending on storm intensity)
- d. OPCON 2: Issued 36 to 24 hours prior to the forecast arrival of the hurricane's eye (depending on storm intensity)
- e. OPCON 1 issued 12 hours or less before the expected arrival of the hurricane threat or in time for evacuation, whichever is earliest

5.0 Work Instruction

5.1 Hurricane Preparedness Team

The facility has established a Hurricane Preparedness Team (HPT) which will be responsible for tracking the storm and implemented all preparedness and evacuation measures. The members of this team are listed below:

Director of Operations
 Operations Team Leaders
 EHS Team **Representatives**
 Maintenance Team **Representatives**
 Logistics, Customer Service **Representative**

The Director of Operations will lead the HPT. The Primary Team leader will serve as the designated leader of the HPT in the Director of Operation's absence. The Director of Operations or his designee maintains the overall responsibility for making the final decisions regarding the preparedness steps. The Director of Operations has the option of delaying or advancing execution of tasks identified in the plan as scheduled for a particular OPCON status. Additional personnel may be added to the HPT as required. The HPT will convene on the call of the Director of Operations when weather advisory reports forecast the arrival of 50 knot winds or

higher within 72 hours. The main office conference room will be the hurricane control center. Channel 16 on the plant radio is set to the weather channel.

The HPT will meet periodically to ensure hurricane preparation supplies are sufficient and address structural concerns that need to be corrected, and survey the site for specific hazards or concerns that need to be addressed by operations during a shutdown.

Critical plant personnel will be issued passes to allow early re-entry into the area as notified by the Brunswick LEPC. The EHS group will issue the passes when we reach Opcon level 4. Each of these persons will designate an alternative person to be on the early re-entry list in the event that they are not available. All other plant personnel will await notification prior to returning to the plant site. Announcements will be made on Jacksonville and Savannah radio and tv stations of planned remaining of plant. In the event that significant damage to the plant is anticipated to have occurred, the HPT will contact the local LEPC to assist in evaluating the risk of re-entry and to arrange for a helicopter fly over to assess damage to tanks and structures prior to allowing personnel on-site. The re-entry team will develop a plan for restoration of operations.

5.2 Tracking the Storm

In the event that severe weather is predicted, the gate personnel and the HPT Team should monitor the weather forecast and conditions. A weather band radio and an AM/FM radio are located in the gate house. The radios should be checked weekly to ensure that they are functioning properly and a supply of fresh batteries is available.* "Advisories and Bulletins" are issued by the National Weather Service stating location, wind velocity and expected path of the hurricane. Local TV and radio stations give updated information from the National Weather Service on the status of the storm. FM106.7 is the local Brunswick station for hurricane broadcast. After evacuation, the HPT will follow the status of the storm in preparation for reentry.

Glynn County has a NOAA weather station broadcasting 24 hours per day. The NOAA station is 162.425, the call sign is WWH-39.

Weather information can also be accessed on line at <http://www.srh.noaa.gov/jax/index.shtml> www.noaa.gov.

5.3 Area Actions

5.3.1 Each area has an identified supervisor (and an alternate) who have the overall responsibility for implementation of the Plan within their area. These individuals are the point of contact with the HPT. The primary duty of the area supervisor is to coordinate preparation for a safe shutdown in the event of a potential evacuation. In addition to initiating measures for a timely shutdown when ordered, the area supervisor will determine which employees should be released earlier due to the location of their home in a high risk area or special needs concerns with family members. The supervisor will alter work schedules to allow for early release of these personnel.

5.3.2 All area personnel will take the following actions prior to or at the issuance of the OPCON 5 status:

5.3.2.1 Check for loose objects that could become hazards during strong winds. All lightweight materials should be moved indoors, disposed of, or tied down.* Ensure that no loose drums, totes, or other containers or debris are left out in the open. When possible, place materials in sheltered warehouses. Close warehouse doors and gates. When not possible bind loose containers together to reduce their potential to blown around in the wind. Do not leave any equipment lying around that could be entrained by the wind. Check area buildings for loose metal siding that could present a safety concern and ensure that it is properly secured. Cover or shrink wrap dusty materials that might be wind blown.

5.3.2.2 Prepare to cover computers and other water sensitive equipment with plastic. Cover as soon as power to equipment is shut down.

- 5.3.2.3 Board up any windows which are particularly critical to limiting damage to electrical and computer equipment.
- 5.3.2.4 Load additional shipments as trucks or railcars are staged to help move critical product to customers. Move high hazard or water reactive materials to higher levels storage or ship inland to contracted warehouse space.
- 5.3.2.5 Check empty tanks within the area to ensure that they are properly tied down and add 3 feet of water to empty tanks.
- 5.3.2.6 Clear chemical lines by blowing back to storage tanks whenever possible. Close all outlet valves at storage tanks to preserve nitrogen blanket. Shut off hydrogen lines at tank.
- 5.3.2.7 Round up loose objects such as hazard barrier chains and stanchions and secure them inside a closed area.
- 5.3.2.8 After shutting down the area, pump all area sumps down as low as possible to reduce releases in the event of a heavy rain or power failure. If time permits, wash down any residual spills within process containment areas.
- 5.3.2.9 Ensure that all electrical breakers are in the off position, all doors and windows are secured, all critical equipment is wrapped in plastic to prevent rain damage, and nothing is left loose in the area prior to exiting the area.
- 5.3.2.10 Place sandbags in front of ground level control room doors to help reduce water damage to critical equipment which cannot be relocated to a higher floor.*

5.4 Logistics*

- 5.4.1 Logistics should attempt to procure trucks to pre-ship any available finished critical product to customers. Incoming shipments should be postponed. Logistics should contact customer service to keep them apprised of the potential impact of the storm on upcoming shipments.
- 5.4.2 Ensure that pre-storm inventory levels are known. Assist in implement inventory strategy for critical raw materials. Evaluate when to stop or delay shipments to avoid possible loss of additional inventory. Consideration should be made as to whether or not the supplies will be available after the storm.

5.5 Powerhouse

- 5.5.1 The powerhouse will coordinate with the environmental coordinator to pump as much wastewater as possible to the POTW. (In the event of loss of power in combination with heavy rainfall, the wastewater system and sumps are expected to overflow. Shut down wastewater pumps so they will not automatically restart when power is restored. Pump down wastewater API and tanks to 3 foot levels. Move all bags of lime into warehouse areas and cover with stretch wrap.
- 5.5.2 Prepare the boilers for shutdown.
- 5.5.3 Notify the **maintenance** representative prior to shutting down the plant air compressors so sprinkler systems valves can be closed. In order to have fire protection as long as possible, the air compressors should be kept running until all processes and the boiler is down.
- 5.5.4 Ensure that all electrical breakers are in the off position, all doors and windows are secured, all critical equipment is wrapped in plastic to prevent rain damage, and nothing is left loose in the area to reduce wind damage.
- 5.5.5 Coordinate with the electrical company regarding shutdown of power to the plant.

- 5.5.6 Set nitrogen feed on low flow to try to maintain a minimal level of nitrogen flow for a longer period of time.
- 5.5.7 Shut off natural gas flow to plant at L-street.
- 5.5.8 Minimize sawdust immediate to process. Empty and secure all belt systems. Board up opens into powerhouse buildings.

5.6 EHS Department

- 5.6.1 Ensure that all drums and totes on the solid waste and hazardous waste pads are banded together.
- 5.6.2 Secure all loose equipment at the Environmental Technician's office building, the Outfall buildings the firehouse, and the safety and environmental storage buildings. Ensure that all building doors are closed and secured with bands or locks. Ensure that all emergency vehicles and equipment are secure.
- 5.6.3 Check plant ditches and sumps for oils or other spills that might result in a release during heavy rainfall. Coordinate with contractor to vacuum up any observed material. Assist powerhouse in transferring any wastewater that cannot be pumped to the city POTW to one of the wastewater storage tanks.
- 5.6.4 Ensure that the fire pumps are shutdown prior to leaving the plant. *
- 5.6.5 Conduct fire inspections of all process areas before exiting the plant.
- 5.6.6 Pack supply kits for return. These should include ph, VOC, and LEL meters, first aid kits, batteries, flashlights, and PPE supplies.

5.7 Maintenance

- 5.7.1 Coordinate exit of contractors, except those assisting in hurricane preparations, from the plant at OPCON2. Ensure that contractors either remove all equipment or secure the equipment in buildings or with tie downs.
- 5.7.2 Ensure that areas undergoing demolition do not present hazards due to partially dismantled piping or equipment or dismantled piping, equipment, or debris left in the area. When OPCON 3 is announced, all demolition operations should cease except for those required to ensure safety and the demolition contractor should concentrate on off-site shipment or securing any dismantled piping or equipment.
- 5.7.3 Ensure that all plant vehicles and emergency generators are filled with fuel.
- 5.7.4 Assist areas in securing any loose metal siding and boarding up windows.
- 5.7.5 **Before the air compressors go down, close all sprinkler valves. (If possible, wait till all area operations are down.)**
- 5.7.6 Assist main office personnel and control rooms in sand bagging office doors to prevent water damage to buildings.
- 5.7.7 Allocate staging areas for plant mobile equipment. Move as many of the plant vehicles as possible into shelter areas either underneath the powerhouse or in mobile equipment or shop areas.
- 5.7.8 Assist areas with electrical shutdown as needed. Ensure that all power to areas and administrative buildings, etc., is shutdown to prevent potential for electrical fires or shock when power is restored after the storm has passed.
- 5.7.9 Ensure that main gate is closed and locked before exiting plant.

5.8 Controller (main office and gate personnel)

- 5.8.1 Ensure that adequate petty cash is on hand to pay for post storm necessities when credit card systems may not be working. Petty cash supplies should be allocated to designated reentry personnel.*
- 5.8.2 Coordinate shutdown of office facilities.
- 5.8.3 Ensure that all computer equipment and other critical equipment is wrapped in plastic.
- 5.8.4 Ensure that windows are boarded up.
- 5.8.5 Complete a survey of the perimeter to ensure that the manual gates are located. Check for loose materials, debris, etc along non process areas of the plant and fence line. Arrange for proper securing or removal of these items to prevent potential for wind damage.
- 5.8.6 Assist in sandbagging doors to main office and gate house after everyone has exited the building.

5.9 Purchasing*

- 5.9.1 Assist in implement inventory strategy for critical raw materials.
- 5.9.2 Ensure that all plant fuel diesel and gasoline tanks are topped off.
- 5.9.3 Ensure that the following supplies are in-stock (stored in the plant warehouses) for use in preparation for the storm:
 - sand bags (minimum of 500)
 - portable emergency generators
 - plywood
 - tape (masking and water proof tape)
 - plastic sheeting
 - rope (for banding drums and other materials)
 - tie down straps
- 5.9.4 Ensure that the following supplies are in-stock (stored on the second floor) of the main office for use by the HPT and maintenance employees who return first to access the condition of the plant after a hurricane event.
 - bottled water
 - powdered gatorade
 - non perishable food supplies
 - first aid emergency responder bags
 - flashlights and batteries
 - portable emergency generators
 - rain suits, rainboots, gloves
 - sleeping bags
 - hygiene supplies and towels

5.10 Information Technology (IT):*

- 5.10.1 IT will ensure that hard drives for all process control and network computers are backed up and a copy stored off site in an inland location.

- 5.10.2 Encourage employees to backup the hard drive for their personnel computer to the J-drive. Those employees who have lap tops assigned to them should take them with them when they evacuate.

5.11 Security *

The EHS Manager is responsible for ensuring that at least one hurricane evacuation drill or tabletop exercise is conducted annually.

- 5.11.1 Maintain a head count of all personnel, contractors, visitors, and truck drivers who are on the plant when the plan is initiated or who arrive during hurricane evacuation preparations.
- 5.11.2 Ensure that all persons are accounted for and evacuated.
- 5.11.3 Notify the local authorities when the plant has been fully evacuated.
- 5.11.4 Conduct monthly inspections during hurricane season for housekeeping issues such as loose objects, scrap metal, unsecured siding, etc. and develop preventative corrective action.