

**NORTH BEACH WATER DISTRICT
PACIFIC COUNTY, WASHINGTON**

RESOLUTION NO. _____

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF NORTH BEACH WATER DISTRICT, PACIFIC COUNTY, WASHINGTON, ADOPTING A STANDARD OPERATING PROCEDURE FOR WORKING WITH ASBESTOS CEMENT PIPE.

WHEREAS, North Beach Water District (District) maintains over 25 miles of asbestos cement pipe in its water distribution system; and

WHEREAS, the District's Board of Commissioners (Board) considers the safety of its employees of paramount importance; and

WHEREAS, the General Manager, in cooperation with the Washington State Department of Labor & Industry's Division of Occupational Safety and Health and the Olympic Regional Clean Air Agency, has developed a "Standard Operation Procedure working with Asbestos Cement Pipe".

NOW, THEREFORE, NORTH BEACH WATER DISTRICT BOARD OF COMMISSIONERS DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Adoption:

The "Standard Operation Procedure working with Asbestos Cement Pipe" (SOP-ACP) attached hereto and incorporated herein as Exhibit A is hereby approved and adopted.

Section 2: Implementation:

The General Manager is hereby authorized and instructed to implement SOP-ACP without delay.

Section 3: Training and Equipment:

The General Manager is authorized and instructed to procure personal protective equipment, training, tools, and equipment identified in SOP-ACP.

ADOPTED by the Board of Commissioners on North Beach Water District, Pacific County, Washington at its special meeting held on the 17th day of September, 2018.

Brian Sheldon, Commissioner
Position #1

Glenn Ripley, Commissioner
Position #3

Gwen Brake, Commissioner
Position #2

Exhibit "A"

NORTH BEACH WATER DISTRICT

"Standard Operating Procedures working with Asbestos Cement Pipe"

A. PURPOSE:

North Beach Water District (District) places the highest value on employee safety. Being consistent in providing a safe and healthy workplace for all employees and to help make fieldwork as safe as possible, the following safe work procedures have been developed for working with Asbestos Cement Pipe (AC Pipe).

These procedures will assist District to establish itself as a leader in our community and the water industry by providing our employees with training and equipment to protect themselves from hazards and injuries. Once hazards are identified and evaluated, every effort will be made to eliminate or control them through engineering or administrative measures. Good design and engineering practices will be used to eliminate or reduce hazards in the design of facilities and projects. However, when hazards cannot be eliminated, Personal Protective Equipment (PPE) will be required.

This policy defines the use of appropriate work practices and PPE necessary to protect employees from hazards associated with working with AC Pipe.

All employees and managers are responsible for the success of this policy and will be held accountable for deviations. Both employees and Management are dedicated to promoting safe work and safe job sites. Any violation of the policy will be subject to progressive disciplinary action, up to and including termination of employment.

B. Scope:

Work involving repairing, disturbing and/or removal, of AC Pipe must follow these outlined safety procedures. This procedure applies to District employees and contractors. No methods can be used that intentionally cause AC pipe to shatter, crumble, be pulverized, or release asbestos fibers. This means that we are not permitted to sand, power saw, grind, chip or use power tools of any kind on AC Pipe. Provided District employee's follow the procedures and methods outlined in this Standard Operating Procedure (SOP), licensed asbestos abatement contractors and worker and supervisor certifications are not required.

C. RESPONSIBILITIES

1. District will provide support and commitment to furnish affected employees with the appropriate training and equipment to protect themselves from known hazards working with and around AC pipe.

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Whenever possible, District will attempt to eliminate hazards of AC pipe by means of engineering controls and design.

2. The Water System Manager will provide and document all training and education for employees; and provide Supervisors with assistance and support in the administration and maintenance of the program.
3. Managers and Supervisors will ensure that these procedures are implemented and ensure compliance by the crew. They will also ensure that all equipment necessary for AC pipe work is available, in good working order and in use whenever working with AC pipe.
4. Employees are responsible for following these procedures, including utilizing training and equipment provided. Employees who violate this policy will be subject to disciplinary action.
5. The Competent Person is capable of identifying existing and predictable hazards in the surroundings or work conditions which are unsanitary, hazardous, or dangerous to employees and has the authority to take prompt corrective measures to eliminate them.

NOTE: It is important to note that the work practices and conditions describe in this SOP must exist and be maintained at all times. If there are any deviations in conditions, practices or procedures outside the scope of this SOP, a Competent Person must have a higher level of skills and training as outlined in OSHA 's 1926.1101 Asbestos Standards and the EPAs 40 CFR 763.92

D. TRAINING

1. All employees involved in AC pipe work must receive Asbestos Awareness Training approved by the Washington State Department of Labor and industries' (WSDL&I) asbestos certification program. The training will include this SOP.
2. Training will be refreshed at least annually or as needed.
3. All training and refresher sessions will be documented. Documentation will be filed with District's Safety File system.

E. SAFETY PROCEDURES

1. Wet methods will be used to prevent release of airborne asbestos fibers. This requires use of a sprayer with water to be used prior and during all work in AC pipe. The pipe exterior will be sprayed down with water prior to and during removal or repair work.

Exhibit "A"

2. No power tools will be used on AC pipe. Only approved hand tools will be used.
3. Approved Tools:
 - a. *Hand saws* may be used to cut AC pipe provided copious water spray is applied to the area of AC pipe during the cutting process to suppress creation of dust
 - b. *Snap cutters* ("squeeze-and pop" equipment) operate by means of cutting wheels mounted in a chair wrapper around the pipe barrel. Hydraulic pressure, applied by means of a remote, pneumatically, or manually operated pump, squeezes the cutting wheel into the pipe wall until the cut is made. This type of cutting with water sprayed minimizes the release of asbestos fibers.
 - c. *Roll cutters* that cut the pipe as the cutting edge of the rollers are tightened down as pressure is applied manually to the cutters as they circle the pipe. This type of cutting with water sprayed on the pipe minimizes the release of any asbestos fibers. Cutting wheels are wiped before use to remove any lubricant that might bond with any fibers and wiped cleaned after use.
 - d. *Wet Tapping AC Pressure Pipe* for service connects is performed in the trench while the pipe is under pressure. The equipment is affixed to the pipe by means of a chain yoke. A combination boring and inserting bar drills and taps the pipe wall and inserts a corporation stop or pipe plug. The pressure chamber, which protects against water leakage, also catches the asbestos cement chips, so this is essentially a dust free operation. To minimize fouling of valves, regulators, meters, and other equipment with chips or unnecessary addition of asbestos to drinking water a positive purge or blow-off features should be used on the equipment. (NOTE: There will be no dry AC pipe tapping as only non-A.C pipe is used for new installation or repair). Bolts for all fittings and sleeves should be placed so the nuts are on the non-asbestos side of the pipe, which prevents the AC pipe from being rubbed by the wrenching and tightening of the bolts.
 - e. *Bristle Brush* to smooth cutting surface may be used only with copious water spray to suppress any dust.
 - f. *Use of Cold Chisel and Hammer to remove coupling from AC pipe*: When possible, the intact section would be removed not requiring a coupler to be removed but this is not always possible. AC coupling removal must be done by gradually splitting the coupling lengthwise using a chisel

Exhibit "A"

and hammer while applying water spray to the coupling. After the coupler has been split a crowbar or similar tool is used as a lever to split the bottom of the coupling. The pieces must be bagged in asbestos disposal bag(s). The coupling will be wetted until properly bagged.

- g. Various other fittings may be used in the repair or maintenance of AC pipe, including various pressure collars, provided they do not result in damage to the AC pipe.
 - h. *Safety Equipment:* AC pipe safety equipment will be stored and available at the J Wellfield Storage Building. The equipment must include:
 - i. A laminated copy of this SOP;
 - ii. Gloves;
 - iii. safety glasses;
 - iv. ear plugs;
 - v. appropriate disposable polypropylene suits;
 - vi. towels;
 - vii. hand cleaner;
 - viii. disposal bags;
 - ix. duct tape;
 - x. flash light;
 - xi. warning signs and barrier tape.
4. Required Personal Protective Equipment:
- a. *Employee personal protective clothing:* To further safeguard our employees' the following PPE is required:
 - i. Polypropylene disposable suits or raingear appropriate for the hazard;
 - ii. Rubber boots;
 - iii. Gloves with plastic cover hands and canvas back will be worn when working with AC pipe;
 - iv. Safety Glasses;
 - v. While testing has shown that proper procedures do not result in any detectable fiber exposure employees have the option of wearing the N-100 disposable dust masks. Since exposure to asbestos occurs primarily through inhalation, the use of respiratory protection is recommended.

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NOTE: The use of disposable dust masks (N-100) is NOT an acceptable practice under the OR-OSHA Asbestos Standard (1926.1101). Air-purifying respirators equipped with N-100 cartridges are acceptable. While these procedures recognize airborne exposure to asbestos fibers from non-friable asbestos cement pipe would not pose a hazard, a best practice is to avoid using disposable dust masks (filtering facepieces) and to use air-purifying respiratory protection, even for voluntary use.

- b. The polypropylene disposable suits or raingear will be secured and sealed to the ankles and wrists by applying duct tape at the cuffs if necessary.
5. Establish "Controlled Zone"
- a. A "Controlled Zone" will be established for all work involving AC pipe. The following are guidelines for establishing and maintaining a "Controlled Zone".
 - i. Establish a perimeter 5 to 10 feet back from the leading edge of any excavation, hole or trench.
 - ii. Set cones or barricades strategically around the perimeter.
 - iii. Thread "Danger Tape" around the perimeter and attached to the cones or barricades.
 - iv. Set the "Authorized Personnel Only" signs around the outside of the "Controlled Zone".
 - v. Only authorized and properly outfitted personnel may enter the "Controlled Zone".
6. Disposal and Decontamination Procedures
- a. All tools must be cleaned before leaving the Control Zone to remove asbestos cement debris which could build-up on the tool or blades during use. Water used for cleaning of tools will be contained in the ditch prior to backfill.
 - b. All removed AC pipe and AC debris will be wetted down and properly double bagged in approved asbestos disposal bags before removal from the Control Zone. Employees will place the bagged AC pipe and AC debris in the Asbestos Trailer and lock and tow the Asbestos Trailer back to the G Street Storage Shop.
 - c. The disposable coveralls and rubber gloves will be properly double bagged in approved asbestos disposal bags while the workers are still inside the "Controlled Zone". Employees will place the bagged disposable coveralls and rubber

Exhibit "A"

gloves in the Asbestos Trailer and lock and tow the Asbestos Trailer back to the G Street Storage Shop.

- d. Rubber boots and rain gear must be washed off removing dirt and debris while in the Control Zone. Waste water from washing boots and rain gear will be contained in the ditch prior to backfill.
- e. Proper bagging will consist of placing the AC pipe and debris in an approved asbestos disposal and duct taping the top of the bag to seal it. The top of the bag will then be folded over the bag and tapped flat to the bagged AC pipe. The process will be repeated to accomplish a double bagged enclosure when complete.
- f. Waterless hand cleaners and water will be available for employee's hand and face cleaning after removing the Personal Protective Equipment.
- g. Once cleaned, all tools and supplies will be returned to the J Wellfield Storage Building. All tools and supplies will be restocked after each use.

7. Periodic Air Monitoring

If there are needed changes to work procedures or the condition of AC pipe is friable and unstable, work must cease immediately. A Competent Person, as defined by WAC 296-62-07703, must evaluate the situation to determine what actions are necessary, including air monitoring, respiratory protection, training, or any other required actions. Air monitoring will be done when the Competent Person has reason to believe that there has been a change in the operation, which could affect airborne exposure.

8. Safe Work Procedure Checklist

The Field Superintendent and crew chief will use, follow and document safe work procedures on a checklist (attached). Use of the Safe Work Procedure Checklist will help:

- a. Identify potential AC pipe work needs prior to commencing work.
- b. Ensure that crew entire has appropriate asbestos awareness training and refreshers.
- c. Ensure basic protective equipment and tools are available and in good repair and clean.
- d. Ensure basic control equipment are available and in good repair and clean.

Exhibit "A"

F. DOCUMENTATION

All training, refresher sessions, checklists and annual reviews or audits will be documented. Documentation will be filed with the ENTITY NAME Safety File system.

G. KEY PERFORMANCE INDICATORS

1. Documentation of training, checklists and audits or reviews.
2. Field audits during actual operations.

H. AUDITS AND REVIEWS

1. Field audits by the Water System Manager or the Field Superintendent will be conducted as opportunities present themselves.
2. Conduct SOP reviews whenever there is reason to believe or field audits indicate that there is a need to review and/or revise this SOP because of observed deviations and violations of this SOP.
3. Supervisors and safety staff are readily available to address employee concerns, questions, and/or assist with work activities.

I. ATTACHMENTS

1. Safe Work Procedure Checklist.

SAFE WORK PROCEDURE CHECKLIST

The Field Superintendent or the crew chief will ensure this checklist is reviewed and completed before any work involving AC pipe commences. This checklist must be fully completed, signed and dated. The completed checklist will be forwarded to the District General Manager.

Training:

- All crew members have been trained to the SOP for AC pipe work: yes
 No

Equipment:

- Laminated SOP
- Hand Saw
- Extra Blades
- Adequate Supply of Spray Water
- Asbestos Disposal Bags and Duct Tape
- Waterless Hand Cleaner
- Large Wipes for Cleaning Tools and Equipment
- Disposable Polypropylene Suits
- Safety Glasses
- Rubber Gloves
- Rubber Boots
- Repair Tools and Materials
- N 100 Face Masks

By my signature, I verify that all the items above are on site or have been reviewed or verified.

Print Name: _____

Address of Work Site: _____

Date Work Conducted: _____