

DUCT BANK POLICY

BACKGROUND AND GENERAL INFORMATION

Northwest Construction Site Supervision (i.e. Project Manager, Superintendent, Foreman) is responsible to identify and assess all existing and potential hazards for the scope of work to be executed. Site Supervision shall be committed to take action to eliminate, reduce, or control these hazards. Working on or adjacent to a Duct Bank poses the potentially fatal hazard of electrocution.

PURPOSE

The purpose of this policy is to mitigate the hazards associated with duct bank work and keep Northwest Construction teams and others working or present in the area of operations safe.

SCOPE

This policy applies to all Northwest Construction employees and all Northwest Construction employees conducting this type of work shall be trained on this policy and required to follow it.

SOURCE DOCUMENTS/EVALUATION TOOLS

1. Company on NWC - H:Policies, Procedures, Training and Resources Documents/Duct Bank Policy.doc

ASSOCIATED PROCEDURAL STEPSGENERAL RULES & GUIDELINES

No breaker attachment, jack hammer or chipper gun shall be used directly on or adjacent to a live electrical Duct Bank. This policy is without exception. Additionally, a buffer zone of 5 feet or 60 inches shall be maintained when a jack hammer, chipping gun or other impact tool is necessary for work near a known Duct Bank, exposed or unexposed.

When it is necessary to excavate material within this buffer zone to expose a Duct Bank, one of the following options shall be utilized:

1. **De-energization**- this is the preferred and best option.
 - A. The utility owner shall be contacted about the possibility to de-energize the utilities
 - B. If it is possible for the utility to be de-energized, the NWC Supervisor shall verify that the appropriate lockout/tagout or energy control devices are in place and that the utilities are free of energy sources.
2. **Alternate Excavation Methods**- When de-energizing the power is not an option, the following shall occur:
 - A. A written response from the Utility Owner shall be obtained recording denial of de-energization and reason, and;
 - B. A meeting shall be conducted with the Utility Owner to discuss the hazards posed by working near an energized Duct Bank, and.
 - C. The exact location of the Duct Bank shall be located; verified by using alternate excavation methods such as hydro excavation, visual or radar
 - D. Approved Comprehensive Work Plan- When all material within 5' of the duct bank cannot be removed by alternate excavation methods, a comprehensive Work Plan shall be completed and approved by the Northwest Construction Safety Manager and General Superintendent. This plan shall include the following items at a minimum:

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- a. Proposed method(s) for determining the exact location of the duct bank including both the depth of the utilities and the width
- b. A description how the dimensions of the duct bank will be visually marked
- c. Methods for protecting these utilities during excavation including names of competent spotter(s) to be used during the task
- d. Once approved, the plan shall then be reviewed with the crew and all hazards identified and controlled before starting work

When excavating within 5 feet (60 inches) of a live Duct Bank using option “D” above, the following shall be required:

1. All requirements listed under items 1 OR 2 above have been met, and;
2. A Northwest Construction Operator and Foreman or Superintendent experienced working around live utilities shall conduct the work, and;
3. The work area is delineated and secured, and;
4. A Safety Monitor (provided by the utility owner) has been requested in writing and response received and documented.

Locating Duct Banks

1. Locates for Duct Banks must follow the requirements outlined in the Northwest Construction Live Utility Program and Locate Policy including the following key steps:
 - a. Markings shall be maintained by Northwest Construction for 45 days after the official Locate is performed
 - b. Use of another contractor’s locate marks are prohibited
 - c. reliance on as-builts or other plans as the only source for locating power is never allowed, and
 - d. When the exact location of a Duct Bank is not identified using standard Locate methods, “Pot Holing” must be performed to verify exact location.

Pot Holing

After Locate Services have provided general Duct Bank location information to the best of their ability, it may be necessary to perform Pot Holing in order to verify exact locations. When this is necessary, the following procedures shall be followed:

1. Before potholing utilities, a thorough pre-task plan must be created for this activity with all employees involved in the potholing process participating in the creation of this plan
2. Following the pre-task planning discussion, a pre-task walk of the work area shall be conducted and additional hazards or changes in the process identified during the walk shall be included in the pre-task planning documentation
3. All information used for evaluation of the hazards and the method selected to mitigate them shall be documented.
4. The depth of solid surface material (asphalt / concrete) necessary to be removed shall be verified in order to expose material which may be removed utilizing hydro excavation techniques.
5. The length of the breaker or breaking device shall not exceed the depth of asphalt or concrete being removed.
6. The size and power of the equipment shall be sufficient to perform the work but not over-powered
7. The collection and consideration of all information available to determine the depth location of the duct bank shall be completed prior to breaking or saw-cutting on top of a duct bank
8. Potholing shall extend at least 3’ on either side of locate marks.
9. If the conditions change or new information is discovered, the operator and crew shall stop work and update the work plan incorporating the new conditions which have been assessed for potential hazards. Work shall proceed when those hazards have been eliminated or mitigated.

Saw-cutting and removal of surface material may proceed once the above requirements listed have been met.

Hydro Excavation

Hydro excavation is another method which may be utilized, but Northwest Construction operators and crews shall understand that Hydro-excavating does not eliminate all hazards and may introduce new and more serious hazards. The following is required of Sub-Contracted Hydro Excavators:

1. Hydro Excavators shall have a policy in place to mitigate hazards associated with their work.
2. Hydro Excavators working around high voltage shall wear electrical insulating gloves and boots

RESPONSIBILITIES

- 1) NWC Project Managers, Superintendents and Foremen are responsible for ensuring the implementation of the NWC Duct Bank Policy including the identification and elimination or reduction of hazardous risks including those risks associated with duct banks.
- 2) NWC Superintendents and Foremen responsible for work on a NWC jobsite are specifically responsible for
 - a. Obtaining and confirming current locates for duct banks on each jobsite before work commences.
 - b. Marking and refreshing marks of all Duct Banks in accordance with the policy
 - c. Preparing Pre-task Planning Reports and conducting Pre-task Planning Meetings which clearly present all risks associated with Duct Bank work including operational plans for Pot Holing & Hydro Excavation
 - d. Conducting job walks to clarify all risks associated with Duct Bank operations
- 3) All NWC employees, particularly Operators and Laborers are responsible for reading and understanding the Duct Bank Policy and asking questions to ensure all risk-eliminating and reducing actions are taken

DEFINITIONS

“Duct Bank: For the purpose of this policy, this includes any group (two or more) electrical, fiber, or other communication utility. Please note: these utilities do not have to be encased by concrete or other similar material to be considered a “duct bank”.

DOCUMENT HISTORY

Last Amended: 10/14/2020

First Approved: 01/01/2016

ACKNOWLEDGMENT

By signing below, I acknowledge that I have received, read, and understand the Northwest Construction **Duct Bank Policy**. I have had an opportunity to ask question to ensure my understanding and verify how this Program and Policy shall direct my work.

Employee Signature

Date

Employee Name (Printed)

Print Date: August 15, 2021

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Version Date: _____, __, ____