IPRenewal NPEmails

From: Green, Kimberly
Sent: Thursday, February 03, 2011 3:48 PM
To: STROUD, MICHAEL D
Cc: IPRenewal NPEmails
Subject: Draft RAI on Buried Piping and Tanks Inspection Program
Attachments: New Buried Pipe RAI 02-03-11.doc

Mike,

Attached is a draft RAI on soil characteristics. This will be added as part of D-RAI 3.0.3.1.2-1 that was previously sent to you. Please let me know if you require a telecon for clarification.

Thanks,
Kimberly Green
Safety PM
(301) 415-1627
kimberly.green@nrc.gov

Hearing Identifier: IndianPointUnits2and3NonPublic_EX
Email Number: 2273

Mail Envelope Properties (F5A4366DF596BF458646C9D433EA37D76E0ED0B8A5)

Subject: Draft RAI on Buried Piping and Tanks Inspection Program
Sent Date: 2/3/2011 3:47:54 PM
Received Date: 2/3/2011 3:47:55 PM
From: Green, Kimberly

Created By: Kimberly.Green@nrc.gov

Recipients:
"IPRenewal NPEmails" <IPRenewal.NPEmails@nrc.gov>
Tracking Status: None
"STROUD, MICHAEL D" <MSTROUD@entergy.com>
Tracking Status: None

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MESSAGE	345	2/3/2011 3:47:55 PM
New Buried Pipe RAI 02-03-11.doc	35834	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
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D-RAI 3.0.3.1.2-1

Issue:

6. LRA Sections A.2.1.5 and A.3.1.5 states that corrosion risk will be determined through consideration of material, soil resistivity, drainage, presence of cathodic protection and type of coating. Given that cathodic protection has not been installed for all buried in-scope piping, the staff lacks sufficient information to conclude that the applicant's evaluation of soil corrosivity will provide reasonable assurance that in-scope buried piping will meet its intended license renewal function(s). Specifically, the staff is concerned with the following:

    a. While the applicant stated that it will include consideration of soil resistivity and drainage, it did not state that other important soil parameters would be included such as, pH, chlorides, redox potential, sulfates and sulfides.
    b. The applicant did not state how often it will conduct testing of localized soil conditions, nor provide the specific locations relative to buried in-scope piping that is not cathodically protected.
    c. The applicant did not state how they would integrate the various soil parameters into an assessment of corrosivity of the soil, such as using "Assessment of Overall Soil Corrosivity to Steel,"[1] or AWWA C105[2].
    d. The applicant did not specifically state how localized soil data will be factored into increased inspections, including the specific increase in the number of committed inspections by material type and location.

Request:

6. Respond to the following for buried in-scope steel piping without cathodic protection:

    a. State what soil parameters will be included in the analysis of soil corrosivity beyond soil resistivity and drainage.
    b. State how often soil sampling will be conducted and in what locations.
    c. State how the various soil parameters will be integrated into an assessment of the corrosivity of the soil.
    d. State how localized soil conditions will be factored into increased inspections, including the specific increase in the number of committed inspections by material type and location.

[1] Assessment of Overall Soil Corrosivity to Steel, C.P. Dillon, *Corrosion Control in the Chemical Process Industries*, Second Edition, Materials Technology Institute of the Chemical Process Industries, Inc. and Washington Suburban Sanitary Commission.
[2] ANSI/AWWA C105/A21.5, "Polyethylene Encasement for Ductile-Iron Pipe Systems."