

50-250/251

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ATTACHMENT 1  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION  
DATED JANUARY 24, 2001 FOR THE REVIEW OF THE  
TURKEY POINT, UNITS 3 AND 4,  
LICENSE RENEWAL APPLICATION

SUBSECTION 2.3.3.14      FIRE PROTECTION

RAI 2.3.3.14-1:

On Fire Protection License Renewal Boundary Drawings, 0-FP-04 and 0-FP-05, fire hydrants are shown as being within the scope of license renewal. Fire hydrants are neither listed in section 2.3.3.14 - Fire Protection, of the License Renewal Application (LRA) nor in Table 3.4-14 - Fire Protection. Clarify why fire hydrants are not included in the fire protection portion of the LRA.

FPL RESPONSE:

For aging management review purposes, fire hydrants were categorized as component type "Valves". They are listed in the License Renewal Application (LRA), Table 3.4-14 (pages 3.4-73 and 3.4-76), as "Valves, Piping/fittings", "Cast iron".

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RAI 2.3.3.14-2:

The LRA application, Section 2.3.3.14 - Fire Protection, states that fire extinguishers, fire hoses, and air packs are not subject to an AMR. The March 10, 2000, letter from C. I. Grimes to D. J. Walters, which is referenced in Section 2.3.3.14 is not a generic exemption, it allows 'plant specific' exclusions when the applicant (1) identifies and lists in the LRA each component type subject to such replacement, and (2) identifies the applicable programs that conform to appropriate standards (e.g., for fire protection components - applicable NFPA standards and 42 CFR Part 84). Although the letter is referenced in the LRA, plant specific programs are not delineated. Identify the applicable programs and appropriate standards for structures, systems and components which rely on the exclusion allowed by the Grimes to Walters letter.

FPL RESPONSE:

These components are excluded from an aging management review under 10 CFR 54.21(a)(1)(ii) in that they are replaced based on condition. As provided by the March 10, 2000, letter from C. I. Grimes to D. J. Walters, the LRA, Subsection 2.3.3.14 (page 2.3-34), states that "Fire extinguishers, fire hoses, and air packs are not subject to an aging management review because they are replaced based on condition in accordance with National Fire Protection Association (NFPA) standards and plant surveillance procedures for fire protection equipment."

The following standards are utilized as the basis and guidance for inspection and replacement in accordance with various internal FPL procedures:

NFPA 10, "Portable Fire Extinguishers"  
NFPA-14, "Standpipe and Hose Systems"  
ANSI Z88.2, "Practices for Respiratory Protection".

Additionally, the Nuclear Electric Insurance Limited (NEIL), Property Loss Prevention Standard, Appendix R of 10 CFR 50, and various NUREG reports and NRC Regulatory Guides are utilized for guidance.

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RAI 2.3.3.14-3:

Section 2.4.2.10 - Fire Rated Assemblies, states that fire dampers were evaluated in section 2.3.3.14 - Fire Protection. Although there is a reference to fire dampers in section 2.3.3.14 - Fire Protection, fire dampers are not listed in Table 3.4-14 - Fire Protection. Include fire dampers in the scope of license renewal, or justify this apparent discrepancy. Include fire dampers in the AMR, unless they are considered active components. If considered active, provide a basis for the damper housing (frame and sleeve for curtain damper or housing for butterfly type dampers) and fusible link being considered active components.

FPL RESPONSE:

Fire dampers were determined to be within the scope of license renewal consistent with 10 CFR 54.4. Fire dampers do not appear in Table 3.4-14 because they are active components and not subject to an aging management review consistent with 10 CFR 54.21(a)(1)(i) and the guidance of NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR 54 - The License Renewal Rule", Revision 2, Section 4.1.2 and Appendix B. The fire damper housing and fusible link are considered piece parts of the damper, which is an active component, and thus were not evaluated separately.

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RAI 2.3.3.14-4:

Section 2.3.3.14 - Fire Protection, states that Halon suppression systems will be considered in the LRA. The Halon suppression system for the Cable Spreading Room is required specifically by 10 CFR 50.48's reference to 10 CFR 50 Appendix R. Neither Halon suppression system components nor the Halon suppression system as a whole appears to be included in Tables 3.4-14 or 3.6-12. The components which appear to be missing from the table include, but are not limited to, Halon cylinders, Halon nozzles, nitrogen cylinders, Halon piping, pilot heads, pilot lines, pilot valve bodies, and auxiliaries. Include these components in the scope of license renewal. Also, discuss if these components should be subject to an AMR and provide justification for those components that are not subject to an AMR.

FPL RESPONSE:

Halon Suppression is included as part of Fire Protection in Subsection 2.3.3.14 (page 2.3-34) of the LRA. All Halon Suppression components, as depicted on drawing 0-FP-08, were determined to perform or support license renewal system intended functions and are within the scope of license renewal. Except for nitrogen and Halon cylinders, Halon nozzles, and flexible hoses, all components of Halon Suppression were included in an aging management review.

Nitrogen cylinders are monitored routinely and replaced based on condition replacement criteria, therefore, nitrogen cylinders are considered short-lived and do not require an aging management review.

Halon cylinders and flexible hoses are also monitored and/or inspected on a specified frequency, however, the Halon cylinders and flexible hoses are not normally replaced. Therefore, the Halon cylinders and flexible hoses are not short-lived and should have been included in an aging management review. Additionally, the Halon nozzles were inadvertently omitted from Table 3.4-14 of the LRA. As a result, Table 3.4-14 should include these components as shown in the table below.

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TABLE 3.4-14  
FIRE PROTECTION

Component/ Commodity Grouping	Intended Function	Material	Environment	Aging Effects Requiring Management	Program/ Activity
Internal Environment					
Halon cylinders	Pressure Boundary	Carbon Steel	Air/Gas	None	None Required
Flexible hose	Pressure Boundary	Wire reinforced Rubber	Air/Gas	Cracking	Fire Protection Program
Halon Nozzles	Spray Pattern	Aluminum	Air/Gas	None	None required
External Environment					
Halon cylinders	Pressure Boundary	Carbon Steel	Outdoor	Loss of Material	Fire Protection Program
Flexible hose	Pressure Boundary	Wire reinforced Rubber	Outdoor	Cracking	Fire Protection Program
Halon Nozzles	Spray Pattern	Aluminum	Indoor - air conditioned	None	None required

Other Halon Suppression components that require an aging management review are included in the LRA as follows:

- 1) Valves are included in component type, "Valves, tubing/fittings", "Copper alloy" in Table 3.4-14 (page 3.4-73).
- 2) Halon piping/fittings are included in component type, "Piping/fittings", "Carbon steel - galvanized" in Table 3.4-14 (page 3.4-73).

Additionally, Table 3.4-14 of the LRA should include the aging management review results for valves and piping/fittings exposed to an external environment of "Indoor - air conditioned". The relevant information for these components is included in the table below.

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FIRE PROTECTION

Component/ Commodity Grouping	Intended Function	Material	Environment	Aging Effects Requiring Management	Program/ Activity
External Environment					
Valves	Pressure Boundary	Copper Alloy	Indoor - air conditioned	None	None required
Piping/ Fittings	Pressure Boundary	Carbon Steel Galvanized	Indoor - air conditioned	None	None required

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RAI 2.3.3.14-5:

Section 2.1.1.4.1 Fire Protection Scoping states that the UFSAR, licensing correspondence, and design basis documents were used for scoping. The Turkey Point fire protection license condition includes the following NRC SERs by reference: March 21, 1979 (supplemented by letters dated April 3, 1980, July 9, 1980, December 8, 1980, January 26, 1981, May 10, 1982, March 27, 1984, April 16, 1984, August 12, 1987), February 25, 1994, February 24, 1998, October 8, 1998, December 22, 1998, May 4, 1999 and May 5, 1999. A sample review of the May 5, 1999 and the October 8, 1998, correspondence identified structures, systems and components which are included in the licensing basis but could not be identified in the LRA as having fire protection functions. The examples identified were, curbs and ramps used as passive fire protection features, checker plate walkway which would improve sprinkler performance, and gravel pits around transformers for flame arrestment and combustible liquid containment. Explain how the foregoing examples were considered in the scoping assessment, and describe the process to ensure that all structures, systems and components in the licensing basis for fire protection are included in the scope of license renewal.

FPL RESPONSE:

The process utilized to ensure that all structures, systems, and components in the licensing basis for fire protection are included in the scope of license renewal is described in Subsection 2.1.1.4.1 (page 2.1-8) of the LRA.

Concrete structures credited as fire protection features are included in the LRA under the general concrete entry for the respective structure. For example, concrete curbs located in the Turbine Building are included in Table 3.6-17, in the third line item on page 3.6-99, labeled "Reinforced concrete".

Steel structures credited as fire protection features are included in the LRA under the general structural steel entry for the respective structure. For example, steel checkered plate located in the Turbine Building is included in Table 3.6-17, in the second line item on page 3.6-97, labeled "Structural steel and miscellaneous steel".

The gravel pits around the Main and Start-up transformers and curbs around the Lube oil reservoirs are included in the scope of license renewal since they perform a fire protection function. These items were inadvertently omitted from the LRA tables. Therefore, the following line item will be added to Table 3.6-20 titled "Yard Structures":

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YARD STRUCTURES

Component	Intended Function	Material	Environment	Aging Effects Requiring Management	Program/Activity
Gravel Pits around Main & Start-up Transformers & Curbs around Lube oil Reservoirs	10	Concrete & Gravel	Outdoor	None	None required

Sheet metal drip shields installed over select Thermo-lag raceway fire barriers are included in the scope of license renewal since they perform a fire protection function. This item was inadvertently omitted from the LRA tables. Therefore, the following line item will be added to Table 3.6-17 titled "Turbine Building":

TABLE 3.6-17  
TURBINE BUILDING

Component	Intended Function	Material	Environment	Aging Effects Requiring Management	Program/Activity
Drip shields over Thermo-lag	10	Stainless Steel	Outdoor	None	None required



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**RAI 2.3.3.14-6:**

Fire Protection License Renewal Boundary Drawing 0-FP-03, shows the fire water jockey pumps in the scope of license renewal. The pump casings are not included in the list of components identified in the scope of license renewal (Table 3.4-14). Clarify this apparent discrepancy between the drawings and the LRA.

**FPL RESPONSE:**

The fire water jockey pumps were screened within the scope of license renewal and require an AMR. These pumps were inadvertently omitted from the LRA Table 3.4-14 (page 3.4-71). The corrected Table is shown below.

**TABLE 3.4- 14**  
**FIRE PROTECTION**

Component/ Commodity Grouping	Intended Function	Material	Environment	Aging Effects Requiring Management	Program/ Activity
<b>Internal Environment</b>					
Jockey pumps	Pressure Boundary	Cast iron	Raw water - city water	Loss of material	Fire Protection Program Galvanic Corrosion Susceptibility Inspection Program
<b>External Environment</b>					
Jockey Pumps	Pressure Boundary	Cast iron	Outdoor	Loss of material	Fire Protection Program

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RAI 2.3.3.14-7:

Fire Protection License Renewal Boundary Drawing 0-FP-04, shows hose stations HS-AB-02 and HS-AB-03 as in scope of license renewal.

Hose stations are not listed in Table 3.4-13 as scoped within license renewal. Although fire hoses may not be considered as requiring an AMR, hose racks may be of a variety of types and may require an AMR. Include hose station, including hose racks, in the LRA and in the AMR or provide justification for their exclusion.

FPL RESPONSE:

Hose stations are included as component type, "Valve" and are addressed in Table 3.4-14 (page 3.4-72). Hose racks are included in Table 3.6-3 (page 3.6-59) as component type, "Non-safety related supports", "Carbon steel".

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RAI 2.3.3.14-8:

In accordance with 10 CFR Part 50.48, the fire hazard analysis identifies a Halon fire suppression system located in the Cable Spreading Room. To ensure that there are no breaches in supporting structures (walls, floors, ceilings, other barriers) that would lessen the design concentration of Halon available to suppress a fire, discuss if supporting structures which enclose 10 CFR Part 50.48 required total flooding areas are considered within the scope of license renewal and subject to an AMR. Provide justification to exclude them if they are not.

FPL RESPONSE:

Halon suppression is provided for the Cable Spreading Room as depicted on Drawing 0-FP-08. The Cable Spreading Room is part of the Control Building as described in the Turkey Point Unit 3 and 4 UFSAR, Section 5.3.1 (page 5.3.1-1). The Cable Spreading Room has been identified as Fire Zone 98 and is bounded by concrete walls, a reinforced concrete ceiling supported by structural steel, a reinforced concrete floor, and fire-rated doors, as described in UFSAR, Appendix 9.6A, Section 4.HH.1 (page 9.6A-218). These reinforced concrete beams columns, walls, floors/slabs, and fire doors are within the scope of license renewal and are included in the LRA, Tables 3.6-5 and 3.6-12.