

**ECS Sprinkler System Pipe Corrosion Analysis** involves sectioning and media blasting the fire sprinkler system pipe sample to allow for visual inspection of the piping component. The Engineered Corrosion Solutions Interpretation and Analysis Report presents a description of the characteristics of the metal loss, evaluation, and measurements of any pitting that has occurred and the most likely cause for the metal loss and failure (if present).

### Procedure For Pipe Sample Collection and Sample Preparation

- Step 1** If pinhole leak is present on fire sprinkler piping, locate and **mark** pinhole leak/failure with a grease pencil or indelible ink marker.
- Step 2** Before removal of piping section, indicate the pipe sample's orientation by marking "TOP" at the 12 o'clock position of the pipe.
- Step 3** Remove an approximately 12 to 18 inch section of fire sprinkler pipe with pinhole leak/failure located in the middle of the pipe section.
- OR**  
If no pinhole leak/failure is present, remove approximately 12 to 18 inch section of fire sprinkler pipe which exhibits the most corrosion damage.
- Step 4** Allow liquid to drain from pipe sample.
- Step 5** Wrap both ends of the pipe sample with plastic and seal with tape or rubber-band to preserve sediment.  
**EXTERNAL CORROSION** – place individual sample into a plastic bag or container to avoid contamination from outside sources (i.e. other pipe samples)
- Step 6** Place Pipe Sample in Shipping Container.
- Step 7** Complete one **Pipe Sample Information Form** for each pipe sample, clearly identifying the sample, and place the form with the sample in the shipping container. Provide as much of the information as available.
- Step 8** Ship Pipe Sample and Pipe Sample Information Form to:

**Engineered Corrosion Solutions  
Attn: ECS Consulting Group  
11336 Lackland Road  
Saint Louis, MO 63146  
+1 314.432.1377**

**Customer Information:**

Contact Name: \_\_\_\_\_ Company: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip: \_\_\_\_\_ Phone: \_\_\_\_\_ PO#: \_\_\_\_\_  
Email: \_\_\_\_\_

**Sample Location:**

Facility: \_\_\_\_\_ Address: \_\_\_\_\_

**System Information (check one):**  Dry Pipe  Preaction Dry Pipe  Wet Pipe  Supply

**Dry or Preaction Air Supply (check one):**  Air Compressor  Nitrogen Generator  Other \_\_\_\_\_

**Wet Pipe Water Source (check one):**

Municipal (City) Water  Water Well  Pond or Lake  Water Storage Tank

**Approx. Age of System:** \_\_\_\_\_ years

**Pipe Sample Information:**

Date Collected: \_\_\_\_\_

Location (check one):  Riser  Main  Branch Line  Other \_\_\_\_\_

Pipe Diameter (inches): \_\_\_\_\_

Pipe Schedule (check one):  Schedule 40  Schedule 10  Schedule 5/7  \_\_\_\_\_

Pipe Orientation (check one):  Horizontal  Vertical

**System Operation Pressure:**

Wet System: Water Pressure \_\_\_\_\_ psi

Dry/Preaction System: Water Pressure \_\_\_\_\_ psi Maintenance Gas Pressure \_\_\_\_\_ psi

**System Leak History:** (e.g. recent leaks when and where, number of leaks) \_\_\_\_\_

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**Send Sample(s) To:**  
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