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Asbestos Emission Control Plan

Former Twin Cities Army Ammunition Plant (TCAAP)
427-acre Transfer Property,
Sections 9 and 16, Township 30 North,
Range 23 West
Arden Hills, Minnesota

Prepared for:

RAMSEY COUNTY

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Prepared by:

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Table of Contents

Table of Contents (Cont.)

FIGURES

1.0 Purpose and Scope

The purpose of this Emissions Control Plan (ECP) is to outline procedures for control of asbestos emissions during excavation of materials that may include asbestos-containing or potential asbestos-containing materials/soils at the former Twin Cities Army Ammunition Plant (TCAAP) 397-acre transfer property, located within portions of Sections 9 and 16, Township 30 North, Range 23 West of the 5th Principal Meridian (the Site). This ECP is in addition to the Construction Contingency Plan dated May 2013.

Materials/soils excavated that potentially contain asbestos will be directly loaded into lined and covered trucks or stockpiled on-Site and covered to prevent emission of asbestos fibers. The stockpiled materials/soils will be sampled to determine if asbestos is present. Asbestos-containing materials/soils will be transported off-site and disposed at a permitted facility as quickly as possible following verification that asbestos-containing materials/soils are present.

This ECP meets the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP, Title 40, Code of Federal Regulations, Part 61, Subpart M), and is intended to accomplish the following:

- Comply with Minnesota and Federal NESHAP requirements, particularly the requirement that no visible emission results from the excavation activities
- If encountered, identify the location and quantity of asbestos-containing materials excavated.
- Provide detailed procedures for how the asbestos-containing materials will be excavated and transported for disposal.
- Provide a description of how the potential asbestos-containing and asbestos-containing material will be wetted during the project to prevent emissions.
- Define air monitoring to be completed during the project
- Provide a schedule for the implementation of the project
- Identify the contractor and contractor staff along with relevant certification and training data for those who will implement the project

This Plan has been developed to meet the requirements identified by the MPCA. Wenck will not implement this plan prior to receiving MPCA approval. It is important that the MPCA review and comment on this ECP within five (5) working days of receipt of the plan.

2.0 Regulatory Requirements

Activities described in this ECP will follow the requirements of the NESHAP, Subpart M, National Emission Standard for Asbestos. The NESHAP regulations are located in Title 40, Code of Federal Regulations, Sections 61.140 through 61.157, and have been adopted by reference (with several exceptions not relevant to this Plan) in the Minnesota Rules, Section 7011.9920.

Monitoring of airborne asbestos concentrations will be conducted in accordance with the Occupational Safety and Health Administration (OSHA) asbestos requirements for the construction industry, found in 29 CFR 1926.1101 (adopted by reference by Minnesota OSHA).

It should be noted that this ECP is applicable to the portion of the demolition project that is to be conducted in areas of the Site where likely asbestos containing material (ACM) are known or thought to exist. If ACMs are encountered, excavation will be halted and the ECP will be put into immediate effect.

3.0 Site Description

3.1 SITE DESCRIPTION

The Site is identified by the address 2020 Highway Avenue, Arden Hills, Minnesota. The Site is located within portions of Sections 9 and 16, Township 30 North, Range 23 West of the 5th Principal Meridian. The Site is unplatted real property.

The 427-acre Site is located in the west-southwest portion of the larger, nearly four square mile (2,370-acre) former TCAAP facility. The Site is bounded to the west by Interstate 35, to the southwest by Highway 10, to the east by the Arden Hills Army Training Site (AHATS), and to the south by Highway 96 West (see Figure 1.)

3.2 PHYSICAL SETTING

3.2.1 Topography

The Site is characterized by gently rolling topography with surface elevations ranging from approximately 890 feet to approximately 930 feet above mean sea level.

3.2.2 Site Soils

Geology at the Site consists of approximately 0 to 50 feet of recent alluvium of the New Brighton Formation, consisting of fine sands overlying lacustrine silts, and is the local water table aquifer (referred to in former TCAAP property studies as the Unit 1 aquifer). The Twin Cities Formation, a reddish brown to gray silty clay and clayey sand till, underlies the New Brighton Formation and is considered the local aquitard (referred to as the Unit 2 till). Regionally it ranges up to 150 feet thick, where present. The Unit 2 till is present throughout the Site. Beneath the Twin Cities Formation is the Hillside Sand, a reddish brown medium- to coarse-sand with some gravel, silty sand and red sandy till (referred to as Unit 3). The Hillside Sand is up to 500 feet thick in areas of the TCAAP facility and is hydrologically connected with the underlying bedrock regional aquifer.

The bedrock present at the Site (Unit 4) consists of dolomite, and sandy dolomite of the Lower Ordovician aged Prairie du Chien Group. Below this is the Cambrian aged Jordan Sandstone, which is underlain by the St. Lawrence siltstone, a regional aquitard. The Jordan is the bottom of the flow regime studied as part of the Remedial Investigation activities at TCAAP.

3.2.3 Hydrogeology

Groundwater flow in the deep regional aquifer (Unit 3 and Unit 4) is well characterized and known to flow generally southwest based on the extensive network of monitoring wells, pumping wells, and

hydrologic investigations. Flow in the deep aquifers is controlled by a deep groundwater extraction and treatment system along the southwest boundary of the former TCAAP property.

Groundwater flow in the shallow water table aquifer (Unit 1) is controlled by surface water features such as ditches and wetlands on TCAAP. In the northern area of the Site, flow is generally toward Rice Creek and its local tributaries. In the southern portion flow is less well understood but has been found to not flow off of the former TCAAP property.

3.3 PAST AND CURRENT LAND USE

Much of the former TCAAP was constructed in a nine-month time frame beginning August 28, 1941. The TCAAP was established for the production of small arms ammunition, and was a federal government owned, contractor operated facility.

Production of ammunition occurred at TCAAP from February 1942 until the late 1970s. Production of .30- and .50-caliber ammunition during World War II and continued for 42 months until the facility was put on standby status near the end of World War II. The TCAAP facility was reactivated in August 1950 to support the Korean Conflict. Ammunition was produced until December 1957 when the facility was again placed on standby status. In December 1965, TCAAP was again reactivated during the Viet Nam Conflict. 7.62mm and 5.56mm ammunition was produced until approximately 1976. Limited munitions manufacturing by government contractors also occurred in some TCAAP buildings from the 1950s through the 1980s, and on a more limited basis, in the 1990s. All munitions production ceased at the Site in the early 2000s.

The Site is presently a mixture of open space, rail beds, roadways, parking lots, and abandoned industrial facility buildings (and foundations of former buildings) no longer in active use. The Site was most recently in "caretaker status," meaning the Army is maintaining the property, but not with the intention of operating the facility. Many of the buildings formerly existing at the TCAAP facility have been razed in an effort to minimize potential problems due to vandalism, vagrants or fire. In some cases, the foundations of these former buildings remain in place. These remaining buildings have been subject to significant damage by vandals scavenging scrap metals, primarily copper.

On April 15, 2013, the County acquired title to 397 acres of the Site and entered into a Lease Agreement with the United States for the Leased Property (30 acres). As part of the transaction with the County, the United States retained responsibility for Site groundwater, including for operation and maintenance of the groundwater remediation and monitoring well systems located on the Site, and certain other environmental conditions. The Army will continue to conduct all required groundwater sampling and the maintenance and monitoring of a groundwater treatment facility and associated wells, well houses, and other remediation infrastructure.

3.4 VOLUME AND CONDITION OF ASBESTOS-CONTAINING WASTE

Potential asbestos-containing material wastes, if encountered at the Site, will be excavated and removed. The potential asbestos-containing materials most likely consists of construction materials such as asbestos coated pipe or conduit. The materials are of unknown quantity and location, however, some asbestos-containing material wastes can be reasonably anticipated based on the known locations of asbestos-wrapped natural gas lines (non-friable, corrosion protection) and steam pipelines formerly

used for district heat from a central steam plant (the former Building 115). The locations of the known natural gas service and the steam pipeline system are included as Figures 3 and 4.

Additionally, it is probable that some other areas of asbestos-impacted soil will be found, based on the preponderance of historical uses of asbestos in a wide variety of building materials.

4.0 Schedule

4.1 GENERAL

When unanticipated ACM in soil is discovered during Site work, and appropriate regulatory notifications have been made, removals will occur as quickly as can be accommodated by the contractors and subcontractors identified in this plan. In general, it is anticipated the removals will have occurred within a few days of regulatory approval.

4.2 NATURAL GAS LINE REMOVALS

Removal of natural gas lines thought to be affected by asbestos-wrap is scheduled for July through October 2013.

4.3 STEAM LINE REMOVALS

Steam line removals are scheduled for July through October 2013.

5.0 On-Site Activities/Emissions Control Procedures

5.1 PRESENT LOCATIONS OF THE ASBESTOS-CONTAINING MATERIAL

As noted above, the known locations of asbestos-containing material (ACM) is limited to the natural gas service on the lower portion of the Site, and the steam distribution and condensate return lines shown in Figures 3 and 4. A small amount of ACM was discovered in connection with removal of what appears to have been some concrete sign anchors on the south end of the northern portion (aka, the residential "thumb") of the Site. The northern portion of the Site was historically in residential use. It is not understood what the ACM was used for in this application, however, it appears the ACM is limited to an area of approximately 10 to 50 tons of soil localized around the former sign anchors.

5.2 WETTING PROCEDURES

Friable and non-friable potential asbestos-containing materials may be encountered during excavation activities. Potential asbestos-containing materials encountered, which is likely the non-friable type will not be wetted during excavation and loading activities. Potential asbestos-containing materials which may likely be friable in nature will be wetted to minimize asbestos fiber release during site activities.

The amended water will be applied at the asbestos-containing materials/soils loading area. The water will be applied from a water truck using a low-pressure sprayer to ensure, to the extent possible, that spraying activities will not cause asbestos fibers to become airborne.

5.3 EXCAVATING AND LOADING PROCEDURES

This section specifies procedures that will be followed in the loading of any asbestos-containing materials/soils or potential asbestos-containing materials/soils onto trucks prior to transport to waste disposal site.

- Potential asbestos-containing materials/soils will not be bagged prior to hauling off-site.
- As noted above, during loading procedures, the waste will be wetted with amended water from a water truck using a low-pressure sprayer.
- Potential asbestos-containing materials/soils will be excavated from the general refuse with an excavator and placed into dump trucks or end dump vehicles.
- All excavating and transportation vehicles will have enclosed cabs that will minimize worker exposure to potential asbestos fiber releases in the excavation and dike construction areas.
- To prevent waste from being released from the top of the truck box, the contractor will ensure that the box is not overfilled.
- Transports will be lined with 6-mil polyethylene and after loading is complete, the load will be covered with 6-mil polyethylene and a tarp installed to inhibit asbestos fiber release during transport to the disposal facility (see 5.4 below).

All friable suspect ACM will be transported off-site by an asbestos abatement contractor licensed by the Minnesota Department of Health.

5.4 WASTE DISPOSAL SITE

All asbestos containing materials/soil will be hauled to the SKB Rosemount Industrial Waste Facility in Rosemount, Minnesota (permit #-SW-386). SKB Industrial Waste Facility is permitted to accept asbestos-containing materials in Cells 3 and 5.

5.5 BACKFILLING OF EXCAVATION AREAS

Site restoration activities are not contemplated in the overall scope of work. Work areas or excavation areas will be stabilized with on-site borrow or soil, and all disturbed areas stabilized in accordance with the erosion control plan. Unsafe slopes, per OSHA Standard 29 CFR 1926, will be stabilized to ensure no physical hazard remains after completion of the various scopes of work.

5.6 MONITORING

Monitoring for airborne asbestos fibers will be conducted during activities described in this ECP in accordance with Minnesota and Federal OSHA requirements. The Contractor will be responsible for their own employee's personal air monitoring.

The excavation contractor will follow Carl Bolander & Sons Company's (Bolander's) TCAAP Site Health and Safety Plan, dated May 2013, for the project. The Site Health and Safety Plan includes a hazard assessment and specifies health and safety procedures to be followed during this project.

5.7 RECORD KEEPING

Personnel air monitoring and disposal manifests will be kept on file by the Contractor for a period of 30 years. A copy of these records will be submitted to Bolander within 30 days of project completion.

A record of the location (vertical and horizontal) and the quantity of asbestos-containing material/soil excavated will be prepared by the Contractor and submitted to Wenck Associates, Inc. within 30 days of project completion.

6.0 Project Personnel and Certifications

6.1 GENERAL CONTRACTOR/CERTIFICATION(S)

Carl Bolander & Sons Company (Bolander) will provide excavation, wetting and transportation equipment and operators for the project. Equipment operators will have received MDH certified asbestos worker or supervisor training for asbestos-related activities prior to start of excavation activities.

6.2 HEALTH AND SAFETY SUPERVISOR/CERTIFICATION(S)

Bolander is responsible for the overall implementation of the Health and Safety Program Plan and conducting the OSHA required personal monitoring.

Mr. Ryan Thelen will serve as Wenck Associates, Inc.'s Site Safety Officer.

6.3 ASBESTOS ABATEMENT CONTRACTOR

Bolander is a licensed asbestos contractor in the State of Minnesota. Bolander's Minnesota Asbestos Contractor License number is AC629.

6.3.1 Natural Gas Line Removals

Natural gas line is located at the Site as depicted in Figure 3. Portions of the natural gas line are known to be covered by asbestos material. This Emission Control Plan has been developed to govern the asbestos removal and disposal of the natural gas line. The natural gas line will be exposed in an open trench in approximately 30 to 50 foot sections. The condition of the gas line will be inspected for the type and condition of corrosion protective wrap. Upon verification that no asbestos is in the surrounding soil, the gas line will be cut and that section removed. After removal the next section of gas line will be removed in the similar process. It is our understanding that the corrosion protective wrap is a category 1 non-friable product.

6.3.2 Steam Line Removals

Underground steam line and condensate return lines, and steam line structures are located at the Site as depicted in Figure 4. These systems will be removed up to the eastern boundary of the Site. Additionally, in three locations a short distance north and east of the power plant building (Building 115), underground steam line and condensate return lines transect Leased Property areas containing impacts to be mitigated under MPCA-approved response action plans.

The underground steam line and condensate return lines are known to be wrapped in asbestos-insulating materials. This Emission Control Plan has been developed to govern the asbestos removal and

disposal of the underground steam line and condensate return lines. Steam line will be exposed in an open trench in approximately 10 to 30 foot sections. The condition of the steam line and condensate return line will be inspected for condition. If friable asbestos is observed in surrounding soil after removal of the steam and condensate lines, the impacted soil will be over-excavated and loaded into lined roll-off containers for transportation to a landfill permitted to accept asbestos-containing waste. The roll-off containers will be covered prior to transport. Excavation activities will be monitored in accordance with an approved emission control plan.

If no asbestos is observed in the surrounding soil, the steam and condensate return lines will be glove-bagged and removed and placed in a lined roll-off container for transportation to a landfill permitted to accept asbestos-containing waste. Roll-off containers will be covered prior to transport.

Where soil affected by friable asbestos has been removed , verification of removal efficacy will require inspection and sampling procedures in accordance with MPCA guidance document w-sw4-03, "Asbestos Guidance on Excavation Projects." Soil sampling will be conducted by an MDH-certified Asbestos Inspector.

The purpose of the CCP is to deal with the potential for the trench containing the underground steam line and condensate return lines to be impacted by unknown releases or wastes. This CCP is not to replace the specific removal plan for asbestos containing materials.

6.4 PROJECT CONTACT INFORMATION

6.4.1 Property Owner – Ramsey County

Contact 1:
Mr. Jay Biedny
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Contact 2:
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Deputy County Manager
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6.4.2 Construction Contractor Information

Contact 1:
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Contact 2:
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President
Carl Bolander & Sons
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6.4.3 Contractor's Environmental Consultant – Wenck Associates, Inc.

Contact 1:
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Contact 2:
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6.4.4 Owner's Environmental Consultant

Contact 1:
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Project Manager

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Contact 2:

Mr. Bryan Murdock
Commercial and Industrial Services Manager
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6.4.5 Regulatory Agency – Minnesota Pollution Control Agency

Contact 1:
Ms. Shanna Schmitt, Project Manager
Voluntary Investigation and Cleanup (VIC) Program
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St. Paul, MN 55155-4194
Phone: (651) 757-2753 (office)
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Contact 2:
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MPCA
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Email: mark.koplitz@state.mn.us

6.4.6 Regulatory Agency – U. S. Environmental Protection Agency (EPA)

Contact:
Mr. Tom Barounis
U.S. EPA - Region 5
Mailcode SR-6J
Ralph H. Metcalfe Building
77 West Jackson Boulevard
Chicago, IL 60604
Phone: (312) 353-5577 (office)
Email: Barounis.Thomas@epamail.epa.gov

6.4.7 Army Representative

Contact:
Mr. Mike Fix (or successor to be designated by the US Army)
US Army
470 West Highway 96, Suite 100
Shoreview MN, 55126
Phone: (651) 294-4930
Email: mike.fix@us.army.mil

6.5 SITE CONTROL

During all ACM ECP-related construction activities, Wenck will have an experienced MDH-certified Site Supervisor on-Site to oversee the excavation and handling of ACM-containing waste. The Site Supervisor will provide on-Site hazard evaluation of the encountered ACM wastes and coordinate communication

with the parties listed above as to the findings, recommended actions, or any change in status relative to the existing, approved work plans. Field activities shall not proceed until the situation is analyzed and Site health and safety considerations resolved.

While on-Site, the Site Supervisor will monitor samples for testing and disposition determination of any ACM wastes (i.e., chain-of-custody documentation, laboratory testing results, disposal manifests, etc.).

Public access to the Site will be restricted, and any compromised perimeter fencing that may allow unauthorized access will be promptly repaired. In the event that an exclusion zone is needed, the Site Supervisor will direct further response actions in conjunction with MPCA oversight.

7.0 Implementation Reporting

Upon completion of the Site grading and utility activities (i.e., all soil work) related to the TCAAP Redevelopment project, ACM-waste-containing soil removal activities will be documented in the project-related Site Construction Contingency Plan Implementation Report(s).