INVISTA purchased the assets of the Seaford site on April 30, 2004 from E.I. DuPont de Nemours & Company (DuPont) but did not purchase the underlying property which it leases from DuPont. The ash landfill permit was transferred from DuPont to INVISTA on June 23, 2005. Therefore, by way of clarification, any references to activities, documents, data, reports and other information contained in this application that convey that such information occurred or are dated prior to June 23, 2005 were prepared by or on behalf of DuPont.

OPERATIONS PLAN
INVISTA SEAFORD
POWERHOUSE
ASH LANDFILL

PREPARED BY:

M. A. Terry
Seaford EHS Group
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1.0 INTRODUCTION

1.1 Objectives

The objective of the operations plan is to describe the environmentally safe disposal and/or alternative use of coal ash from the INVISTA Seaford Site Powerhouse Facility. This Plan is a revision of the "Operations Plan for the Seaford Powerhouse Ash Landfill" published September 26, 2003. This plan complies with the ***Delaware Regulation Governing Solid Waste, Section 4: Permit Requirements and Administrative Procedures, Sub-Section B. Application Procedures for Sanitary and Industrial Landfills, Item 1.c Application – A plan of operation,*** the Delaware Department of Natural Resources and Environmental Control's (DNREC) emphasis on recycling, reusing, and reclaiming of coal ash, and the DNREC's description of coal ash as an industrial waste. Recycle markets are continually being pursued and established for use of the ash material. Alternate uses of ash are regulated through the Beneficial Use Determination (BUD) program which is administered by DNREC's Solid and Hazardous Waste Management Branch (SHWMB)

INVISTA operates its on-site ash landfill within safe engineering and environmental practices. The Operations Plan includes specific sections on facility description and general operating procedures, fire and safety requirements, training, systems and equipment, procedures of operation, environmental monitoring plan and contingency plan. Other pertinent information in this plan includes alternative uses of ash (other than landfilling).

The INVISTA Seaford site's ash landfill does not receive any wastes other than ash from the facility's Powerhouse operations. This includes primarily coal ash and limited amounts of fuel oil ash. Therefore this Operations Plan does not include procedures pertaining to the acceptance or handling of any other types of waste.

1.2 Coal Ash

Prior to the 1988 solid waste regulations, coal ash was considered to be a "special inert waste", not an industrial waste. Industrial waste landfills require a liner, leachate collection system, gas collection system and capping system. In accordance with DGSRW Section 2.D.1.b DNREC permits the INVISTA Seaford powerhouse ash landfill to be operated without these features in the landfill, except for a final closure capping system, as long as INVISTA continues to dispose of the ash in active areas of the landfill. Active areas of disposal are those cells, which are placed on top of existing landfill cells.

1.2.1 Chemical Characterization of Ash

The ash from the powerhouse is a product of the combustion of bituminous coal and contains elemental metals that cannot be broken down and unburned carbon from incomplete combustion of the coal. The presence of oxygen and the destructive environment in the boilers helps to promote the formation of metallic oxides. In general terms, the ash particles are composed of glass with some crystalline matter and carbon. Varying amounts of lime are also present (FHA 1986). Metal species often condense on the ash as flue gases carry particles out to the furnace combustion zone (Spencer and Drake 1987). The Seaford ash, exhibiting ASTM Type F ash characteristics, has the following typical chemical compositions (FHA 1986):

Compound	Percentage
SiO_2 (silica)	54.9
Al_2O_3	25.8
Fe_2O_3	6.9
CaO (lime)	8.7
MgO	1.8
SO_3	0.6

The components, consisting of glassy spheres, silicon dioxide, aluminum oxide, and ferric oxide, comprise approximately 60 to 90% of the ash. The actual percentage of each compound varies according to the coal sources and the combustion process.

The loss of ignition (LOI), a measurement of the unburned carbon remaining in the ash of the Seaford ash ranges from 9.3% to 14.5% with an average of 11.6%.

The 1980 operations plan included a section on the leachate analyses (Section 3.1) of composite split-spoon samples collected from ponds #1 and #2. When the samples were collected in August 1978, pond #1 was filled (1966) and overgrown with vegetation; pond #2 was in service. Composite samples from each pond were analyzed for leachability, using a procedure applied by the DNREC for the extraction of sludge waste materials. The three-step procedures consisted of mixing water with the sludge at a certain weight ratio (water: sludge at 25:1, based on dry weight of sludge) and a pH of either 4, 7, or 10. The mixtures were then agitated with a magnetic stirrer for several hours, after which leachate was filtered off and analyzed using the U.S. EPA Manual of Methods for Chemical Analysis of Water and Wastes. Per these procedures, the leachate was analyzed for various metal species, anions, total dissolved solids (TDS), and pH.

The results of these leach tests, for most of the analyzed parameters, concentrations were below the allowable detection limit. For all of the parameters and samples, concentrations were well below primary and secondary drinking water quality standards, thereby suggesting that the material will have no impact on the local groundwater system. Based on these results, in May 1980, the DNREC gave DuPont approval to excavate the ash from the ponds to be landfilled. DNREC classified the coal ash as "inert material".

Further leach testing was completed in 1980 after steam boilers #2 and #3 were refitted for coal burning due to a Department of Energy prohibition order and the complete conversion of boiler #1 to coal burning capability. An electrostatic precipitator was installed on each boiler in order to meet particulate emission limits for air quality control. Refitting created a new waste stream, which flowed into pond #2. This new ash was tested using the above-mentioned procedure and also the newly created (at the time) extraction procedure (EP) toxicity test, which was (until September 15, 1990) used to determine if a waste was RCRA-hazardous. Along with this ash, a sample of water overflowing from pond #1 through Outfall 007 was also analyzed for certain specified parameters. Results from these analyses are comparable to those from the pond #1 leach testing.

The EP toxicity test and toxicity characteristic leachate procedure (TCLP) were performed on the ash in 1981, 1989, 1992, 1993, 1995, 1999, 2001and most recently in 2005. Results from these analyses show that the facility's ash material is not RCRA-hazardous. Results of the 2005 testing are included in Appendix 1. All other test results are on file at the INVISTA Seaford Site.

1.2.2 Physical Properties of Ash

A comprehensive study of the physical characterization of the powerhouse ash was conducted in 1992 by Patton Harris Rust & Associates, pc. and was made available to DNREC. This study focused on coal ash utilization, investigation, testing and engineering. Ash storage field explorations and laboratory analysis involving Proctor testing, California Bearing Ratio, specific gravity, swell testing, permeability testing, classification, Loss on Ignition, TCLP, soil/ash/cement compressive straight - California Bearing wetting - drying and freezing - thawing tests and Flowable Fill were conducted. The results of this study showed that the powerhouse ash is suitable for uses as an embankment material, in lieu of borrow soil and the ash may be successfully used as a constituent in soil/ash/cement mixtures and flowable fill. A copy of the study, "Coal Ash Utilization Study - Investigation, Testing and Engineering" December 30, 1992, is on file in the INVISTA Seaford Site EHS Section.

1.3 Fuel Oil Ash

On November 29, 1994, approval was granted by the Solid Waste Management Branch of DNREC for the disposal of ash from the cleanout of nine fuel oil fired dowtherm vaporizers into the ash landfill. The Power House utilizes nine fuel oil fired dowtherm vaporizers to supply high temperature dowtherm vapor for the nylon process. Annual cleaning of their firing chambers produces approximately one cubic yard of ash per unit or nine cubic yards per year.

1.3.1 Chemical Characterization of Ash

The dowtherm vaporizers burn No. 6 and No.2 fuel oil. The vaporizers are cleaned by either vacumming the ash out or using high pressure water. The ash and/or ash washwater mixture are vacuumed into drums or collection truck and landfilled. The fuel oil ash waste stream has the following approximate composition:

Component	Percentage
Fuel Oil Ash	98-99 %
Trash/water	1-2%

The TCLP characterization of this material performed in October 1994 (shown below) indicates that this material is non-hazardous and similar to the coal ash which is stored in the landfill.

Compound	Analytical Result (mg/L)
Arsenic	0.545
Barium	0.034
Cadmium	Not Detected
Chromium	0.802
Lead	Not Detected
Mercury	Not Detected
Selenium	Not Detected
Silver	Not Detected

2.0 FACILITY DESCRIPTION AND GENERAL OPERATIONS

2.1 Facility

The INVISTA Seaford Nylon plant is located at 25876 DuPont Road; outside the city limits of Seaford, Delaware and is noted for its production of nylon. The plant property is southeast of the town of Seaford, located on an alluvial

plain and abutting the Nanticoke River on the western side. The landfill is at the extreme southern end of the plant site, just below the Powerhouse facility. A plan view of the plant, in relation to the town of Seaford, is shown in Figure 1. A more detailed view of the plant, including the landfill, ponds, and groundwater monitoring wells, is shown in Figure 2. A layout of the coal ash settling ponds is shown in Figure 3. And the original ash disposal area is shown in Figure 4.

2.2 History

On May 14, 1980, DuPont's Seaford Fibers plant sent an application to the DNREC, which described a long-range plan for disposing of its powerhouse ash as "inert, solid fill material". The DNREC approved the plan on June 3, 1980, pursuant to Section 3.06(d)(10) of the Delaware Solid Waste Disposal Regulations (promulgated on August 29,1974). Section 3.06, under "Applicability", covered exemptions of inert solid wastes. The ash landfill was subsequently permitted as solid waste disposal facility through permits SW-81/17, SW-82/27, SW-83/29, and SW-850/03. The permits were issued pursuant to Section 7.03(g)(11) of the previous solid waste regulations, which described operational requirements for industrial landfills managing special solid waste.

The 1980 operations plan described the ash from the Seaford powerhouse as "inert, solid fill material: The operational requirements for inert, solid fill material in the 1974 solid waste regulations are contained in Section 7.03 (g)(11), "Operational Requirements for Industrial Landfills Managing Special Solid Waste". The definition of special solid waste from the previous regulations is similar to that in the current regulations, and recognized that these materials require different management than that for industrial wastes. The DNREC does not consider the ash from the powerhouse as a special solid waste and encourages the ash to be recycled, reused and/or reclaimed rather than landfilled.

In accordance with Section 2.D.1.a of the "Delaware Regulations Governing Solid Waste" (1988), DuPont submitted a compliance plan and schedule for the powerhouse ash landfill. This plan and schedule listed deficiencies within the landfill, which would need to be corrected to comply with the solid waste regulations. The following issues were inadequately addressed by the May 14, 1989, plan of operations:

* Surface water management system

* Groundwater monitoring program

* Landfill closure and post-closure plan.

* Statement of financial responsibility for landfill closure.

* Plan of operations, including more detailed record keeping and the issuance of an annual report.

These issues were addressed by the July 31, 1991 "Operations Plan for Seaford Powerhouse Ash Landfill." Pursuant to Sections 4.A1 and 4.B2 of the State of Delaware Regulations Governing Solid Waste (DRGSW), the DNREC issued Permit SW-91/02 on March 25, 1991 to operate the landfill for the disposal/storage of fly ash and bottom ash. The permit was modified February 7, 1992 to reflect the July 31, 1991 operations plan.

The permit was renewed and issued January 30, 1998 pursuant to Section 4.A.1.a of the State of Delaware Regulations Governing Solid Waste. Permit modifications have been made since this time for the following reasons:

- July 31, 2002 to incorporate the TCLP Analysis Ash Pond Sampling Plan and the name of DNREC's SHWMB.
- January 22, 2003 to provide a one-year period for DuPont to meet new permit renewal application requirements.
- January 24, 2005 to allow DNREC time to review INVISTA's request to transfer the permit from DuPont to INVISTA S.à r.l.
- June 23, 2005 to remove Hazardous Waste Corrective Action requirements from the permit and to transfer the permit from DuPont to INVISTA. Extended the permit expiration date to January 15, 2007.

2.3 Ash Production and Conveyance

Three steam boilers burn bituminous coal for steam and power generation in the Seaford powerhouse. This coal originates from sources in Pennsylvania and West Virginia. The burning of the coal produces two by-products, bottom ash and fly ash.

The bottom ash is collected in the bottom of each boiler in a large refractory lined hopper. A small amount of ash also collects in the base of the main powerhouse stack. All other ash is considered fly ash and is collected at several different locations along the gas release system, with each location having one or more hoppers. The locations at which the fly ash drops out of the system are the last-gas pass, the economizer, the air heater, and the electrostatic precipitator. For each boiler, there are 17 hoppers to collect the fly ash, 9 of which are located under the electrostatic precipitator.

Of the ash generated from combustion of the coal, 85%, by volume, is fly ash; 15% bottom ash. These percentages can change from 5 to 10% as a function of the coal source or boiler operation. Physically, there is little difference between the generated bottom ash and fly ash other than particle size. The bottom ash passes through a grinder as it is sluiced to the ponds and its particle size distribution becomes similar to that of the fly ash. The amount of ash generated per year is approximately 25,000 tons (dry weight) based on a

material balance which assumes that a certain percentage of the coal burned is ash and that 100% of this ash is recovered through the electrostatic precipitator or the bottom ash collection system.

The fly ash is collected in hoppers and conveyed pneumatically by vacuum to a water hydrovactor. There, it mixes with water in the venturi and discharges into an ash sluice pit. This ash sluice pit is located on the ground floor of the powerhouse The bottom ash collected in the refractory lined hoppers is periodically removed by a water spray system. The bottom ash and water mixture flows into a trench, through a clinker grinder, and finally, into the same ash sluice pit as the fly ash. The ash collected in the base of the powerhouse stack is sprayed with water and conveyed to the bottom ash trench by a hydroejector. As before, the ash is deposited in the ash sluice pit. Both the fly and bottom ash are sluiced by pump through piping to the settling ponds south of the powerhouse. A cationic polyelectrolyte is added to the ash sluice to enhance flocculation and settling. A carbon dioxide (C02) water treatment system is utilized in the pond operation to control the pH of the discharge water between 6 and 9 standard units. The ash system is designed to operate 24 hrs/day if required, but averages around 12 hrs/day at full powerhouse load. In operation, the ash sluice pump moves 1,000 to 1,200 gallons per minute (gpm) to the settling ponds.

2.4 Ash Settling Ponds

Figure 3 shows the layout of the coal ash settling ponds, pond #1 and pond #2 and an associated finishing pond. The North Pond (Pond No. 1) is approximately 480 feet long, the South Pond (Pond No. 2) is approximately 650 feet long, and the central finishing pond is approximately 240 feet long. All three ponds are approximately 300 to 320 feet wide. The bottom elevation of each pond is +4.0 feet above mean sea level (msl) and the elevation at the top of the berm is +18.5 feet msl. The berm is designed to have a slope of 3:1 (horizontal: vertical) on the interior and 2:1 on the exterior. The top of the berm has a width of 10 feet. The ponds are not lined with a synthetic or natural liner. The overflow from ponds #1 and #2 goes into a secondary-finishing pond, located in between the two ponds.

The secondary finishing pond also has an overflow at an elevation of +12.0 feet msl. A floating boom is located around this overflow. The overflow discharges through a weir box into a combined final effluent ditch, which discharges into the Nanticoke River. This discharge is regulated as Outfall 007 under the NPDES Permit DE0000035.

From past use, each primary pond, when filled to the +17.0 feet msl overflow elevation, will hold between 55,000 yds3 to 80,000 yd3 of settled ash. Ponds reach full capacity in 21 - 30 months at the disposal rate of 37,000 yds3/yr (25,000 dry tons/yr.). These numbers are based on the assumptions that the ash has a dry density of 50 pounds per cubic foot (pcf) in the ponds and the

moisture contained within the ash does not cause a substantial increase in the volume of ash generated for disposal. The actual volume of ash may vary.

2.5 Transportation of Ash to Landfill

2.5.1 Coal Ash

After the ash is transferred to the settling ponds by sluicing through pipe, the solid-liquid separation occurs. The ash settles to the bottom of the ponds and the water flows into the secondary pond and eventually to the Nanticoke River by means of Outfall 007 and the combined effluent ditch. The ponds are left undisturbed up to 6 months after reaching their full storage capacity. During this time period, the ash is dewatered by evaporation.

Any excess water present in the ponds when full capacity is reached is removed by digging a trench along the sides of the pond and pumping the water, which flows into the trench into the active pond. This work is completed by an "earth moving" contractor. Alternate dewatering schemes developed by contractors are acceptable, but must be approved by INVISTA. INVISTA will notify DNREC of any alternative de-watering methods that are being considered for use at the ash settling ponds.

The settled coal ash in the ponds is excavated and transported to the landfill/storage area, by standard earth moving equipment such as front-end loaders, dragline cranes, dump trucks, etc. Certified surveys are conducted before and after excavation to verify the actual volume of material removed from the ponds. On the average, each coal ash pond is emptied every three years.

The ash in a full pond is excavated to the original grade and slopes of the dikes. An acceptable deviation from this requirement would be to leave sufficient ash undisturbed to prevent seepage through the dikes. If a contractor during excavation of the ash damages a dike, they will repair this damage.

To prevent clogging of the overflows, the 18-in. concrete pipes are plugged. The contractor is responsible for the removal and reinstallation of the ash slurry piping. If any damage to the overflows occurs during excavation or the sluice piping and flotation equipment is damaged, it is repaired by the contractor.

Existing haul roads are used to transport the ash from the ponds to the landfill/storage area. The contractor during transportation operations maintains these roads. Spilled material from the hauling trucks is cleaned up daily. If there is a potential dusting problem with the ash, the haul trucks cover the material while transporting it to the landfill. Water is used to control dusting problems at the settling ponds, haul roads, and landfill. The excavation and transportation of ash from a full pond to the landfill takes

approximately 145 calendar days. This includes allowances for inclement weather and working from dawn to dusk, 7 days a week.

2.5.2 Fuel Oil Ash

A slurry is created by combining the fuel oil ash contained in the dowtherm vaporizers with soda ash and water. This slurry is vacuumed into a collection truck and transported to the ash landfill. The fuel oil ash is then placed in a bermed area of the landfill designated for the Power House coal ash cleaning process.

2.6 Ash Disposal/Storage Area

The INVISTA Seaford Nylon facility encompasses approximately 650 acres of land. Sixty (60) of those acres were previously land marked by the former owner of the facility (E.I. DuPont) for use as the site's ash landfill. INVISTA has also land marked this same acreage for use as an ash landfill; however, the area of the landfill cells pertaining to this renewal application only encompasses approximately 12.25 acres of the total identified acreage and is shown in Figures 1, 2, and 4. The 1980 operation plan described how the landfill would be divided into 12 cells, lettered from A through L. Cells A through F were filled based on the phase timetable for disposal described in Figure 6 of the 1980 operations plan. Disposal locations are now based on the topographic map provided in Appendix 2 of this operations plan. This new map redefines the previous A, B, C, D and I cells, into cells 1 through 12 of one acre in size.

Cells A, B, C, D and I, (New: 1 through 12), which have been and continue to be used for ash disposal, do not contain a liner, leachate collection system, nor a gas collection system. The existing non closure intermediate cover system incorporates, at the minimum, a 6-in. vegetated soil cover that is placed over each cell for erosion control.

The cell design consisted of depositing the ash at 12,900 yds3/acre. This ash was graded to blend with the natural terrain using front-end loaders and bulldozers. The edges around each cell were stabilized as necessary to prevent erosion during heavy rain. The ash was placed at a total depth of 8 feet in each cell, with compaction occurring due to the weight of the heavy operating equipment at the surface of the cell. The exterior slopes of each landfill cell were constructed so as not to exceed a 3:1 (horizontal: vertical) ratio. Intermediate cover of each existing cell consisted of placing, at a minimum, 6 in. of topsoil on the top and sides of the ash in each cell. The only requirement for this topsoil was that it be suitable for growing grass vegetation. Vegetation on each cell was established by planting perennial grass seeds then placing straw on top of the seeds to prevent erosion.

With the promulgation of the 1988 solid waste regulations, ash would not be placed in cells E, F, G, H, J, K and L according to the 1990 plan of operations.

The DNREC no longer consider the ash generated at the Seaford Fibers plant powerhouse to be "inert, solid fill material" (i.e., special solid waste). Therefore, the ash is now landfilled on top of the active cells 1 through 12. The landfill is operating under a permit which does not require a liner or leachate collection system in the currently active areas (Cells 1 through 12).

Since cells E, F, G, H, J, K and L are considered part of the site's industrial landfill instead of an industrial landfill managing special solid waste, additional landfill cell design specifications will be required before placing ash into these cells. When ash is to be placed into these cells, INVISTA will submit an appropriate Permit application to the State of Delaware according to the current regulations.

The DNREC has given written approval to INVISTA to place ash from pond #1, and pond #2 on top of existing cells 1 through 12. The process for landfilling this ash is detailed in Section 6.0 LANDFILL OPERATION AND MAINTENACE of this document. In this section compaction requirements for ash placement are specified. This specification, derived from physical (i.e., geotechnical) testing, extends the life of the landfill and helps prevents slope failures.

2.7 Schedule of Operation

The INVISTA Site production facility operates 24 hours a day / 365 days per year. Operation of the ash landfill varies depending on whether ash is being transported from a pond being excavated or ash is being hauled off site for utilization purposes. In general, operation of the landfill occurs 5 days per week, from 7:30 a.m. to 5:30 p.m. during periods of activity.

2.8 Operating Staff

To insure capability for operation and maintenance of the ash disposal process in accordance with Delaware Regulations Governing Solid Waste, the following groups and personnel have responsibilities in connection with ash disposal/utilization.

2.8.1 Environmental, Health and Safety Group (EHS) - This group assures that the ponds and landfill are properly operated and maintained in accordance with the solid waste regulations. A site EHS Resource is assigned the responsibility to serve as support staff for technical and regulatory issues, which arise during the construction, operation, maintenance and closures of the ash landfill. This person also serves as the liaison between the Power Operations Group and the State of Delaware concerning regulatory issues and Permit negotiations.

2.8.2 Seaford Power Group - The operation and maintenance of the ash landfill is assigned to the site's Power organization. The Power

engineer is accountable for the operation of the landfill as required by the State of Delaware's Solid Waste Permit and the Facilities Operations Plan. A EHS Associate is assigned to oversee the operations and maintenance of the landfill, which includes specific auditing requirements. This person also oversees the ash placement and extraction operations when being conducted by contractors. Delegated work includes developing scope of work plans, managing the contractor bids, and supervising the contractor's excavation and disposal operations. **Contractors** - Since the placement and extraction of ash is performed approximately every two and a half (2 ½) to three (3) year intervals, there are no permanent contractor operations associated with the landfill.

3.0 ENVIRONMENTAL, HEALTH AND SAFETY

3.1 Employee Health and Safety

Site employees and contractors at the landfill work under the appropriate health and safety guidelines established by the Occupational Safety and Health Administration (OSHA) and INVISTA safety rules. The site provides the following services to its employees and those contractors involved in the disposal of ash in the landfill. The location of these services is reviewed with the contractors prior to landfilling operations.

3.1.1 Suitable shelter, sanitary facilities and safe drinking water for landfill personnel are provided on site as part of the overall site operations.

3.1.2 Telephone and radio communications are provided through the use of cell phones and two way radios.

3.1.3 Production Operations has an on site Emergency Response Team and an Integrated Health Department which responds to any medical emergency that may arise at the landfill site.

3.1.4 Safety showers and eye wash stations are located throughout the production areas. Prior to starting work at the landfill site, work permits are completed which identify specific safety showers and eye wash stations for use by landfill personnel.

3.2 Fire Protection

3.2.1 Fire protection of the facility is managed by the on-site Operations Emergency Response Team, which meets the requirements for industrial fire fighting protection. This Team responds to any fire emergency that may arise at the landfill site. Individual fire extinguishers are required to be present at the site when specific welding or hot work is being performed.

3.3 Spill Response

3.3.1 Spill response for the facility is managed by the on-site Operations Emergency Response Team. This Team has received the 40-hour Hazwoper training and responds to any spill emergency that may arise at the landfill site. See Section 10.0 Contingency Plan for additional details.

4.0 TRAINING

4.1 **INVISTA Employees –** Training of employees who have responsibility for the management of the landfill includes reviewing the requirements set forth by the landfill's Permit and Operations Plan. This is completed when employees are assigned the specific position.

4.2 **Contract Employees** – Training of contract employees who are awarded a contract to either place ash in the landfill or excavate ash from the landfill for reuse receive the following training: Site emergency procedures, Lock-Tag-Clear and Try Procedures, operational & maintenance procedures, Safe Work Permit procedures and the associated scope of work requirements.

5.0 SYSTEMS AND EQUIPMENT

In accordance with DRGSW Section 2.D.1.b, the following systems are not incorporated in the landfills operation: leachate collection and treatment systems, gas collection systems and fire control systems.

5.1 Surface Water Management System

5.1.1 System Design – Stormwater, Erosion, and Sediment Control

The stormwater management system operating at the Seaford ash landfill meets the specifications under Section 6.F of the "Delaware Regulations Governing Solid Wastes". The general provision of this section is to ensure that the "owner or operator of an industrial landfill shall design, construct, and maintain a surface water management system to:

- Prevent erosion of the waste and cover
- Prevent the collection of standing water, and
- Minimize surface water run-off onto and into waste.

The following features exist at the landfill to manage surface water:

- Ash fill is placed within the landfill to direct stormwater run-off to a central location within the confines of the perimeter earthen berms. Stormwater in contact with ash fill is completely contained within the landfill facility.
- Ash-laden stormwater is filtered through extended detention prior to its discharge back to Pond #1 or Pond #2. Filtered stormwater is

conveyed to ponds by way of a temporary forcemain and portable diesel pump.

- Precipitation falling on the perimeter earthen berms, (exterior to the landfill), sheets down the side slopes of the landfill facility. Exterior berms are stabilized with a thick stand of vegetation and constructed with a reverse bench to reduce velocity of sheet flow. Reverse benches are provided at an interval of 17 ft vertical.

5.1.2 System Maintenance

The surface water management system is maintained by controlling the erosion of the cover and the ash. If the erosion of either is occurring, the area of concern will be stabilized first (e.g., straw bales, Portland cement, etc.) and filled in with cover material.

5.1.3 Surface Water Monitoring

Surface water monitoring is conducted as part of the surface water management system. This monitoring is detailed in the INVISTA Seaford site's "Coal Ash Landfill Groundwater, Surface Water and Ash Monitoring Plan" which is included in Appendix 6 of the application.

5.2 Equipment – The ash landfill is only active approximately every two and a half (2 ½) to three (3) years depending on when a ash pond needs to be excavated or when a ash utilization project is initiated. Due to this schedule, no permanent equipment is required to operate the facility.

6.0 LANDFILL OPERATION AND MAINTENANCE

The proper management of any landfill requires appropriate operation and maintenance procedures which, when followed rigorously at the landfill, will provide for a secure, stable environment for the ash and surrounding ecological environment.

The following requirements are implemented at the ash landfill disposal/storage site.

6.1 Operation

6.1.1 Spreading and Compacting - The ash will be spread in layers and compacted by repeated passes of the compacting equipment to obtain the degree of compaction specified in the Engineering Report, Section 3.3. Ash is deposited at approximately 12,900 yds3/acre, with a cell height of approximately 8-ft. The ash is placed in a selected area by dump trucks and is then spread and compacted in each cell in lifts which do not exceed twelve (12) inches. Ash is to be compacted to at least ninety-two (92%) standard proctor maximum dry density (ASTM-696).

6.1.2 Testing will be performed on each lift to verify the ash fill has been placed and compacted to ninety-two percent (92%) of the Standard Proctor maximum dry density. A minimum of two (2) compaction tests per acre per twelve (12) inch lift will be performed on representative samples of ash at appropriate intervals. Documentation of certified testing will be provided to INVISTA during each week of operation and as well as completion of the project.

6.1.3 The slopes will be stabilized for erosion control and dusting potential by adding small amounts of cementhydrated lime or spraying with a hydro-seed-straw emulsion. If humid conditions are present during construction of the cell, the slope can be stabilized with calcium chloride. Other options for erosion control during and after the construction of the cells include the use of silt fences, straw bales, erosion control ditches, and/or sedimentation basins.

6.1.4 After final ash placement, the disposal area will be graded to be nearly level, with an inward center slope. Center catch drains with discharge piping are to be provided to control sheet water flow control across top cover material.

6.1.5 Final grade of the side slopes of the ash will be, at a maximum, constructed to a 3 (H) to 1 (V) slopes.

6.1.6 An intermediate cover of six (6) inches of topsoil will be placed on the open ash cells and uniformly rolled into place over the exposed ash. The surface is to be seeded with Kentucky 31 Fescue at a seeding rate of seven (7) pounds per 1,000 square feet. A ¼" layer of straw will be placed on the seeded areas to facilitate seed germination and the prevent erosion.

6.1.7 Topsoil utilized as cover will be suitable for establishing vegetation. Suitable topsoil is to meet the requirements set forth in Section 4.0 'Topsoil' of the Engineering Specifications – Final Closure System document. Soil will be tested per TCLP method SW-846, "Test

Method for Evaluating Solid Waste" for making a hazardous determination of any incoming soils.

6.2 Control of Nuisances and Hazards

6.2.1 Odors - The ash is a product of combustion. No odors such as noxious gases are associated with or generated by this type of material, and, thus, there is no concern of odors being detected off-site or impact to ambient air quality.

6.2.2 Dust – Dust can be created during the process of excavation or placement of ash in the landfill. It is controlled by the application of water by truck. The ash placed in the landfill contains enough moisture to control any dusting problems associated with the material itself.

6.2.3 Litter - The ash is not typical of municipal or industrial waste. Litter is not present in the ash, and, therefore, litter controls (e.g., silt fences) are not needed at the landfill.

6.2.4 Fires - There is no potential for fires at the landfill because the landfilled ash is the product (not a raw material) of combustion.

6.2.5 Access - Access to the landfill site is limited to those persons authorized to use the site for the disposal / storage of ash. Access to the INVISTA Seaford plant site is available only to authorized INVISTA employees and contractors. The site is protected from unauthorized public access by a fence. A security force manages entrance to the plant.

6.2.6 Salvaging (Utilization) - When landfilled ash is excavated for alternative uses (e.g., construction material); the operation will be completed in accordance with the solid waste regulations and to the landfill Permit. The salvaging of ash for alternative uses will be performed in a manner that will not create an atmosphere of unsightliness, nuisances, health hazards, or potential safety hazards. Before a salvaging operation begins at the landfill, a scope of work will be created by INVISTA, which will include steps to prevent hazards and unacceptable work procedures.

6.2.7 Equipment - For normal operations (excavation of the ash from the ponds, transportation, and deposition into the landfill) equipment is provided by an earth-moving contractor. The cleaning of equipment consists of using water to remove ash.

6.3 Waste Volumes Received

Records of all volumes of ash received within the landfill are contained in the Seaford Site EHS files. This data is available in the Ash Landfill Annual

Facilities Operations reports. Records of the waste volumes received in the landfill are not available for ash deposited prior to October 1990. Quantity of ash generated is determined whenever an ash collection pond is excavated. Estimates of the disposal / storage volume, area of disposal (i.e., cell location), and time of disposal are included in the scope of work plans for the contractor bidding process on the excavation and disposal of the ash. Small quantities of coal ash and fuel oil ash from the Powerhouse cleaning operations (main boiler and fuel oil fired dowtherm vaporizers) are deposited directly into the landfill (Approval letters: Folmsbee to Terry - June 9, 1994 and November 29, 1994). Documentation of placement will be accomplished by completion of the "Seaford Site Coal Ash Landfill Ash Disposal Authorization", Document Number 32913. A copy of the document is provided in Appendix 3.

6.4 Maintenance / Post Closure Care

The maintenance of the landfill will comply with the solid waste regulations and the landfill Permit. Post-closure monitoring and maintenance of the powerhouse ash landfill consists of the following features:

6.4.1 Cover system: A 6-in. soil cover is used for intermediate cover of each ash landfill cell. The requirement for the cover is that it be suitable for vegetative growth. The completed cells at the landfill have a thick vegetative cover, which promotes stabilization and erosion protection of the cover. A capping system, which is consistent with Section 6.H of the solid waste regulations will be implemented for post closure.

6.4.2 Damage to the cover system will be repaired immediately. Damage may occur due to either erosion of the cover or subsidence. This damage area will be stabilized first (by straw bales, cement, etc.) to prevent further deterioration and then repaired by backfilling with appropriate cover material and seeding.

6.4.3 The landfill area will be reseeded, if insufficient vegetation exists (e.g., during a drought period) to stabilize the cover.

6.4.4 Groundwater at the landfill will be monitored.

6.4.5 Maintaining the surface water management system. Surface water run-off is controlled to a minimum by providing sufficient vegetation and allowing a maximum of a 3:1 side slope in the landfill.

6.4.6 Control of standing water on the closed landfill. See Section 5.1.

6.4.7 Open burning. The ash is an end result of burning. There is no potential for further combustion.

6.5 Compliance Inspections

The landfill facility is inspected as frequently as necessary to maintain the landfill in a manner that complies with the conditions of the Permit and Operations Plan. Inspections are performed semi-annually, daily during active placement of ash and after significant rainfalls. Formal inspections are recorded on the 'Seaford Site Solid Waste Management Unit Site Condition Inspection Record' which are maintained and filed in the EHS File Room No. 19. A copy is provided in Appendix 4.

7.0 ASH UTILIZATION

One of the overall objectives of the operations plan is to promote the reuse of the ash generated from the combustion of coal in the powerhouse. As stated in Section 1 (Declaration of Intent) of the 1988 "Delaware Regulations Governing Solid Waste", one of the purposes of the regulations are "to encourage, in all appropriate ways, recycling, reuse, and reclamation processes".

Since 1991, the INVISTA Seaford plant has been actively involved in the pursuit of the reuse of ash in the construction industry. In-depth testing and evaluation were conducted to define properties of the site's ash and its suitability for use as a substitute for traditional construction materials. Through this work, in December 1992, the site obtained a blanket approval from the DNREC for specific end uses of coal ash such as embankment fill; soil/ash/cement and ash/cement flowable fill mixtures. Projects, which were not addressed by the blanket approval, were reviewed and approved by DNREC on a case by case basis.

This approval is no longer in effect, INVISTA will seek BUD approval on future reuse projects.

7.1 Projects

The Seaford Site has demonstrated that coal ash is a versatile, practical and economical engineering alternative to standard construction material and has also demonstrated that its use is a cost effective alternative to disposal. Projects have ranged from the use of ash in flowable fill applications to the use of ash as general fill for the development of a private golf course. These activities allowed the utilization of approximately 410,951 yds3 by the end of 1996. Following is a list of the ash utilization projects which, have been completed by the INVISTA Seaford Site.

Date	Description	Ash Product	Approximate Quantity
Mar. 1993	Test Pad Strength Verification - Site	Flowable Fill	8.3 tons
Mar. 1993	Backfill Underground Water Line - Site	Flowable Fill	1.0 ton
Jan. 1995	Backfill - Silver Lake Bridge, Sussex County	Flowable Fill	119.7 tons
Feb. 1995	Construct New Site Process Facility - Filled Basement	Flowable Fill	1,385 tons
Jun. 1995	Backfill For Landfill DuPont Cherry Island	Non Stabilized	20,000 tons
Oct. 1995	Subgrade Fill - DSWA Cell #3 - Southern Management Center - Sussex County	Non Stabilized	42,425 yd3
Nov. 1995	Subgrade Fill - Seaford Golf & Country Club Course Expansion	Non Stabilized	346,195 yd3
Jan. 1997	100% Utilization of Site Ash.		

7.2 Waste Volume Utilized

Record of all volumes of ash utilize will be documented on the EHS "Ash Utilization Notification Report and Approval" form. Theses records are contained in the Seaford Site EHS files. This log will be maintained of all projects in which the plant's ash is utilized. It will contain the date of the utilization, project, the marketer, user, application, location of project, ash product, quantity, project schedule, and resource approval. A copy of the form is provided in Appendix 5.

8.0 ENVIRONMENTAL MONITORING PLAN

Environmental monitoring of the INVISTA Seaford site's ash landfill is conducted per the facility's 'Coal Ash Landfill Groundwater, Surface Water and Ash Monitoring Plan'. A copy is provided in Appendix 6.

9.0 CLOSURE PLAN

The SEAFORD ASH LANDFILL CLOSURE PLAN for the INVISTA Powerhouse ash landfill ensures that the landfill cells are closed in manner that minimizes the need for further maintenance and escape of solid waste constituents. The minimization of leachate and landfill gases and their escape to the surface water, groundwater, or atmosphere, are addressed through the design of the final closure system. This plan is under separate cover and is not made part of the Operations Plan. A copy is provided in Section 10 of the Seaford Ash Landfill Renewal Application.

10.0 CONTINGENCY PLAN

A contingency plan is a plan that can be implemented in case of an emergency (e.g., a fire, explosion, or spill that threatens public health and safety or the environment). The following elements of the plan will be implemented in case of an on-site emergency:

10.1 Types of Emergencies – An emergency or disaster are a condition requiring assistance over and above that, which can be supplied in the normal routine way. Such emergencies may result from equipment fires, chemical spills, discover of unauthorized wastes, severe weather, power failures or medical emergencies. Such conditions would warrant activation of the contingency plan.

10.2 Communications

10.2.1 In case of an emergency, the responder to the emergency should activate the fire alarm box nearest the scene of the emergency. In case a fire box is not in the vicinity of the emergency, a telephone call can be placed to the site's emergency response phone number Ext. 1234 or by cell phone one must call 629-1234. The site security force who will activate the site's Emergency Response Team will answer this call.

10.2.2 The person activating the fire alarm box must remain at the fire alarm box, unless personally endangered, until arrival of the ERT. ERT is then directed to the site of the emergency.

10.2.3 Upon arrival of the ERT, the Officer in Charge will determine whether the assembled ERT members can address the emergency or whether the "Disaster" Plan should be put in motion.

10.2.4 If deemed of Disaster proportions, the ERT will contact Security at the West Gate by radio, telephone or messenger to have the "Disaster" alarm box activated. This will put the "Disaster" plan in operation.

10.3 Organizational Functions and Responsibilities

10.3.1 Plant Manager or Designate – Over all responsibility for Plant personnel and assets.

10.3.2 ERT Technician / Chief – Responsible for coordinating activities of ERT during emergency such as Communications, Field Forces and ERT members.

10.3.3 Deputy Chief – Responsible to coordinate and direct emergency response activities and communications at the scene of the emergency.

10.3.4 ERT Captain(s) – Assists Deputy Chief as directed to most effectively address emergency.

10.3.5 ERT Teams – Participates and supports all site emergencies.

10.3.6 Environmental, Health and Safety Manger – Advisory assistance at site of emergency.

10.3.7 Plant Nurse – Assist in treatment of medical cases at site's Medical center.

10.4 Emergency Contact List

The emergency contact list contains emergency telephone numbers of site emergency coordinators, fire departments, emergency response, and local hospital. This list is provided in Appendix 7.

10.5 Spill Notification

A spill is defined as any noticeable material that is not in the container specified to hold it. If a spill is out of control or additional help is needed, the following steps are to be taken:

10.5.1 Notify the West Gate (x1241) and request the Security Officer to pull Alarm Box #10 to summon the Emergency Response Team (ERT). Be prepared to provide information to the spill responders such as material spilled, process hazards, MSDS number, location, and size of the spill.

10.5.2 Once notified, the ERT coordinates the incident response, and is authorized by the Plant Manager to direct Site assets and resources.

10.5.3 The site has an on-site contractor, which provides a fully trained, supplied, and staffed crew to clean up spills of Hazardous Materials. Contract Administration must be notified of spills that exceed the capability of the HazTeam.

10.5.4 The Site's process laboratory supports the ERT and the HazTeam by maintaining monitoring instrumentation

10.5.5 The Environmental, Health and Safety Group supports the Areas, ERT, and the HazTeam by providing regulatory expertise and communicating with corporate resources.

10.5.6 The Contract Administrator supports the HazTeam and provides additional clean up options in case the incident is beyond the on site contractors capabilities.

10.6 Supplies and Equipment

Supplies and equipment are critical to the quality of the response to any emergency. The assurance of adequate medical supplies and equipment are the responsibility of the site's ERT and Medical Section. These organizations follow industry standards to maintain the appropriate quantity of supplies and equipment.

10.7 Local Authority Familiarization

Familiarization of local authorities, local emergency response organizations, and local citizens with respect to the operations of the facility is conducted as follows:

10.7.1 A site tour is conducted of the facility on an annual basis to familiarize local emergency response teams with total plant site operations. This tour is managed by the site's ERT and incorporates any upgrades or system changes to the facility.

10.7.2 A Citizens Advisory Committee, comprised of local authorities and citizens, meets with the Plant site management on a scheduled basis to discuss site activities and systems.

10.8 Posting

The aspects of the ash landfill Contingency Plan are incorporated into the Plant site's Master Disaster Manual. This master plan is posted on the site's web page and is assessable by all employees and contractors.

11.0 RECORDKEEPING

Information relating to the installation, operation, monitoring, and closure of the ash landfill is recorded and retained at the INVISTA Seaford Plant. This information will be retained on-site for at least the entire post-closure monitoring period of 30 years. Any questions regarding this information should be directed to the Environmental Control Resource EHS.

12.0 ANALYTICAL RESULTS

A Study involving field investigation, laboratory testing and engineering evaluation was conducted in 1992 to characterize the ash according to particle size distribution, compaction, consolidation, permeability, etc. A copy of the study, "Coal Ash Utilization Study - Investigation, Testing and Engineering - DuPont Seaford Plant December 30, 1992" is on file at the INVISTA Seaford Site EHS Section. Analytical results for groundwater quality surface water quality, and EP toxicity and TCLP testing of the ash is available in the yearly hydrogeological studies. A copy of analytical results is contained on-site for review.

13.0 REPORTS

Specific reporting may be required by the site's State of Delaware Ash Landfill Solid Waste Permit. The Permit may require an Annual Operations Report, an Annual Hydrogeologic Report, and/or a Financial Assurance Report. These reports will be submitted to the State of Delaware as stipulated by the reporting requirement of the active Permit.

14.0 ENGINEERING SPECIFICATIONS

The SEAFORD ASH LANDFILL ENGINEERING REPORT for the INVISTA Powerhouse ash landfill details design features, installation methods and procedures, schedule of construction events, design capacity and projected life expectancy of the facility and quality assurance specifications. This plan is under separate cover and is not made part of the Operations Plan. A copy of this report, which is required to be signed by a Professional Engineer registered in Delaware, is provided in Section 5 of the Seaford Ash Landfill Renewal Application.

15.0 USE OF PLAN OF OPERATION

The Plan of Operation and the solid waste Permit is distributed to those INVISTA employees who are assigned the responsibility of the operation and maintenance of the site's coal ash landfill. Aspects of the plan, which pertain to the specific tasks which contractors are to perform, are included in the 'Scopes of Work' for such contractors.

16.0 REFERENCES

Boles, W.F. 1986. "Fly Ash Facts for Highway Engineers", Demonstration Projects Program, FHWA-DP-59-8. U.S. Department of Transportation, Federal Highway Administration, Washington, D.C.

GAI Consultant, Inc. 1988. "Fly Ash Construction Manual for Road and Site Applications, Volume 1: Specification Guidelines; Volume 2: Contractor's Guide", EPRI CS-5981. Final Report, Palo Alto, CA.

Martin, J.P., R. A. Collins, F. J. Biehl, J. S. Browning. 1989. Properties and Use of Fly Ashes for Embankments. "Journal of the Energy Division, ASCE."

Bowders, J. J., M. A. Usmen, and J. S. Gidley. 1987. "Stabilized Fly Ash for Use as Low-Permeability Barriers Geotechnical Practice for Waste Disposal", Geotechnical Special Publication #13, ASCE. New York, NY. pp. 320-333.

Edil, T. B., P. M. Berthouex, and K. D. Vesperman. 1987. "Fly Ash as a Potential Waste Liner, Geotechnical Practice for Waste Disposal", Geotechnical Special Publication #13, ASCE. New Your, NY. pp. 447-461.

Patton Harris Rust & Associates, PC. 1992. "Coal Ash Utilization Study, Investigation, Testing and Engineering, DuPont Seaford Plant". Seaford, Delaware

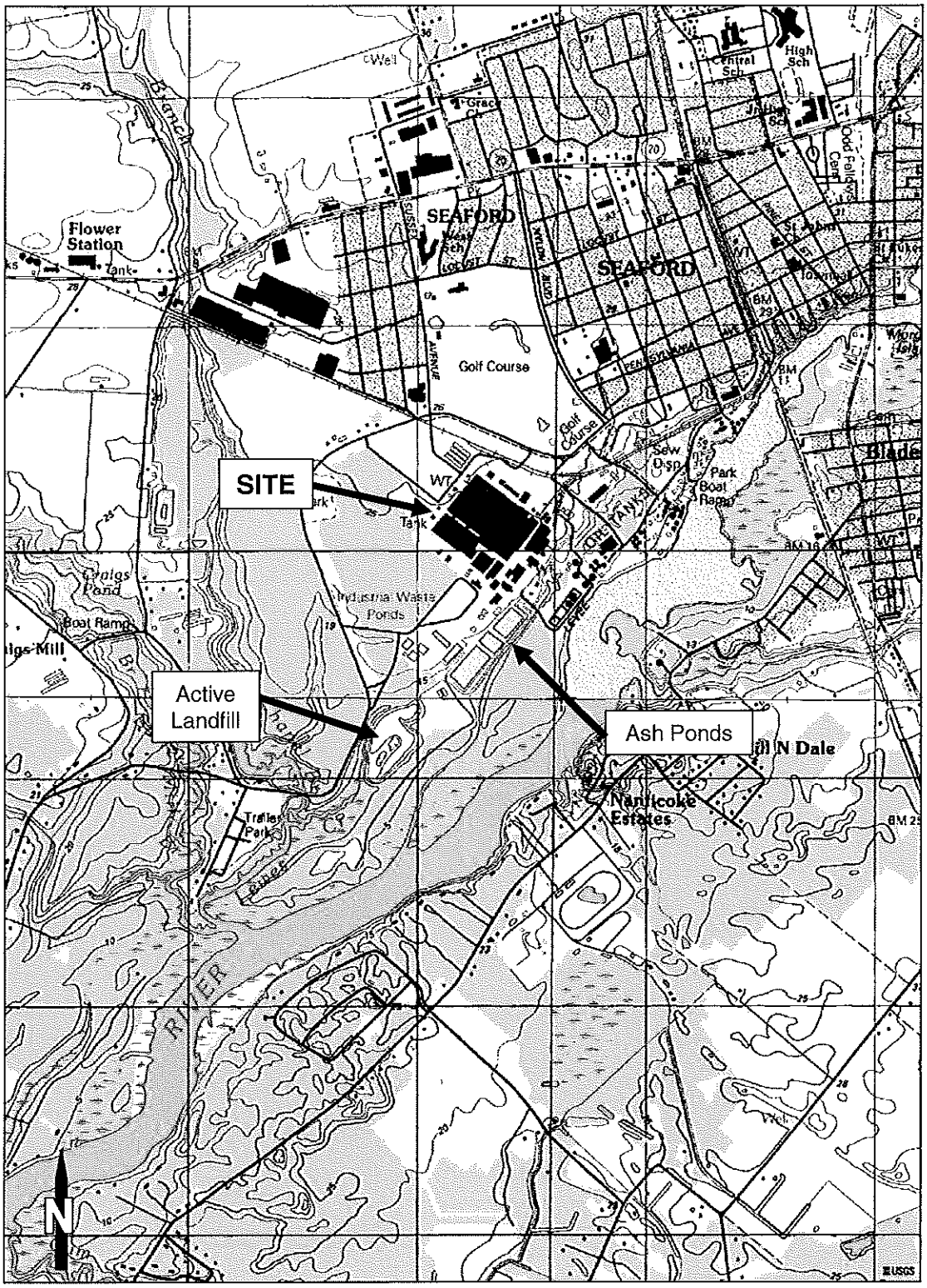
FIGURES

1. Site Location Map
2. Plant Site Including Landfill, Ponds, & Wells
3. Layout of Ash Settling Ponds
4. Original Ash Disposal Area (Cells A – L)

Figure 1

Site Location Map

INVISTA – Seaford, Delaware Facility



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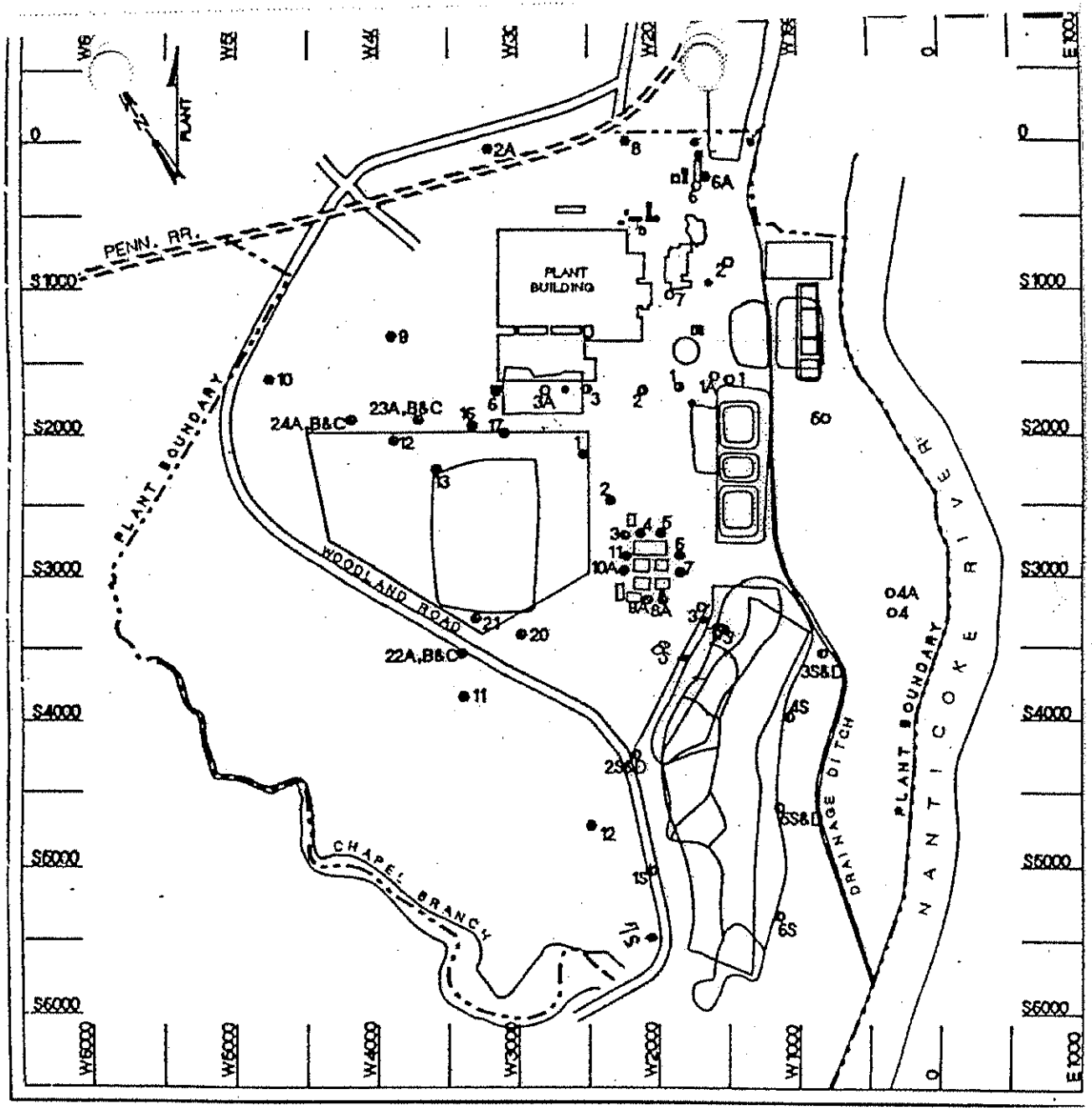


FIGURE 2

PLANT SITE INCLUDING LANDFILL, PONDS, AND WELLS*

LEGEND

- ACTIVE PRODUCTION WELL
- INACTIVE PRODUCTION WE
- MONITORING WELL
- OBSERVATION WELL (1964)
- OBSERVATION WELL (1983)

RED WASTE MGMENT UNITS
GREEN BUILDINGS, ROADS
BLUE SURFACE WATER FEATURES

0 500 1000 1500
SCALE 1" = 1000'

SEAFORD NYLON PLANT
SEAFORD, DELAWARE
JULY, 1986

CHMI

*Wells shown on this figure include DuPont's corrective action wells and INVISTA's landfill monitoring wells.

FIGURE 3
LAYOUT OF COAL ASH SETTLING PONDS

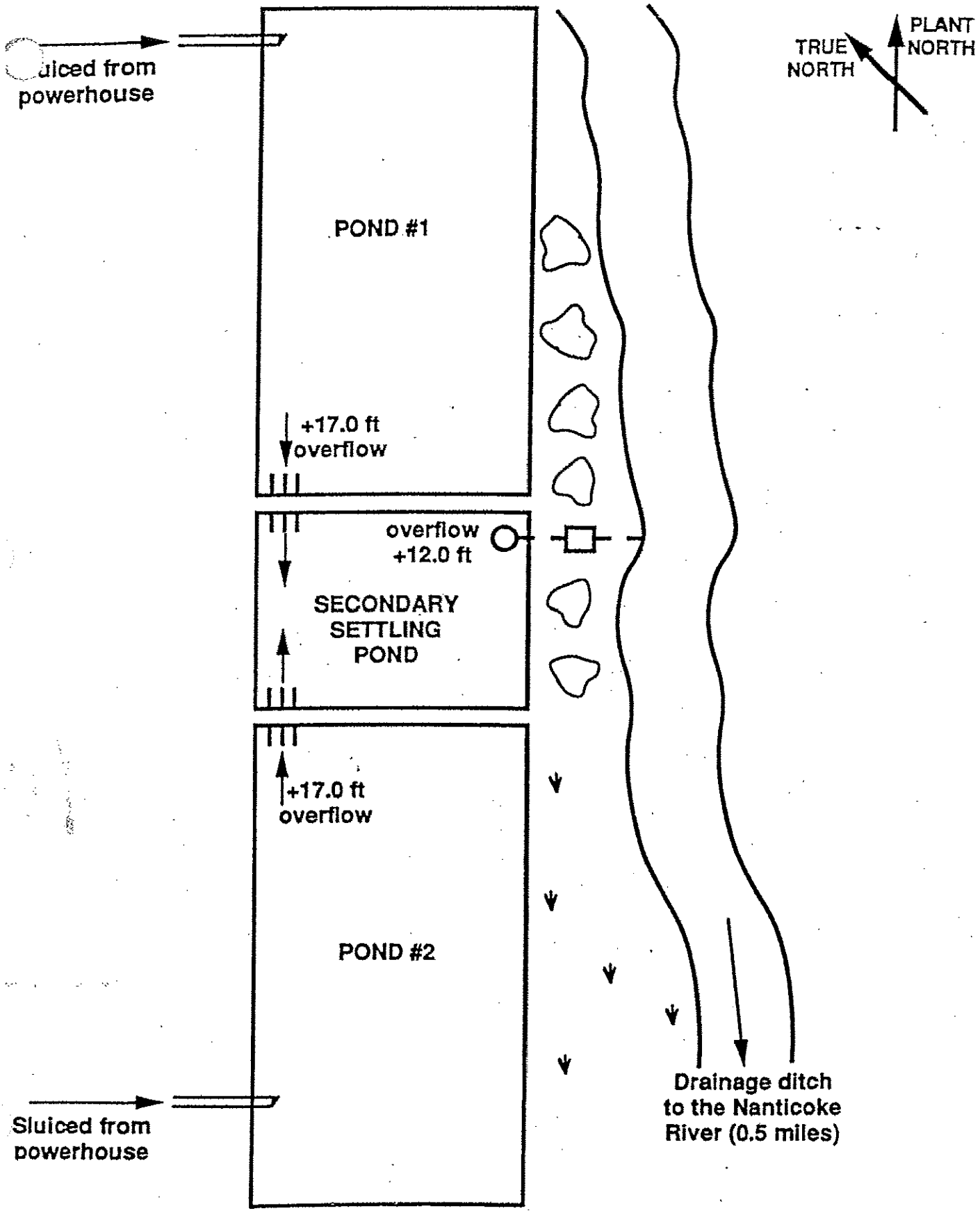
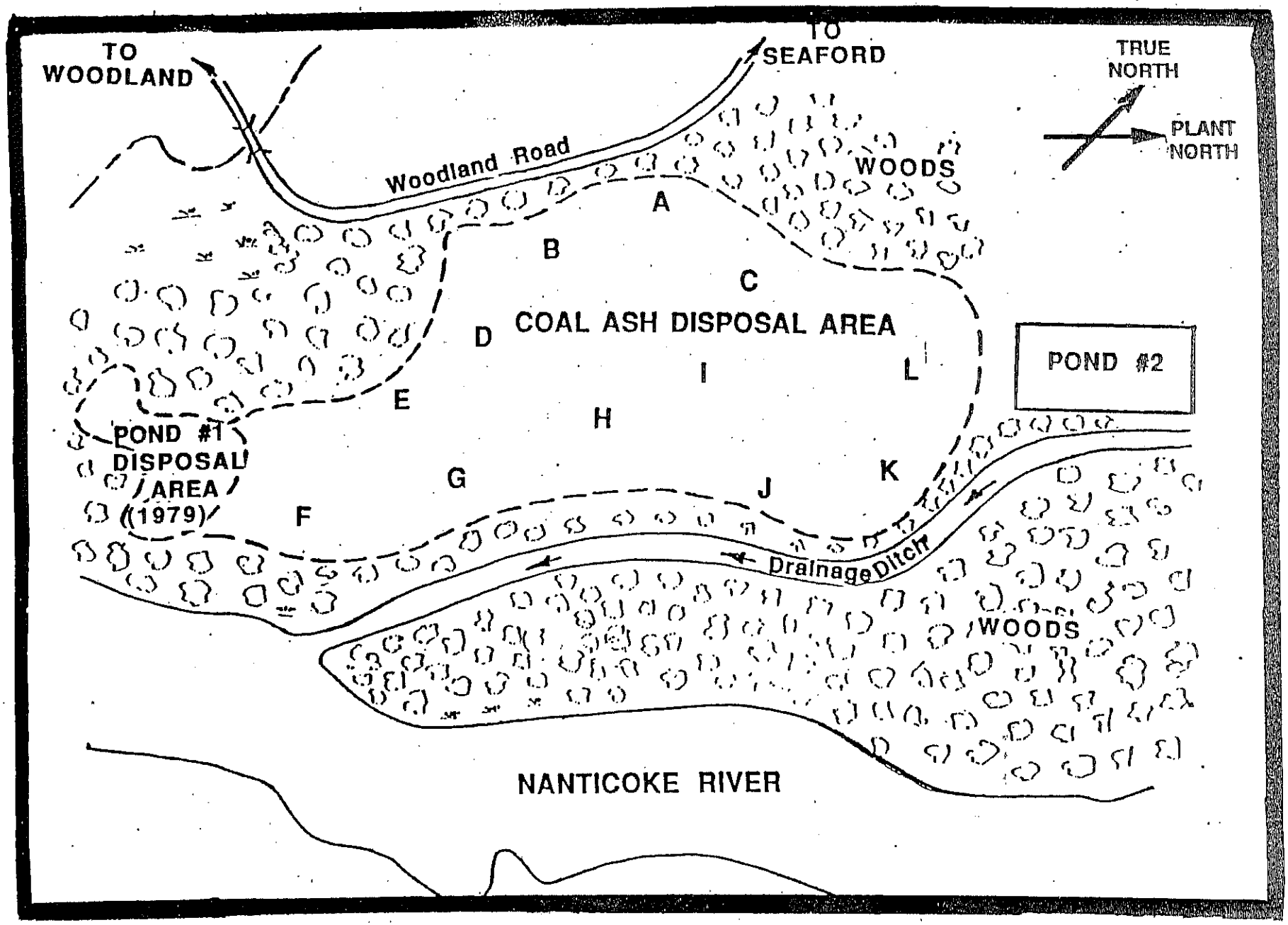


FIGURE 4
ORIGINAL ASH DISPOSAL AREA (CELLS A-L)



APPENDIX 1

2005 TCLP DATA: TOXICITY CHARACTERISTIC LEACHATE PROCEDURE

2005 SOUTH ASH POND SAMPLING REPORT

INVISTA NYLON PLANT
SEAFORD, DELAWARE

ARCADIS
Infrastructure, environment, buildings

ARCADIS

2005 South Ash Pond Sampling Report

INVISTA Nylon Plant
Seaford, Delaware

Siew-Ching Chin
Engineer I

Brian R. Stempowski, P.E., PMP
Senior Project Manager

Prepared for:
INVISTA/Reiss Remediation, LLC

Prepared by:
ARCADIS G&M, Inc.
1114 Benfield Boulevard
Suite A
Millersville
Maryland 21108
Tel 410 987 0032
Fax 410 987 4392

Our Ref.:
MD000886.0001.00002

Date:
12 December 2005

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Appendices

1. Introduction

ARCADIS completed the South Ash Pond ash monitoring program in October 2005 for the INVISTA Nylon Plant located at 25876 DuPont Road, Seaford, Delaware 19973 (Site). The ash monitoring program was conducted on 7 October 2005 and included collecting ash samples and submitting them for laboratory analysis in accordance with accordance with Section III (III.C and III.D) of the State of Delaware Solid Waste Permit SW-98/01 (DNREC, 2005). In accordance with Section IV.A.8 of the permit, this report presents the following:

- A description of the field procedures utilized to complete the ash sampling program;
- Analytical results of the ash samples collected from the South Ash Pond; and,
- The data validation report for the laboratory analytical data packages.

2. Field Sampling Methods and Results

2.1 Ash Sampling

The ash sampling procedures were conducted in accordance with *Seaford's Toxicity Characteristic Leaching Procedure (TCLP) Analysis Ash Pond Sampling Plan* dated 16 May 2002. Six equally spaced ash boring locations within the pond were composited into one sample, plus a duplicate sample. The composited sample comprised the full vertical recovery from each ash boring. The locations of the ash borings are shown on Figure 1.

A clean stainless steel bucket auger was used to advance each boring to a depth of 36 to 40 inches below ground surface (bgs). The top two inches of each boring were discarded. As the bucket auger was advanced, each bucket was composited in a clean stainless steel spoon, and the composite ash samples were transferred into two laboratory 500-mL wide mouth sample jars. Each bottle was labeled, sealed and packed on ice. Proper sample identifications were noted on the chain of custody.

The ash samples including a composite field sample and a duplicate sample were sent to Severn Trent Laboratory (STL) Edison, New Jersey for analysis of TCLP metals following SW-846 methodologies. The laboratory report is included as Appendix A. A summary of the ash sample analytical data is provided in Table 1.

2.2 Analytical Data Quality Evaluation

The data associated with this investigation meet the project and analytical data quality objectives. One hundred percent of the samples were analyzed as collected and as requested on the chains of custody. Based on the data evaluation and validation, the data were qualified, as appropriate, using U.S. Environmental Protection Agency (USEPA) guidance. One hundred percent of the data generated are usable as reported. A complete data validation report is provided as Appendix B.

3. References

State of Delaware Department of Natural Resources and Environmental Control (DNREC). 2005. Permit SW-98/01 to INVISTA S.à.r.l. for the operation of the industrial waste landfill. July 12.

Seaford Site Coal Ash Landfill Solid Waste Permit SW-98/01 Toxicity Characteristic Leaching Procedure (TCLP) Analysis Ash Pond Sampling Plan. 16 May 2002.

ARCADIS

Tables

ARCADIS

Table 1
Summary of Ash Sample Analytical Results
South Ash Pond
INVISTA Nylon Plant
Seaford, Delaware

Sample ID	SAP-1-100705		DUP-2-100705
Lab Sample Number	676274		676275
Sampling Date	10/07/05		10/07/05
Matrix	SOLID		SOLID
Units	mg/L		mg/L
TCLP METALS			
Arsenic	0.13		0.15
Barium	2.3		2.3
Cadmium	0.0030	U	0.0030 U
Chromium	0.015	U	0.015 U
Lead	0.013	U	0.01 B
Mercury	0.00010	U	0.00010 U
Selenium	0.025	U	0.025 U
Silver	0.013	U	0.013 U

Qualifiers:

U - The compound was not detected at the indicated concentration.

B - Reported value is less than the Reporting Limit but greater than the Instrument Detection Limit.

Note:

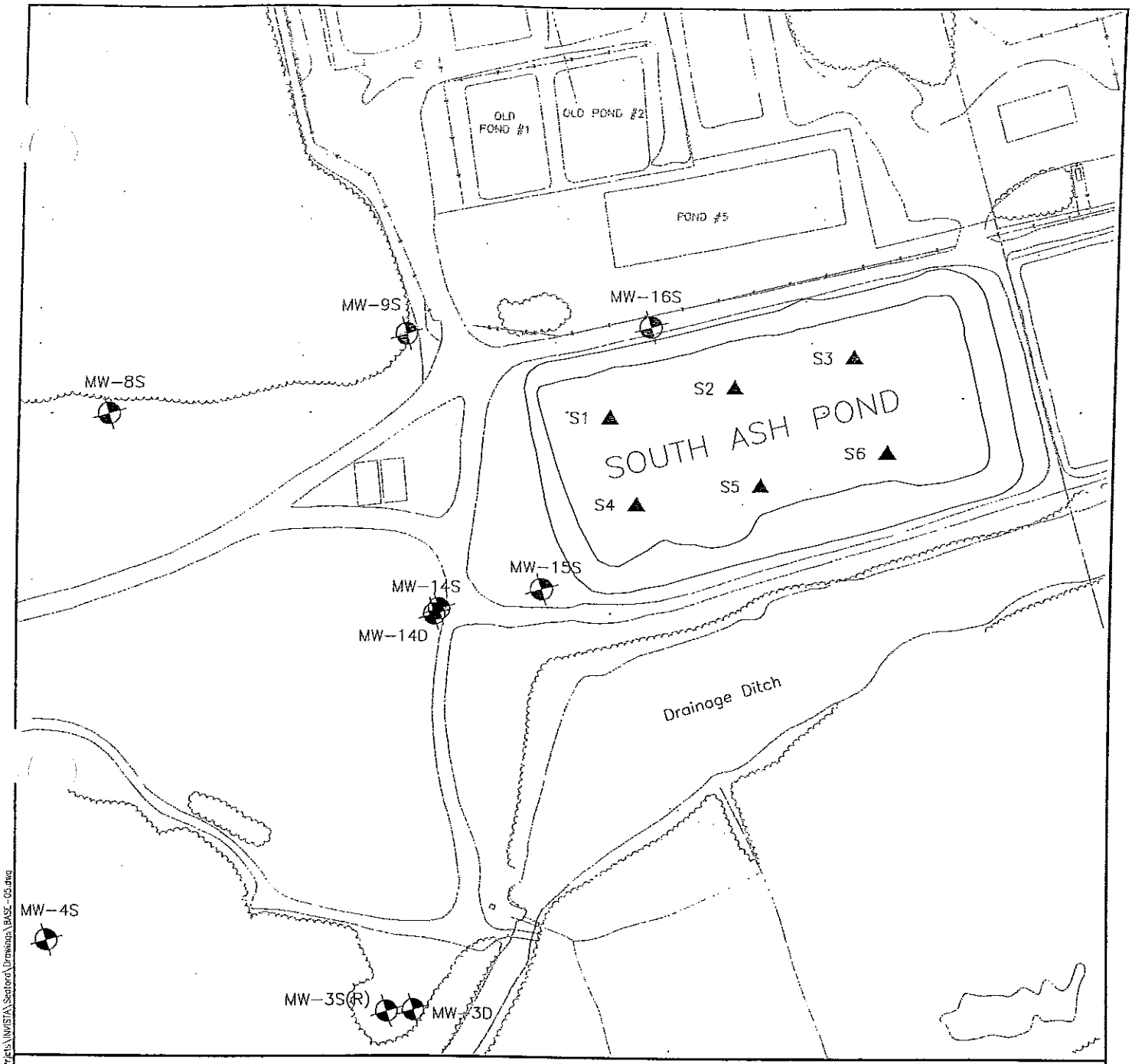
Except mercury, all TCLP metals were analyzed by USEPA Method SW-846 6010B

Mercury was analyzed by USEPA Method SW-846 7470A

mg/L - milligrams per Liter

ARCADIS

Figures



LEGEND:

MW-2D MONITORING WELL

S1 ASH SAMPLE LOCATION

0 100 200

SCALE: FEET

ARCADIS

14 Benfield Boulevard, Suite A
Millersville, Maryland 21108
Tel (410) 987-0032 Fax (410) 987-4392

SITE PLAN AND ASH SAMPLE LOCATIONS
SOUTH ASH POND

INVISTA NYLON PLANT
SEAFORD, DELAWARE

PROJECT MANAGER	DEPARTMENT MANAGER
BRS	PJS
DRAFTER	CHECKED
JSG	MWK
PROJECT NUMBER	FIGURE
MD00866.001	1

Path\Name: G:\Projects\INVISTA\Seaford\Drawings\BASE-05.dwg
2 Nov 2005 - 9:58am
Date\Time
copy

APPENDIX 2

LANDFILL TOPOGRAPHIC MAP
CELLS 1 THROUGH 12