

DEVELOPMENT RESPONSE ACTION PLAN
PROSOURCE
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TECHNICAL REPORT

DEVELOPMENT RESPONSE ACTION PLAN

Bloomington Substation
2700 East 80th Street
Bloomington, Minnesota 55425



Prepared for:

Xcel Energy
414 Nicollet Mall
Minneapolis, MN 55401

July 19, 2004

ProSource Project No. 0237-00

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Figure 1 Site Location
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APPENDICES

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1.0 INTRODUCTION

On behalf of Xcel Energy, ProSource Technologies, Inc. (ProSource) has prepared this Development Response Action Plan (DRAP) for the Bloomington Substation located at 2700 East 80th Street in Bloomington, Minnesota (hereon referred to as "Site"). The purpose of the work will be to assist Xcel Energy with environmental issues related to decommissioning of the Site as a condition of the sale of its property to the Metropolitan Airports Commission (MAC).

1.1 Site Description

A site location map using the United States Geological Survey (USGS) St. Paul SW 7.5 minute topographic quadrangle base map is provided as Figure 1. The USGS coordinates for the site are the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 1, Township 27 North and Range 24 West within Hennepin County, Minnesota.

The Site is a rectangular piece of land approximately two acres in size and located southeast of the intersection of Interstate Highway 494 and 24th Avenue South. The Site was most recently used as an electrical substation with five single-story control house buildings, two large transformers, seven vacuum switches, a gas-filled circuit breaker, and two large transmission towers. The remainder of the Site is a grassy, vacant lot with scattered trees and shrubs present. A site map is included as Figure 2.

1.2 Site History

The Site was developed from farmland by the McCarthy Well Company in the mid-1960's and owned until 1986. In 1986, Xcel Energy acquired the Site by eminent domain in order to build an electrical substation to provide service to the nearby Mall of America. The construction of the existing electrical substation was completed in 1987. The Site was recently acquired by the MAC from Xcel Energy as part of a runway expansion project at the Minneapolis-St. Paul International Airport. As a result, the substation was subsequently de-energized and some decommissioning has occurred. A detailed discussion of the site history and prior site use is included in the accompanying June 30, 2000 and June 23, 2004 Phase I Environmental Site Assessments (ESAs) prepared by ProSource for the Site. The Phase I ESA was conducted to update a Phase I ESA dated June 30, 2000 for the Site and is included as an Appendix to the June 23, 2004 ESA report.

1.3 Previous Investigations

The June 30, 2000 and June 23, 2004 Phase I ESAs identified the areas surrounding two large transformers (Nos. 1 and 2) at the east and west sides of the Site as potential areas of concern or recognized environmental conditions (RECs). Absorbent materials were observed on the concrete pads below the transformers and evidence of permanent staining of the concrete pads was also observed.

According to Xcel Energy, the transformers and some related electrical equipment (i.e. switches and breakers) have been removed from the site since it was de-energized. Each transformer contained

approximately 7,660 gallons of mineral oil in the main reservoir. A second reservoir within each transformer contained 234 gallons of mineral oil and a related selector switch contained an additional 181 gallons of mineral oil for a collective total of approximately 8,075 gallons each. Laboratory testing data of the mineral oil within each reservoir by Xcel Energy identified polychlorinated biphenyls (PCBs) at concentrations ranging from 2 to 11 parts per million. (Appendix A).

To further define the extent of these impacts, a Phase II ESA is proposed to be completed in the summer of 2004. The Phase II work plan was submitted to the MPCA VIC Program and approval is pending. The Phase II investigation will be focused primarily on the presence of soil or ground water impacts at the Site, if any, and any impact that may be related to land use prior to Xcel Energy's purchase of the property.

1.4 Project Objectives

The purpose of this DRAP is to present existing Site information and detail the response actions used to decommission the site and accommodate the planned future land use as buffer property. The objective is to meet MPCA VIC Program requirements to achieve a "No Further Action" determination letter for the planned response actions to decommission the site. Response actions include demolition of the buildings and structures at the Site, removal of concrete pads and slabs, screening of near-surface soil, and excavation of visually impacted soil.

2.0 DEVELOPMENT RESPONSE ACTION PLAN

This DRAP addresses the work tasks necessary to implement response actions related to decommissioning of the Site. Specifically, the DRAP outlines the procedures and methods for the removal/abatement of regulated or hazardous materials from buildings (if any), building demolition, and implementation of soil response actions. Additional environmental issues, contingency planning, proposed development, a tentative schedule and documentation are also addressed.

2.1 Building Demolition

Four switchgear buildings and a control house are located at the Site. The transformers have been removed from the site. The control house buildings are planned to be dismantled along with all related electrical service structures as part of the site decommissioning. Xcel Energy Special Construction staff or a private contractor will be used to provide demolition services for the balance of the structures (i.e. concrete foundations), soil excavation and hauling, and site restoration.

2.1.1 Removal of Restricted or Hazardous Materials

Prior to demolition, Xcel Energy will remove any miscellaneous parts, equipment and solid waste from the Site. They will also properly containerize and remove any liquids (oils, machinery fluids, etc.) prior to vacating the buildings. Xcel Energy will be required to address the removal, handling, transport and disposal of restricted and/or hazardous materials from buildings prior to demolition. All removal activities will be conducted in compliance with Local, State and/or Federal laws.

2.1.2 Building Dismantlement and Demolition Activities

As previously stated, Xcel Energy expects to dismantle the buildings for transport to a different location and reuse. The removal of any remaining above-grade materials and below-grade structures (including existing and former building foundations, buried debris and buried utilities) will be handled by either Xcel Energy Special Construction staff or a private contractor. City sidewalks, street pavement, and curbs and gutters to be used as part of future development activities will be protected from damage or replaced if damaged. At a minimum, Special Construction staff or the demolition contractor will be responsible for adhering to the following requirements, as they pertain to building demolition:

- Prior to demolition, ensure that service to all applicable on-site utilities are shut off and/or disconnected.
- Demolition of concrete foundations and related structures will be conducted by mechanical means (i.e. backhoe, ball and crane, etc.). The use of explosives will not be permitted.
- Excessive debris will be removed from all haul trucks prior to leaving the Site.
- Demolished materials will be loaded, properly transported to and disposed of at an appropriate off-site facility (i.e. demolition landfill, recycling center, etc.). On-site staff will also be responsible for properly manifesting all regulated materials which leave the Site, if

required.

- The contractor will be responsible for taking the appropriate measures to ensure the debris piles are appropriately secured at the end of each work day.
- All demolition activities will be conducted in compliance with local, state and/or federal rules and regulations.

2.1.3 Removal of Bituminous Pavement and Concrete

Concurrent with demolition activities, the contractor will also be required to remove, load, transport, and properly dispose of or recycle any bituminous pavement and/or concrete used in drive/parking areas of the Site. Visually stained concrete will be segregated and transported to an approved disposal facility. Restoration will primarily consist of backfilling shallow excavations and grading the site for proper surface water runoff consistent with the adjacent grade.

2.2 Soil Response Actions

Soil cleanup activities at the Site will consist of excavation and disposal of visually impacted soil and concrete related to operation of the electrical substation at the Site. The following sections detail the cleanup activities associated with implementation of each soil response action.

2.2.1 Site Preparation

Prior to starting work, all underground utilities will be cleared through the Gopher One-Call service. Clearing and grubbing of any trees and brush will also be conducted, as appropriate. Once clearing and grubbing, and demolition/dismantlement activities have been completed, excavation activities will be initiated. All work is anticipated to be completed in Level D personal protective equipment. A Health and Safety Plan (HASP) which all on-site personnel will be required to read and sign prior to the start of work is included in Appendix B.

2.2.2 Excavation, Hauling and Disposal

Excavation of impacted soil will begin once building demolition and removal of pavement/concrete have been completed. The planned excavation areas are depicted in Figure 3. Excavation activities will be conducted by using either a hydraulic excavator (backhoe) or front end loader. If necessary, clean overburden will be excavated, temporarily stockpiled, and used as clean backfill after the excavation has been completed and confirmatory sampling has been conducted. Once the impacted soil is encountered, it will be directly loaded into trucks, manifested and transported to an approved solid waste facility (landfill) for disposal.

ProSource field staff will be on-site to supervise and direct field activities. To ensure the health and safety of on-site personnel, air monitoring will be conducted during the excavation of soils impacted with petroleum, chlorinated solvents and/or other VOCs. Air monitoring will be conducted using a photoionization detector (PID) to monitor for the presence of organic vapors. Additional requirements for excavation, hauling, and disposal are as follows:

- Special Construction staff or the contractor will be responsible for controlling fugitive dust and minimizing noise, odors, and off-site tracking to the extent possible.
- Excessive impacted soil will be removed from all trucks prior to leaving the Site. If necessary, trucks used to transport contaminated soil may require decontamination (i.e. steam cleaning) prior to leaving the Site, in order to minimize the tracking of contaminants off-site. Prior to demobilization from the Site, all on-site equipment used for excavation will be decontaminated.
- Special Construction staff or the contractor will be responsible for properly manifesting all impacted soils which leave the Site.
- Special Construction staff or the contractor will be responsible for taking the appropriate measures to ensure excavations are appropriately secured at the end of work each day.
- Work is anticipated to be completed in Level D. ProSource has prepared a site health and safety plan which the contractor's on-site personnel will be required to read and sign (copies will be provided prior to mobilization.) However, the contractor is ultimately responsible for maintaining safe operation of it personnel and equipment.

2.2.3 Confirmatory Sampling

The excavation of impacted soils will be conducted based on visual observations, to the extent possible. Soils will not be removed in the event that the integrity of an existing structure (i.e. sidewalk or street) is compromised. The excavation spoils, sidewalls, and base will be screened for organic vapors using a PID calibrated on a daily basis to an isobutylene standard. Calibration results will be entered on a calibration log.

Once it appears as though the visually impacted soil has been removed within the planned excavation areas (Figure 3), soil samples will be collected for PCB, BTEX, and DRO analysis to confirm that impacted soils have sufficiently been removed. Samples will be collected from one base and one sidewall location in each excavation. Should the volume of an excavation exceed approximately ten cubic yards, additional samples may be collected. An expedited turnaround time (24 hours) for samples will be requested, so a decision can quickly be made as to whether additional excavation is required or backfilling, compaction and grading can begin.

With the exception of DRO, analytical results will be compared to MPCA's Tier I Residential Soil Reference Values (SRVs). The Tier I SRV for PCBs is 1.2 mg/kg while the SRVs for benzene, ethylbenzene, toluene, and total xylenes are 1.5 mg/kg, 200 mg/kg, 107 mg/kg, and 110 mg/kg, respectively. Since there is not an SRV for DRO, an action level of 50 parts-per-million will be used per MPCA Petroleum Remediation Program Guidance Document #3.01. Should any of the samples exceed their respective criteria, the suspect area will be further subdivided and re-sampled (at the previous sampling locations) to narrow down the problem area. Only the parameter(s) which exceeded their criteria will be analyzed again. After the problem area has been identified (as confirmed by re-sampling), that portion of the excavation will be excavated and disposed. If the

analytical results from re-sampling do not exceed the appropriate criteria, the material will be left in place.

Due to the expected shallow depth, samples will be collected from the excavation base rather than the sidewalls. Samples will be preserved (as required) and placed into clean, laboratory supplied sample containers. Each sample container will be uniquely numbered and labeled using indelible ink. Additional information on the label will include the analytical parameter(s), preservative(s), sampling personnel, as well as the date and time of sample collection. The label will be directly affixed to the appropriate sample container. The samples will then be placed on ice and maintained at a temperature of 4° C. A chain-of-custody will be initiated and kept with the samples until custody was relinquished to the laboratory.

2.2.4 Backfill and Compaction

After confirmatory sampling has been completed (including analytical results), a post-excavation topographic survey will be conducted. This survey will include the vertical and horizontal limits of the excavation along with the PID and soil sampling locations. Following the survey, each excavation will be backfilled and compacted using the stockpiled overburden and/or clean fill from an off-site source. Backfill will be placed in two-foot lifts and compacted using the backhoe bucket. Once the final lift has been placed and compacted, interim grading of the area disturbed during demolition and excavation activities will be necessary to prevent ponding of surface water. Depending on the timing of redevelopment activities, seeding may be required in order to minimize runoff and/or erosion.

2.3 DRAP Implementation Report Preparation

Once all field work has been completed, ProSource will prepare a DRAP Implementation Report. This report will discuss the methods used during the field activities, present the results of the confirmatory sampling and provide an assessment of current site conditions. Documentation will include, but is not limited to field forms, photographs, analytical reports and manifests.

3.0 CERTIFICATION

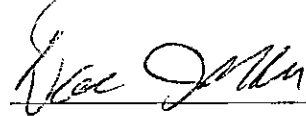
ProSource has prepared this Development Response Action Plan for the exclusive use of Xcel Energy and its agents, for specific application to the Bloomington Substation site located in Bloomington, Minnesota. The services performed by ProSource for this project have been conducted in a manner consistent with the level of skill and care ordinarily exercised by other members of the profession currently practicing in this area. No other warranty, expressed or implied, is made.

Name and Title:

Signature: _____

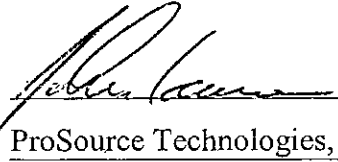
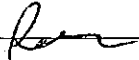
Date Signed: _____

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7/19/04

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