ATTACHMENT III

R 9/21

REMOVAL ACTION WORK PLAN

Liberty Industrial Finishing Site
Farmingdale, Nassau County, New York

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1.0 INTRODUCTION

This document serves as the Work Plan ("WP") for the Liberty Industrial Finishing Site (hereinafter referred to as the "Site") located in Farmingdale, Nassau County, New York. This WP was prepared as an attachment to an Administrative Order on Consent ("Order") with the United States Environmental Protection Agency ("EPA") pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986.

As stated by EPA, the Site is located in the unincorporated Village of Farmingdale, Town of Oyster Bay, Nassau County, New York. The Site includes approximately 30 acres known as 55 Motor Avenue and is designated on the Nassau County tax map as Lots 326 and 327 of Block 518, Section 48. Figure 1 is a portion of the USGS Quadrangle map indicating the location of the Site as indicated by EPA.

A Remedial Investigation (RI) was conducted by an EPA contractor and a report was issued in January 1994. The RI identified certain conditions at the Site which, according to EPA, lead EPA to undertake a separate Removal Site Evaluation (RSE) investigation in October 1993. The RSE included, among other things, collection of samples from: one underground storage tank (UST); seven drums; and soil in the area of one electric transformer. Based on the results of certain investigations conducted during the RI and RSE, EPA determined that conditions at Site identified in the Order may present an imminent and substantial endangerment to public health or welfare or the environment within the meaning of Section 106(a) of CERCLA. EPA sought a Consent Order ("Order") with the identified Potentially Responsible Parties ("PRPs") to undertake activities consistent with the EPA Description of Work for the removal action set forth in the Order. Certain of the parties identified as

PRPs entered into an Order with the EPA and agreed to perform a Removal Action as set forth in this WP.

1.1 PURPOSE OF THE REMOVAL ACTION

The Removal Action activities described in this WP focus on discrete areas of the Site which have been identified by EPA. These areas are: 1) contents of underground storage tanks (USTs), as set forth below; 2) soils confirmed or suspected to be impacted by polychlorinated biphenyls (PCBs), as set forth below; 3) dielectric fluids in transformers at two locations; and, 4) certain abandoned drums in the acetone building.

The actions required by the EPA under the order involve addressing specific conditions and performing additional characterization and related removal, if necessary, of other conditions based on further investigation as described below. The required removal actions will be implemented in two phases. The first phase will involve further sampling to characterize materials to determine whether they are candidates for removal. A basis for deciding whether the results of further characterization warrant removal of these materials, subject to EPA approval, is presented in this WP. The first sampling phase will also permit delineation of the extent of removal which is required in areas where existing data is insufficient to define the scope of the required action. The second phase will consist of the off-site disposal/recycling of materials determined by EPA to be required based upon the sampling results described below.

1.2 REMOVAL ACTION WORK PLAN ORGANIZATION

The remaining portions of this WP describe the removal actions that will be implemented to comply with the Order. These sections are briefly described below.

Following this introduction section, Section 2.0 describes the tasks to be performed to address the areas identified in the Order. Each of the areas which are the focus of the removal action is described, including available analytical data, along with the extent to which that data serves to adequately characterize the materials. This section also describes the sampling and analysis plan for each area. The sampling and analysis plan identifies the approach to collecting samples to either characterize materials or delineate the extent of required removal actions. Sampling and analytical procedures and analytical schedules for each area are discussed.

Section 3.0 provides an overview of the implementation of the removal action. It presents the strategies that will toe used to undertake removal activities identified in the Order. It also discusses the basis for deciding whether removal of materials is warranted based on the results of the further characterization of these materials. In the event subsequent removal of additional materials is required based on the analytical data, the procedures and methodologies to complete these actions are described in the text.

Section 4.0 explains the aspects of project coordination, outlining a progress report format and describing the approach to completing a final report at the conclusion of the removal action. Section 5.0 presents a schedule for the two phases of the removal action, detailing anticipated time elements for each of the identified elements of the WP

2.0 REMOVAL ACTION SCOPE OF WORK

The EPA has determined that there are six actions which must be accomplished as part of the removal action under the Order. These six actions are:

1) Removal of contents from USTs designated No.'s 2 and 4;

2) Characterization and potential removal of the materials stored in USTs designated No.'s 1, 3, 5, 6, 7 and 8. A subsequent decision as to the need for removal of these materials will be based on the analytical data;

3) Removal of soils containing PCBs at concentrations of 10 ppm or greater from transformer locations designated PCB-1 and PCB-2;

4) Characterization of soils at transformer locations designated PCB-3 and PCB-4 followed by removal of any soils containing PCBs at concentrations of 10 ppm or greater;

5) Characterization of liquids in transformers at locations designated PCB-1 and PCB-3 followed by removal of any PCB liquids in inactive units and assessment of options, including potential removal, to address PCB liquids in active units; and,

6) Removal of drums from the acetone building.

The areas of the Site which are the subject of this removal action are shown on Figure 2. This figure identifies the eight UST and four designated PCB transformer locations. It also shows the location of the former acetone building which currently houses eighteen 55-gallon drums. The following section describes each of these locations and presents the available data generated by

EPA. This information is relied upon for developing a sampling and analysis plan to further characterize materials in those areas.

2.1 *REMOVAL OF CONTENTS IN USTs No.'s 2 AND 4*

The Order requires the removal of the contents of USTs No.'s 2 and 4 based on existing data. The following subsections describe these two USTs and the available data on their contents. Then, a sampling procedure and analytical schedule for these two USTs is presented.

2.1.1 *Description of Areas*

UST 2 is located on the south side of Building W. According to the RI, it has an unknown capacity and is oriented in an east-west direction. Markings indicate that No. 4 fuel oil was stored in this tank. The contents have been described as having a petroleum odor and being pinkish brown in color.

According to the RI, UST 4 is a 1,000 gallon capacity tank located on the east side of the Building M pad. This tank is in close proximity to UST 3 which is located directly south of UST 4. Both UST 3 and UST 4 are oriented in an east-west direction. The contents of UST 4 have been described as a clear liquid with 0.25 to 0.5 inches of light brown liquid floating on top.

2.1.2 *Existing Data USTs No's 2 and 4*

The contents of the USTs No.'s 2 and 4 were initially sampled during the RI. The samples were analyzed via the Toxicity Characteristic Leaching Procedure (TCLP) for volatiles, semivolatiles, pesticides/herbicides, PCBs, inorganics, and RCRA characteristics.

Table 1 presents the results of the sampling of UST 2 and 4. Both UST 2 and UST 4 were deemed to be characteristic hazardous waste by EPA. The TCLP limit for endrin and 1,2-dichloroethane were exceeded in the samples from UST 2 and UST 4, respectively.

In October 1993, EPA performed a Removal Site Evaluation (RSE). As part of the RSE, the contents of UST 4 were re-sampled and analyzed for TCL/TAL analysis. The contents were also re-analyzed for TCLP volatiles, semivolatiles, pesticides/herbicides, inorganics, ignitability and corrosivity. This second round of sampling on the contents of UST 4 confirmed that the compound 1,2-dichloroethane was present in excess of the TCLP limit of 0.5 mg/l, at a concentration of 210 mg/l.

2.1.3 *Sampling Procedures*

The contents of USTs No.'s 2 and 4 will be re-sampled to provide updated data for an appropriate disposal/recycle facility. During a recent Site visit, it was apparent that access to tank UST 4 could be accomplished via a threaded bung or port which was likely cut during the RI. In contrast, UST 2 will require a backhoe to carefully uncover the surface of the tank.

A work zone area will be established at the Site to coordinate the sampling effort and provide for personnel decontamination. As each UST is accessed, appropriate air monitoring will be done in accordance with a Health and Safety Plan (HASP) approved by EPA.

The UST sampling will be accomplished using personnel protective equipment (PPE) as specified in the HASP. Prior to sampling, the UST contents will be assessed to determine fluids characteristics; the solids content, if present; and estimated volume of fluid stored. A sample will be collected using the appropriate sampling device (i.e disposable polyethylene or glass bailer/sampler, or equivalent) as outlined in the QA/QC Plan approved by EPA. The exterior of the sampler will be wiped with a disposable absorbent pad as it is retrieved.

in the UST. The objective will be to collect a sample representative of the liquid column to ensure any stratified layers are included for analysis. Upon retrieval, the sample will be transferred to the sample bottle. The retrieved sampler will be drummed along with the protective clothing and absorbent pads used to wipe the sampler clean will be placed in a 55 gallon drum labelled "Removal Action-Investigative Derived Debris", dated and placed in a secured drum storage area to be defined at the onset of field activities. The security of this drum storage area will be maintained during the Removal Action. The investigative derived debris generated during the Removal Action activities will be disposed of once the analytical data has been received.

2.1.4 Analytical Schedule

The samples will be analyzed via the TCLP methodology and RCRA characteristics. Additionally, the samples will be assessed for BTU's, total halogens, percent sulfur, percent solids, percent water, pH, flash point and cyanide reactivity. The latter suite of analyses will be useful to assess whether fuel blending is an option for the liquids in UST's 2 and 4. A summary of the number of samples is provided in Table 2.

2.2 CHARACTERIZATION OF CONTENTS IN USTs 1, 3, 5, 6, 7 AND 8

2.2.1 Description of Areas

UST 1 is located beneath the Building D slab. According to the RI, the capacity of this tank is unknown, although it is reportedly 5 feet 4 inches deep. The contents of this tank were described as a clear to light brownish liquid with approximately 0.25 inches of a light yellowish brown oil floating on top of the liquid.

UST 3 is located adjacent to UST 4 on the east side of the Building M pad. According to the RI, UST 3 is oriented in a east-west direction and is estimated

UST 3 is located adjacent to UST 4 on the east side of the Building M pad. According to the RI, UST 3 is oriented in an east-west direction and is estimated to have a 1,000 gallon capacity, partially filled with sand and gravel. The contents of this tank have been described as clear with no odor.

UST 5 and UST 6 are located adjacent to the water tower in the southern portion of the Site. According to the RI, UST 5 is the western-most tank, and UST 6 is adjacent to it to the east. Both UST 5 and UST 6 were reported to have a 1,000 gallon capacity. UST 5 has been described as being 4 feet deep, with approximately 6 inches of sand on the bottom. UST 6 reportedly contains 2.5 inches of sand on the bottom and exhibited a petroleum odor and oily sheen.

UST 7 is located to the east of UST 6, adjacent to a chimney stack. According to the RI, UST 7 has a 5,000 gallon capacity and is 9.5 feet deep. The contents of this tank have been described as a brownish black oil with a petroleum odor.

UST 8 is located beneath a concrete pad north of the basins. The RI indicates that UST 8 has an unknown storage capacity. The tank is reportedly 4 feet 2 inches deep and contains a clear liquid with approximately 0.125 inches of yellow liquid floating on top. There was a petroleum odor reportedly associated with the liquid.

2.2.2 *Existing Data USTs No's 1, 3, 5, 6, 7 and 8*

The contents of each of these tanks were sampled during the RI. The samples were analyzed via the TCLP method for volatiles, semivolatiles, pesticides/herbicides, PCBs, inorganics, and RCRA characteristics. Table 1 presents the results of the UST contents sampling.

2.2.3 *Sampling Procedures*

The contents of USTs 1, 3, 5, 6, 7 and 8 will be re-sampled, as indicated below, to determine if hazardous substances are present which would be eligible for removal under CERCLA. During a recent Site visit it was apparent that access to tanks UST 5, UST 7 and UST 8 could be accomplished via a threaded bung. In contrast, access to tanks UST 1, UST 3 and UST 6 is unclear, and will likely have to be accomplished with a backhoe.

The UST sampling will be accomplished using personnel protective equipment (PPE) as specified in the HASP. Prior to sampling, the UST contents will be assessed to determine fluids characteristics; the solids content, if present; and estimated volume of fluid stored. A sample will be collected using the appropriate sampling device (i.e disposable polyethylene or glass bailer/sampler, or equivalent) as outlined in the QA/QC Plan approved by EPA. The exterior of the sampler will be wiped with a disposable absorbent pad as it is retrieved. The length of the sample device will be dictated by the depth of liquid present in the UST. The objective will be to collect a sample representative of the liquid column to ensure any stratified layers are included for analysis. Upon retrieval, the sample will be transferred to the sample bottle. The retrieved sampler will be drummed along with the protective clothing and absorbent pads used to wipe the sampler clean will be placed in a 55 gallon drum labelled "Removal Action-Investigative Derived Debris", dated and placed in a secured drum storage area to be defined at the onset of field activities. This security of this drum storage area will be maintained during the Removal Action. The investigative derived debris generated during the Removal Action activities will be disposed of once the analytical data has been received.

2.2.4 *Analytical Schedule*

The samples will be analyzed for TCL\TAL compounds as per the approved QA/QC Plan. A summary of the number of samples, including QA/QC samples, is provided in Table 2.

In addition, the samples will be tested for BTU's, total halogens, percent sulfur, percent solids, percent water, pH, flash point and cyanide reactivity. This latter suite of analyses will be useful to assess whether fuel blending is an option if the contents of one or more USTs have to be removed.

2.3 *REMOVAL OF SOILS AT PCB TRANSFORMER LOCATION No. 1*

This section describes pertinent features of the PCB Location No. 1 and presents a sampling procedure intended to determine the volume of soil which needs to be removed.

2.3.1 *Description of Area*

PCB Transformer No. 1 (PCB 1) is an active transformer area and is located north and adjacent to former Building C. The PCB 1 area contains approximately 6 transformers, some of which were active at the time of the ERM Northeast Site inspection. A concrete pad is present beneath the transformers at this location. The approximate size of the fenced area encompassing the transformers at PCB 1 is 20 feet by 16 feet. A building borders this area on its south side. The PCB 1 location is depicted in Figure 3.

2.3.2 *Existing Data PCB Transformer No. 1 Location*

As part of the RSE, a soil sample was collected from the surface of the transformer pad. The analytical results are summarized in Table 3. PCBs were detected at a concentration of 87 ppm in this soil sample.

2.3.3 *Delineation Sampling Procedures*

Initially, the soil that is present on the surface of the concrete pad beneath the transformers will be evaluated and a grab retrieved. Should there be an inadequate volume of soil then, an industrial vacuum fitted with a filter and/or collection bag will be utilized. A sample of the soil collected from the concrete pad will undergo field screening via an immunoassay tests using the Millipore EnviroGard field test, or equivalent. The EnviroGard PCB Test Kit employs an antibody against PCB that is coated onto 12 mm x 75 mm polystyrene test tubes. The method is based on the principles of the competitive immunoassay, wherein the absorbance signal (optical density) of the final reaction mixture is inversely proportional to the concentration of analyte (PCB) present in the original sample. PCBs that are present in the soil extracts and assay calibrators will be bound during the first incubation by the anti-PCB antibodies, which have been adsorbed onto the test tubes. The minimum reliable detection limit for the EnviroGard PCB Test Kit is 3.3 ppm in soil. Additional information regarding this field screening method is provided in the QA/QC Plan approved by EPA.

After the soil is collected from the concrete pad, two to six wipe samples of the porous concrete surface will be collected. At designated locations on the concrete pad surface, a 100 square centimeter template will be used to designate the sample boundaries. A moistened filter pad or gauze will be used to wipe the surface of the pad. The wipe sample locations will be biased to stained areas of the concrete pad. Once the sampling is completed, each wipe will be placed in a clean glass jar for subsequent delivery to the laboratory in accordance with the QA/QC Plan approved by EPA.

Following the collection of soil and wipe samples from the concrete pad, a 10 foot by 10 foot grid will be established over the surface soil beginning at the edge of the concrete pad within the area of PCB 1. Soil samples will be collected for field screening of PCBs at reference points within the grid starting at locations immediately adjacent to the concrete pad. A schematic of this area with approximate locations where the initial soil samples will be collected for field screening is shown in Figure 3.

Since the existing information regarding PCBs in soil at PCB 1 involves the result of one sample collected from the concrete pad, the approach to soil sampling at this location will commence at the edge of the concrete pad. A total of seven surface soil samples will be collected from the 0 to 6 inch depth interval for field screening using the immunoassay method described above. The approximate location of these samples is shown in Figure 3. The sample locations are intended to evaluate whether PCB fluids migrated from the concrete pad onto adjacent soil. If stained or distressed soil/vegetation is noted, the nearest grid-designated sample location will be moved to assess the stained or distressed area.

If the field screening indicates that a surface soil sample exhibits a PCB concentration of 10 ppm or greater, then sampling will extend outward to the north, west and east. The southern end of PCB 1 is a building. Surface soil sampling for field screening will continue until the areal extent of PCBs in soil with concentrations of 10 ppm or greater is ascertained.

In addition, at locations where surface samples indicate PCBs at concentrations of 10 ppm or greater via the field screening method, another sample will be collected from the 6 to 12 inch interval or deeper, and an immunoassay screening test will be performed on this subsurface sample. Subsurface soil samples will be collected until the vertical limits of PCB concentrations of 10 ppm or greater are defined.

2.3.4 Analytical Schedule

A minimum of four, or approximately 25% of the samples which undergo field screening, whichever is greater, will be sent to a laboratory for confirmation analysis. Samples sent for laboratory analysis will be biased toward those samples with PCB concentrations less than 10 ppm. These will also include some samples which exhibit higher-end PCB concentrations. The samples will be analyzed for TCL PCBs in accordance with the QA/QC Plan approved by EPA. A summary of the number of samples, including QA/QC samples, is provided in Table 2.

In addition, for the purpose of disposal, one composite sample (comprised of the samples collected for confirmation laboratory analysis) will be collected for TCLP analysis and RCRA characteristics. These and the wipe samples will also be sent to a laboratory and will be analyzed in accordance with SW-846 analytical methodologies.

2.4 REMOVAL OF SOILS AT PCB TRANSFORMER No. 2 LOCATION

This section describes pertinent features of the PCB No. 2 location and presents a sampling procedure intended to determine the volume of soil which needs to be removed.

2.4.1 Description of Area

PCB Transformer No. 2 (PCB 2) is located to the west of Building F. This transformer area is no longer in service and all of the transformer(s) have been removed.

The PCB 2 location is bordered on its north and east sides by a building. The north side is approximately 50 feet in length while the west and south sides are approximately 60 and 45 feet in length, respectively. Additionally, there is an asphalt/concrete surface along the south side of PCB 2. There is also a small portion of asphalt area between PCB 2 and the building on the east side. The concrete pad within the PCB 2 area is located on its southern end. The PCB 2 location is depicted in Figure 4.

2.4.2 Existing Data PCB Transformer No. 2 Location

During the RI field investigation in January 1992, three soil samples were collected from soils adjacent to PCB 2. The samples were analyzed for TCL/TAL analytes. Table 3 presents a summary of detected compounds. Of note, is 180 mg/kg (ppm) PCB concentration in the 0 to 6 inch sample.

The PCB 2 area was sampled again during the RSE investigation. The sample was collected from surface soils immediately adjacent to the transformer pad. The analysis reported a concentration of 18,000 ppm.

2.4.3 Delineation Sampling Procedures

Initially, the soil that is present on the surface of the concrete pad will be evaluated and a grab will be retrieved. Should there be an inadequate volume of soil, then an industrial vacuum fitted with a filter or collection bag will be utilized. A sample of the soil collected from the concrete pad will undergo field screening via an immunoassay test using the Millipore Envirogard field test, or equivalent as described in section 2.3.3.

After the soil is collected from the concrete pad, two to six wipe samples of the porous concrete surface will be collected. At designated locations on the concrete pad surface, a 100 square centimeter template will be used to designate the sample boundaries. A moistened filter pad or gauze will be used to wipe the surface of the pad. The wipe sample locations will be biased to stained areas of the concrete pad. Once the sampling is completed, each wipe will be placed in a clean glass jar for subsequent delivery to the laboratory.

Following the collection of soil and wipe samples from the concrete pad, a 10 foot by 10 foot grid will be established over the surface soil area defined as PCB 2. This grid will begin at the edge of the concrete pad within the area of PCB 2. Soil samples will be collected for field screening of PCBs at reference points within the grid starting at locations immediately adjacent to the concrete pad and extending outward toward the north. A schematic of this area with approximate locations where samples will be collected for field screening is shown in Figure 4.

Since the existing information regarding PCBs in soil at PCB 2 involves the results of two soil samples collected from an area just in front of the concrete pad, the approach to soil sampling at this location will commence at the edge of the concrete pad and extend outward and westward toward the building line and the adjacent concrete/asphalt area. Initially, a total of 28 surface soil samples will be collected from the 0 to 6 inch depth interval for field screening using the immunoassay method described above. The approximate location of these samples is shown in Figure 4. The sample locations are intended to evaluate whether PCB fluids migrated from the concrete pad or soil immediately in front of the concrete pad to adjacent soil areas. If stained or distressed soil/vegetation is noted, the nearest grid-designated sample location will be moved to assess the area.

If the field screening indicates that a surface soil sample exhibits a PCB concentration of 10 ppm or greater, then sampling will extend outward to the north and west based on the previous sampling information. Surface soil sampling for field screening will continue until the areal extent of PCBs in soil with concentrations of 10 ppm or greater is ascertained.

In addition, at locations where surface samples indicate PCBs at concentrations of 10 ppm or greater via the field screening method, another sample will be collected from the 6 to 12 inch interval or deeper, and an immunoassay screening test will be performed on this subsurface sample. Subsurface soil samples will be collected until the vertical limits of PCB concentrations of 10 ppm or greater are defined.

2.4.4 *Analytical Schedule*

Approximately 25% of the samples which undergo field screening will be sent to a laboratory for confirmation analysis. Samples sent for laboratory analysis will be biased toward those samples with PCB concentrations less than 10 ppm. These will also include some samples which exhibit higher-end PCB concentrations. Based on the number of sample locations depicted in Figure 4, at least seven samples will be collected for laboratory confirmation analysis. The samples will be analyzed for TCL PCBs in accordance with the QA/QC Plan approved by EPA. A summary of the number of samples, including QA/QC samples, is provided in Table 2.

In addition, for the purpose of disposal, one composite sample (comprised of the samples collected for confirmation laboratory analysis) will be collected for TCLP analysis and RCRA characteristics. These and the wipe samples will also be sent to a laboratory and will be analyzed in accordance with SW-846 analytical methodologies.

2.5 *SOIL ASSESSMENT TRANSFORMER LOCATIONS No.'s 3 AND 4*

The Order requires the investigation of soils in the vicinity of PCB Transformer Locations No.'s 3 and 4, and the subsequent removal of soil that contains 10 ppm or more of PCBs. This section describes pertinent features of this location and describes a sampling procedure intended to determine the volume of soil which may need to be removed.

2.5.1 *Description of Areas*

PCB Transformer No. 3 (PCB 3) area is located adjacent to the eastern side of Building H. The concrete pad holds four transformers and there is evidence that two or three additional transformers were located on the southern end of the pad. At the time of the ERM Northeast Site inspection, some of the transformers were active. A concrete pad is present beneath the transformers at this location. The approximate size of the fenced area encompassing the transformers at PCB 3 is approximately 25 feet by 60 feet. A building borders the west side of this area. The PCB 3 location is depicted in Figure 5.

PCB Transformer No. 4 (PCB 4) area is located in the northeast corner of the Site. The PCB 4 location is a fenced area near the railroad tracks which was reportedly used to store transformer units. It was not, however, reported to house active units. At the time of the ERM Northeast Site inspection, there were no transformers at this location. The area is approximately 45 feet by 90 feet and is bordered on its west, east and south sides by an asphalt cover. The north side of this area is an embankment which grades upward to the railroad tracks.

2.5.2 *Sampling Procedure*

Initially, the soil that is present on the surface of the concrete pad at PCB 3 will be evaluated and a grab will be retrieved. Should there be an inadequate volume of soil, then, an industrial vacuum fitted with a filter or collection bag will be utilized. A sample of the soil collected from the concrete pad will undergo field screening via an immunoassay test using the Millipore Envirogard field test, or equivalent, as described in section 2.3.1.

After the soil is collected from the concrete pad, two to six wipe samples of the porous concrete surface at PCB 3 will be collected. At designated locations on the concrete pad surface, a 100 square centimeter template will be used to designate the sample boundaries. A moistened filter pad or gauze will be used to wipe the surface of the pad. The wipe sample locations will be biased to stained areas of the concrete pad. Once the sampling is completed, each wipe will be placed in a clean glass jar for subsequent delivery to the laboratory.

Following the collection of soil and wipe samples from the concrete pad at PCB 3, a 10 foot by 10 foot grid will be established over the surface soil area defined as PCB 3. At PCB 3, the grid will begin at the edge of the concrete pad. A similar 10 foot by 10 foot grid will be established in the area defined as PCB 4. Since there is no concrete pad at PCB 4, soil samples will be evenly placed within this defined area.

Soil samples will be collected for field screening of PCBs at reference points within the grids at PCB 3 and PCB 4 and extend outward as required. A schematic of the PCB 3 and PCB 4 areas with approximate locations where samples will be collected for field screening is shown in Figures 5 and 6, respectively.

Since there is no information regarding PCBs in soil at either PCB 3 or PCB 4, the approach to soil sampling at these locations is to assess whether any transformer fluids containing PCBs caused the soil in these areas to be impacted at concentrations of 10 ppm or greater. Initially, a total of 16 surface soil samples from PCB 3 and 40 soil samples from PCB 4 will be collected from the 0 to 6 inch depth interval for field screening using the immunoassay method described above. The approximate locations of these samples is shown in Figure 5 (PCB 3) and Figure 6 (PCB 4). The sample locations in Figure 5 are intended to evaluate whether any PCB fluids migrated from the transformers and concrete pad at PCB 3 to soil immediately in front, and to the sides of the concrete pad. At PCB 4 (Figure 6) the surface soil sample locations are intended to assess whether this area contains any PCB at concentrations of 10 ppm or greater. If stained or distressed soil/vegetation is noted at either location, the nearest grid-designated sample location will be moved to assess the area.

If the field screening indicates that a surface soil sample exhibits a PCB concentration of 10 ppm or greater, then sampling will extend outward to the north, east and south at PCB 3 and all compass directions at PCB 4. Surface soil sampling for field screening will continue until the areal extent of PCBs in soil with concentrations of 10 ppm or greater is ascertained.

In addition, at locations where surface samples indicate PCBs at concentrations of 10 ppm or greater via the field screening method, another sample will be collected from the 6 to 12 inch interval or deeper, and an immunoassay screening test will be performed on this subsurface sample. Subsurface soil samples will be collected until the vertical limits of PCB concentrations of 10 ppm or greater are defined.

2.5.3 *Analytical Schedule*

Approximately 25% of the samples which undergo field screening at these two locations will be sent to a laboratory for confirmation analysis. Samples sent for laboratory analysis will be biased toward those samples with PCB concentrations less than 10 ppm. These will also include some samples which exhibit higher-end PCB concentrations. Based on the number of sample locations depicted in Figure 5 and Figure 6, at least four and 10 samples will be collected for laboratory confirmation analysis from PCB 3 and PCB 4, respectively. The samples will be analyzed for TCL PCBs in accordance with the QA/QC Plan approved by EPA. A summary of the number of samples, including QA/QC samples, is provided in Table 2.

In addition, for the purpose of disposal, one composite sample (comprised of the samples collected for confirmation laboratory analysis) will be collected for TCLP analysis and RCRA characteristics from each PCB location. The confirmation soil samples from PCB 3 and PCB 4 and the wipe samples from the concrete pad at PCB 3 will also be sent to a laboratory and will be analyzed in accordance with SW-846 analytical methodologies.

2.6 ASSESSMENT OF TRANSFORMER FLUIDS (LOCATIONS 1 & 3)

There are both active and inactive transformer units at two of the four designated PCB locations. Since the Order indicates that liquids in the transformers which contain PCBs are to be removed, it is necessary to characterize the concentration of PCBs, if any, in the fluids in transformers at PCB 1 and PCB 3. After receipt of the data, dielectric fluids in inactive transformers which contain PCBs will be removed, while the approach to PCB fluids in active units will be assessed to determine a proper course of action.

2.6.1 Sampling Procedures

Prior to entering the fenced-in transformer areas, the transformers must be de-energized and the electric power source locked out. The Health and Safety Officer (HSO) must witness the lock out and, if possible, have his/her own lock attached to the lock out. Once the power to the transformer is off and spill control measures (plastic sheeting on ground and/or floor surface) are in place. A sample of dielectric fluid will be collected using either a disposable glass or polyethylene Coliwasa or thief, or equivalent method.

This sampling will be conducted in accordance with the description in the QA/QC Plan approved by EPA. If a sample device is lowered into the fluid in the unit, the exterior of the sampler will be wiped with a disposable absorbent pad as it is retrieved. Upon retrieval, the sample will be transferred to the sample bottle. The retrieved sampler will be drummed along with the protective clothing and absorbent pads used to wipe the sampler clean will be placed in a 55 gallon drum labelled "Removal Action-Investigative Derived Debris", dated and placed in a secured drum storage area to be defined at the onset of field activities. This security of this drum storage area will be maintained during the Removal Action. The investigative derived debris generated during the Removal Action activities will be disposed of once the analytical data has been received.

2.6.2 *Analytical Schedule*

The dielectric fluid samples will be analyzed for TCL PCBs in accordance with the QA/QC Plan approved by EPA.

2.7 *CHARACTERIZATION OF DRUMS*

The Order refers to eighteen 55-gallon drums present in the acetone building. Available information indicates that eight of these drums are empty. The following subsections describe pertinent features of where these drums are located along with existing data. Additionally, a sampling procedure to complete the characterization of the ten drums, which potentially contain liquids, is presented.

2.7.1 *Description of Area*

Immediately west of Building F there is a one room cinder-bock building, approximately half the size of a one-car garage. The building is currently locked and the drums are stored in a single level on top of wood pallets. Eighteen 55-gallon steel drums are located in this building. Eight of the eighteen drums were determined by EPA to be empty.

2.7.2 *Existing Data Acetone Building Drums*

During the RSE investigation, the material in 10 drums, with the exception of one which reportedly could not be opened, was examined. Seven drum samples were collected during the RSE. Table 4 presents a summary of the analytical results of the seven samples. Three of the samples (EPA-1, EPA-2 and EPA-5) were analyzed for TCLP volatiles, semivolatiles, pesticides/herbicides, PCBs, inorganics, ignitability and corrosivity. All seven of samples were analyzed for TCL/TAL compounds (EPA-5 was not analyzed for pesticide/PCB compounds) and with the exception of EPA-7, ignitability and corrosivity.

2.7.3 *Sampling Procedure*

The drums will be visually inspected to ascertain their physical condition. If excessive corrosion, pitting and/or bulging is noted, the drums will be carefully placed in overpack containers. If the drums are not already marked with identification numbers, numbers will be assigned to each drum and permanently affixed to them.

The initial sampling of these drums will commence by slowly opening the bung on each drum. As each drum is opened appropriate air monitoring will be performed in accordance with the HASP. A sampling device (e.g. sample thief or equivalent) will be inserted through the bung and into the center of the liquids in the drum. The objective will be to collect a sample representative of the liquid column to ensure any stratified layers are included for analysis. Upon retrieval, the sample will be transferred to the sample bottle which will be placed on top of each drum. The retrieved sampler will be drummed along with the protective clothing and absorbent pads used to wipe the sampler clean will be placed in a 55 gallon drum labelled "Removal Action-Investigative Derived Debris", dated and placed in a secured drum storage area to be defined at the onset of field activities. This security of this drum storage area will be maintained during the Removal Action. The investigative derived debris generated during the Removal Action activities will be disposed of once the analytical data has been received.

After a sample from each drum is collected, field compatibility tests will be performed. This testing will be performed on an aliquot of sample from each drum. Initially, the flammability and water reactivity of the sample aliquot will be determined. These tests will determine whether the liquids are water soluble or insoluble. Once water soluble and insoluble sample aliquots are separated the latter ones will be tested for pH, while the former ones will be tested for organic characteristics by dissolving in hexane. Additionally, any water insoluble materials obtained from the three drums which were not previously characterized, will be screened for PCBs. Samples which indicate the materials are compatible will be made into a single composite sample for laboratory analysis.

2.7.4 *Analytical Schedule*

The individual or composite sample(s) will be analyzed to assist in determining disposal/recycle options. The single composite will under go TCLP testing. Additionally, the sample composite sample will be tested for BTU's, total halogens, percent sulfur, percent solids, percent water, pH, flash point and cyanide reactivity. A summary of the number of samples, is provided in Table 2. This table assumes, based on the available drum analytical data, that one composite sample will be collected from the drums.

After the drums are sampled they will be placed back in the acetone building. This building is roofed and can be locked to secure the drums. The drums will remain in the acetone building until their removal.

3.0 *REMOVAL ACTION IMPLEMENTATION*

The scope of work for the removal action specifies removal of certain materials, based on existing information, and removal of other materials, if required, once additional chemical characterization is completed. The materials currently specified for removal are the contents of USTs 2 and 4, PCB impacted soils at PCB 1 and PCB 2 and drums in the acetone building. Additional removal may be warranted for the contents of USTs 1,3,5,6,7 or 8, soil at PCB 3 and PCB 4 and the dielectric fluids in transformers at PCB 1 and PCB 3, once analytical data is generated on the composition of materials at these locations.

This section of the WP describes the procedures that will be used to complete the removal of materials as defined in the Order or as determined after review of analytical data collected pursuant to the Order.

3.1 *Contents of USTs NO.'s 2 AND 4*

3.1.1 *Procedures for Liquid Removal, Storage and Transport*

The contents of UST 2 and 4 will be removed in a planned manner in order to avoid spills. To access the top of the UST, a backhoe will carefully remove the surface backfill. This excavation will be performed to avoid damaging the UST and causing a release. A technician will be available to hand shovel to expose the surface of the UST. In addition, all activities will be performed with oversight by the HSO whose duties will be described in the HASP. Appropriate ambient monitoring of the excavation activities will be conducted with in accordance with procedures described in the HASP.

Once the top of the tank is evident, access to the tank interior will be gained via a threaded bung or removable man-way. After gaining access to the tank contents, the pumpable liquids will be removed using a vacuum system (either a vacuum truck or a drum vacuum). Using a vacuum system insures the liquids are never transferred in a pressurized pipeline, thus avoiding spills due to leaks in the transfer pipeline or hose. The drum vacuum or vacuum truck will be equipped with an automatic overfill protection which will shut off the vacuum before the drum or tank is full.

When all of the pumpable product has been removed from the tank, a man-way will be cut into the tank if a bolted man-way does not already exist. Prior to cold cutting a man-way into the tank, the tank atmosphere will be checked for Lowest Explosion Level (LEL) and oxygen content. Carbon dioxide or nitrogen may be used to inert the tank atmosphere to safe levels, if required.

The pumpable tank liquids will be removed by vacuum truck in accordance with prior disposal/recycle facility acceptance. The vacuum tanker truck will then leave the Site, avoiding on-site storage of the liquid wastes materials.

3.1.2 UST Cleaning and Interim Closure

To remove all of the non-pumpable waste materials contained in the tanks, the tanks will have to be manually cleaned. This work will be performed in strict accordance to the Occupational Safety and Health Administration regulations, 29 CFR 1910, and the EPA Guidance titled "Standard Operating Safety Guide" OSWER Directive 9285.1-03, June 1992.

The tank cleaning will require confined space entry by the contractor as per the HASP. Cleaning will commence with removal of tank sludge and containerization in DOT 17-H steel drums (55 gallon). The drums will be appropriately labeled as per EPA and DOT regulations. The labeled drums will be stored in a secured drum storage area to be defined at the onset of field activities. The drum staging area where liquid waste and tank bottoms are stored will be lined with 10 mil reinforced polyethylene sheeting. The perimeter of the staging area will be bermed by placing an earthen berm underneath the polyethylene sheeting. The drums will be placed on pallets to allow for inspection of the drum integrity during the storage period.

After any sludge is removed, the tank surfaces will be wiped down with sorbent pads to removed any free liquids which are retained. The tank surfaces will also be squeeged to remove residual liquids and sludge. Sorbent pads and speedi-dry will be used to collect these materials. All cleaning residuals will be containerized in 55-gallon drums and placed in the secured drum disposal area to be defined at the onset of field activities.

When the tanks are clean, photographs will be taken of the tank interior area for documentation. After the tanks are cleaned, the following procedures will be implemented.

- In an effort to minimize water collecting in the abandoned tank, holes will cut into the tank bottom along the bottom spine of the tank. One 2 inch diameter hole will be cut per 1,000 gallons of tank capacity.

- The man-way will be replaced and bolted, or if there was not a bolted man-way on the tank, the rough opening will be covered with 1/2 inch exterior plywood. The plywood will be covered with sand to present a smooth surface onto which 10 mil reinforced polyethylene sheeting will be placed. Additionally, all surface access points will be sealed to prevent anyone gaining access to the USTs. Any pipes which protrude from the surface will be permanently sealed (eg. blind flange). This includes vent pipes which can be adequately identified. The remaining portion of the excavation will be backfilled to grade carefully avoiding puncturing of the polyethylene sheeting.

- The contractor will prepare drawings showing the exact tank location, tank perimeters, and depth.

3.1.3 Disposal/Recycling Alternatives

Wherever possible, the waste materials that leave the Site will be recycled. Based on the available information, the tank liquids are good candidates for fuel blending as a recycling option.

This existing data must be updated to include the analytical results specified in section 2.1.4 and current tank volume estimates. Using the updated information, recycling alternatives for the UST contents will be investigated. At a minimum, fuel blending and oil recycling will be explored as possible alternatives to treatment or incineration. If recycling is considered as an option, at least three possible facilities will be identified to the EPA On Scene Coordinator (OSC).

The handling, storage, transportation and disposal/recycling of the contents of USTs No.'s 2 and 4 will be performed in accordance with applicable environmental regulations. When the appropriate disposal/recycling option has been selected, the contractor will obtain formal written approval for disposal/recycling from the facility. The facility's name, address, and EPA identification number shall be submitted to the EPA OSC and PRP group or designee for approval, at least seven days prior to shipment. The EPA OSC will assist the Project Coordinator in evaluating whether the facility is not in compliance with the CERCLA Off-Site Rule (58 Fed. Reg.. 49200, September 22, 1993).

If the disposal/recycle facility is located outside New York State, notification will be made in accordance with OSWER Directive 93330.2-07 and the appropriate environmental agency to receive the materials will be contacted and informed of the name of the accepting facility, type of material being shipped, expected schedule and method of transportation.

After receipt of the disposal/recycling facility's written approval indicating acceptance of the material, waste manifests will be completed for each shipment of waste. Additionally, Land Disposal Restriction (LDR) notifications will also be prepared. These documents will be delivered to the PRP group or designee for review and generator signature at least three days prior to shipment.

On the day of shipment, the contractor's supervisor and Project Coordinator will be on site to oversee the process. The supervisor will insure the manifest volumes and waste descriptions are correct, obtain the transporter's signature on manifests, and keep the appropriate copies of the manifest. The contractor shall send generator-state and disposal-state manifest copies to the appropriate state regulatory agencies via registered mail within five days after shipment. The contractor shall follow the shipment by contacting the disposal/recycle facility first to insure timely arrival of the waste shipment, and once again to make sure the shipment is as specified on waste profile. A final certification of disposal/recycling will be obtained in accordance with the Order.

3.2 Contents of UST's 1, 3, 5, 6, 7, AND 8

The additional characterization data for the contents of USTs 1,3,5,6,7 and 8 will be evaluated to determine if hazardous substances are present which would be eligible for removal under CERCLA. The additional TCL and TAL characterization data will be used to ascertain whether the liquids in one or more of the USTs contain hazardous substances which would make the contents eligible for removal under CERCLA. The contents of any UST which contains hazardous substances eligible for removal under CERCLA will be removed in accordance with the procedures outlined below.

3.2.1 *Procedures for Liquid Removal, Storage and Transport*

The contents of USTs 1,3,5,6,7 and/or 8 will be removed, if required, in a planned manner in order to avoid spills. To access the top of the UST, a backhoe will carefully remove the surface backfill. This excavation will be performed to avoid damaging the UST and causing a release. A technician will be available to hand shovel to expose the surface of the UST. In addition, all activities will be performed with oversight by the HSO whose duties are described in the HASP. Appropriate ambient monitoring of the excavation activities will be conducted with in accordance with procedures described in the HASP.

Once the top of the tank is evident, access to the tank interior will be gained via a threaded bung or removable man-way. After gaining access to the tank contents, the pumpable liquids will be removed using a vacuum system (either a vacuum truck or a drum vacuum). Using a vacuum system insures the liquids are never transferred in a pressurized pipeline, thus avoiding spills due to leaks in the transfer pipeline or hose. The drum vacuum or vacuum truck will be equipped with an automatic overfill protection which will shut off the vacuum before the drum or tank is full.

When all of the pumpable product has been removed from the tank, a man-way will be cut into the tank if a bolted man-way does not already exist. Prior to cold cutting a man-way into the tank, the tank atmosphere will be checked for Lowest Explosion Level (LEL) and oxygen content. Carbon dioxide or nitrogen may be used to inert the tank atmosphere to safe levels, if required.

The pumpable tank liquids will be removed by vacuum truck in accordance with prior disposal/recycle facility acceptance. The vacuum tanker truck will then leave the Site, avoiding on-site storage of the liquid wastes materials.

3.2.2 UST Cleaning and Interim Closure

To remove all of the non-pumpable waste materials contained in the tanks, the tanks will have to be manually cleaned. This work will be performed in strict accordance to the Occupational Safety and Health Administration regulations, 29 CFR 1910, and the EPA Guidance titled "Standard Operating Safety Guide" OSWER Directive 9285.1-03, June 1992.

The tank cleaning will require confined space entry by the contractor as per the HASP. Cleaning will commence with removal of tank sludge and containerization in DOT 17-H steel drums (55 gallon). The drums will be appropriately labeled as per EPA and DOT regulations. The labeled drums will be stored in a secured drum storage area to be defined at the onset of field activities.

After any sludge is removed, the tank surfaces will be wiped down with sorbent pads to removed any free liquids which are retained. The tank surfaces will also be squeeged to remove residual liquids and sludge. Sorbent pads and speedi-dry will be used to collect these materials. All cleaning residuals will be containerized in 55-gallon drums and placed in the secured drum disposal area to be defined at the onset of field activities.

When the tanks are clean, photographs will be taken of the tank interior area for documentation. After the tanks are cleaned, the following procedures will be implemented.

- In an effort to minimize water collecting in the abandoned tank, holes will cut into the tank bottom along the bottom spine of the tank. One 2 inch diameter hole will be cut per 1,000 gallons of tank capacity.

- The man-way will be replaced and bolted, or if there was not a bolted man-way on the tank, the rough opening will be covered with 1/2 inch exterior plywood. The plywood will be covered with sand to present a smooth surface onto which 10 mil reinforced polyethylene sheeting will be placed. Additionally, all surface access points will be sealed to prevent anyone gaining access to the USTs. Any pipes which protrude from the surface will be permanently sealed (eg. blind flange). This includes vent pipes which can be adequately identified. The remaining portion of the excavation will be backfilled to grade carefully avoiding puncturing of the polyethylene sheeting.

- The contractor will prepare drawings showing the exact tank location, tank perimeters, and depth.

3.2.3 Disposal/Recycling Alternatives

Wherever possible, the waste materials that leaves the Site will be recycled. Based on the available information, the liquids in USTs No.'s 1,3,5,6,7 and 8 may likely be candidates for fuel blending as a recycling option, if removal is required. If recycling is considered as an option, at least three possible facilities will be identified to the EPA OSC.

This existing data must be updated to include the analytical results specified in section 2.2.4 and current tank volume estimates. Using the updated information, recycling alternatives for the UST contents will be investigated. At a minimum, fuel blending and oil recycling will be explored as possible alternatives to treatment or incineration.

The handling, storage, transportation and disposal/recycling of the contents of USTs No.'s 1,3,5,6,7 or 8 will be performed in accordance with applicable environmental regulations. When the appropriate disposal/recycling option has been selected, the contractor will obtain formal written approval for disposal/recycling from the facility. The facility's name, address, and EPA identification number shall be submitted to the OSC and PRP group or designee for approval, at least seven days prior to shipment. The EPA OSC will assist the Project Coordinator in evaluating whether the facility is not in compliance with the CERCLA Off-Site Rule (58 Fed. Reg.. 49200, September 22, 1993).

If the disposal/recycle facility is located outside New York State, notification will be made in accordance with OSWER Directive 93330.2-07 and the appropriate environmental agency to receive the materials will be contacted and informed of the name of the accepting facility, type of material being shipped, expected schedule and method of transportation.

After receipt of the disposal/recycling facility's written approval indicating acceptance of the material, waste manifests or bills of lading (as appropriate) will be completed for each shipment of waste. Where appropriate, Land Disposal Restriction (LDR) notifications will also be prepared. These documents will be delivered to the PRP group or designee for review and generator signature at least three days prior to shipment.

On the day of shipment, the contractor's supervisor and Project Coordinator will be on site to oversee the process. The supervisor will insure the manifest volumes and waste descriptions are correct, obtain the transporter's signature on manifests or bills of lading, and keep appropriate copies of the documents. If waste manifests are completed, the contractor shall send generator-state and disposal-state manifest copies to the appropriate state regulatory agencies via registered mail within five days after shipment. The contractor shall also follow the shipment by contacting the disposal/recycle facility first to insure timely arrival of the waste shipment, and once again to make sure the shipment is as specified on waste profile. A final certification of disposal/recycling will be obtained in accordance with the Order.

3.3 *REMOVAL OF PCB SOILS ≥ 10 PPM*

The Order defines four PCB transformer locations. The results of soil samples collected by EPA at two of these locations (designated PCB 1 and PCB 2) were the basis for the requirement in the Order to remove soils with a PCB concentration of 10 ppm or greater. The soil in the other two areas (designated PCB 3 and PCB 4) will be sampled as part of this removal action and a determination will be made to remove soils if PCB concentrations are found at or above 10 ppm.

Surface soils (top two feet) which exhibit PCB concentrations of 10 ppm or greater will be removed. The extent of soil removal or any other approach to soils below two feet will be determined by the EPA OSC using the analytical data generated as part of the removal action.

While removal activities are underway at the Site, security at the areas designated PCB-1 and PCB-2 will be maintained. Weekly inspections will be conducted by the property manager and supported by a written log describing conditions of the fence, locks and PCB signs. In the event PCBs are found in soils at or above 10 ppm at locations designated PCB 3 and PCB 4, these areas will also be secured and included in the weekly inspections.

3.3.1 *Procedures for Excavation and Storage*

The remediation of PCB soils will be performed in accordance with "Guidance on Remedial Actions for Superfund Sites with PCB Contamination" (EPA/540/G-90/007 August 1990). This guidance sets forth removal objectives, disposal options and restoration goals for PCB contaminated areas. The guidance establishes that PCB contaminated soils may be handled in accordance with requirements applicable to the PCB concentrations which are found in the soil.

Prior to entering the fenced-in transformer areas, the transformers must be de-energized and the electric power source locked out. The HSO must witness the lock out and, if possible, have his/her own lock attached to the lock out.

The physical excavation parameters will be based upon the analysis obtained earlier (see sections 2.3, 2.4 and 2.5). The excavated soil will be containerized in the Hot Zone (to be defined in the HASP) in either drums or roll-offs, as appropriate. If drums are used, they will conform to TSCA storage regulations requiring DOT 17-C construction for PCB containing drums. The drums, when full, should be lifted out of the zone (using a crane or excavator and a drum lifting grappler) into the contamination reduction zone, where the drum's exterior will be decontaminated. The clean drums containing PCB solids will then be placed in a secured drum storage area to be defined at the onset of field activities. Similarly, if roll-offs are used, their exterior will be decontaminated in a similar manner as described above and the roll-off's will be moved to the designated drum storage area.

When the excavation is completed, samples of remaining soils will undergo field screening using the immunoassay method described in section 2.3.3. Based on the field screening results, either additional soil will be removed or a minimum of four post excavation samples will be obtained for laboratory confirmation of the PCB concentration in residual soil. These four samples will be analyzed pursuant to the same analytical protocols described in section 2.3.4.

If fences were removed during excavation work, the fence will be replaced to match the pre-remediation condition. Additionally, security of the areas (i.e. locked fence gates and signs) will remain until laboratory confirmation is received.

The wipe sample results of the concrete pads obtained from locations designated PCB 1 and PCB 3 will be evaluated to determined whether they exhibit PCB concentrations in excess of 100 ug/100 cm^2. This concentration is consistent with the current restricted access to those locations. Since active transformer units are present at these locations, they will continue to be fenced to restrict access. If the wipe sample concentrations are below 100 ug/100 cm^2, then no further action will be taken with the pads. If the PCB concentrations in the wipe samples from PCB 1 and PCB 3 are greater than 100 ug/cm^2, an evaluation will be done by the EPA OSC to determine an appropriate action to address these concrete pads.

The wipe sample results of the concrete pad obtained from location designated PCB 2 will be evaluated to determined whether PCB concentrations are in excess of 10 ug/100 cm^2. This concentration is consistent with unrestricted at this location. If the wipe sample concentrations at this location is less than 10 ug/100 cm^2, then no further action will be taken with the pad. If the PCB concentrations in the wipe samples from PCB 2 are greater than 10 ug/100 cm^2, an evaluation will be done by the EPA OSC to determine an appropriate action to address this concrete pad.

3.3.2 Restoration

One or more photographs of the areas where soil is to be removed will be taken prior to implementation. These photographs will serve as a guide to restore the area after any soil removal. Any soil which is removed at one or more locations will be replaced by clean bank run, placed to grade over the area at the conclusion of the removal. The areas excavated as provided above will be secured until post excavation confirmation sampling is received. If the results indicate additional soil's need to be removed to meet the PCB soil cleanup level, additional removal will be accomplished in accordance with the procedures described above. If the PCB concentrations are below 10 ppm, the disturbed areas will be backfilled to grade with clean bank run fill. In either scenario, power to these areas will have to be shutdown in accordance with the description in section 3.3.1 prior to implementing restoration activities.

3.3.3 *PCB Solid Disposal Alternatives*

The PCB contaminated soil generated during the removal action will be disposed of in accordance with applicable environmental regulations. The PCB solids are not a candidate for recycling and will be disposed of in a TSCA chemical waste landfill for PCB concentrations ≥ or equal to 50 ppm or TSCA/RCRA landfill if the soil is also a characteristic hazardous waste.

When the disposal facility has been selected, the contractor shall obtain formal disposal approval from the intended facility. The facility's name, address, and EPA identification number shall be submitted to the OSC and PRP group or designee for approval, at least seven days prior to shipment. The EPA OSC will assist the Project Coordinator in evaluating whether the facility is not in compliance with the CERCLA Off-Site Rule (58 Fed. Reg.. 49200, September 22, 1993). Additionally, if the removed soil is to be shipped out of New York State, notification will be made in accordance with OSWER Directive 93330.2-07 and the appropriate environmental agency to receive the materials will be contacted and informed of the name of the accepting facility, type of material being shipped, expected schedule and method of transportation.

After receipt of the disposal facility's written approval for disposal, waste manifests and LDR notifications will be prepared. These documents must be delivered to the PRP Group for review and generator signature at least three days prior to shipment.

On the day of shipment, the contractor's supervisor and Project Coordinator will be on site to oversee the process. The supervisor will insure the manifest volumes and waste descriptions are correct, obtain the transporter's signature on manifests or bills of lading, and keep the appropriate copies of the manifest. The contractor shall send generator-state and disposal-state manifest copies to the appropriate state regulatory agencies via registered mail within five days after shipment. The contractor shall follow the shipment by contacting the disposal/recycle facility first to insure timely arrival of the waste shipment, and once again to make sure the shipment is as specified on waste profile. A final certification of disposal will be obtained in accordance with the Order.

3.4 PCB LIQUIDS

In the case of active transformer units, an expert approved by the EPA OSC will inspect the units and provide a written report as to their condition and structural integrity. Based on the concentration of PCBs (≥ 50 ppm) in the active transformer fluids and the expert report on their condition and structural integrity, a decision will be made as to the appropriate course of action for these units. Potential courses of action may include removal of the fluids from the active units or implementation of an inspection and monitoring plan.

The data pertaining to characterization of the liquids in inactive transformers located at PCB 1 and PCB 3 will be reviewed to determine if PCBs are present. If PCB concentrations in transformer fluids are detected at a concentration of 1 ppm or greater, the inactive transformer fluids will be removed as described below. The same procedures will also apply in the event the fluids from active units need to be removed under the Order.

3.4.1 PCB Liquid Removal and Storage

The procedures to remove the PCB liquids from transformers are intended to minimize the risks of personnel exposure to PCB's, electric shock, and spillage of PCB liquids.

Prior to entering the fenced in transformer area, the transformers must be de-energized and the electric power source locked out. The HSO must witness the lock out, and if possible, have his/her own lock attached to the lock out.

One option to address the fluids will be to open the de-energized transformer unit to remove the liquids. The dielectric fluid could then be pumped to 17-E 55 gallon drums. The pump would be hand operated with a valve located at the discharge end of the product hose. A technician would constantly monitor the level of PCB liquid being pumped into the drum. When the drum is 90% full, the discharge valve would be shut off and the pumping stopped. The discharge line would be allowed to drain as much as possible while still in the drum bung. When the discharge hose is withdrawn from the drum, it would be capped, and any liquid apparent on the outside of the hose would be wiped with a sorbent pad. The drum bung will then be secured.

Alteratively, consideration will be given to removal of the entire unit from its location for direct shipment to a disposal point. This option will only be entertained if it is demonstrated that the it is a more cost-effective alternative

If any PCBs liquids are removed, the liquids will be placed in drums. The drums will then be moved to the liquid PCB Staging Area which will be located within the secured drum storage to be defined at the onset of field activities. The liquid PCB Staging Area within this area will consist of a water tight roll off box, lined with 10 mil. reinforced polyethylene sheeting. The box will be equipped with a waterproof cover, supported by arched stays. The cover will be placed on the box before any rainstorms, and at the end of each work day. Drums will be placed on pallets to allow for complete inspection of the drum during the storage period.

If the transformer is completely drained of its dielectric fluids, the unit will be decontaminated by flushing the internal surfaces of the transformer with a solvent. If the transformer fluids exhibited PCB concentrations in excess of 500 ppm, the unit will be triple rinsed with the solvent as describe above. The solubility of PCBs in the solvent used to rinse the transformer units must be five percent or more by weight. Each rinse will use a volume of solvent equal to approximately 10% of the transformer capacity. The solvent rinsate shall be disposed of as a PCB waste.

3.4.2 *Liquid PCB Disposal*

Disposal of any PCB fluids which are drained from transformers will involve incineration or destruction in a high efficiency boiler. The consideration of these options will be based, in part, on the PCB concentrations present in the fluid. When a decision on disposal of the any PCB fluids is made, the facility's name, address, and EPA identification number shall be submitted to the OSC and PRP group or designee for approval, at least seven days prior to shipment. The EPA OSC will assist the Project Coordinator in evaluating whether the facility is not in compliance with the CERCLA Off-Site Rule (58 Fed. Reg.. 49200, September 22, 1993). When the disposal facility has been selected, the contractor shall obtain formal disposal approval from the intended facility.

After receipt of the disposal facility's written approval for disposal, waste manifests and LDR notifications will be prepared. These documents must be delivered to the PRP Group for review and generator signature at least three days prior to shipment. Additionally, if the removed fluids are to be shipped out of New York State, notification will be made in accordance with OSWER Directive 93330.2-07 and the appropriate environmental agency to receive the materials will be contacted and informed of the name of the accepting facility, type of material being shipped, expected schedule and method of transportation

On the day of shipment, the contractor's supervisor and Project Coordinator will be on site to oversee the process. The supervisor will insure the manifest volumes and waste descriptions are correct, obtain the transporter's signature on manifests, and keep the appropriate copies of the manifest. The contractor shall send generator-state and disposal-state manifest copies to the appropriate state regulatory agencies via registered mail within five days after shipment. The contractor shall follow the shipment by contacting the disposal/recycle facility first to insure timely arrival of the waste shipment, and once again to make sure the shipment is as specified on waste profile. A final certification of disposal will be obtained in accordance with the Order.

3.5 REMOVAL OF DRUMS

The Order stipulates that drums located in the acetone building must be removed. The EPA data indicates that there are 18 drums at this location but eight were empty at the time of the agency inspection. The number of drums in the acetone building which contain liquids and the chemical quality of their contents will be confirmed during the sampling and analysis plan implementation. The data will be used to decide on the most appropriate method for disposal/recycling. The following describes the intended procedures to accomplish removal of the drums from the acetone building which contain liquids.

3.5.1 Drum Handling Procedures

The drums will be visually inspected to ascertain their physical condition. If excessive corrosion, pitting and/or bulging is noted, the drums will be carefully placed in overpack containers. Such containers will be available on site during the removal work. The waste drums will be handled in a manner so as to avoid: exposure of personnel to the contents; and the spillage of the drum contents during transportation or transfer. This drum handling work will be performed in accordance with applicable environmental regulations and conform with EPA guidance "Hazardous Waste Evaluation and Disposal Criteria Operations Manual", Region II, March 1992. Based on the EPA data, field workers handling the drums will used PPE and conduct appropriate ambient monitoring in accordance with the HASP.

3.5.2 *Bulking of Compatible Materials, Storage and Transport*

Based on the EPA drum data, the existing drums that were sampled appear to be chemically compatible for disposal purposes. Using the data obtained pursuant to section 2.7.4, a decision will be made as the utility of bulking of the liquid contents. Partial drums of compatible liquids will be combined to create full drums for removal from the Site. If a sufficient volume of liquid exists, it may be possible to bulk the waste into a tanker load as the most cost effective means to dispose/recycle these materials.

The combination of liquid waste into single drums will be accomplished using a hand pump. If is preferential to bulk the drum contents into a single tanker, transfer of the drum contents to the tanker will be performed by vacuum to avoid the use of pressurized pipelines. Using a vacuum system insures the liquids are never transferred in a pressurized pipeline, thus avoiding spills due to leaks in the transfer pipeline or hose. The transfer system will be equipped with an automatic overfill protection which will shut off the vacuum before the bulk tanker is full.

3.5.3 *Disposal/Recycling Alternatives*

Wherever possible, the waste materials that leaves the Site will be recycled. Based on the available information, the drum contents may be likely candidates for fuel blending as a recycling option if removal is required.

Using the updated information, recycling alternatives for the drum contents will be investigated. At a minimum, fuel blending and oil recycling will be explored as possible alternatives to treatment or incineration. If recycling is considered as an option, at least three possible facilities will be identified to the EPA OSC.

The handling, storage, transportation and disposal/recycling of the contents of the drums will be performed in accordance with applicable environmental regulations. When the appropriate disposal/recycling option has been selected the contractor will obtain formal written approval for disposal/recycling from the facility. The facility's name, address, and EPA identification number shall be submitted to the OSC and PRP group or designee for approval, at least seven days prior to shipment. The EPA OSC will assist the Project Coordinator in evaluating whether the facility is not in compliance with the CERCLA Off-Site Rule (58 Fed. Reg.. 49200, September 22, 1993). If the disposal/recycle facility is located outside New York State, notification will be made in accordance with OSWER Directive 93330.2-07 and the appropriate environmental agency to receive the materials will be contacted and informed of the name of the accepting facility, type of material being shipped, expected schedule and method of transportation.

After receipt of the disposal/recycling facility's written approval indicating acceptance of the material, waste manifests or bills of lading (as appropriate) will be completed for each shipment of waste. Where appropriate, Land Disposal Restriction (LDR) notifications will also be prepared. These documents will be delivered to the PRP group or designee for review and generator signature at least three days prior to shipment.

On the day of shipment, the contractor's supervisor and Project Coordinator will be on site to oversee the process. The supervisor will insure the manifest volumes and waste descriptions are correct, obtain the transporter's signature on manifests or bills of lading, and keep the appropriate copies of the documents. If waste manifests are completed, the contractor shall send generator-state and disposal-state manifest copies to the appropriate state regulatory agencies via registered mail within five days after shipment. The contractor shall also follow the shipment by contacting the disposal/recycle facility first to insure timely arrival of the waste shipment, and once again to make sure the shipment is as specified on waste profile. A final certification of disposal/recycling will be obtained in accordance with the Order.

Any empty drums in the acetone building at the conclusion of drum liquid removal will be sent to a drum recycle company for reclamation. The drum recycling facility's name, address, and EPA identification number shall be submitted to the OSC and PRP group or designee for approval, at least seven days prior to shipment. The EPA OSC will assist the Project Coordinator in evaluating whether the facility is not in compliance with the CERCLA Off-Site Rule (58 Fed. Reg.. 49200, September 22, 1993).

4.0 PROJECT MANAGEMENT

The implementation of the Removal Action will require management and oversight activities to ensure the elements of the action are performed in accordance with the approved WP and are completed within the established schedule. Management and oversight of the Removal Action will be accomplished through Project Coordination, Progress Reporting and Final Reporting. The responsibilities pursuant to these elements are described below.

4.1 PROJECT COORDINATION

Under the terms of the Order, a designated Project Coordinator will be responsible for oversight and implementation of the Removal Action.
The Project Coordinator, or designee, will be present at the Site during the characterization and removal activities described in this WP. If the Project Coordinator is not the contractor conducting the characterization or removal, the Project Coordinator shall have authority over the contractor sufficient to ensure compliance with the WP during implementation.

The Project Coordinator will be responsible for making the required technical decisions to effectively implement the Order and ensure EPA approves those decisions. For example, implementation of the WP will result in further analytical information on UST contents, PCBs in soil and PCBs in transformer fluids. These data will, in turn, require decisions as to whether additional removal, beyond that already specified in the Order, is required.

4.2 PROGRESS REPORTING

A written progress report will be submitted to the designated entities in the Order beginning two weeks after the effective date of the Order and every two weeks thereafter until the Order is satisfied or less frequently if dictated by the EPA OSC. The purpose of the reports is to convey information to the EPA regarding the progress of Removal Action implementation; sample results; planned future activities; and, project delays, impacts on schedule and intended mitigative measures.

A sample Progress Report format is provided in Table 5. This is the format which will be used to transmit the information items specific required in the Order.

4.3 FINAL REPORTING

At the conclusion of the Removal Action activities, a Final Report will be prepared and submitted to the EPA to demonstrate compliance with the requirements of the Order in the time frame specified. The Final Report will include:

- summaries of all work performed under the Order;
- identify any changes or modifications;
- analytical results, QA/QC information and Chain-Of-Custody documentation;
- certificates of destruction or copies of manifests to indicate the final disposal of all material removed from the Site (within 90 days of completion of the Order);
- summaries of expenses incurred in complying with the Order;
- certification from the supervisor or director of the Final Report in accordance with language set forth in the Order; and,

- Appendices with relevant field information, photograph copies or other pertinent information.

5.0 REMOVAL ACTION SCHEDULE

The Order sets forth a maximum time frame of 180 days from the effective date of the Order (defined as three days after the signing of the Order by the Regional Administrator) for completing the Removal Action. The 180 day time period equates to approximately 26 weeks. Figure 6 presents the estimated schedule to complete the various phases of the removal action.

There are eight tasks associated with the work described in this WP. These tasks are briefly described below:

1) Mobilization For Sampling and Analysis

This tasks provides the selection of a contractor to implement the sampling and analysis plan described in this WP. It allows **one** week to select a contractor following EPA approval of the QA/QC Plan and HASP. EPA will be notified of the qualifications of the selected contractor and subcontractors at least five days prior to initiation of field work.

2) Implementation

This task provides for actual implementation of the UST, drum, soil and transformer liquid sampling described in Section 2.0. A period of **three** weeks is indicate to complete these activities and coordinate with Site tenants and LILCO regarding shutdown of active transformers.

3) Laboratory Analysis and Data Validation

This task provides a **six** week time frame following the conclusion of the sampling and analysis plan. The time frame allows for completion of laboratory tests to characterize the materials which are sampled as part of this Removal Action. It also includes time for data validation once received from the laboratory, where appropriate. The selected laboratory contractor will be asked to provide as rapid a turnaround as possible without incurring any premium charge for sample analysis.

4) Proposed Removal Scope of Work to EPA

Once the characterization data is received a time period of **two** weeks is allocated for the PRP group to propose a scope of removal activities to EPA based on their analysis of the data.

5) Mobilization for Removal

After EPA approval of the proposed removal approach, **four** weeks is allocated for selection of a removal contractor, review of data and identification of appropriate disposal/recycle options. EPA will be notified of the qualifications of all contractors and subcontractors that will perform field work at least five days prior to implementation.

6) Removal Action Implementation

This task provides for actual implementation of the removal of UST contents, PCB soil, drums and transformer liquids, if appropriate. It allows for **five** weeks to complete this task and includes time for the EPA OSC to assist the Project Coordinator in determining whether a selected facility to receive materials from the Site is not in compliance with the CERCLA Off-Site Rule (58 Fed. Reg.. 49200, September 22, 1993).

7) Progress Reports

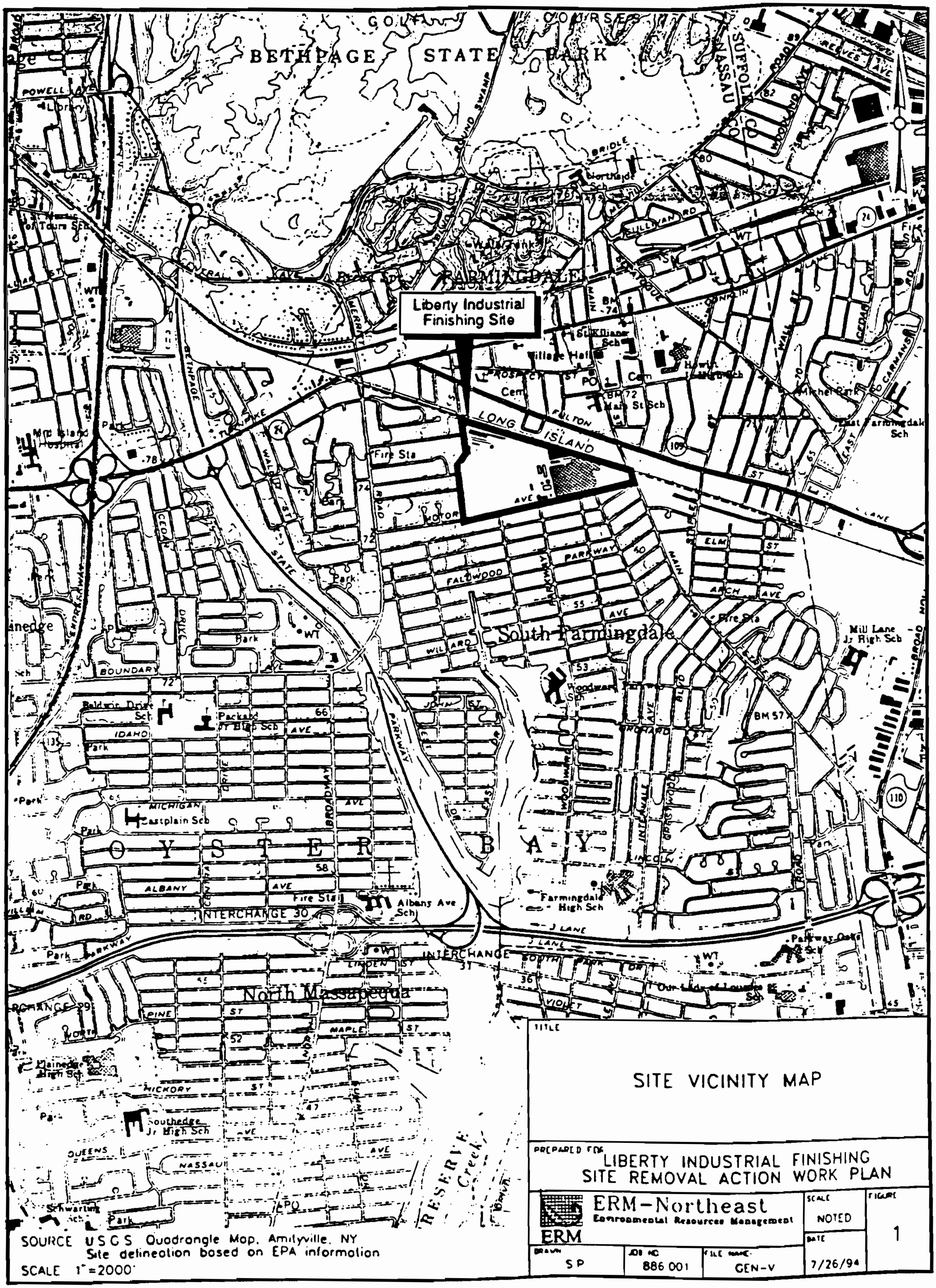
This task simply indicates submission of Progress Reports every two weeks following the effective date of the Order for the duration of the Removal

Action. Based on a maximum of 180 days (approximately 26 weeks) for completion of this removal action, 13 progress reports will be submitted.

8) Final Report

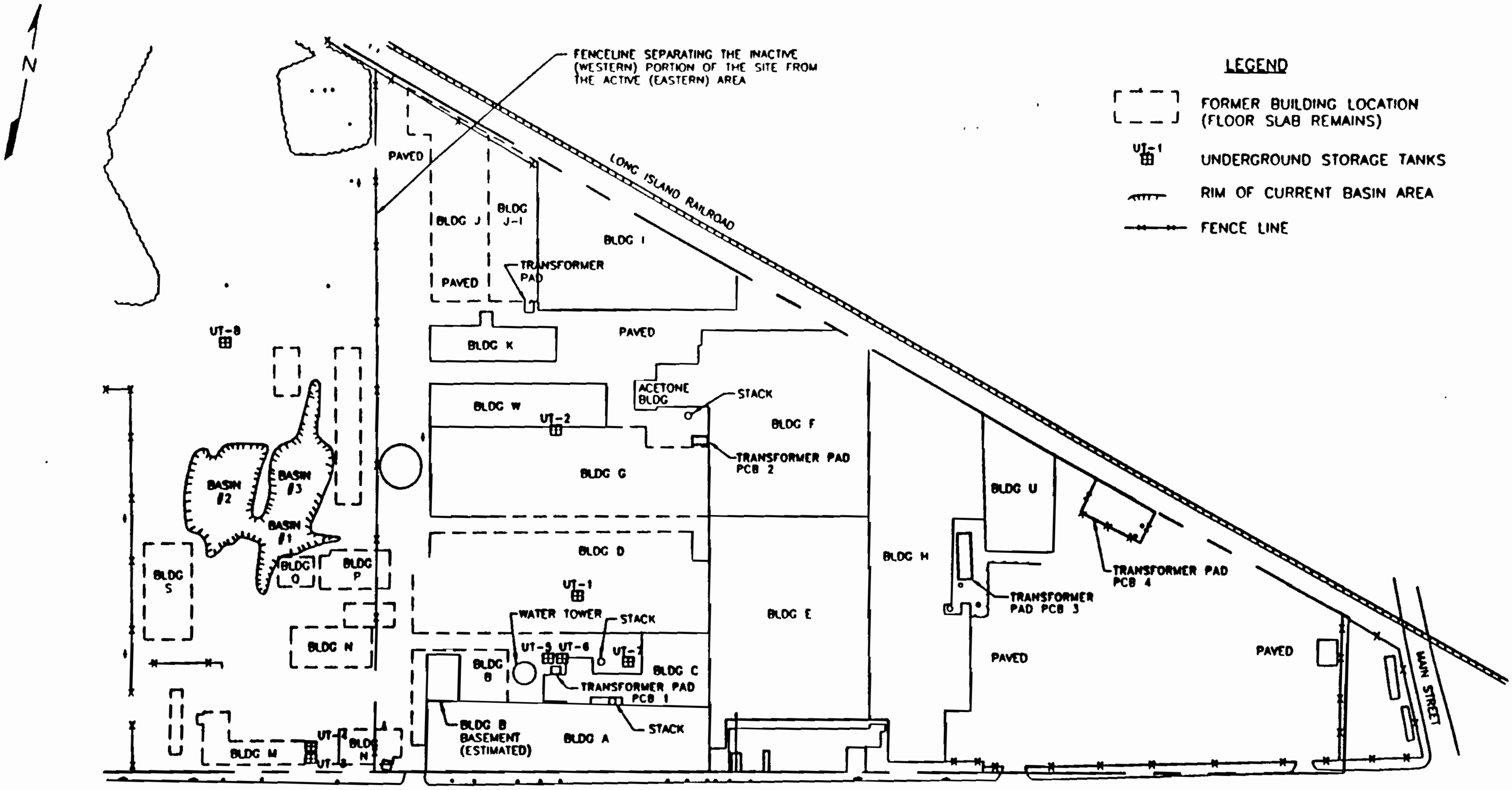
This task provides for assembly of information generated during the Removal Action and preparation of a Final Report on these activities. A time period of **thirty** days following completion of the activities associated with the removal action is provided for this task. It is likely that final disposal certifications will be received after submission of the Final Report.

FIGURES



SOURCE USGS Quadrangle Map, Amityville, NY
Site delineation based on EPA information
SCALE 1" = 2000'

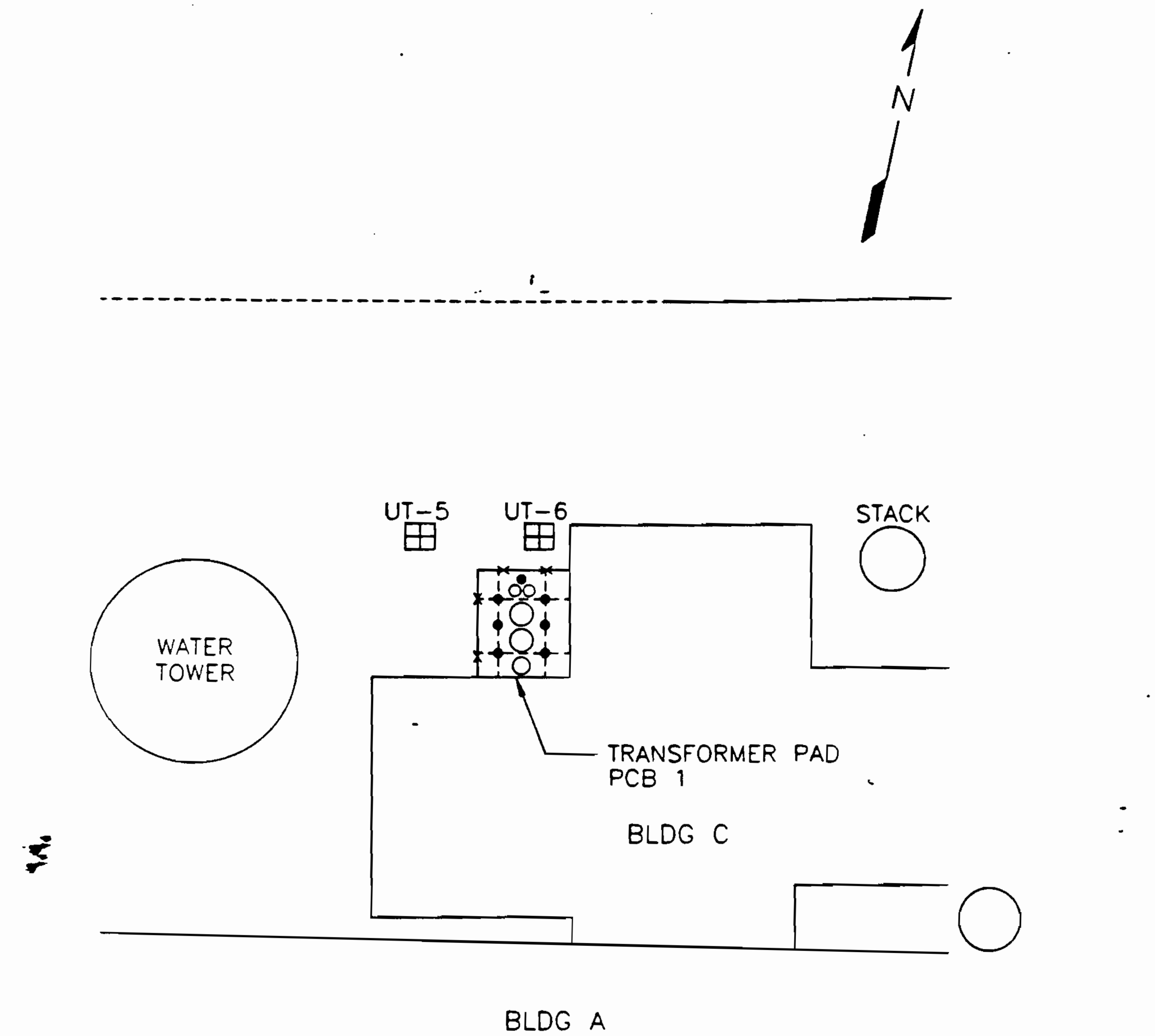
TITLE: SITE VICINITY MAP			
PREPARED FOR: LIBERTY INDUSTRIAL FINISHING SITE REMOVAL ACTION WORK PLAN			
ERM-Northeast, Environmental Resources Management	SCALE: NOTED		FIGURE: 1
	DATE: 7/26/94		
DRAWN: SP	JOB NO: 886 001	FILE NAME: GEN-V	



0 75' 150'
SCALE IN FEET

SOURCE: Based on information from EPA Investigation

TITLE	SITE MAP
PREPARED FOR	LIBERTY INDUSTRIAL FINISHING SITE REMOVAL ACTION WORK PLAN
ERM-Northeast	SCALE: GRAPHIC
FIGURE	2
DRAWN: E.M.F.	JOB NO.: 886.001
FILE NAME: LIBERTY	DATE: 8/11/94



LEGEND

- ● PROPOSED SOIL SAMPLE LOCATION
- —×—×— FENCE LINE

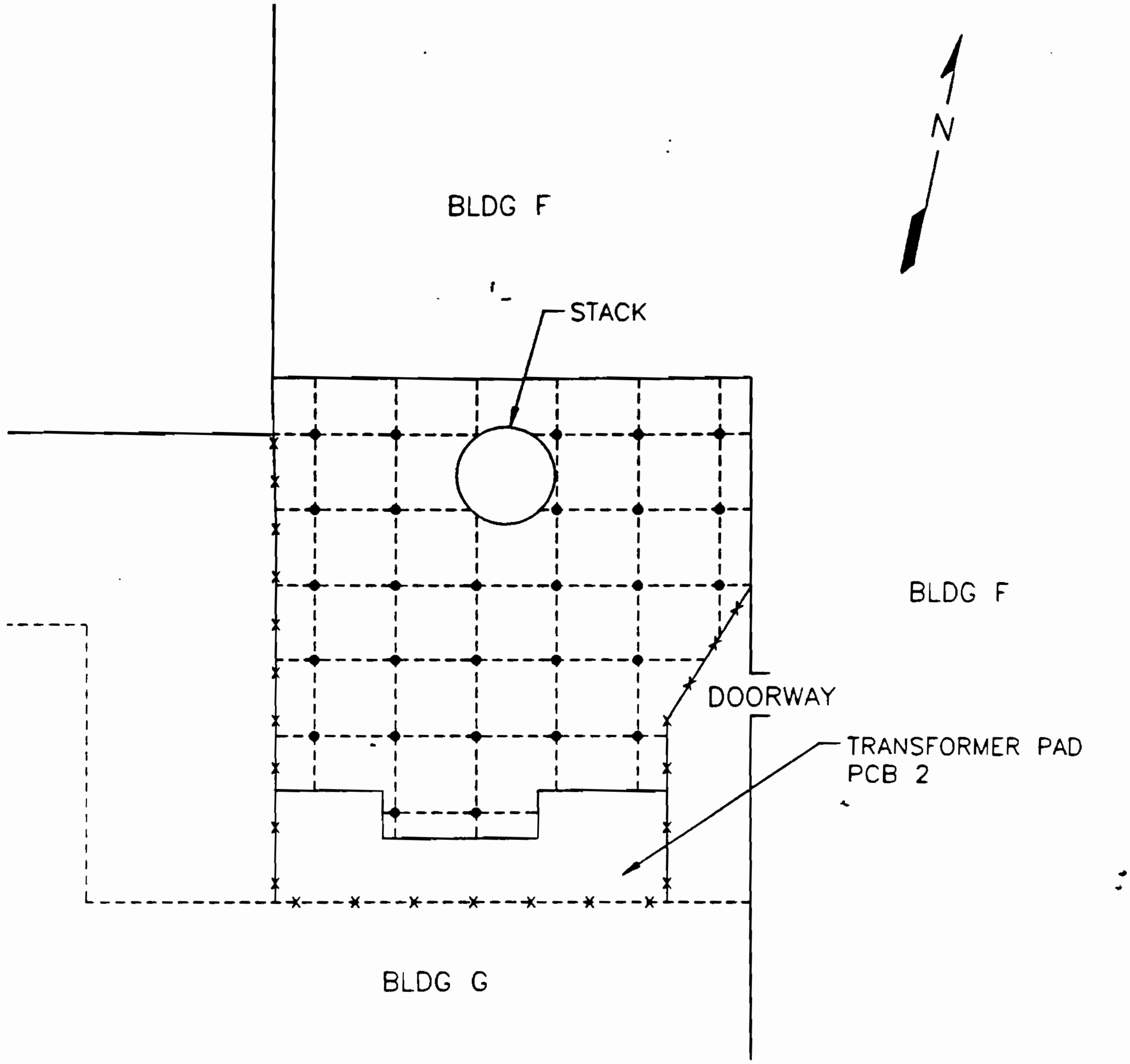
SOURCE: Based on information contained in EPA Site Map and supplemented by ERM NORTHEAST.

0 30' 60'
SCALE IN FEET

TITLE	PROPOSED SOIL SAMPLING LOCATIONS – PCB1
PREPARED FOR	LIBERTY INDUSTRIAL FINISHING SITE REMOVAL ACTION WORK PLAN

ERM–Northeast
Environmental Resources Management
ERM

DRAWN	JOB NO.:	FILE NAME:	SCALE	DATE	FIGURE
E.M.F.	885.001	PCB1	GRAPHIC	8/16/94	3



LEGEND

• PROPOSED SOIL SAMPLE LOCATION

—×—×— FENCE LINE

SOURCE: Based on information contained in EPA Site Map and supplemented by ERM NORTHEAST.

0 20' 40'

SCALE IN FEET

TITLE

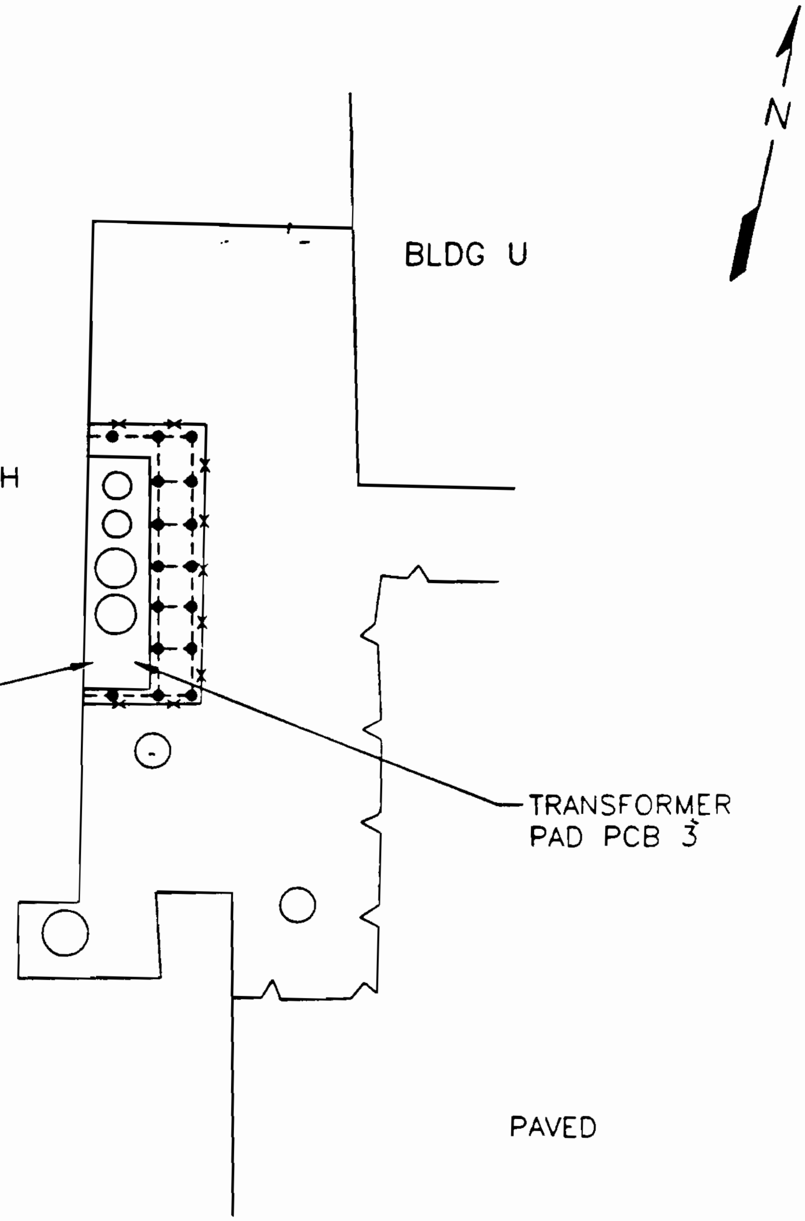
PROPOSED SOIL SAMPLING LOCATIONS – PCB2

PREPARED FOR LIBERTY INDUSTRIAL FINISHING SITE REMOVAL ACTION WORK PLAN

ERM–Northeast
Environmental Resources Management

SCALE	FIGURE
GRAPHIC	4
DATE 8/16/94	

DRAWN:	JOB NO.:	FILE NAME:
E.M.F.	886.001	PCB2



LEGEND

● PROPOSED SOIL BORINGS

—×—×— FENCE LINE

SOURCE: Based on information contained in EPA Site Map and supplemented by ERM NORTHEAST.

0 20' 40' 80'

SCALE IN FEET

TITLE

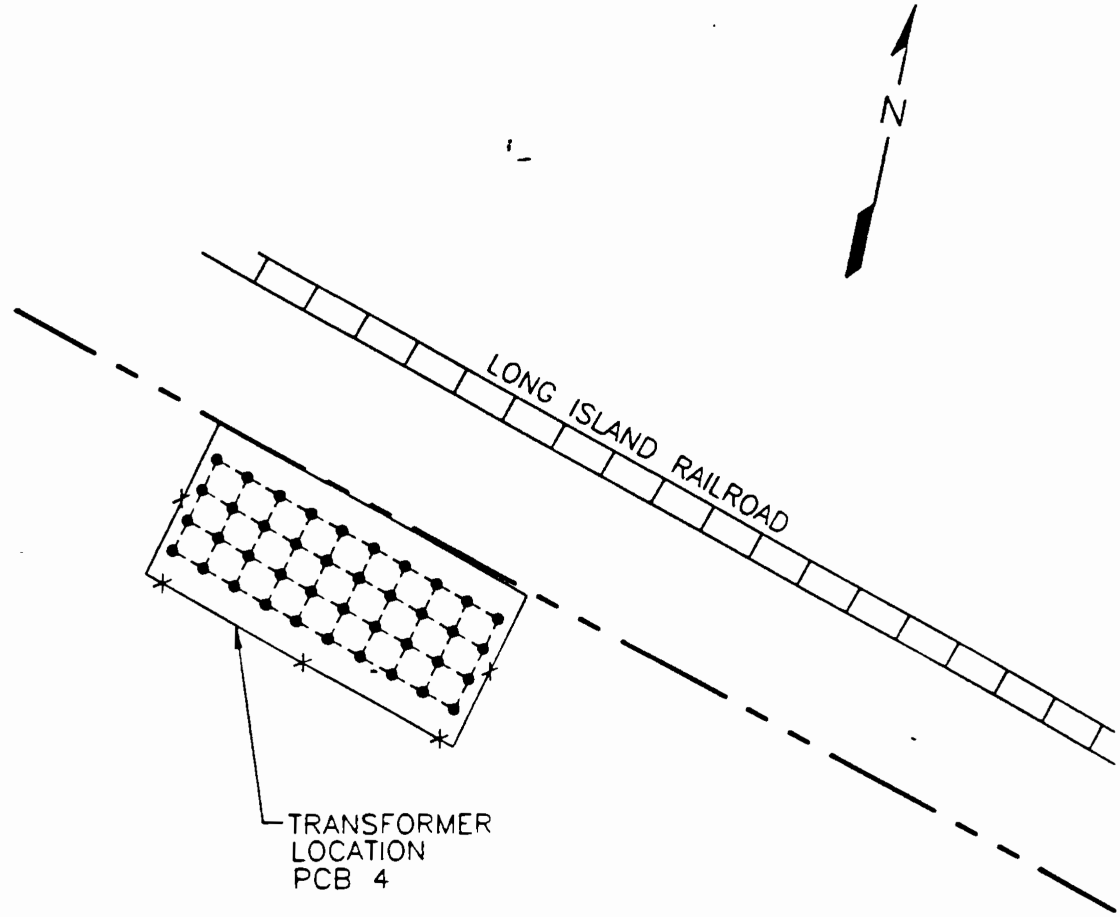
PROPOSED SOIL SAMPLING LOCATIONS – PCB3

PREPARED FOR LIBERTY INDUSTRIAL FINISHING SITE REMOVAL ACTION WORK PLAN

ERM–Northeast
Environmental Resources Management

SCALE	FIGURE
GRAPHIC	5
DATE	
8/16/94	

DRAWN:	JOB NO.:	FILE NAME:
E.M.F.	886.001	PCB3



LEGEND

• PROPOSED SOIL SAMPLE LOCATION

—×—×— FENCE LINE

SOURCE: Based on information contained in EPA Site Map and supplemented by ERM NORTHEAST.

0 25' 50' 75'

SCALE IN FEET

TITLE: PROPOSED SOIL SAMPLING LOCATIONS – PCB4			
PREPARED FOR: LIBERTY INDUSTRIAL FINISHING SITE REMOVAL ACTION WORK PLAN			
ERM–Northeast Environmental Resources Management ERM		SCALE: GRAPHIC	FIGURE: 6
DRAWN: E.M.F.	JOB NO.: 886.001	FILE NAME: PCB4	DATE: 8/16/94

TABLES

TABLE 1
SUMMARY OF UNDERGROUND STORAGE TANK CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

TANK NUMBER DATE COLLECTED	REGULATORY LIMIT	UT-1 1/20-21/93	UT-2 1/20-21/93	UT-3 1/20-21/93	UT-4 1/20-21/93	TUT-4 10/21/93	UT-5 1/20-21/93	UT-6 1/20-21/93	UT-7 1/20-21/93	UT-8 1/20-21/93
TCLP VOLATILE ORGANICS, in MG/L										
Vinyl Chloride	0.2	0.01 U	12 U	0.05 U	0.5 U	<1000	0.01 U	0.01 U	0.05 U	0.01 U
1,1-Dichlorethene	0.7	0.01 U	12 U	0.075	0.6	<500	0.01 U	0.01 U	0.05 U	0.01 U
Chloroform	6	0.01 U	12 U	0.05 U	0.5 U	<500	0.01 U	0.01 U	0.05 U	0.01 U
1,2-Dichloroethane	0.5	0.01 U	12 U	0.05 U	2.5	210 J	0.01 U	0.01 U	0.05 U	0.01 U
Methyl Ethyl Ketone	200	0.033	12 U	0.05 U	0.25 J	<1000	0.01 U	0.021 J	0.05 U	0.01 U
Carbon Tetrachloride	0.5	0.01 U	12 U	0.05 U	0.5 U	<500	0.01 U	0.01 U	0.05 U	0.01 U
Trichloroethene	0.5	0.01 U	12 U	0.05	0.4 J	<500	0.01 U	0.01 U	0.05 U	0.01 U
Benzene	0.5	0.01 U	33	0.25	8	2500	0.061	0.01	0.06	0.01 U
Tetrachloroethene	0.7	0.01 U	12 U	0.05 U	0.5 U	<500	0.01 U	0.01 U	0.05 U	0.01 U
Chlorobenzene	100	0.01 U	12 U	0.035 J	0.25 J	59 J	0.01 U	0.01 U	0.05 U	0.01 U
VOLATILE ORGANIC ANALYTICAL RESULTS, in MG/KG										
Chloromethane		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
Bromomethane		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
Vinyl Chloride		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
Chloroethane		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
Methylene Chloride		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Acetone		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
Carbon Disulfide		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,1-Dichloroethene		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,1-Dichloroethane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,2-Dichloroethene, trans		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Chloroform		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,2-Dichloroethane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
2-Butanone		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
1,1,1-Trichloroethane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Carbon Tetrachloride		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Bromodichloromethane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,2-Dichloropropane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,3-Dichloropropane, cis		NA	NA	NA	NA	2500 U	NA	NA	NA	NA

TABLE 1
SUMMARY OF UNDERGROUND STORAGE TANK CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

TANK NUMBER	REGULATORY	UT-1	UT-2	UT-3	UT-4	TUT-4	UT-5	UT-6	UT-7	UT-8
DATE COLLECTED	LIMIT	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93	10/21/93	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93
Trichloroethene		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Dibromochloromethane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,1,2-Trichloroethane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Benzene		NA	NA	NA	NA	2000 J	NA	NA	NA	NA
1,3-Dichloropropene, trans		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Bromoform		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
4-Methy-2-Pentanone		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
2-Hexanone		NA	NA	NA	NA	5000 U	NA	NA	NA	NA
Tetrachloroethene		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Toluene		NA	NA	NA	NA	55000	NA	NA	NA	NA
Chlorobenzene		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Ethylbenzene		NA	NA	NA	NA	8200	NA	NA	NA	NA
Styrene		NA	NA	NA	NA	2500 U	NA	NA	NA	NA
Xylenes (total)		NA	NA	NA	NA	50000	NA	NA	NA	NA
TCLP SEMI-VOLATILE ORGANICS, in MG/L										
Pyridine	5	0.025 U	100 U	0.025 U	0.25 U	<100	0.029 U	0.029 U	0.25 U	0.026 U
1,4-Dichlorobenzene	7.5	0.05 U	200 U	0.05 U	0.5 U	<100	0.057 U	0.057 U	0.5 U	0.053 U
o-Cresol	200	0.05 U	200 U	0.048 J	2.9	NA	0.05 J	0.05 J	0.85	0.053 U
m,p-Cresol	200	R	200 U	R	1.4	NA	0.057 U	0.057 U	1.2	R
Hexachloroethane	3	0.05 U	200 U	0.05 U	0.5 U	<100	0.057 U	R	0.5 U	0.053 U
Nitrobenzene	2	0.05	200 U	0.05 U	0.5 U	<100	0.057 U	0.057 U	0.5 U	0.053 U
Hexachlorobutadiene	0.5	0.05 U	200 U	0.05 U	0.5 U	<100	0.057 U	0.057 U	0.5 U	0.053 U
2,4,6-Trichlorophenol	2	0.05 U	200 U	0.05 U	0.5 U	<100	0.057 U	0.057 U	0.5 U	0.053 U
2,4,5-Trichlorophenol	400	0.12 U	500 U	0.12 U	1.2 U	<100	0.14 U	0.14 U	1.2 U	0.13 U
2,4-Dinitrotoluene	0.13	0.05 U	200 U	0.05 U	0.5 U	<100	0.057 U	0.057 U	0.5 U	0.053 U
Hexachlorobenzene	0.13	0.05 U	200 U	0.05 U	0.5 U	<100	0.057 U	0.057 U	0.5 U	0.053 U
Pentachlorophenol	100	0.12 U	500 U	0.12 U	1.2 U	<500	0.14 U	0.14 U	1.2 U	0.13 U
SEMI-VOLATILE ANALYSIS RESULTS, (in MG/KG)										
Phenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA

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LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

TANK NUMBER	REGULATORY	UT-1	UT-2	UT-3	UT-4	TUT-4	UT-5	UT-6	UT-7	UT-8
DATE COLLECTED	LIMIT	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93	10/21/93	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93
bis(2-chloroethyl)ether		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2-Chlorophenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
1,3-Dichlorobenzene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
1,4-Dichlorobenzene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
1,2-Dichlorobenzene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2-Methylphenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane)		NA	NA	NA	NA	200 U	NA	NA	NA	NA
3&4-Methylphenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Hexachloroethane		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Nitrobenzene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Isophorone		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2-Nitrophenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2,4-Dimethylphenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2,4-Dichlorophenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Naphthalene		NA	NA	NA	NA	2500	NA	NA	NA	NA
4-Chloroaniline		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Hexachlorobutadiene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
4-Chloro-3-methylphenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2-Methylnaphthalene		NA	NA	NA	NA	1900	NA	NA	NA	NA
Hexachlorocyclopentadiene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2,4,6-Trichlorophenol		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2,4,5-Trichlorophenol		NA	NA	NA	NA	500 U	NA	NA	NA	NA
2-Chloronaphthalene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2-Nitroaniline		NA	NA	NA	NA	500 U	NA	NA	NA	NA
Dimethylphthalate		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Acenaphthylene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2,6-Dinitrotoluene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
3-Nitroaniline		NA	NA	NA	NA	500 U	NA	NA	NA	NA
Acenapthene		NA	NA	NA	NA	200 U	NA	NA	NA	NA

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DATE COLLECTED	LIMIT	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93	10/21/93	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93
2,4-Dinitrophenol		NA	NA	NA	NA	500 U	NA	NA	NA	NA
4-Nitrophenol		NA	NA	NA	NA	500 U	NA	NA	NA	NA
Dibenzofuran		NA	NA	NA	NA	200 U	NA	NA	NA	NA
2,4-Dinitrotoluene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Diethylphthalate		NA	NA	NA	NA	200 U	NA	NA	NA	NA
4-Chlorophenol-phenylether		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Fluorene		NA	NA	NA	NA	91 J	NA	NA	NA	NA
4-Nitroaniline		NA	NA	NA	NA	500 U	NA	NA	NA	NA
4,6-Dintro-2-methylphenol		NA	NA	NA	NA	500U	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)		NA	NA	NA	NA	200 U	NA	NA	NA	NA
4-Bromophenyl-phenylether		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Hexachlorobezene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Pentachlorophenol		NA	NA	NA	NA	500 U	NA	NA	NA	NA
Phenanthrene		NA	NA	NA	NA	29 J	NA	NA	NA	NA
Anthracene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Carbozole		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Di-n-butylphthalate		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Fluoranthene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Pyrene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Butylbenzylphthalate		NA	NA	NA	NA	200 U	NA	NA	NA	NA
3,3'-Dichlorobenzidine		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Benzo(a)anthracene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Chrysene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Di-n-octylphthalate		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Benzo(b)fluoranthene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Benzo(k)fluoranthene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Benzo(a)pyrene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Dibenz(a,h)anthracene		NA	NA	NA	NA	200 U	NA	NA	NA	NA
Benzo(g,h,i)perylene		NA	NA	NA	NA	200 U	NA	NA	NA	NA

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LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

TANK NUMBER	REGULATORY	UT-1	UT-2	UT-3	UT-4	TUT-4	UT-5	UT-6	UT-7	UT-8
DATE COLLECTED	LIMIT	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93	10/21/93	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93
TCLP PESTICIDES/PCBs, in MG/L										
Heptachlor	0.008	0.0005 U	0.051 U	0.0005 U	0.0005 U	<0.4	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Endrin	0.02	0.001 U	0.27 J	0.001 U	0.001 U	<0..5	0.001 U	0.001 U	0.001 U	0.001 U
Methoxychlor	10	0.005 U	0.51 U	0.005 U	0.005 U	<4	0.005 U	0.005 U	0.005 U	0.005 U
Toxaphene	0.5	0.05 U	5.1 U	0.05 U	0.05 U	<2.5	0.05 U	0.05 U	0.05 U	0.05 U
2,4-D	10	0.012 U	0.1 U	0.012 U	0.012 U	<0.025	0.012 U	0.012 U	0.012 U	0.012 U
2,4,5-TP (Silvex)	1	0.0017 U	0.1 U	0.0017 U	0.0017 U	<0.01	0.0017 U	0.0017 U	0.0017 U	0.0017 U
Chlordane	0.03	NA	NA	NA	NA	<0.5	NA	NA	NA	NA
alpha-BHC		0.0005 U	0.051 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC		0.00056 J,N	0.051 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC		0.0005 U	0.051 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U
gamma-BHC (Lindane)	0.4	0.0005 U	0.051 U	0.05 U	0.05 U	<0.5	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin		0.0005 U	0.13	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor Epoxide		0.0005 U	0.051 U	0.05 U	0.05 U	<1	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I		0.0005 U	0.051 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin		0.001 U	0.099 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
4,4'-DDE		0.001 U	0.099 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Endosulfan II		0.001 U	R	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
4,4'-DDD		0.001 U	0.099 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Endosulfan Sulfate		0.001 U	0.099 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
4,4'-DDT		0.001 U	0.099 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Endrin ketone		0.001 U	0.099 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Endrin aldehyde		0.001 U	0.099 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
alpha-chlordane		0.0005 U	0.051 U	0.0005 U	0.0005 U	NA	0.0005 U	0.0005 U	0.0005 U	0.0005 U
gamma-chlordane		0.0005 U	0.051 U	0.0005 U	0.0005 U	NA	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Aroclor 1016		0.01 U	0.99U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor 1221		0.02 U	2.0 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor 1232		0.01 U	0.99 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor 1242		0.01 U	0.99 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor 1248		0.01 U	0.99 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor 1254		0.01 U	0.99 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U
Aroclor 1260		0.01 U	0.99 U	0.01 U	0.01 U	NA	0.01 U	0.01 U	0.01 U	0.01 U

TABLE 1
SUMMARY OF UNDERGROUND STORAGE TANK CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

TANK NUMBER DATE COLLECTED	REGULATORY LIMIT	UT-1 1/20-21/93	UT-2 1/20-21/93	UT-3 1/20-21/93	UT-4 1/20-21/93	TUT-4 10/21/93	UT-5 1/20-21/93	UT-6 1/20-21/93	UT-7 1/20-21/93	UT-8 1/20-21/93
PESTICIDE and PCB ANALYTICAL RESULTS, (in MG/KG)										
Lindane		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Heptachlor		NA	NA	NA	NA	0.4 U	NA	NA	NA	NA
Aldrin		NA	NA	NA	NA	0.4 U	NA	NA	NA	NA
Heptachlor Epoxide		NA	NA	NA	NA	1 U	NA	NA	NA	NA
Endosulfan I		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Dieldrin		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Endosulfane II		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
4,4'-DDT		NA	NA	NA	NA	1 U	NA	NA	NA	NA
Endrin aldehyde		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
alpha-BHC		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
beta-BHC		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
delta-BHC		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
gamma-Chlordane		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
alpha-Chlordane		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
4,4'-DDE		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Endrin		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
4,4'-DDD		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Endosulfan sulfate		NA	NA	NA	NA	1 U	NA	NA	NA	NA
Methoxychlor		NA	NA	NA	NA	4 U	NA	NA	NA	NA
Toxaphene		NA	NA	NA	NA	2.5 U	NA	NA	NA	NA
Aroclor 1016		NA	NA	NA	NA	5 U	NA	NA	NA	NA
Aroclor 1221		NA	NA	NA	NA	5 U	NA	NA	NA	NA
Aroclor 1232		NA	NA	NA	NA	5 U	NA	NA	NA	NA
Aroclor 1242		NA	NA	NA	NA	5 U	NA	NA	NA	NA
Aroclor 1248		NA	NA	NA	NA	5 U	NA	NA	NA	NA
Aroclor 1254		NA	NA	NA	NA	5 U	NA	NA	NA	NA
Aroclor 1260		NA	NA	NA	NA	5 U	NA	NA	NA	NA
TCLP INORGANICS, in MG/L										
Arsenic	5	0.01 U	0.85 U	0.01 U	0.01 U	1 U	0.01 U	0.01 U	0.01 U	0.01 U

TABLE 1
SUMMARY OF UNDERGROUND STORAGE TANK CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

TANK NUMBER	REGULATORY	UT-1	UT-2	UT-3	UT-4	TUT-4	UT-5	UT-6	UT-7	UT-8
DATE COLLECTED	LIMIT	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93	10/21/93	1/20-21/93	1/20-21/93	1/20-21/93	1/20-21/93
Barium	100	3.2 J	5.44 B,J	R	R	0.1 U	R	R	R	R
Cadmium	1	0.01 U	0.85 U	0.01 U	0.01 U	0.05 U	0.01 U	0.01 U	0.01 U	0.01 U
Chromium	5	0.0983 J	1.7 U	0.02 U	0.02 U	0.1 U	0.0209 J	0.02 U	0.02 U	0.02 U
Lead	5	0.0104 J	0.19 B,J	0.0093 J	0.165 J	0.3 U	0.00348 J	0.0031 B,J	0.0073 J	0.0056 B,J
Mercury	0.2	0.0004 U	0.0004 U	0.0004 U	0.00044 U	0.021	0.0004 U	0.0004 U	0.0005 U	0.0004 U
Selenium	1	0.01 U	0.85 U	0.01 U	0.01 U	0.5 U	0.01 U	0.01 U	0.01 U,J	0.01 U
Silver	5	R	1.7 U,N	R	R	0.05 U	R	R	R	R

INORGANIC ANALYTICAL RESULTS, (in MG/KG)

		UT-1	UT-2	UT-3	UT-4	TUT-4	UT-5	UT-6	UT-7	UT-8
Aluminum		NA	NA	NA	NA	5.5	NA	NA	NA	NA
Antimony		NA	NA	NA	NA	2 U	NA	NA	NA	NA
Arsenic		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Barium		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
Berylium		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
Calcium		NA	NA	NA	NA	28	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Cobalt		NA	NA	NA	NA	0.5 U	NA	NA	NA	NA
Copper		NA	NA	NA	NA	1.2 U	NA	NA	NA	NA
Iron		NA	NA	NA	NA	46	NA	NA	NA	NA
Lead		NA	NA	NA	NA	230	NA	NA	NA	NA
Magnesium		NA	NA	NA	NA	5 U	NA	NA	NA	NA
Manganese		NA	NA	NA	NA	0.36	NA	NA	NA	NA
Mercury		NA	NA	NA	NA	7	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	1 U	NA	NA	NA	NA
Potassium		NA	NA	NA	NA	100 U	NA	NA	NA	NA
Selenium		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
Silver		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
Sodium		NA	NA	NA	NA	38	NA	NA	NA	NA
Thallium		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
Vanadium		NA	NA	NA	NA	0.25 U	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	1.5	NA	NA	NA	NA

TABLE 1
SUMMARY OF UNDERGROUND STORAGE TANK CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

TANK NUMBER DATE COLLECTED	REGULATORY LIMIT	UT-1 1/20-21/93	UT-2 1/20-21/93	UT-3 1/20-21/93	UT-4 1/20-21/93	TUT-4 10/21/93	UT-5 1/20-21/93	UT-6 1/20-21/93	UT-7 1/20-21/93	UT-8 1/20-21/93
Ignitability (in °F)	>140°F	>100	>100	>100	>100	<70	>100	>100	>100	>100
Corrosivity (in pH)	2>pH>12.5	6	5.01	6.34	5.16	6.35	6.02	6.1	5.2	5.66
Reactive Cyanide (in mg/kg)	250 (guidance value)	<4	<4	R	<4	NA	R	<4	<4	<4
Reactive Sulfide (in mg/kg)	500 (guidance value)	<4	<4	R	<4	NA	R	<4	<4	<4

NOTES:

U: Indicates that the compound was analyzed for but not detected.

J: Indicates an estimated value, the result is less than the specified detection limit but greater than zero.

R: Indicates a rejected value.

B (organics):Indicates that the compound was found in the associated method blank as well as in the sample.

B (inorganics): Indicates that the reported value is between the instrument detection limit and the contract required detection limit.

N: Presumptive evidence for presence of analyte.

NA: Indicates that the compound was not analyzed for.

TABLE 2
ESTIMATED NUMBER OF SAMPLES FOR REMOVAL ACTION PROGRAM
LIBERTY INDUSTRIAL FINISHING, FARMINGDALE, NEW YORK

REMOVAL OF CONTENTS IN USTS 2 AND 4

Number of Samples Collected		Media	Compounds to be Analyzed	Analytical Protocols to be Followed	QA/QC Samples
Laboratory	Field		(Laboratory)	(Laboratory)	(Laboratory)
2	0	Liquid	Full TCLP, RCRA characteristics, BTU's, total halogens, % sulfur, %solids, % water, pH, flash point and cyanide reactivity	Standard Reporting	None

CHARACTERIZATION OF CONTENTS IN USTs 1,3,5,6,7 AND 8

Number of Samples Collected		Media	Compounds to be Analyzed	Analytical Protocols to be Followed	QA/QC Samples
Laboratory	Field		(Laboratory)	(Laboratory)	(Laboratory)
6	0	Liquid	TCL/TAL Compounds, BTU's, total halogens, % sulfur, % solids, % water, pH, flash point, and cyanide reactivity.	TCL/TAL - CLP Recycling - Standard Reporting	TCL/TAL - 1 MS, 1 MSD, 1 Duplicate, 1 Field Blank and 1 Trip Blank; Recycling/Fingerprinting - None

PCB TRANSFORMER LOCATIONS

Number of Samples Collected		Media	Compounds to be Analyzed	Analytical Protocols to be Followed	QA/QC Samples
Laboratory	Field		(Laboratory)	(Laboratory)	(Laboratory)
27	94	Soil	PCBs, Full TCLP and RCRA Characteristics.	TCL PCBs - CLP Protocols; Full TCLP -Standard Reporting	TCL PCBs - 2 MS, 2 MSD, 2 Duplicate, 1 Field Blank and 1 Trip Blank; TCLP - none
6 - 18	0	Wipe	PCBs	Standard Reporting	None

CHARACTERIZATION OF DRUMS FOR REMOVAL

Number of Samples Collected		Media	Compounds to be Analyzed	Analytical Protocols to be Followed	QA/QC Samples
Laboratory	Field		(Laboratory)	(Laboratory)	(Laboratory)
1	0	Liquid	Full TCLP; BTU's, total halogens, % sulfur, % solids, % water, pH, flash point and cyanide reactivity.	Full TCLP, Recycling - Standard Reporting	Full TCLP, Recycling- None

TABLE 3
SUMMARY OF TRANSFORMER SOIL SAMPLE ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

SAMPLE NUMBER	SB-23-0-0.5	SB-23-9-12	SB-23-13.5-16.5	PCB-2	PCB-1
SAMPLE LOCATION NO.	SB-23	SB-23	SB-23	PCB-2	PCB-1
LOCATION DESCRIPTION	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. C
DEPTH INTERVAL	0-0.5'	9-12'	13.5-16.5'	0 - 6"	0 -6"
DATE SAMPLE COLLECTED	1/17/92	1/17/92	1/17/92	10/92	10/92
VOLATILE ORGANIC ANALYTICAL RESULTS, in MG/KG					
Acetone	0.072 U,J	2.3 D,J	0.3 U,D,J	NA	NA
Toluene	0.26 D,J	0.052 U,J	0.01 U,J	NA	NA
Xylene (Total)	0.038 J	0.052 U,J	0.01 U,J	NA	NA
TICs	0.26 J	0.457 J	0.052 J,N	NA	NA
SEMIVOLATILE ANALYTICAL RESULTS, in MG/KG					
Phenanthrene	12 D,J'	0.34 U	NA	NA	NA
Anthracene	11 D,J	0.34 U	NA	NA	NA
Chrysene	1.1 J	0.34 U	NA	NA	NA
bis (2-ethylhexyl) phthalate	17	0.085 J	NA	NA	NA
Di-n-octylphthalate	2.1 J	0.34 U,J	NA	NA	NA
Benzo(b)fluoranthene	0.88 J	0.34 U	NA	NA	NA
Benzo(k)fluoranthene	0.33 J	0.34 U	NA	NA	NA
Total TICs	164400 J	4.649 J	NA	NA	NA
PESTICIDE AND PCB ANALYTICAL RESULTS, in MG/KG					
Heptachlor epoxide	0.084 J,P,N	0.0018 U	NA	NA	NA
Endrin Ketone	0.39 J,P'	0.0034 U	NA	NA	NA
Aroclor 1260	180 J	0.12 J,P	NA	18000	87
INORGANIC ANALYTICAL RESULTS, in MG/KG					
Aluminum	4730	1040	442	NA	NA
Arsenic	3.8	1.1 B	1.4 B	NA	NA
Barium	591 J,E	3.8 B,E	1.6 B,E	NA	NA
Calcium	3510 J	78.6 B	43.8 B	NA	NA
Chromium	148	11.9	9.1	NA	NA
Cobalt	2 B	0.59 U	0.61 U	NA	NA
Copper	34.5	6.7	4.2 B	NA	NA
Iron	9650	3140	1960	NA	NA
Lead	97.9 J,S	1.6 J	1.7 J	NA	NA
Magnesium	1830	184 B	118 B	NA	NA
Manganese	195 J	17.6	13.2	NA	NA
Mercury	0.1	0.09 U	0.12	NA	NA
Nickel	7.4 B	2.9 B	1.6 B	NA	NA
Potassium	292 B	96.2 B	69.7 B	NA	NA

TABLE 3
SUMMARY OF TRANSFORMER SOIL SAMPLE ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE, FARMINGDALE, NY

SAMPLE NUMBER	SB-23-0-0.5	SB-23-9-12	SB-23-13.5-16.5	PCB-2	PCB-1
SAMPLE LOCATION NO.	SB-23	SB-23	SB-23	PCB-2	PCB-1
LOCATION DESCRIPTION	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. F.	Transformer adjacent to Bldg. C
DEPTH INTERVAL	0-0.5'	9-12'	13.5-16.5'	0 - 6"	0 -6"
DATE SAMPLE COLLECTED	1/17/92	1/17/92	1/17/92	10/92	10/92
Sodium	73.9 B	46.7 B	40.1 B	NA	NA
Vanadium	40.8	3.0 B	2.0 B	NA	NA

NOTES:

U: Indicates that the compound was analyzed for but not detected.

J: indicates an estimated value, the result is less than the specified detection limit but greater than zero.

R: indicates a rejected value

B (organics): indicates that the compound was found in the associated method blank as well as in the sample.

B (inorganics): indicates that the reported value is between the instrument detection limit and the contract required detection limit

N: Presumptive evidence for presence of analyte.

NA: indicates that the compound was not analyzed for.

TABLE 4
SUMMARY OF DRUM CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE FARMINGDALE, NY

SAMPLE NUMBER	REGULATORY	EPA-1	EPA-2	EPA-3	EPA-4	EPA-5	EPA-6	EPA-7
DATE COLLECTED	LIMIT	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93
TCLP VOLATILE ORGANICS, in MG/L								
Vinyl Chloride	0.2	<50	<0.1	NA	NA	<0.1	NA	NA
1,1-Dichlorethene	0.7	<25	<0.05	NA	NA	<0.05	NA	NA
Chloroform	6	<25	<0.05	NA	NA	<0.05	NA	NA
1,2-Dichloroethane	0.5	<25	<0.05	NA	NA	<0.05	NA	NA
Methyl Ethyl Ketone	200	<50	<0.1	NA	NA	<0.1	NA	NA
Carbon Tetrachloride	0.5	<25	<0.05	NA	NA	<0.05	NA	NA
Trichloroethene	0.5	<25	<0.05	NA	NA	<0.05	NA	NA
Benzene	0.5	<25	0.03 J	NA	NA	<0.05	NA	NA
Tetrachloroethene	0.7	<25	<0.05	NA	NA	<0.05	NA	NA
Chlorobenzene	100	<25	<0.05	NA	NA	<0.05	NA	NA
VOLATILE ORGANIC ANALYTICAL RESULTS, in MG/KG								
Chloromethane		50 U	2 U	50 U	200 U	2 U	100 U	100 U
Bromomethane		50 U	2 U	50 U	200 U	2 U	100 U	100 U
Vinyl Chloride		50 U	2 U	50 U	200 U	2 U	100 U	100 U
Chloroethane		50 U	2 U	50 U	200 U	2 U	100 U	100 U
Methylene Chloride		25 U	1 U	25 U	38 J,B	0.4 J,B	36 J,B	50 U
Acetone		50 U	2 U	50 U	200 U	2 U	100 U	100 U
Carbon Disulfide		25 U	1 U	25 U	100 U	1 U	50 U	50 U
1,1-Dichloroethene		25 U	1 U	25 U	100 U	1 U	50 U	50 U
1,1-Dichloroethane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
1,2-Dichloroethene, trans		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Chloroform		25 U	1 U	25 U	100 U	1 U	50 U	50 U
1,2-Dichloroethane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
2-Butanone		50 U	2 U	50 U	200 U	0.94 J	100 U	100 U
1,1,1-Trichloroethane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Carbon Tetrachloride		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Bromodichloromethane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
1,2-Dichloropropane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
1,3-Dichloropropane, cis		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Trichloroethene		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Dibromochloromethane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
1,1,2-Trichloroethane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Benzene		25 U	1.4	25 U	27 J	0.91 J	50 U	50 U
1,3-Dichloropropene, trans		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Bromoform		25 U	1 U	25 U	100 U	1 U	50 U	50 U
4-Methy-2-Pentanone		50 U	2 U	50 U	200 U	2 U	100 U	100 U
2-Hexanone		50 U	2 U	50 U	200 U	2 U	100 U	100 U
Tetrachloroethene		25 U	1 U	21 J	100 U	1 U	50 U	50 U
1,1,2,2-Tetrachloroethane		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Toluene		47	36	50	1200	27	130	110
Chlorobenzene		25 U	1 U	25 U	100 U	1 U	50 U	50 U
Ethylbenzene		51	0.53 J	22 J	520	1 U	150	140 U
Styrene		25 U	1 U	25 U	100 U	1 U	50 U	50 U

TABLE 4
SUMMARY OF DRUM CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE FARMINGDALE, NY

SAMPLE NUMBER	REGULATORY	EPA-1	EPA-2	EPA-3	EPA-4	EPA-5	EPA-6	EPA-7
DATE COLLECTED	LIMIT	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93
Xylenes (total)		269	3.8	141	2350	1.15	670	660
TCLP SEMI-VOLATILE ORGANICS, in MG/L								
Pyridine	5	<100	<100	NA	NA	<100	NA	NA
1,4-Dichlorobenzene	7.5	<100	<100	NA	NA	<100	NA	NA
o-Cresol	200	<100	<100	NA	NA	<100	NA	NA
m,p-Cresol	200	<100	<100	NA	NA	<100	NA	NA
Hexachloroethane	3	<100	<100	NA	NA	<100	NA	NA
Nitrobenzene	2	<100	<100	NA	NA	<100	NA	NA
Hexachlorobutadiene	0.5	<100	<100	NA	NA	<100	NA	NA
2,4,6-Trichlorophenol	2	<100	<100	NA	NA	<100	NA	NA
2,4,5-Trichlorophenol	400	<100	<100	NA	NA	<100	NA	NA
2,4-Dinitrotoluene	0.13	<100	<100	NA	NA	<100	NA	NA
Hexachlorobenzene	0.13	<100	<100	NA	NA	<100	NA	NA
Pentachlorophenol	100	<500	<500	NA	NA	<500	NA	NA
SEMI-VOLATILE ANALYSIS RESULTS, (in MG/KG)								
Phenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
bis(2-chloroethyl)ether		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2-Chlorophenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
1,3-Dichlorobenzene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
1,4-Dichlorobenzene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
1,2-Dichlorobenzene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2-Methylphenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,2'-oxybis(1-Chloropropane)		500 U	100 U	500 U	500 U	100 U	100 U	100 U
3&4-Methylphenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
N-Nitroso-di-n-propylamine		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Hexachloroethane		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Nitrobenzene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Isophorone		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2-Nitrophenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,4-Dimethylphenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
bis(2-Chloroethoxy)methane		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,4-Dichlorophenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
1,2,4-Trichlorobenzene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Naphthalene		250 J	19 J	230 J	5500	12 J	560	550
4-Chloroaniline		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Hexachlorobutadiene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
4-Chloro-3-methylphenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2-Methylnaphthalene		680	53 J	560	610	36 J	860	890
Hexachlorocyclopentadiene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,4,6-Trichlorophenol		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,4,5-Trichlorophenol		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
2-Chloronaphthalene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2-Nitroaniline		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
Dimethylphthalate		500 U	100 U	500 U	500 U	100 U	100 U	100 U

TABLE 4
SUMMARY OF DRUM CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE FARMINGDALE, NY

SAMPLE NUMBER	REGULATORY	EPA-1	EPA-2	EPA-3	EPA-4	EPA-5	EPA-6	EPA-7
DATE COLLECTED	LIMIT	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93
Acenaphthylene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,6-Dinitrotoluene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
3-Nitroaniline		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
Acenapthene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,4-Dinitrophenol		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
4-Nitrophenol		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
Dibenzofuran		500 U	100 U	500 U	500 U	100 U	100 U	100 U
2,4-Dinitrotoluene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Diethylphthalate		500 U	100 U	500 U	500 U	100 U	100 U	100 U
4-Chlorophenol-phenylether		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Fluorene		500 U	100 U	500 U	500 U	100 U	220	210
4-Nitroaniline		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
4,6-Dintro-2-methylphenol		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
N-Nitrosodiphenylamine (1)		500 U	100 U	500 U	500 U	100 U	100 U	100 U
4-Bromophenyl-phenylether		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Hexachlorobezene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Pentachlorophenol		1300 U	250 U	1300 U	1300 U	250 U	250 U	250 U
Phenanthrene		100 J	30 J	130 J	120 J	37 J	210	220
Anthracene		500 U	100 U	500 U	500 U	100 U	18 J	100 U
Carbazole		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Di-n-butylphthalate		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Fluoranthene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Pyrene		500 U	20 J	500 U	500 U	29 J	72 J	76 J
Butylbenzylphthalate		500 U	100 U	500 U	500 U	100 U	100 U	100 U
3,3'-Dichlorobenzidine		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Benzo(a)anthracene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Chrysene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
bis(2-Ethylhexyl)phthalate		500 U	100 U	500 U	500 U	100 U	39 J	62 J
Di-n-octylphthalate		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Benzo(b)fluoranthene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Benzo(k)fluoranthene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Benzo(a)pyrene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Indeno(1,2,3-cd)pyrene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Dibenz(a,h)anthracene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
Benzo(g,h,i)perylene		500 U	100 U	500 U	500 U	100 U	100 U	100 U
TCLP PESTICIDES/PCBs, in MG/L								
Heptachlor	0.008	<0.4	<0.4	NA	NA	<0.4	NA	NA
Endrin	0.02	<0.5	<0.5	NA	NA	<0.5	NA	NA
Methoxychlor	10	<4.0	<4	NA	NA	<4.0	NA	NA
Toxaphene	0.5	<2.5	<2.5	NA	NA	<2.5	NA	NA
2,4-D	10	<0.025	<0.025	NA	NA	<0.025	NA	NA
2,4,5-TP (Silvex)	1	<0.01	<0.01	NA	NA	<0.01	NA	NA
Chlordane	0.03	<0.5	<0.5	NA	NA	<0.5	NA	NA
gamma-BHC (Lindane)	0.4	<0.5	<0.5	NA	NA	<0.5	NA	NA
Heptachlor Epoxide		<1.0	<1.0	NA	NA	<1.0	NA	NA

TABLE 4
SUMMARY OF DRUM CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE FARMINGDALE, NY

SAMPLE NUMBER	REGULATORY	EPA-1	EPA-2	EPA-3	EPA-4	EPA-5	EPA-6	EPA-7
DATE COLLECTED	LIMIT	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93
PESTICIDE and PCB ANALYTICAL RESULTS, (in MG/KG)								
Lindane		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
Heptachlor		0.4 U	0.4 U	0.4 U	0.4 U	NA	0.4 U	0.4 U
Aldrin		0.4 U	0.4 U	0.4 U	0.4 U	NA	0.4 U	0.4 U
Heptachlor Epoxide		1 U	1 U	1 U	1 U	NA	1 U	1 U
Endosulfan I		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
Dieldrin		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
Endosulfane II		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
4,4'-DDT		1 U	1 U	1 U	1 U	NA	1 U	1 U
Endrin aldehyde		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
alpha-BHC		0.25 U	0.25 U	0.25 U	0.25 U	NA	0.25 U	0.25 U
beta-BHC		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
delta-BHC		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
gamma-Chlordane		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
alpha-Chlordane		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
4,4'-DDE		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
Endrin		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
4,4'-DDD		0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
Endosulfan sulfate		1 U	1 U	1 U	1 U	NA	1 U	1 U
Methoxychlor		4 U	4 U	4 U	4 U	NA	4 U	4 U
Toxaphene		2.5 U	2.5 U	2.5 U	2.5 U	NA	2.5 U	2.5 U
Aroclor 1016		5 U	5 U	5 U	5 U	NA	5 U	5 U
Aroclor 1221		5 U	5 U	5 U	5 U	NA	5 U	5 U
Aroclor 1232		5 U	5 U	5 U	5 U	NA	5 U	5 U
Aroclor 1242		5 U	5 U	5 U	5 U	NA	5 U	5 U
Aroclor 1248		5 U	5 U	5 U	5 U	NA	5 U	5 U
Aroclor 1254		5 U	5 U	5 U	5 U	NA	5 U	5 U
Aroclor 1260		5 U	5 U	5 U	5 U	NA	5 U	5 U
TCLP INORGANICS, in MG/L								
Arsenic	5	1 U	1 U	NA	NA	1 U	NA	NA
Barium	100	0.1 U	74	NA	NA	78	NA	NA
Cadmium	1	0.05 U	0.05 U	NA	NA	0.05 U	NA	NA
Chromium	5	0.1 U	0.1 U	NA	NA	0.1 U	NA	NA
Lead	5	0.3 U	0.3 U	NA	NA	0.3 U	NA	NA
Mercury	0.2	0.005 U	0.005 U	NA	NA	0.005 U	NA	NA
Selenium	1	0.5 U	0.5 U	NA	NA	0.5 U	NA	NA
Silver	5	0.05 U	0.05 U	NA	NA	0.05 U	NA	NA
INORGANIC ANALYTICAL RESULTS, (in MG/KG)								
Aluminum		5 U	5.1	5 U	5 U	5 U	5 U	5 U
Antimony		2 U	2 U	2 U	2 U	2 U	2 U	2 U
Arsenic		0.5 U	0.05 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Barium		0.25 U	410	0.38	0.25 U	230	0.25 U	0.25 U
Berylium		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE 4
SUMMARY OF DRUM CONTENTS ANALYTICAL RESULTS
LIBERTY INDUSTRIAL FINISHING SITE FARMINGDALE, NY

SAMPLE NUMBER	REGULATORY	EPA-1	EPA-2	EPA-3	EPA-4	EPA-5	EPA-6	EPA-7
DATE COLLECTED	LIMIT	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93	10/21/93
Cadmium		0.25 U	0.25 U	0.25 U	0.36	0.25 U	0.25 U	0.25 U
Calcium		120	150	220	170	79	120	120
Chromium		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cobalt		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Copper		1.2 U	1.3 U	6.5	8.1	1.2 U	1.2	1.3
Iron		120	5	43	70	9.6	69	61
Lead		1.5 U	1.5 U	2.6	150	1.5 U	3.2	2.9
Magnesium		5.7	5 U	58	50	5 U	7	5.5
Manganese		1.8	0.25 U	0.49	2.8	0.25 U	0.25 U	0.25 U
Mercury		0.25 U	0.25 U	0.25 U	0.38	0.25 U	0.25 U	0.25 U
Nickel		1 U	1 U	1 U	0.99 U	1 U	1 U	1 U
Potassium		100 U	100 U	100	99 U	100 U	100 U	120
Selenium		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Silver		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Sodium		260	61	170	110	65	76	68
Thallium		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Vanadium		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Zinc		3.7	180	100	150	74	90	90
Ignitability (in °F)	>140°F	>160	>160	>160	>160	>160	>160	NA
Corrosivity (in pH)	2>pH>12.5	5.82	7.62	9.12	6.62	6.93	6.33	NA

NOTES:

U: Indicates that the compound was analyzed for but not detected.

J: indicates an estimated value, the result is less than the specified detection limit but greater than zero.

R: indicates a rejected value.

B (organics): indicates that the compound was found in the associated method blank as well as in the sample.

B (inorganics): indicates that the reported value is between the instrument detection limit and the contract required detection limit.

N: Presumptive evidence for presence of analyte.

NA: indicates that the compound was not analyzed for.

TABLE 5
SAMPLE PROGRESS REPORT FORM
Liberty Industrial Finishing Site

RESPONSE ACTION PROGRESS REPORT
LIBERTY INDUSTRIAL FINISHING SITE
FARMINGDALE, NEW YORK

Period Covering:

Date:

Prepared By:

ACTION THIS PERIOD

WORK COMPLETED VERSUS WORK REMAINING

SCOPE OF WORK CHANGES

PROBLEMS ENCOUNTERED/RESOLVED

ACTION NEXT PERIOD

ATTACHMENTS:

TABLE 6
PROPOSED REMOVAL ACTION IMPLEMENTATION SCHEDULE
LIBERTY INDUSTRIAL FINISHING, FARMINGDALE, NEW YORK

TIME (weeks from approval of the QA/QC Plan and HASP)

TASK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
SAMPLING AND ANALYSIS PLAN	■	■	■	■	■	■	■	■	■	■																
Mobilization for Sampling and Analysis Plan	▨																									
Implementation		▨	▨	▨																						
Laboratory Analysis and Data Validation			▨	▨	▨	▨	▨	▨	▨	▨																
REMOVAL ACTION											■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Propose Removal Scope to EPA											▨	▨														
Mobilization*													▨	▨	▨	▨										
Removal Action Implementation																	▨	▨	▨	▨	▨					
Progress Reports		▨		▨		▨		▨		▨		▨		▨		▨		▨		▨		▨		▨		▨
Final Report																						▨	▨	▨	▨	▨

* Initiation of this task is contingent upon EPA approval of decisions regarding final removal activities.