

IPRenewal NPEmails

From: Green, Kimberly
Sent: Tuesday, April 21, 2015 3:53 PM
To: Louie, Richard (rlouie@entergy.com)
Subject: Additional Questions for ACRS Presentation
Attachments: Additional Questions.doc

Rich,

Attached are questions that were provided to the staff to aid in its preparation for the ACRS meeting. In order that Entergy may also be prepared, these questions are being provided to you.

Kim

Hearing Identifier: IndianPointUnits2and3NonPublic_EX
Email Number: 5084

Mail Envelope Properties (Kimberly.Green@nrc.gov20150421155300)

Subject: Additional Questions for ACRS Presentation
Sent Date: 4/21/2015 3:53:06 PM
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From: Green, Kimberly

Created By: Kimberly.Green@nrc.gov

Recipients:
"Louie, Richard (rlouie@entergy.com)" <rlouie@entergy.com>
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IP1 Systems:

IP2 and IP3 share some systems with IP1. What type of program is available when/if needed? What IP1 equipment has been identified to be included in scope?

Buried Piping Inspections:

What did the result of the buried piping inspections for IP2 show to be the condition of the piping?

Have inspections been conducted for IP3? If so, what did the inspections show to be the condition of the piping?

Cathodic Protection:

Additional systems were to be added to the program. What systems were added to the program?

What is the status of the additional systems to be covered? If the system is now complete, what is its availability? Entergy stated the systems availability will be 85 percent or more, with 80 percent or more of the test points meeting the 85 percent criteria.

Is the system meeting these goals?

Structures Monitoring Program:

The action plan for the Unit 2 refueling cavity leakage utilizing acoustic monitoring to locate defective weld locations was utilized during the 2012 refueling outage. Repairs to the defective welds were to commence during the 2014 refueling outage, has this work been completed?

Entergy committed (Commitment 36) to perform a one-time inspection and evaluation of a sample of potentially affected IP2 refueling cavity before September 28, 2013 to assess the condition of concrete and reinforcing steel in the cavity wall in an area susceptible to exposure to boric acid water leakage. Results showed the condition of the concrete and rebar to be satisfactory.

Has the leakage been stopped? If not, what is the action plan going forward?

Buried Piping and Tanks Inspection Program:

With regard to the leak in the CST return line identified in 2009, Entergy conducted 6 additional inspections in 2009 at lower level elevations of the service water and auxiliary feedwater systems based on their location having highest risk for corrosion.

- What were the results of the lower level elevation inspections?
- Entergy's Commitment 48, indicates that the committed inspections for IP2 have been completed. What were the results? (Any deficiencies noted?)
- What is the status of the inspections for IP3 which are to be completed in December of this year.

- What type of inspections have been performed on the buried IP2 and IP3 tanks and what have inspections shown to be their condition.

Above Ground Steel Tanks:

What tanks at the site are included in this category? Are there any Unit 1 tanks on the list?

What have been the results of the inspection program regarding these tanks? If corrective action was required was it effective in preventing reoccurrences?

Containment Inservice Inspection Program

Visual inspection of the exterior of IP2 containment during 2000 outage documented some 22 of indications of concrete pop-out, (exposed rebar).

What was Entergy's action plan?

Has there been any additional pop-out identified?

What is the condition of the interior surface of the containment liner?

IP2 and IP3 have a unique design feature with thermal insulation on the steel liner plate at lower elevations of the containment wall. The insulation is credited with limiting the liner temperatures to 80° during a design basic accident. The applicant states the insulation does not require aging management.

Does it ever get inspected for damage or missing sections that would affect its ability to perform its design function?

How does the liner that is covered by this insulation get inspected?

IP2 Containment Spalling

The spalling was identified in 2000. The spalls occur at locations where cadwel sleeves have insufficient concrete coverage. Remedial action has not been taken. Spalling will continue to be monitored.

Does IP3 exhibit any containment Issues?

IP2 Auxiliary Feedwater (AFW) Pump Room Fire:

The LRA describes a combination of systems, (some from IP1), that would be used to provide water to the IP2 steam generators in the event of a fire in the AFW pump room.

Upon questioning this arrangement from the NRC staff, the applicant committed to install a fixed automatic fire suppression system in the AFW pump room.

How is this issue handled at IP3?

Unit 1 Systems that are Relied upon by Units 2 and 3

The IP2 fire protection system utilizes IP1 Fire Pumps, Valves, Strainers, and Fire Extinguishers. Is this IP1 equipment in scope for IP2 for license renewal?

IP1 fire protection system has two interconnections with IP3. Is this IP1 piping covered in IP3 fire protection system for license renewal?

Has the site experienced any failures of buried piping in the fire protection system?

Water Control Structures:

The discharge canal and outfall structure are included in scope for license renewal. Are there periodic inspections conducted of this area? If so what has Entergy observed regarding any deficient conditions?

An inspection conducted in 2008 noted degraded conditions, some of which were not repaired. They were deemed not to compromise intended functions.

Entergy committed to more frequent inspections (every three years). What have been the results of recent inspections? Have the degraded conditions identified in 2008 been corrected?

Fuel Oil System:

The fuel oil systems cover IP2 and IP3 emergency diesel generators, IP2 security Generators, and IP2 and IP3 fire protection diesel fire pumps.

The system for IP2 includes a 1,000,000 gallon IP2 fuel oil tank and associated unit components. Does the 1,000,000 gallon storage tank also provide fuel oil to IP3 via some piping system?

Are all surface tanks and buried tanks that contain fuel oil for the emergency diesel generators covered by an AMP?

Although the system description states the 1,000,000 gallon tank and associated piping are not required to support the fire diesel pumps or emergency diesel generators, it still is a large volume of fuel oil that is required to be stored safely. Does the site include this tank in any inspection program to ensure its integrity?

Appendix R Diesel Generators:

IP2 SBO/Appendix R diesel generator (installed in the IP1 turbine building).

What type or inspection program covers the area of the turbine building that houses this diesel generator?

The IP3 SBO/Appendix R diesel is located in a separate structure in the yard area. Is this structure covered in some site inspection program?

Compressed Air Systems:

Does IP2 utilize the high capacity output air compressors from IP1 for compressed air use on a regular basis? If so, are the IP1 compressors and equipment covered by some preventive maintenance program?

Electric Tunnels:

These tunnels are partially below – grade, seismic 1 concrete structures. Are these tunnels subject to water intrusion and cable flooding? If so, is there an inspection program in place?

Non-EQ Inaccessible Medium-Voltage Cables:

This program includes periodic inspections for water collection in cable manholes. What has been the site experience with water accumulation in these manholes?

How often are inspections conducted? Has Entergy considered additional inspections during periods of heavy rain?

Control Room Heating, Ventilation and Cooling

The IP2 Control Room HVAC System is designed to handle all modes of operation; normal, high radiation, and toxic gas/smoke.

Since the station design has IP1 and IP2 share a central Control Room, what action is taken by IP1 ventilation system and personnel in event of a high radiation or toxic gas/smoke event?

Fire Protection-Water

IP2 Fire Protection System utilizes as its water source two storage tanks, a 1.5 million gallon tank and an IP1 300,000 gallon fire water tank.

Also included in this system are the IP1 fire pumps and some IP1 fire protection components, hydrants, valves, fire extinguishers and strainers.

If the IP1 equipment that is utilized for fire fighting covered by an aging management program?

One-Time Inspection ASME Code Class 1, Small Bore Piping

In the Safety Evaluation Report, the applicant claims that “inspections” to date at IP2 and IP3 have not revealed any indications of cracking in the ASME Code Class 1 Small Bore Piping Components for the Units.

- What type inspection has Entergy performed?
- Were socket welds inspected by volumetric examinations, or destructive examination?
- How many Butt/Socket welds were inspected?