

ELECTRICAL TERMINATION PLAN

NUCLEAR METALS, INC. SUPERFUND SITE
NON-TIME CRITICAL REMOVAL ACTION
CONCORD, MASSACHUSETTS

General Contractor:



de maximis, inc.

200 Day Hill Road, Suite 200
Windsor, CT 06095

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Objective: This task plan provides a process to safely terminate the electrical systems within the buildings at the Nuclear Metals, Inc. Site (the “site”).

In order to terminate the electrical systems at the site and leave the buildings and structures in an electrically safe condition for follow on NTCRA activities, a Massachusetts licensed electrician shall follow the methodology summarized below. The work shall be performed in accordance with the 2012 edition of NFPA 70E, “the Standard for Electrical Safety in the Workplace”.

The utility company shall first terminate all known primary electrical feeds to the building from outside the building and remove all electrical meters. At all terminations, an air gap must be provided and, for each cable, it must be verified that “no electrical potential” exists.

The electrical utility shall provide written documentation of each building termination.

Prior to initiation of the electrician’s termination work, the electrician and *de maximis, inc. (de maximis)* shall perform a walk-down of each building to note building feeds, panels, motor control centers, distribution panels, electrical manholes, and transformers. Any overhead electrical lines existing on site, which are not owned by the utility company, shall be noted. The electrician will also review this plan to confirm that the information and approach in this plan are safe and acceptable.

The electrician shall terminate and permanently air gap any overhead electrical lines and feeds to any buildings. The electrician shall verify that no electrical potential exists in each cable immediately prior to cutting the cable. Electrical feeds into each building from overhead lines shall be verified to have no electrical potential.

The electrician shall verify that no electrical potential exists at the primary feeds to each building. At the main circuit boxes, the breakers and fuses shall be removed after verifying that no electrical potential exists. All circuits and phases in and out of the main circuit boxes shall be cut and each system shall be air gapped. Immediately prior to cutting each cable, the electrician must verify that no electrical potential exists. Each circuit box shall then be tagged out. Should electrical manholes exist on site, these also shall be de-energized in the same manner. All manhole entries shall be performed as confined space entry. Such entry, and all work performed under this task plan shall be performed pursuant to the Interim Health and Safety Plan and task-specific Radiation Work Permits, as appropriate.

Subsequently, at all other panel boxes, motor control centers, distribution boxes and transformers, all circuits shall be cut and air gapped. Immediately prior to cutting each cable, the electrician shall verify that no electrical potential exists. Once this is completed at each panel, the panel shall be tagged out. This will include all high voltage and low voltage systems.

All equipment and motors shall have all circuits cut and air gapped. Immediately prior to cutting each cable, the electrician shall verify that no electrical potential exists. Once this is

completed at each piece of equipment and/or motor, the equipment and/or motor shall be tagged out. Capacitors and other electrical storage devices shall have the electrical potential de-energized and shall be grounded and tagged out.

During the process of terminating panels, motor control centers, transformers, distribution boxes, equipment, and motors, the electrician shall mark up a building plan indicating the location of each termination, air gap, and tag out. A set of these record drawings shall be kept on site.

Prior to any additional non-electrical work, a walk down will be performed by the electrician and *de maximis* to verify that all equipment, breakers, panel boxes, distribution boxes, transformers, motor control centers, equipment, and motors have been terminated, air gapped, and tagged out. If any item is identified not to have been completed, it shall be immediately terminated, air gapped, and tagged out by the electrician during the walk down. Immediately prior to cutting each cable, the electrician shall verify no electrical potential exists.

The electrician shall provide written documentation of the building electrical terminations performed.

Subsequent to the completion of the electrician's shut down work, no cable or wire shall be cut until each cable or wire has been verified to have no electrical potential immediately prior to cutting the cable and/or wire.