SITE MANAGEMENT PLAN

BASF SOUTH 40

BASF Corporation
36 Riverside Avenue
City of Rensselaer, Rensselaer County, New York

February 2008

Prepared For:
Empire Generating Co, LLC

Prepared By:
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40 British American Boulevard
Latham, NY 12110

Earth Tech Project No. 92003

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1.0 INTRODUCTION

This Site Management Plan (SiteMP) has been prepared for Empire Generating Co, LLC (Empire) for the BASF Corporation (BASF) South 40 Parcel (Site), Rensselaer, New York. The Site is located in a heavy industrial zoned area of the City of Rensselaer, New York (Figure 1-1). The Site is located to the south of the BASF former Main Plant manufacturing facility property (Main Plant site). The South 40 parcel covers an area of approximately 35 acres (Figure 1-2).

Pursuant to NYCRR Part 375-1.8 (5) this SiteMP has been prepared and includes (i) a Engineering Control/Institutional Control Plan (EC/IC); (ii) a Monitoring Plan; and (iii) a Operation and Maintenance Plan. This SiteMP has been prepared to document the requirements and procedures for the Engineering Controls (ECs) and Institutional Controls (ICs) for the capped portion of BASF South 40 Site as shown in Figure 1-3. This SiteMP does not supercede any federal, state, or local statutes, regulations, or ordinances pertaining to the environment, current and future holders of interests of property within the Site will remain obligated to comply with the same. This SiteMP will be used to facilitate the redevelopment of the Site in compliance with the Brownfield Site Cleanup Agreement (index A4-0507-0604), and has been prepared to outline general construction practices for redevelopment of the Site and future management thereof. The primary purposes of these controls are (1) to limit exposure of people and the environment to subsurface contaminants remaining at the Site by ensuring the protection and maintenance of the soil cap which was constructed per the Remedial Action Work Plan (RAWP) for the Site; (2) minimize impacts of construction-related activities; (3) to prevent or restrict activities in certain areas of the Site that may increase the risk of damage to the soil cap; and (4) to manage stormwater to prevent unacceptable impact to the soil cap and underlying groundwater.

The New York State Department of Environmental Conservation (NYSDEC), its agents, employees, or other representatives of New York State government may enter and inspect the Site in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

This SiteMP has been prepared as a mechanism to assure that consistent and effective inspection and maintenance and enforcement activities are occurring and will occur in the future throughout the Site. These objectives and those detailed below will be achieved primarily through the implementation of EC/ICs defined in this SiteMP. Future owners of any portion of the Site will be bound by the provisions of this SiteMP that are relevant to the portion of the property they own or control on the Site.

1.1 OBJECTIVES

The specific objectives of this SiteMP are as follows:

- To describe the binding and enforceable ECs/ICs to be implemented that will facilitate future construction activities on the Site while at the same time maintaining the short-term and long-term effectiveness of the remedy established in the RAWP.
- To establish controls on any construction-related activities (deep excavations, borings, or foundations) impacting the soil cap within the defined area of the Site.
- To establish controls on groundwater use.
- To establish the requirements through which disturbance will be allowed.

- To identify the specific mechanisms (inspection requirements, deed restrictions, etc.) that will be used to establish and enforce the ECs/ICs contained in this SiteMP.
- To define the monitoring requirements.
- To outline the maintenance requirements for the Site.

2.0 SITE SUMMARY

2.1 BACKGROUND INFORMATION

The Site is located in a heavy industrial zoned area of the City of Rensselaer, New York (Figure 1-1). The Site is located to the south of the BASF former Main Plant manufacturing facility property (Main Plant site).

According to various sources, properties along Riverside Avenue in Rensselaer have been characterized by chemical industrial activity for over 100 years. The effect of regional industrial operations on soil and groundwater quality is well documented by regulatory agencies. It is possible that much of the soil in the waterfront area is composed of fill materials and Hudson River dredged materials. The historic use of the Hudson River could result in metals and natural organic contents in the historic fills above the background levels of natural in-situ soils (Roux, 2001 – Note – Refer to the Final Engineering Report dated February 2008 for the document identifications).

The South 40 parcel covers an area of approximately 35 acres (Figure 1-2). The parcel was bisected into two areas by the construction of the Port of Rensselaer Access Highway in 1992. The northern portion of the parcel is 26.19 acres in size and lies to the north of the Port of Rensselaer Access Highway. The 8.8-acre portion of the parcel located to the South of the Port of Rensselaer Access Highway is isolated from the remainder of the parcel and has not been historically impacted by disposal activities. As such, that portion of the parcel was not subject to remediation.

A CSX Transportation (CSX) rail spur physically separates the Site from the former Main Plant and Landfill properties. The Site is bounded on the west by Riverside Avenue and across the street by the Port of Rensselaer Property, which includes the Rensselaer Cogeneration power plant, a metal scrap recycling facility, and the Hudson River beyond. Located east of the Site is the Port of Rensselaer Access Highway and CSX railroad tracks, with residential and commercial properties beyond. Undeveloped land and several tank farms are located to the south. Potable water and sewer services are provided by the City of Rensselaer.

The Site is located in an area that has been heavily industrialized by chemical and other manufacturing facilities since the 1870s. The Main Plant site has been used since the 1880s for the manufacturing of dyestuffs, including coal-tar dyestuffs. BASF acquired the Site when it purchased the entire manufacturing facility from GAF Corporation (GAF) on April 1, 1978. Following the acquisition of the facility by BASF, the NYSDEC alleged that GAF disposed of an unknown quantity of industrial wastes/solvents on the Site. It is also alleged that dredge spoil from the Hudson River has been deposited here, although no records have been located to confirm this allegation. A 1950s-era photograph of the Site shows that a staging area and Site entry road were being used at the time. No filling is known to have occurred in recent years. BASF contacted GAF for information about the alleged waste disposal at the Site; however, GAF could not confirm or deny the allegation. Based upon this lack of information, the NYSDEC requested that BASF perform a Phase II Site Investigation under Order on Consent Index Number 04-0326-85-07, which was completed in 1992 (Roux, 2001).

2.2 REMEDY

In compliance with the Brownfield Site Cleanup Agreement, the remedy consisted of excavation of all identified anomaly areas and removal of buried drum carcasses encountered. Also arsenic contaminated soils with concentrations greater than 500 ppm total arsenic were excavated and shipped off-site for disposal. The excavation areas were sampled on a grid pattern and backfilled with certified clean soil. The final portion of the remedy included installation of a demarcation layer over the entire approximate 8 acre area and covering the demarcation layer with one foot of clean backfill soil.

3.0 ENGINEERING AND INSTITUTIONAL CONTROLS

3.1 ENGINEERING CONTROLS

Engineering Controls (ECs) are physical mechanisms which restrict access to the Site and site contaminants. Engineering Control shall mean any physical barrier or methods employed to actively or passively contain, stabilize, or monitor hazardous waste, restrict the movement of hazardous waste to ensure the long-term effectiveness of a remedial program, or eliminate potential exposure pathways to hazardous waste. Engineering controls for this site include, but are not limited to:

1. Soil Cap – As part of the RAWP a soil cover (Soil Cap) was constructed over approximately 8 acres of the Site; the limits of the Soil Cap are defined in Figure 3-1. This Soil Cap encompasses the contaminated soils area that contains levels of arsenic above 7.5 ppm. The Soil Cap consists of an orange demarcation layer that separates the contaminated soil from the clean soil cover. The Soil Cap provides protection from exposure for human health and the environment and will be maintained in accordance with the Soil Management Plan.

2. Site Access Controls – The existing six (6) foot high chain link fence with barbed wire will be maintained as part of the engineering control plan. Future modifications to the exact location of the chain link fence will be allowed during site construction; however the Site will always be secured with the fence. Access to the site will be restricted by a fence surrounding the Site. The existing fence will be maintained as needed to prevent the public from entering areas where residual contamination has been identified in excess of NYSDEC RSCOs identified in TAGM 4046. Figure 3-1 shows existing limits of fence and restricted area (soil cover).

3. Replacement of Soil Cap – As part of the construction plans, portions of the Soil Cap may be covered with asphalt, concrete or other material. These will be detailed in the action-specific Soil Management Plan .

4. Signage – "Posted" signs will be placed on the perimeter fence to notify the community that the site has restricted access and that no trespassing is allowed.

3.2 INSTITUTIONAL CONTROLS

Institutional controls are non-physical mechanisms which restrict the use of a site, limit human exposure, and prevent any actions which would threaten the effectiveness or operation and maintenance of a remedy at or pertaining to the site. Under NYSDEC policy, institutional controls apply when contaminants remain at a site at levels above the SCGs that would otherwise allow unrestricted human use of the property. Institutional controls may include restrictions on the use of structures, land and groundwater as well as deed notices and covenants.

Institutional controls to protect human health and the environment will be implemented at the Site through an Environmental Easement (Appendix [F] of the Final Engineering Report). The following institutional controls will be implemented and enforced through a deed restriction associated with the Environmental Easement:

1. Site Use Restriction. The owner of the Site will prohibit it from being used for purposes other than for industrial use and the services associated with such use. Future use of the Site is expected to be a nominal 528-megawatt combined-cycle cogeneration power plant. As such, the planned future use of the Site will be consistent with the current land use (i.e., industrial).

2. Soil Management Plan. A generic Soil Management Plan (Appendix A), set forth procedures to be followed by Site owners, their agents or any future party for activity involving excavation, the management and disposal of excavated material, or the use of imported soil/fill for purposes such as backfill, grading or landscaping. In accordance with the Soil Management Plan, an action-specific Soil Management Plan will be submitted for all such activities in the future. Wetlands are shown in ALTA/ACSM Survey Map dated February 4, 2008 prepared by C.T. Male Associates, P.C., Edward F. Garrigan, NYS PLS No. 49748. The wetlands must be managed in accordance with applicable laws and regulations. The Soil Management Plan procedures apply only to the area of contamination that has been covered by the soil cap. Any activities that require disturbance of restricted materials must follow the Community Air Monitoring Plan (CAMP) and the site specific Health and Safety Plan for the site. Any contaminated soil generated from activities related to disturbing the soil cap must remain in the existing foot print of the soil cap area and cannot be placed outside this existing contaminated area. Figure 3-1 shows the limits of the restricted area and institutional controls for the site.

3. Groundwater Use Restriction. The use of groundwater underlying the site will be prohibited except for uses allowed under the approved Soil Management Plan.

4. Groundwater Monitoring. The Site owner will monitor groundwater quality at down gradient locations at the site perimeter until data indicate that groundwater standards have been achieved. This will be conducted annually for a minimum of 5 years and after achieving groundwater standards for two consecutive years, NYSDEC will evaluate the need for continuing annual monitoring.

5. Notification. An IC notification in accordance with the Soil Management Plan will be made to the NYSDEC whenever intrusive activities are to be performed on the Soil Cap area that requires contaminated soil to be disturbed. The purpose of the IC notification is to notify the NYSDEC of any intrusive activities in the Soil Cap area that will be performed on Site and to ensure that the controls remain effective over time.

6. Certification The Site owner will certify on a yearly basis that the institutional controls are in place and remain effective for the protection of public health and the environment. The Site owner will identify any activities undertaken pursuant to the SiteMP during the past year, and identify anticipated

forthcoming activities that may require implementation of the SiteMP.

As part of this certification the following will be provided:

1. A certification prepared by a professional engineer or other qualified environmental professional, which must certify that the institutional controls and/or engineering controls employed at such site are :
    a. unchanged from the previous certification, unless otherwise approved by the Department, consistent with the SiteMP;
    b. in place and effective;
    c. performing as designed; and that nothing has occurred that would
        1. impair the ability of the controls to protect the public health and environment; or
        2. constitute a violation or failure to comply with any operation and maintenance plan for such controls.
2. On a yearly basis that no new information has come to the Site owner`s attention, including groundwater monitoring data from wells located at the site boundary, to indicate that the assumptions made in the qualitative exposure assessment of offsite contamination are no longer valid; and
3. Every five years, the assumptions made in the qualitative exposure assessment will be reviewed to ensure they remain valid.

4.0 MONITORING PLAN

4.1 GROUNDWATER MONITORING

To monitor the effectiveness of the remedial action and the Site's groundwater quality, four (4) monitoring wells will be monitored. These monitoring wells will be sampled once per year for contaminants-of-concern as illustrated in Table 1. Groundwater samples collected will be shipped, following QA/QC procedures to a NYSDOH certified laboratory following the NYSDEC Analytical Protocols. The first annual sampling period will be conducted during the summer months of 2008 in order to include the results in the first annual compliance certification report.

Table 1 - BASF South 40
Groundwater Monitoring Well Sampling

Monitoring well	Contaminants-of-concern	Groundwater Criteria	Detection Limit (ppb)
All Monitoring Wells BW-3 BW-4 BW-5 BW-6	Arsenic	25 ppb	4.0
	Mercury	0.7 ppb	0.2
	1,2-Dichlorethane	5 ppb	5.0
	Total Phenols	1 ppb	1.0

5.0 SITE MAINTENANCE PLAN

This maintenance plan is intended to serve as a summary and guide for all the post-closure monitoring and at the Site. All aspects of the Site inspection and maintenance procedures shall be performed in accordance with this SiteMP.

5.1 MAINTENANCE ACTIVITIES

5.1.1 Site Fence

The existing site perimeter fencing, including gates, shall be inspected regularly to ensure security. Any damage that is observed shall be recorded and repaired immediately by restoring or replacement of the damaged materials. Any disturbed or eroded soil below the fence line shall be filled and vegetation restored to ensure security of the site.

5.1.2 Signs

All signs posted on the site shall be inspected regularly. Any signs that are determined to be missing shall be replaced immediately. Any sign that has been damaged beyond legibility shall be replaced immediately. If it is determined that a new sign is necessary at the site, the sign shall be posted as soon as possible. All damage to signage shall be promptly repaired.

5.1.3 Soil Cap

Areas over the Soil Cap where loss of cover soils or vegetation is noted shall be repaired by replacing and compacting the eroded soil and re-establishing the vegetative cover. Siltation controls such as hay bales shall be temporarily placed around these restored areas. Records shall be kept of all observed damage to the cover system, as well as all subsequent repairs to the cover system.

The surface of the cover system shall be regularly inspected for areas of settlement and subsidence. These areas shall be noted and repaired immediately. These areas shall be repaired by placing and compacting additional fill materials to create a uniformly sloping surface with the surrounding grade.

Any proposed changes to the Soil Cap will be approved by the NYSDEC through the notification requirements of the Soil Management Plan and the submittal of action-specific Soil Management Plans.

5.2 INSPECTION ACTIVITIES

5.2.1 Maintenance Schedule

The maintenance activities included in Section 5.1 shall be performed annually or sooner if deemed necessary. A Site Inspection Checklist is provided in Appendix B. The checklist shall be employed for every inspection and incorporated into an annual report to the NYSDEC.

5.3 REPORTING

A report shall be generated at the end of each monitoring event that summarizes the findings of each annual inspection report and provides all information related to maintenance and monitoring activities, including groundwater monitoring for the first five years. Results of the first five years of groundwater monitoring will be used to determine if monitoring beyond those five years is required. The first certification report will be submitted one year after the filing of the Environmental Easement.

FIGURES

Base Map Source:
USGS 7.5 Minute Series Topographic Quadrangle Maps
Albany, NY (1980)
Troy South, NY (1980)
Delmar, NY (1980)
East Greenbush, NY (1980)

Figure 1 - 1
Site Location Map
South 40 Site
Rensselaer, New York

2000 0 2000 4000 Feet

500' 0 500'

N

NOTE: PHOTOGRAPH DATE: APRIL 14, 2000

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BASF PROPERTY AREAS
SOUTH 40 SITE
RENSSELAER, NEW YORK

FIGURE NUMBER
1 - 2

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
KAD	9/21/07	92003	

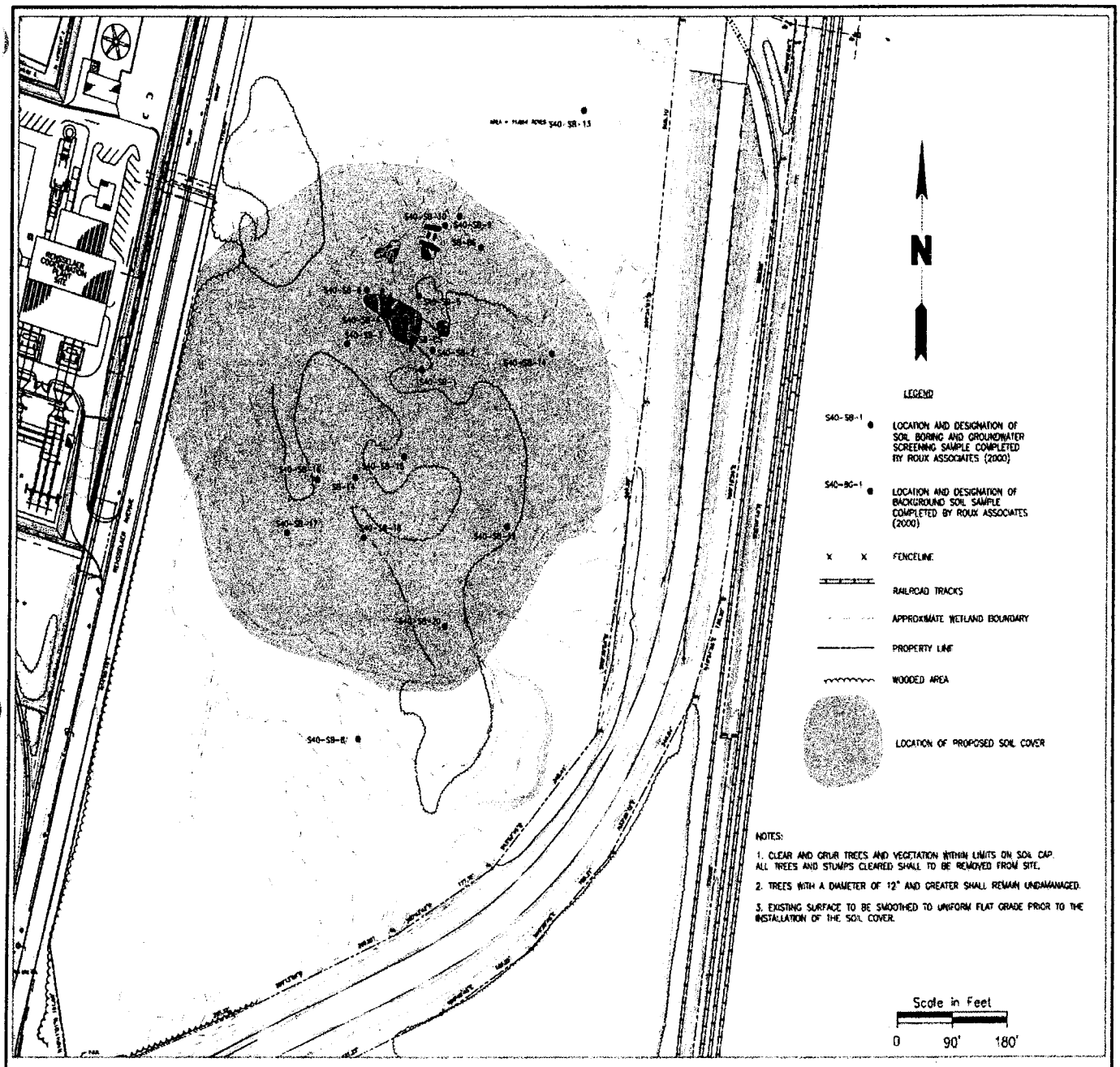

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FIGURE NUMBER
1-3

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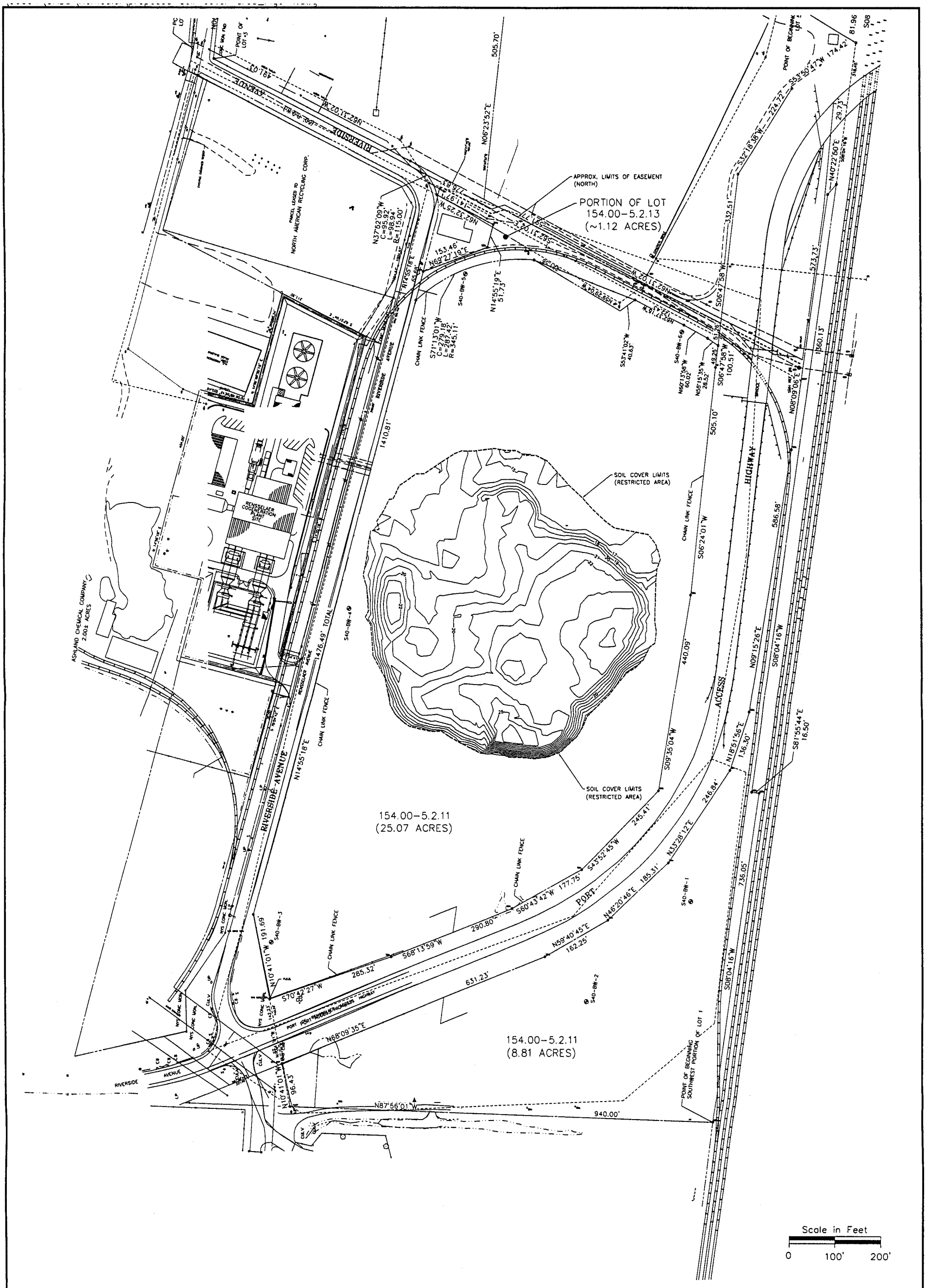
KAD	9/27/07	92003	



MAP REFERENCE:
Mapping shown based on a plan titled "Record Topographic Survey, Finish Grade, Soil Cover Area, Portion of Lands Now or Formerly of BASF Wyandotte, Corp..", Drawing No. 07-669, by C.T. Male Associates, P.C., dated Oct. 1, 2007, including all notes and references.

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ENGINEERING CONTROLS AND INSTITUTIONAL CONTROLS PLAN

BASF
SOUTH 40 SITE
RENSSELAER, NEW YORK

DRAWN BY:	DATE:	PROJECT NUMBER:
KAM	10/11/2007	92003

FIGURE NUMBER: 3-1

SHEET NUMBER:

APPENDIX A

Soil Management Plan

SOIL MANAGEMENT PLAN

BASF SOUTH 40

BASF Corporation
36 Riverside Avenue
City of Rensselaer, Rensselaer County, New York

July 2003 (Revised September 2007)

Prepared For:
Besicorp Empire Development Co.

Prepared By:
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Earth Tech Project No. 92003

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1.0 INTRODUCTION

1.1 GENERAL

The following terms (listed in alphabetical order) are defined for use in this Soil Management Plan:

DEC - The New York State Department of Environmental Conservation or agencies subsequently created for protection of human health and the environment.

Restricted Material - All soil or fill within the area designated on Figure 1 that was not placed as clean backfill during the site remediation performed by BASF in 2004 pursuant to the Voluntary Cleanup Agreement between the DEC and BASF or during subsequent soil cover placement by Besicorp Empire Development Company (BEDCO).

Soil Cover Area – The area designated on Figure 1 by grey shading, indicating the extent of Restricted Material and soil cover. The provisions of this Soil Management Plan are applicable to materials within the Soil Cover Area, but not elsewhere on the South 40 site.

Excavation - The movement or disturbance of Restricted Material.

Notification Layer - The distinctive subsurface material consisting of fabric or crushed stone that was placed under backfill or cover material during the Site Remediation performed in 2004 pursuant to the Voluntary Cleanup Agreement between the DEC and BASF Corporation or during subsequent soil cover placement by BEDCO

SMP Officer - The qualified environmental professional responsible for the proper implementation of this Soil Management Plan.

1.2 SITE BACKGROUND

BASF owns a parcel of real property in the City of Rensselaer that is located south of its former manufacturing plant and is known as the "South 40" (Site or South 40). The South 40 is undeveloped and does not contain any buildings. Generally, the South 40 varies in elevation from 13' amsl to 27' above mean sea level (amsl). The center portion of this area is elevated from 17' – 27' amsl. The central, elevated area included buried drums and other waste materials derived from past operations.

After the RAWP was approved by NYSDEC on January 22, 2004, the site was deemed eligible for the New York State Brownfield Cleanup Program and a new agreement was entered into for the Site: Brownfield Site Cleanup Agreement among NYSDEC, BASF and BEDCO dated June 24, 2004 (Index # A4-0507-0604; Site # C-442035). Remediation activities were conducted in two phases in accordance with the RAWP. The first phase of work was conducted between July 2004 and December of 2004.

The remedial actions included the excavation of drums; drum carcasses, and associated soil in the magnetic anomaly areas. In addition, site soils containing arsenic that have the potential to exceed TCLP limits for arsenic of 5mg/l were removed. This concentration was established at 4,120 mg/kg total arsenic concentration, based on the correlation of total and TCLP arsenic from the South 40 soil samples collected during the Supplemental Investigation. In order to ensure excavating all soils that could exceed the TCLP limit of 5 mg/l, grid sample locations with total arsenic concentrations greater than 500 mg/kg

were excavated and post-excavation confirmatory sampling were collected. The remedial action cleanup level of 500 ppm is more than eight times lower than the concentration that qualifies as hazardous waste and could produce leachable arsenic concentrations, and thus provides a large factor of safety.

The remedial activity conducted in 2003 consisted of the following:

1. All grossly contaminated soil and drum/drum carcasses located in the area of the previously identified anomaly area was removed;
2. Areas of at least 25' X 25' centered on the grid sample points with arsenic concentrations greater than 500 mg/kg were excavated from the grid sample locations outside of the anomaly area;
3. All contaminated liquids encountered during drum and soil removal were removed from the excavation location and disposed of off-site; and
4. Excavated areas were covered with a notification layer (distinctive aggregate or fabric) and backfilled with clean fill.

BEDCO has proposed to construct a cogeneration power plant on the South 40 Site after completion of the remedial action. If this construction was not commenced within 24 months of completion of the 2003 remedial action, all areas with residual surface soil arsenic concentrations in excess of the DEC Recommended Soil Cleanup Objective (RSCO) of 7.5 ppm were to be covered with a minimum of one (1) foot of clean fill over an orange demarcation layer.

1.3 PURPOSE AND SCOPE

This Soil Management Plan (SMP) sets forth procedures to be followed by the Owner, its agents or any future occupant (Owner) for activity involving Excavation and disposal of Restricted Material, or the use of imported soil/fill for purposes such as backfill, grading or landscaping. It is anticipated that Excavation would most likely be related to development and construction of the cogeneration facility, and the emergency repair, maintenance, improvement or replacement of underground utility lines (e.g. water mains and sewers), and appurtenant structures. The SMP addresses the following components of Site construction activity:

- Soil Handling Procedures;
- Fugitive Dust Control;
- Stormwater Management;
- Decontamination;
- Health & Safety Plan; and
- Notification Requirements.

The SMP has been prepared with the following user groups in mind:

- Contractors;
- Municipal Water Department (including emergency work crews);
- Municipal Public Works Department;
- Utilities;
- Owner; and
- DEC and other relevant agencies.

Excavation may encounter substances containing contaminants that exceed DEC guidelines for the protection of human health and the environment. Unless special precautions are taken, the presence of the

contaminants in Restricted Material could potentially lead to chemical exposure to excavation workers, and ultimately the community or the environment, should they be exposed to the Restricted Material.

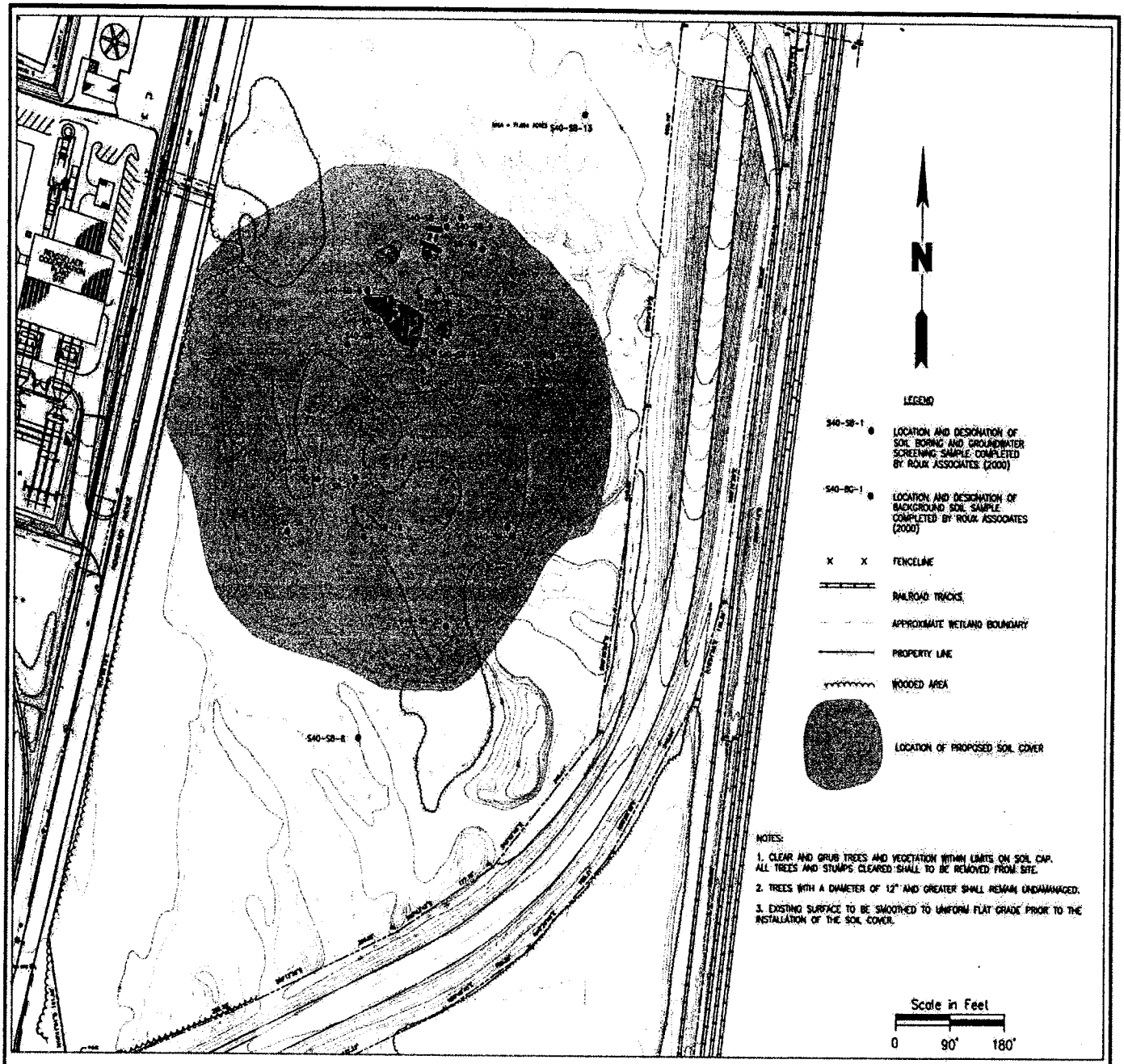
The purpose of the SMP is to establish a set of standards, work practices and documentation requirements that will reduce potential exposure to or migration of contaminants that may be encountered in Restricted Material. The procedures also provide standards for the proper handling and management of Restricted Material.

The SMP requires that only adequately trained and qualified personnel be involved with Excavation, and the Owner develop and identify a predefined staging area for Restricted Material.

The Owner is responsible to make all persons who may be involved with Excavation, such as private contractors or utility companies, aware of the SMP standards. The Owner will expect these groups to follow these standards. There are potential health and safety concerns associated with the presence of contamination. In addition, there are other general safety practices such as work permits, excavation shoring/bracing requirements, ladders, excavation barriers, confined space entry procedures, hot work permits, mechanical/electrical lock-out procedures, back-flow prevention, notifications, and so forth, that may be applicable but are not specifically addressed herein. It is the Owner's, Contractor's, or utility company's responsibility, as the case may be, to identify and comply with all applicable Local, OSHA, and relevant agencies requirements.

1.4 ACTIVITY-SPECIFIC SMP

Prior to conducting Excavation activities, the Owner shall submit to the DEC an activity- specific SMP in accordance with the notification requirements set forth in Section 7.0 of this SMP. The activity-specific SMP will be considered an engineering control, and will therefore need to include an appropriate engineering analysis. The currently accepted level of engineering analysis is detailed in the DEC's Draft Voluntary Cleanup Program Guide, dated May 2002, Section 7.4 Remedial Action Selection Report (or as amended).



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BASF PROPERTY AREAS
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RENSSELAER, NEW YORK

FIGURE NUMBER
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2.0 SOIL HANDLING PROCEDURE

2.1 OVERVIEW

The cogeneration plant will be built up to a level from an estimated average elevation of ±17 feet (AMSL) to elevation 21.5 feet with a finish floor elevation of 22.5 feet. Some areas on Site are above the final grade elevations. These areas will be "cut" and these soils, if suitable for on-site fill, will be placed in other areas of the Site.

The earthwork portion of this construction phase will also include subsurface utility installations for piping, electrical ductbanks and manholes. In addition to the subsurface utility installations, sheeting, piling, and the installation of new building and equipment foundations will be performed.

All excavated Restricted Materials in the mounded area will be contained and stockpiled at a pre-designated on-site location where future construction is not planned in an effort to facilitate the flow of work. The Restricted Material will be reused as backfill material on site and incorporated into the sub grade fill. The excavated Restricted Materials will only be placed in areas around the site that are not in contact with standing water and above historic groundwater. The stockpiled Restricted Material will be covered with polyethylene sheeting at the end of each workday to prevent fugitive dust emissions and any migration of soil due to wind or rainfall. Stockpiles are to be continuously maintained to promote proper drainage of precipitation off or around the stockpiles.

Most areas of the Site to be used or otherwise occupied (including the outside storage, staging, and parking areas) will receive blankets of clean fill to separate site facilities and work activities from existing Restricted Materials. In addition, these Restricted Materials will be capped, either by additional clean fill, paving or structures.

During intrusive soil activities in areas containing Restricted Materials at the Site the procedures discussed herein shall be followed.

2.2 SUPERVISION

An SMP Officer will be in charge of proper implementation of the SMP. The SMP Officer will be a qualified environmental professional. The SMP Officer will be on site at all times necessary to properly implement the SMP.

2.3 SITE PREPARATION

Several general site preparation activities will be performed by the contractor prior to initiating any Excavation activities. These preparation activities include utility clearances and identification, installation of erosion controls, provisions for site security, clearing and removal of any vegetation, implementation of fugitive dust control measures, preparation of a "clean" access area, and implementation of site mapping.

2.3.1 Utility Clearance and Identification

Underground and above ground utilities that could affect or be affected by Excavation activities will be identified prior to the initiation of any intrusive soil activities. Locations of all utilities will be marked out by an independent company (UFPO / DIGSAFE or equivalent). When all utility location have been identified the construction contractor will review the locations and determine if any utilities will be in conflict with the proposed construction plans. If any utility conflicts are identified the construction contractor and the appropriate utility company will discuss what actions will need to be taken.

2.3.2 Erosion and Sedimentation Controls

The construction contractor will carefully conduct site-disturbing activities to minimize the erosion of soils and fill and impacts on the off-site environment. Erosion and sediment controls are an integral part of the construction sequence and plan and will be in place prior to commencing any intrusive soil activities. These controls will be consistent with the Stormwater Management Pollution Prevention Plan developed in accordance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities Permit GP-93-06. The selection of specific erosion and sedimentation control measures during construction activities will depend on a number of parameters, including the type of construction activities, site topography, type of ground covers, and maintenance considerations. The measures may include the use and placement of silt fence, impermeable liner material, geotextiles, riprap, seed, and mulch. The sediment and erosion controls will be inspected on a regular basis and repaired immediately if damage is observed until a final surface cover has been provided in all areas. The construction contractor shall minimize the exposure of unprotected soils and preserve and protect existing vegetation to the extent practicable. In addition, the construction contractor will minimize the time that soil is left unprotected. Erosion control and soil excavation activities shall be conducted in accordance with approved construction sequencing to maximize the effectiveness of the erosion control strategy.

2.3.3 Work Area Security

The construction contractor shall implement security measures at the Site that provide safeguards for the general public and create a visual and protective barrier around Excavation and Restricted Material locations. The type of work area security used will depend on the type of construction activities being performed and the location of these activities. Security measures may consist of temporary fencing or barriers, warning tape, maintenance of sign in / sign out sheets, and practicing safe work procedures.

2.3.4 Clearing and Removing of Vegetation

To facilitate construction activities, existing vegetation, any movable structures, and other obstructions may be removed from the site after notification and approval of the Owner. Any vegetation, movable items or structures that may have been in contact with Restricted Materials or may be contaminated will need to be characterized for disposal prior to removal from the site. No removal of trees or brush from the areas of construction will occur without authorization from the SMP Officer and the DEC. No ground cover will be permitted to be burned. Fugitive dust created as a result of clearing/removal will be mitigated in accordance with the Dust Control procedures outlined in Section 2.3. Implementation of dust suppression will be determined by the SMP Officer.

2.3.5 Clean Access Area

Due to the potential of encountering subsurface contamination during Excavation activities, a "clean" transition area will be established at various locations for access / egress to specific work areas. The "clean" area will be used for equipment / material deliveries, and loading of any contaminated material for off-site treatment or disposal. The type of "clean" area will vary depending on the anticipated level of contamination, location of the work area, and the type of work to be completed at the location. The construction contractor will evaluate the specific work required and upon approval of the SMP Officer will construct a "clean" area to facilitate the progression of construction activities. The location of this "clean" area will be modified as necessary during the site regrading and development operation.

2.3.6 Site Mappping

A site map will be created showing site topography and the areas where Restricted Materials are located, soil staging areas, clean access areas and other site control procedures. As the Site is regraded, or conditions change, this site map will be updated as warranted.

2.4 SOIL EXCAVATION/GRADING, HANDLING AND DISPOSAL DURING EXCAVATION ACTIVITIES

During construction of the cogeneration plant, the construction contractor shall follow any activity-specific SMPs required by permitting agencies.

Most of the anticipated changes are associated with raising the existing elevation of the Site to remove it from the 100-year flood plain to comply with local regulations. The final site elevation will be reached by placement and compaction of suitable excavated material together with imported fill. Prior to placement of clean fill, an indicator layer consisting of fabric and/or distinctive aggregate will be placed to demarcate potential residual contamination below.

Restricted Material excavated from various areas of the Site will be staged on site and handled in accordance with any activity-specific SMP. Excavated material not qualifying for use as fill will be removed promptly from the Site for disposal in a properly permitted facility.

2.4.1 Personnel Training

Due to the presence of contaminated soils, fill and/or concrete in the areas governed by this SMP, the construction contractor will be required to use only personnel properly trained under the appropriate OSHA regulations. The types of required training will be determined by the SMP Officer.

2.4.2 Equipment

In general, the equipment used for any Excavation or grading may involve one or more of the following: excavator, backhoe, grade-all, front-end loader, bulldozer, jackhammer or other suitable types of material handling equipment. All equipment used in the area subject to the SMP will be properly decontaminated at the end of its use, in order to prevent any contamination from migrating from the site. The construction contractor will be responsible for implementing specific equipment cleaning procedures subject to approval of the SMP Officer. These procedures should include the removal of any visible accumulations of soil on equipment tires or surfaces either manually or through the use of a high-pressure water spray.

Any water, solids or sludge generated during equipment decontamination shall be managed in accordance with Section 4.0 of this SMP.

2.4.3 Limits of Excavation / Grading

Excavation and grading shall only be completed for areas inside the limits identified on the approved construction plans. Any excavations or grading outside the limits shown on the plans will need to be discussed and approved by the SMP Officer or oversight agency prior to any intrusive activities into the Restricted Material. During construction all excavation limits, grading elevations, foundation elevations, and utility installations should be verified through the use of survey control and visual observations. Proposed excavation areas will be graded to promote positive drainage away from excavations.

2.4.4 Handling and Storage of Restricted Material

Restricted Material will be stockpiled on polyethylene sheeting and covered securely with polyethylene sheeting at the end of each workday to prevent any migration of contaminants due to wind or precipitation. Stockpiles are to be continuously maintained to promote proper drainage of precipitation off or around the stockpiles. Procedures for handling water that contacted contaminated material are identified in Section 4.2. All equipment, vehicles, materials, and personnel used to maintain the stockpile area will undergo decontamination procedures prior to leaving the stockpile area and accessing other "clean" areas of the site. Handling of Restricted Material will be kept to a minimum to reduce the potential for contaminants being released to the environment.

2.4.5 Exposed Excavations

During construction activities, the amount of exposed excavation is to be minimized whenever possible. At the end of each workday exposed excavations are to be covered with polyethylene sheeting to prevent the potential migration of contaminants by precipitation or wind. In addition to covering exposed excavations, erosion and sediment control measures must be followed through the use of silt fencing, hay bails, mulch, or other methods approved by the SMP Officer or the DEC.

2.4.6 Clean Cover Material

The Contractor shall be responsible for providing, placing and compacting suitable cover material from a certified clean source.

2.4.7 Characterization of Restricted Material

Unless otherwise tested, all soil and fill below/outside a notification layer in the area designated on Figure 1 will be designated Restricted Material. Unless otherwise tested, all Restricted Material in the area designated on Figure 1 will be assumed to contain the contaminants of concern at the cleanup levels utilized during the remedial excavation performed in 2004.

Prior to any off-site disposal of Restricted Material, the Owner will submit a Sampling and Analysis Plan (SAP) to the DEC for approval. The SAP will specify the location, frequency and type of Restricted Material samples as well as the specific analytical parameters and methods. The SAP will govern waste characterization sampling for off-site disposal purposes.

The SAP will incorporate the analytical requirements of the proposed off-site disposal facility. The construction contractor will be required to maintain accurate records for all sample analysis performed during construction activities.

2.4.8 Off-Site Disposal

Minimal or no off-site disposal of Restricted Material is expected. All excavated Restricted Material not used as backfill in accordance with this SMP shall be disposed of off-site. The Owner will be responsible for the transportation and disposal of the Restricted Material in accordance with applicable regulations.

Based on the analytical results obtained from the soil characterization described in Section 2.4.7, the soil will be classified. The classification will determine whether the soil must be disposed of as hazardous or non-hazardous waste. All soils must be transported by vehicles that have a valid 6NYCRR Part 364 permit or equivalent.

The construction contractor will set up a loading area along side the stockpiled Restricted Material and load the trucks from the edge. The off-site haul truck will be draped with polyethylene sheeting to protect the outside of the truck and tires from coming in contact with any Restricted Material. The trucks will be inspected prior to leaving the area to determine whether decontamination is required.

3.0 FUGITIVE DUST CONTROL PLAN

All procedures identified in the Fugitive Dust Control Plan are to be employed during any intrusive soil activities.

3.1 VOC MONITORING

Concentrations of volatile organic compounds (VOCs) capable of significantly impacting air quality in the work zone or surrounding areas have not been identified at the Site. In the event that VOCs are encountered, stationary monitors will be used near the source area and/or the perimeter of the Site. As necessary, continuous VOC monitoring will be conducted in the work zone in accordance with the HASP for the purpose of protecting worker health and safety.

4.0 STORMWATER MANAGEMENT AND DEWATERING

As noted in Section 2.3.2, the Stormwater Management Pollution Prevention Plan to be implemented during the construction phase of the project will be developed in accordance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities Permit GP-93-06.

Construction activities will include installation of subsurface utilities for pipes, electrical duct banks and manholes. In addition to the subsurface utility installations, sheeting, piling, and new building and equipment foundations will be installed. During these activities, stormwater management/sediment and erosion controls will be in place and utilized as set forth in this plan and as required by applicable regulations. Any stormwater discharged from the Site shall meet all applicable regulatory requirements.

4.1 STORMWATER MANAGEMENT AND CONTROL

Stormwater will be controlled during Excavation activities through diversion to surface swales and sediment basins. Stormwater shall be diverted from entering the excavations through the construction and maintenance of soil berms wrapped with liner at the limit of excavations, deflecting flows to surface swales or sediment basins.

- **Soil Staging Area** - The soil staging area will be constructed to prevent Restricted Material and runoff from entering surrounding areas. If needed, a sump pit will be used to collect all runoff from the staging area. Sediment collected in this sump will be added to stockpiled soils for appropriate disposition. Waters collected in the staging area sumps will be pumped to water storage tanks, treated if required and disposed of off-site.

- **Ground Cover** – The South 40 parcel is not developed. A substantial portion of the existing ground cover on the South 40 within the construction limits of the cogeneration plant will be removed during construction activities. Vegetation along the perimeter of the Site and other areas outside the plant construction area will be preserved to the extent practical. No ground cover will be burned. During construction activities, dust control measures will be employed in accordance with the Fugitive Dust Control Plan.

- **Erodible Soils** - The removal of existing ground cover may increase the potential for soil erosion. As described in Section 2.4, any areas disturbed during construction will be treated in the appropriate manner, including the placement of materials such as seed and mulch, to minimize the potential for erosion in the disturbed areas.

- **Mechanical Retardation and Control of Runoff** - The contractor will utilize temporary stormwater control measures as silt fencing, diversion dikes, check dams and/or temporary seeding to provide effective stormwater management. Temporary diversion berms will be installed up gradient of the excavation. The temporary division berms will divert stormwater runoff away from the excavation areas.

- **Final Cover / Vegetation** - upon completion of the project, established grass, crushed stone, bituminous asphalt or other suitable material will cover soil exposed during construction. All site restoration will be performed in accordance with the project specifications.

- **Protection of Existing Municipal Sewers** – Existing municipal sewers on the Site will be protected with berms and sediment traps to minimize the sediment from flowing into the sewers.

4.2 DEWATERING EXCAVATIONS DURING CONSTRUCTION ACTIVITIES

Based on the existing information available for the groundwater elevations, groundwater control will likely be required for only certain areas of structural excavations. Based upon the subsurface conditions encountered during previous field investigations, excavations in some areas of the Site have the potential to encounter saturated conditions. These are expected to be perched groundwater conditions that typically are of limited volume and probably will be a function of the depth of the excavation as well as the amount of recent precipitation. Localized dewatering by surface sump pumps is expected to remove the small water volumes that may be encountered.

Current groundwater elevations are below the bottom elevation planned for the shallow foundations. Groundwater may be encountered in deep foundation excavations, such as the condenser pit. The deep excavations will be engineered to minimize the amount of groundwater entering the excavated foundation areas. Sheet piling may be required to support the sidewalls of the deep excavations and minimize or to prevent water infiltration into the excavation. Dewatering operations will only be required during placement of the foundation or structure.

The construction contractor shall, to the extent practicable, prevent stormwater from entering open excavations using earthen berms, swales, or sedimentation basins. Water which collects in the excavations as a result of groundwater intrusion shall be pumped and treated as appropriate from excavations when it impedes excavation, or affects the ability to achieve proper compaction of backfill soils.

Any water that exists in or enters an open excavation will be handled in accordance with applicable regulatory requirements. One or a combination of the following treatment technologies may be utilized to treat water removed from excavations if treatment is required: transfer to the existing WWTP, or transfer to the onsite ground water treatment system, settling tanks or clarifiers, or oil / water separators.

As an alternative to direct discharge of treated water to surface water bodies or to the local sewer, treated water may be recycled for use on the Site for the following purposes:

- Increase moisture in dry soils for compaction purposes;
- Increase moisture in soils being stabilized onsite;
- Application to roadways or open excavations for dust suppression; and
- Decontamination of equipment.

5.0 DECONTAMINATION

5.1 EQUIPMENT DECONTAMINATION

All equipment used in the area subject to the SMP will be properly decontaminated at the end of its use, in order to prevent any contamination from migrating from the site. The construction contractor will be responsible for implementing specific equipment cleaning procedures subject to approval of the SMP Officer. These procedures should include the removal of any visible accumulations of soil on equipment tires or surfaces either manually or through the use of a high-pressure water spray. Any water, solids or sludge generated during equipment decontamination shall be managed in accordance with Section 4.0 of this SMP.

The construction contractor will construct a temporary decontamination station at a location that is approved by the SMP Officer. Excavating equipment and any transporter vehicles will be decontaminated by the construction contractor in the decontamination area before leaving the Site.

If Restricted Material is transported off-Site, after each trailer or container is loaded and tarped, the construction contractor will decontaminate the body if necessary, the wheels and tires by either manually removing loose particles (e.g. brushes) or by high pressure washing (steam cleaning). If the equipment is decontaminated with a brush, all loose particles will be transferred to a designated stockpile under the direction of the SMP Officer. If the equipment is decontaminated by high pressure washing (steam cleaner), the rinsate shall be transferred into suitable containers or the fractionation tank, as directed by the SMP Officer, for off-site treatment or disposal.

5.2 EQUIPMENT DECONTAMINATION WATER

Water utilized for decontamination of equipment shall be supplied by existing City water lines located onsite, potable water from the City, potable water from an offsite source, or from dewatering excavations (such water to be treated as necessary), or the Soil Staging Area.

Water utilized in equipment decontamination shall be treated onsite as required and discharged in accordance with all applicable standards or properly disposed of off-site. The construction contractor will set up portable decontamination stations to decontaminate heavy equipment or parts of heavy equipment (e.g., excavator bucket) at specific work areas.

5.3 PERSONNEL DECONTAMINATION WATER

Personnel decontamination water shall be potable water supplied from onsite or offsite sources. Potable water shall be stored onsite in small poly tanks or 55-gallon drums and be readily available in designated areas where personnel decontamination will occur. Each local personnel decontamination area will be a bermed, lined area that has drums for storing used personal protective equipment (PPE), tubs for washing and rinsing boots, boot racks for storage of boots and fresh PPE.

Water resulting from personnel decontamination activities[1] shall be collected, treated on site, and properly discharged or, as an alternative, utilized after treatment.

[1] Analytical testing will be performed on the water resulting from personnel decontamination initially to verify it is within NYSDEC discharge guidelines. Water resulting from personnel decontamination will presumably contain

6.0 HEALTH AND SAFETY

Subject to final requirements for remediation, there will be a health and safety plan required for construction activities on the site. There are potential health and safety concerns associated with the presence of contamination at this site. These and other concerns, including but not limited to general safety practices, work permits, excavation shoring/bracing requirements, ladders, excavation barriers, confined space entry procedures, explosive gas monitoring, mechanical/electrical lock-out procedures, back-flow prevention, notifications, and so forth are not addressed herein.

6.1 ELEMENTS OF THE PLAN

The health and safety plan will be tailored for construction workers on the Site after the Site has been released under the Brownfield Agreement or accepted by NYSDEC as remediated in accordance with the final remedial action report. The content of the construction health and safety plan will depend upon the extent of the remedial effort relative to individual construction related activities.

The plan may include the following elements typical of an OSHA-compliant plan: site control; training; exposure level control techniques (engineering controls, work practices, personal protective equipment); air monitoring; informational program; decontamination procedure; emergency response; and medical surveillance.

6.2 CONTINGENCIES

The procedures that will be followed in the event a contingency arises during construction will be addressed in the Health and Safety Plan. The objective of this section of the Plan will be to minimize the impact of the contingency on site workers and area residents. This section will address emergency response procedures, testing requirements, and notification procedures in response to contingencies.

In the event that unexpected environmental conditions are encountered during the construction, NYSDEC and the property owner shall be notified and the condition shall be addressed in accordance with applicable requirements.

levels of contaminants well below NYSDEC guidelines and once verified can be utilized for any of the purposes specified in Section 3.3 of this Plan.

7.0 NOTIFICATION REQUIREMENTS

The SMP protocols are activated by any Excavation activity or movement of Restricted Material. Except in emergencies, the Owner shall notify the DEC and submit an activity-specific SMP (including the aforementioned SAP) for approval a minimum of thirty (30) calendar days in advance of the planned activity. The SMP Officer and Owner shall provide the approved, activity specific SMP to the contractors and subcontractors and be sure the contractors and subcontractors implement the activity specific SMP.

In the event of an emergency, the Owner shall notify the DEC as soon as practicable. If it was necessary to implement this SMP prior to notification and/or development of an activity specific SMP, the Owner shall submit a report to the DEC detailing how the SMP was followed and any necessary deviations.

APPENDIX B

Site Inspection Checklist

BASF SOUTH 40
SITE INSPECTION CHECKLIST FORM
SITE #

Checklist Items	Acceptable	Not Acceptable	Remarks / Locations
Site Gate(s)			
Site Fencing			
Soil Cover Inspection			
Erosion			
Signage			
Groundwater Monitoring Wells			
Any Changes or Site Modifications			