

December 3, 2009

Mr. Randall K. Edington  
Executive Vice President, Nuclear  
Mail Station 7602  
Arizona Public Service Company  
P.O. Box 52034  
Phoenix, AZ 85072-2034

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3,  
LICENSE RENEWAL APPLICATION

Dear Mr. Edington:

By letter dated December 11, 2008, as supplemented by letters dated April 14, 2009, and October 14, 2009, Arizona Public Service Company (APS) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 to renew Operating License Nos. NPF-41, NPF-51, and NPF-74 for the Palo Verde Nuclear Generating Station, Units 1, 2, and 3. The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with APS staff on October 22, 2009, and a mutually agreeable date for your response was determined to be 45 calendar days from the date of this letter. If you have any questions, please contact me at 301-415-1906 or by e-mail at [Lisa.Regner@nrc.gov](mailto:Lisa.Regner@nrc.gov).

Sincerely,

**/RA/**

Lisa M. Regner, Sr. Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-528, 50-529, and 50-530

Enclosure:  
As stated

cc w/encl: See next page

December 3, 2009

Mr. Randall K. Edington  
Executive Vice President, Nuclear  
Mail Station 7602  
Arizona Public Service Company  
P.O. Box 52034  
Phoenix, AZ 85072-2034

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3,  
LICENSE RENEWAL APPLICATION

Dear Mr. Edington:

By letter dated December 11, 2008, as supplemented by letters dated April 14, 2009, and October 14, 2009, Arizona Public Service Company (APS) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 to renew Operating License Nos. NPF-41, NPF-51, and NPF-74 for the Palo Verde Nuclear Generating Station, Units 1, 2, and 3. The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with APS staff on October 22, 2009, and a mutually agreeable date for your response was determined to be 45 calendar days from the date of this letter. If you have any questions, please contact me at 301-415-1906 or by e-mail at [Lisa.Regner@nrc.gov](mailto:Lisa.Regner@nrc.gov).

Sincerely,

/RA/

Lisa M. Regner, Sr. Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-528, 50-529, and 50-530

Enclosure:  
As stated

cc w/encl: See next page

DISTRIBUTION:  
See next page

ADAMS Accession No.: ML093080557

OFFICE	LA:DLR	PM:RPB2:DLR	PM:RPB2:DLR	BC:RPB2:DLR	PM:RPB2:DLR
NAME	SFigueroa	NFerrer	LRegner	DWrona	LRegner (Signature)
DATE	11/18/09	11/18/09	12/1/09	12/3/09	12/3/09

OFFICIAL RECORD COPY

Letter to R. Edington from L. Regner, dated December 3, 2009

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3,  
LICENSE RENEWAL APPLICATION

DISTRIBUTION:

**HARD COPY:**

DLR RF

**E-MAIL:**

PUBLIC

RidsNrrDlr Resource

RidsNrrDlrRpb1 Resource

RidsNrrDlrRpb2 Resource

RidsNrrDlrRer1 Resource

RidsNrrDlrRer2 Resource

RidsNrrDlrRerb Resource

RidsNrrDlrRpob Resource

RidsNrrDciCvib Resource

RidsNrrDciCpnb Resource

RidsNrrDciCsgb Resource

RidsNrrDraAfpb Resource

RidsNrrDraApla Resource

RidsNrrDeEmcb Resource

RidsNrrDeEeeb Resource

RidsNrrDssSrxb Resource

RidsNrrDssSbpb Resource

RidsNrrDssScvb Resource

RidsOgcMailCenter Resource

RidsOpaMail

-----

L. Regner

B. Mizuno

R. Treadway, RIV

G. Pick, RIV

Palo Verde Generating Station,  
Units 1 and 2

cc:

Mr. Steve Olea  
Arizona Corporation Commission  
1200 W. Washington Street  
Phoenix, AZ 85007

Mr. Douglas Kent Porter  
Senior Counsel  
Southern California Edison Company  
Law Department, Generation Resources  
P.O. Box 800  
Rosemead, CA 91770

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
P.O. Box 40  
Buckeye, AZ 85326

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

Chairman  
Maricopa County Board of Supervisors  
301 W. Jefferson, 10th Floor  
Phoenix, AZ 85003

Mr. Aubrey V. Godwin, Director  
Arizona Radiation Regulatory Agency  
4814 S. 40th Street  
Phoenix, AZ 85040

Mr. Scott Bauer, Director  
Regulatory Affairs  
Palo Verde Nuclear Generating Station  
Mail Station 7636  
P.O. Box 52034  
Phoenix, AZ 85072-2034

Mr. Dwight C. Mims, Vice President  
Regulatory Affairs and Plant Improvement  
Palo Verde Nuclear Generating Station  
Mail Station 7605  
P.O. Box 52034  
Phoenix, AZ 85072-2034

Mr. John C. Taylor  
Director, Nuclear Generation  
El Paso Electric Company  
340 E. Palm Lane, Suite 310  
Phoenix, AZ 85004

Mr. James Ray  
Public Service Company of New Mexico  
2401 Aztec NE, MS Z110  
Albuquerque, NM 87107-4224

Mr. Geoffrey M. Cook  
Southern California Edison Company  
5000 Pacific Coast Hwy., Bldg. D21  
San Clemente, CA 92672

Mr. Robert Henry  
Salt River Project  
6504 E. Thomas Road  
Scottsdale, AZ 85251

Mr. Jeffrey T. Weikert  
Assistant General Counsel  
El Paso Electric Company  
Mail Location 167  
123 W. Mills  
El Paso, TX 79901

Mr. Eric Tharp  
Los Angeles Department of Water & Power  
Southern California Public Power Authority  
P.O. Box 51111, Room 1255-C  
Los Angeles, CA 90051-0100

Mr. Brian Almon  
Public Utility Commission  
William B. Travis Building  
P.O. Box 13326  
1701 N. Congress Avenue  
Austin, TX 78701-3326

Mr. Philip McNeely  
Environmental Program Manager  
City of Phoenix  
Office of Environmental Programs  
200 W. Washington Street  
Phoenix, AZ 85003

**PALO VERDE NUCLEAR GENERATING STATION  
LICENSE RENEWAL APPLICATION  
REQUEST FOR ADDITIONAL INFORMATION**

**RAI 2.2-01**

Background:

LRA Section 2.1.1 states “The first step in the integrated plant assessment (IPA) process identified the plant SSCs within the scope of 10 CFR 54.”

Issue:

The following UFSAR systems could not be located in LRA Table 2.2-1.

<b>UFSAR Section</b>	<b>System</b>
Table 12.2-11 Systems Used In Post-Accident Shielding Review	Post Accident Sampling System
14.2.12 Individual Test Descriptions	Post-Accident Monitoring System
7.2.5 Supplemental Protection System	Supplementary Protection System
3.2 Classification of Structures, Components, and Systems, Table 3.2-1 Structures	Equipment Building

Request:

Provide the reasoning for not including the above systems/structures in Table 2.2-1.

**RAI 2.3-01**

Background:

Portions of several systems have spatial interaction as non-safety affecting safety-related components in the fuel building and in the auxiliary building and are within the scope of license renewal as non-safety affecting safety-related components based on the criterion of 10 CFR 54.4(a)(2).

Issue:

The following spatial interaction terminations are shown as license renewal boundaries for 10 CFR 54.4(a)(2) piping. However, the basis for the spatial interaction termination cannot be determined, e.g. entering a building/room with no safety-related components, becoming buried pipe.

ENCLOSURE

### **Normal Chilled Water System (2.3.3.5)**

#### LRA drawing LR-PVNGS-WC-01-M-WCP-001:

- Location G-1 upstream of valve PSV-119.
- Location D-15 lines 275-HBDB-4" and 015-HBDB-10".
- Location C-14 at valve V090.
- Location C-13 near valve V016.
- Location C-13 line 001-HBDB-10".
- Location C-11 near valve V089.
- Location E-10 line 030-HBDB-2½".
- Location B-11 line 277-HBDB-4".
- Location A-11 line 192-HBDB-1".
- Location C-8 near valve V088.
- Location E-7 lines 012-HBDB-4", 029-HBDB-4", 010-HBDB-8", and 031-HBDB-8".
- Location A-6 lines 195-HBDB-1" and 014-HBDB-1".
- Location E-5 lines 073-HBDB-1", 074-HBDB-1", 077-HBDB-4", and 078-HBDB-4".
- Locations D-2 and D-3 line 239-HBDB-1".
- Location B-2 lines 079-HBDB-4" and 090-HBDB-4".

### **Nuclear Cooling Water System (2.3.3.6)**

- LRA drawing LR-PVNGS-NC-01-M-NCP-001(D-4), 023-HBDB-1" and 028-HBDB-1" lines from equipment coolers.
- LRA drawing LR-PVNGS- NC-01-M-NCP-002 (E-8 and F-8), lines to and from gas stripper package (N-065-HBDB-6" and N-066-HBDB-6").
- LRA drawing LR-PVNGS- NC-01-M-NCP-002(F-4), line N-068-HBDB-8" upstream of valve HCV209.
- LRA drawing LR-PVNGS- NC-01-M-NCP-003 (D-6 and G-6), downstream of valves V414, V415 and V412, V413 respectively.

### **Chemical Volume and Control System (2.3.3.10)**

#### LR-PVNGS-CH-01-CHP-001:

- Piping N-438-CCDA-1" upstream of valve V162 (E-14).
- Piping N-426-HCDA-1" downstream of valve V004 (D-13)
- Piping N-045-HCDA-1" downstream of valve V445 (F-10)
- Piping N-475-HCDB-1" downstream of valve VM34 (G-6)

#### LR-PVNGS-CH-01-CHP-002, Sht. 1:

- Piping N-192-HCDA-3" upstream of valve V195 (F-11).
- Piping N-466-HCDB-1" downstream of Charging Pump No. 3 (CHE-P01) (G-3).
- Piping N-471-HCDB-1" downstream of valve V203 (F-2).
- Piping N-465-HCDB-1" downstream of Charging Pump No. 2 (CHB-P01) (E-3).
- Piping N-469-HCDB-1" downstream of valve V204 (D-2).

- Piping N-464-HCDB-1" downstream of Charging Pump No. 1 (CHA-P01) (C-3).
- Piping N-467-HCDB-1" downstream of valve V205 (B-2).
- Piping N-226-HCDA-1" downstream of valve V117 (C-6).

LR-PVNGS-CH-01-CHP-003:

- Piping N-393-HCDA-3" downstream of valve UV-511 (D-3).
- Piping N-386-HCDA-3" downstream of valve V776 (C-2).
- Piping N-386-HCDA-3" downstream and upstream of Reactor Makeup Water Filter (CHN-F05) (C-2).
- Piping N-333-HCDB-3" upstream of valve V450 (A-9).
- Piping N-332-HCDB-1½" downstream of valve V662 (A-10).

**Radioactive Waste Drains System (2.3.3.27)**

- Drawing LR-PVNGS-RD-01-M-RDP-001, location D-2, a portion of piping 086-HCDA-2½".
- Drawing LR-PVNGS-RD-01-M-RDP-002, location D-12, the continuation of B-114-HCDA-4" pipe section to LR-PVNGS-01-N-LRP-001(F-8).
- Drawing LR-PVNGS-RD-01-M-RDP-002, location H-12, the continuation of CH-N-538-HCDA-1" pipe section to LR-PVNGS-CH-01-M-CHP-001(A-15).

**Miscellaneous Auxiliary Systems (2.3.3.30)**

Drawing LR-PVNGS-LR-01-N-LRP-001:

- Locations F-1, E-1, and D-1, lines downstream of in-line instruments FG-40, 41, & 42 to the non-ESF sump.
- Location B-2, a portion of line N-062-HCDA-2".
- Location C-5, a portion of line N-293-HCDC-2".

Drawing LR-PVNGS-LR-01-N-LRP-002-02:

- Locations F-1, E-2, E-1, and E-2, four (4) lines N-194-HCDA-3, N-192-HCDA-3, N-193-HCDA-3, and N-184-HCDA-3.

Drawing LR-PVNGS-OW-01-M-OWP-001:

- Location B-2, a section of line 146-HBDD-6".

Drawing LR-PVNGS-OW-01-M-OWP-003:

- Locations C-1, C-2, and C-8, two sections of drain lines 171-XBDA-4" (from the northeast and southeast corners) and two 164-XBDA-4" (from northwest and southwest corners).
- Location D-3, a section of line 170-HGDH-4".

Drawing LR-PVNGS-SR-01-N-SRP-001:

- Location C-3, line N-012-HCDA-2.

Drawing LP-PVNGS-CM-01-M-CMP-001:

- Location C-7, line N-027-HBDB-2”.
- Location C-6, line N-024-HBDB-2”.

Drawing LP-PVNGS-CM-01-M-CMP-001:

- Location F-7, two portions of line N-001-XCDA-4”.

Drawing LR-PVNGS-AS-01-M-ASP-001:

- Location E-3, a portion of line 014-HBDB-8”.
- Location D-1, portions of lines 013-HBDB-6” & 018-HBDB-4”.
- Location G-1, a portion of line 025-ZZKC-3”.
- Location F-2, a portion of line 021-ZZKC-6”.
- Location E-7, a portion of line 035-HBDB-3”.

Request:

Provide the bases (e.g., entering a building/room with no safety-related components, becoming buried pipe) for the spatial interaction terminations.

**Discussion:** Based on the discussion with the applicant about inspection items, the staff added this question. This new question will be sent as a formal RAI.

**RAI 2.3-02**

Background:

License renewal rule 10 CFR 54.21(a) requires applicants to list all component types subject to an AMR. The staff confirms inclusion of all component types subject to an AMR by reviewing components within the license renewal boundary.

Issue:

The following identifies license renewal drawings where the staff was unable to identify the license renewal boundary because: (1) continuations were not provided or are incorrect, or (2) the continuation drawing was not provided.

<b>LRA Section/Drawing</b>	<b>Issue</b>
Section 2.3.3.10	
LR-PVNGS-CH-01-M-CHP-002, Sht. 1	Location F-6, line 509-HCDB-1/2” downstream of valve V104, drawing SSP-001, Sht. 2.
LR-PVNGS-CH-01-M-CHP-003	Location C-10, line N-341-HCDB-1/2” downstream of valve V458, drawing SSP-001, Sht. 2.
Section 2.3.3.21	
LR-PVNGS-DG-M-DGP-001-03	<ul style="list-style-type: none"><li>• Piping N-098-HBDA-2” at location E-5 and N-091-HBDB-2” at location E-1 on drawing.</li></ul>



<b>LRA Section/Drawing</b>	<b>Issue</b>
LR-PVNGS-DG-M-DGP-001-04	<ul style="list-style-type: none"><li>• Overflow piping at locations G-1 and G-5 on drawing.</li></ul>
LR-PVNGS-DG-M-DGP-001-09	<ul style="list-style-type: none"><li>• Piping N-040-HBDA-3/4" at location B-5, N-038-HBDA-3/4" at location D-5, N-042-HBDA-3/4" at location F-5, and N-044-HBDA-3/4" at location G-5 on drawing.</li></ul>
Section 2.3.3.22	
LR-PVNGS-DS-01-M-DSP-002	Zone D-3 shows continuation of line N-266-YDGA-1 to LR-PVNGS-HJ-02-M-HJP-001 (Zone A-13).
Section 2.3.3.24	
LR-PVNGS-FS-A0-W-FSP-300	Location B-4, line 042-HBDB-8" attached to in-scope Fuel Oil Storage Tank (FSN-T02).
	Location F-4, line 043-HBDB-8" attached to in-scope Fuel Oil Storage Tank (FSN-T01).
Section 2.3.3.25	
LR-PVNGS-GA-01-M-GAP-002	Zone E-8 shows continuations of a four (4) 10 CFR 54.4 (a)(3) pipe sections (to NW accumulators) to drawing LR-PVNGS-SG-01-M-SGP-001.

Request:

Provide additional information to locate the continuations described above.

**RAI 2.3.3.1-01**

Background:

In LRA Section 2.3.3.1 portions of the fuel handling and storage system are within the scope of license renewal based on criteria 10 CFR 54.4(a)(1) and 10 CFR 54.4(a)(2). License renewal rule 10 CFR 54.21(a) requires applicants to list all components that are subject to an AMR.

Issue:

In LRA Section 2.3.3.1, System Description, the control element assembly (CEA) change platform was listed as a component that is within the scope of license renewal. The CEA change platform is used to move the CEAs within the upper guide structure and the CEA elevator. The CEA change platform was not included as a component subject to AMR in Table 2.3.3-1 for the fuel handling and storage system.

Request:

Provide additional information explaining why the CEA change platform is not included as a component subject to an AMR in LRA Table 2.3.3-1.

#### **RAI 2.3.3.2-01**

##### **Background:**

In LRA Section 2.3.3.2 portions of the spent fuel pool cooling and cleanup system are within the scope of license renewal based on criteria 10 CFR 54.4(a)(1) and 10 CFR 54.4(a)(2). License renewal rule 10 CFR 54.21(a) requires applicants to list all components that are subject to an AMR.

##### **Issue:**

On LRA drawing LR-PVNGS-PC-01-M-PCP-001 (G-2 and C-2) and in LRA Section 2.3.3.2, a component is described as being an ion-exchanger. It appears in LRA Table 2.3.3-2 the ion-exchanger is a demineralizer since an ion-exchanger is not listed.

##### **Request:**

Provide additional information explaining why the component described as an ion-exchanger on the LRA drawing and in LRA Section 2.3.3.2 appears to be identified as a demineralizer in LRA Table 2.3.3-2.

#### **RAI 2.3.3.3-01**

##### **Background:**

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

##### **Issue:**

License renewal drawing LR-PVNGS-EW-01-M-EWP-001 (B-7 and F-7) show 1" lines N-020-HBDB-1" and N-079-HBDB-1" as within the scope of license renewal as non-safety affecting safety-related components based on the criterion of 10 CFR 54.4(a)(2). However, parts of these lines continuing to the drain are shown as not within scope for license renewal.

##### **Request:**

Provide additional information explaining why the lines to the drains are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

#### **RAI 2.3.3.4-01**

##### **Background:**

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

Drawing LR-PVNGS-EC-01-M-ECP-001 shows several lines in and out of the ACU's (listed below) within the scope of license renewal for license renewal for 10 CFR 54.4 (a)(2). However the ACU's are shown as not within the scope of license renewal.

- Location G-8 CS pump room essential ACU HAA-Z03 Q1M
- Location G-7 HPSI pump room essential ACU HAA-Z01 Q1M
- Location G-5 LPSI pump room essential ACU HAA-Z02 Q1M
- Location F-8 ELEC penetration room essential ACU HAA-Z06 Q1M
- Location F-7 ECW pump room essential ACU HAA-Z05 Q1M
- Location F-5 aux feed water pump room essential ACU HAA-Z04 Q1M
- Location D-8 control room essential ACU HJA-F04 Q1M
- Location D-6 CS DC equipment room essential ACU HJA-Z04 Q1M
- Location D-5 ESF switchgear room essential ACU HJA-Z03 Q1M
- Location G-4 CS pump room essential ACU HAB-Z03 Q1M
- Location G-3 HPSI pump room essential ACU HAB-Z01 Q1M
- Location G-2 LPSI pump room essential ACU HAB-Z02 Q1M
- Location F-4 ELEC penetration room essential ACU HAB-Z06 Q1M
- Location F-3 ECW pump room essential ACU HAB-Z05 Q1M
- Location F-2 aux feed water pump room essential ACU HAB-Z04 Q1M
- Location E-4 control room essential ACU HJB-F04 Q1M
- Location E-3 CS DC equipment room essential ACU HJB-Z04 Q1M
- Location E-2 ESF switchgear room essential ACU HJB-Z03 Q1M

Request:

Provide additional information explaining why the ACU's are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4 (a).

**RAI 2.3.3.4-02**

Background:

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

License renewal drawing LR-PVNGS-EC-01-M-ECP-001 shows lines N-233-HBDB-2" (Zone A-7), N-142-HBDB-1½" (Zone C-6), N-224-HBDB-2" (Zone A-3), and N-079-HBDB-1½" (Zone D-2) within the scope of license renewal as non-safety affecting safety-related components based on the criteria of 10 CFR 54.4(a)(2) (Spatial Interaction). However, a portion of these lines downstream of seismic anchors are shown as not within the scope of license renewal for spatial interaction.

Request:

Provide additional information explaining why the sections of pipe identified above are not within the scope of license renewal.

**RAI 2.3.3.4-03**

Background:

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

License renewal drawing LR-PVNGS-CT-01-M-CTP-001 (C-2) shows valve V063 and the capped end upstream of valve V063 as within the scope of license renewal for 10 CFR 54.4(a)(1) and 10 CFR 54.4 (a)(2) respectively. However, a small portion of the line in between the valve and capped end is shown as out of scope for license renewal.

Request:

Provide additional information explaining why this section of pipe is not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

**RAI 2.3.3.4-04**

Background:

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

License renewal drawing LR-PVNGS-EC-01-M-ECP-001 (Zone F-2) shows line N-122-HBDB-1½" as within the scope of license renewal for 10 CFR 54.4(a)(2). The continuation of this line on license renewal drawing LR-PVNGS-RD-01-M-RDP-002 (Zone F-9) is shown as not within the scope of license renewal.

Request:

Provide additional information explaining why LR-PVNGS-EC-01-M-ECP-001 (Zone F-2) shows N-122-HBDB-1½" as in scope, and LR-PVNGS-RD-01-M-RDP-002 (Zone F-9) shows this line as out of scope.

### **RAI 2.3.3.5-01**

#### **Background:**

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

#### **Issue:**

License renewal drawing LR-PVNGS-WC-01-M-WCP-001 shows several lines in and out of the ACU's and AHU's within the scope of licensed renewal for 10 CFR 54.4(a)(2). However the ACU's and AHU's (listed below) are shown as not within the scope of license renewal.

- Location G-15 and G-16 containment normal ACU HCN-A01A R9M
- Location G-13 containment normal ACU HCN-A01B R9M
- Location G-10 and G-11 containment normal ACU HCN-A01C R9M
- Location G-7 and G-8 containment normal ACU HCN-A01D R9M
- Location G-2 and H-2 control building normal ACU HJN-A01A S3M
- Location D-16 charging pump room normal ACU HAN-Z01C S3M
- Location D-14 charging pump room normal ACU HAN-Z01B S3M
- Location D-13 charging pump room normal ACU HAN-Z01A S3M
- Location E-3 ESP switchgear room normal AHU HJN-A03 S3M
- Location E-2 and F-2 control room normal AHU HJN-A02 S3M
- Location G-3 CEDM control cabinet room normal AHU HAN-Z02A S3M
- Location G/D-1 CEDM control cabinet room normal AHU HAN-Z02A S3M

#### **Request:**

Provide additional information explaining why these components are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

### **RAI 2.3.3.5-02**

#### **Background:**

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

#### **Issue:**

On LRA drawing LR-PVNGS-WC-01-M-WCP-001 several lines (listed below) attached to 10 CFR 54.4(a)(2) lines are shown as not in-scope for license renewal.

- Location G-14 line 267-HBDB-1" downstream of valve PSV-131.
- Location G-12 line 233-HBDB-1" downstream of valve PSV-132.
- Location G-9 line 232-HBDB-1"downstream of valve PSV-133.

- Location G-6 line 231-HBDB-1" downstream of valve PSV-134.
- Location F-2 line 271-HBDB-1".
- Location E-1 line 228-HBDB-1".
- Location G-2 line 069-HBDB-1½".
- Location C-1 line 131-HBDB-1½".
- Location E-2 line 234-HBDB-1½".
- Location C-3 line 153-HBDB-1½".
- Location E-3 line 274-HBDB-1½".

Request:

Provide additional information explaining why these pipe sections are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

**RAI 2.3.3.6-01**

Background:

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

Several portions of the nuclear cooling water system are within the scope of license renewal as non-safety affecting safety-related components based on the criterion of 10 CFR 54.4(a)(2). However on the following drawings several lines attached to the 10 CFR 54.4(a)(2) lines are shown as not within the scope of license renewal.

LRA Drawing LR-PVNGS-NC-01-M-NCP-001:

- Location F-1, line 057-HBDB-1" downstream of valve PSV-51.
- Location F-2, line 061-HBDB-1" downstream of valve PSV-53.
- Location F-3, line 063-HBDB-1" downstream of valve PSV-54.
- Location F-3, line 055-HBDB-1" downstream of valve PSV-50.
- Location F-4, line 059-HBDB-1" downstream of valve PSV-52.
- Location D-1, line 177-HBDB-1" downstream of valve PSV-137.
- Location D-2, line 178-HBDB-1" downstream of valve PSV-138.
- Location D-2, line 179-HBDB-1" downstream of valve PSV-139.
- Location D-3, line 175-HBDB-1" downstream of valve PSV-135.
- Location D-3, line 176-HBDB-1" downstream of valve PSV-136.
- Location D-4, line 174-HBDB-1" downstream of valve PSV-134.
- Location B-1, line 163-HBDB-1" downstream of valve PSV-269.
- Location B-3, line 293-HBDB-1" downstream of valve PSV-149.

LRA drawing LR-PVNGS-NC-01-M-NCP-002:

- Location E-6, line N-096-HBDB-1" downstream of valve PSV-204.

LRA drawing LR-PVNGS-NC-01-M-NCP-003:

- Location C-3, line 152-HBDB-1" downstream of valve PSV-417.
- Location C-5, line 150-HBDB-1" downstream of valve PSV-416.
- Location F-3, line 146-HBDB-1" downstream of valve PSV-415.
- Location F-5, line 144-HBDB-1" downstream of valve PSV-414.
- Location G-7, line 262-HBDB-1" downstream of valve PSV-499.
- Location E-6, line 145-HBDB-1" downstream of valve PSV-450.

LRA drawing LR-PVNGSC- 01-M-SCP-006-01:

- Location E-16 line N-221-DCDB-3/8" downstream of valve V233 (SC-638).
- Location E-14, 3 line N-222-DCDB-3/8" downstream of valve V236 (SC-637).
- Location E-13, line N-223-DCDB-3/8" downstream of valve V239 (SC-636).
- Location E-11, line N-225-DCDB-3/8" downstream of valve V245 (SC-641).
- Location E-9, line N-226-DCDB-3/8" downstream of valve V248 (SC-640).
- Location E-8, line N-227-DCDB-3/8" downstream of valve V251 (SC-633).

Request:

Provide additional information explaining why these sections of pipe are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a)

**RAI 2.3.3.6-02**

Background:

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

Drawing LR-PVNGS-NC-01-M-NCP-003 (D-8 and G-8) show several lines in and out of the ACU's within the scope of license renewal for 10 CFR 54.4(a)(2). However the two ACU's (HCN-A02B and HCN-A02A) are shown as not within the scope of license renewal.

Request:

Provide additional information explaining why ACU's HCN-A02B and HCN-A02A are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

### **RAI 2.3.3.6-03**

#### **Background:**

LRA Section 2.3.3.6, Nuclear Cooling Water System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing a pressure boundary, leakage boundary, and structural integrity.

#### **Issue:**

Drawing LR-PVNGS-NC-01-M-NCP-003 (C-4) shows line 124-HBDB-8" as within the scope of license renewal for 10 CFR 54.4 (a)(3) whereas a small portion of the same line is shown as within the scope of license renewal for 10 CFR 54.4 (a)(2).

#### **Request:**

Provide additional information to clarify the scoping classification for this pipe section.

### **RAI 2.3.3.7-01**

#### **Background:**

License renewal rule 10 CFR 54.21(a)(1) requires applicants to list all components subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

#### **Issue:**

Drawing LR-PVNGS-SP-01-M-SPP-002 (D-3 and D-7) shows two 1-inch lines (N-075-HCDA-1" and N-042-HCDA-1") as within the scope of license renewal for 10 CFR 54.4(a)(2). However the continuation of these lines, after the seismic anchor, to the drains is shown as not within the scope of license renewal.

#### **Request:**

Provide additional information explaining why portions of these lines are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

### **RAI 2.3.3.8-01**

#### **Background:**

The nuclear sampling system is in-scope for license renewal based on criteria 10 CFR 54.4(a)(1). Portions are also in-scope as nonsafety-related affecting safety-related components for structural integrity and/or spatial interaction based on the criteria of 10 CFR 54.4(a)(2) and portions support fire protection and environmental qualification requirements based on the criteria of 10 CFR 54(a)(3).



Issue:

License renewal drawing LR-PVNGS-SS-01-N-SSP-001-1 (C-6) shows continuation of 10 CFR 54.4(a)(2) pipe section, DW-N-079-HCDA-1", to drawing LR-PVNGS-DW-01-M-DWP-002 (H-3). On drawing LR-PVNGS-DW-01-M-DWP-002 the continuation is not within the scope of license renewal.

Request:

Provide additional information to justify why the continuation on drawing LR-PVNGS-DW-01-M-DWP-002 is not within the scope of license renewal.

**RA 2.3.3.8-02**

Background:

The nuclear sampling system is in-scope for license renewal based on criteria 10 CFR 54.4(a)(1). Portions are also in-scope as nonsafety-related affecting safety-related components for structural integrity and/or spatial interaction based on the criteria of 10 CFR 54.4(a)(2) and portions support fire protection and environmental qualification requirements based on the criteria of 10 CFR 54(a)(3).

Issue:

Drawing LR-PVNGS-SS-01-N-SSP-001-01 (B-1) shows a continuation of 10 CFR 54.4(a)(2) pipe section, N-46-XCDA-2", to "Hot Lab Sink Drain" on drawing LR-PVNGS-CM-01-M-CMP-001 (H-8). On drawing LR-PVNGS-CM-01-M-CMP-001 the continuation is not within the scope of license renewal.

Request:

Provide additional information to justify why the continuation on drawing LR-PVNGS-CM-01-M-CMP-001 is not within the scope of license renewal.

**RAI 2.3.3.8-03**

Background:

License renewal rule 10 CFR 54.21(a) requires applicants to list all component types subject to an AMR. The staff confirms inclusion of all component types subject to an AMR by reviewing components within the license renewal boundary.

Issue:

License renewal drawing LR-PVNGS-SS-03-N-SSP-003-01 (Zone D-3), shows a continuation of 10 CFR 54.4(a)(2) pipe section N-067-HCDA-1/2" to "Equipment Drain Tank" on license renewal drawing LR-PVNGS-CH-01-CHP-003 (Zone A-9). License renewal drawing LR-PVNGS-CH-01-CHP-003 (Zone A-9) contains a pipe section N-067-HCDA-1/2"; however, this pipe section is identified as coming from license renewal drawing LR-PVNGS-SS-N-SSP-002

(Zone D-5). A review of license renewal drawing LR-PVNGS-SS-N-SSP-002 (Zone D-5) identified the subject line going to license renewal drawing LR-PVNGS-CH-01-CHP-003 (Zone A-8). The staff is unable to identify the continuation of pipe section N-067-HCDA-½" from license renewal drawing LR-PVNGS-SS-03-N-SSP-003-01 (Zone D-3) to license renewal drawing LR-PVNGS-CH-01-CHP-003 (Zone A-9). The staff is also unable to find a link between license renewal drawings LR-PVNGS-SS-03-N-SSP-003-01 (Zone D-3) and LR-PVNGS-SS-N-SSP-002 (Zone D-5) for pipe N-067-HCDA-½" that ties them together.

Request:

Provide additional information to locate the continuation of pipe section N-067-HCDA-½" from LR-PVNGS-SS-03-N-SSP-003-01 (Zone D-3).

**RAI 2.3.3.10-01**

Background:

LRA Section 2.3.3.10, Chemical Volume and Control System, states components are within the scope of license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing structural integrity, insulation, and pressure and leakage boundary.

Issue:

Several portions of the chemical volume and control system are within the scope of license renewal as non-safety affecting safety-related components based on the criterion of 10 CFR 54.4 (a)(2). However on the following drawings several lines attached to 10 CFR 54.4(a)(2) lines are shown as not within the scope of license renewal.

Drawing LR-PVNGS-CH-01-M-CHP-001:

- Location A-11, line N-544-HCDA-2" downstream of valve V916.
- Location D-13, line N-526-HCDA-1" downstream of valve V004.
- Location F-11, line N-046-HCDA-1" downstream of valve V445.

Drawing LR-PVNGS-CH-01-M-CHP-002, Sht. 1:

- Location F-12, line N-170-HCDB-1" downstream of valve V121.
- Location G-12, line N-444-HCDB-2" downstream of boric acid batching tank CHN-T03.
- Location G-8, line N-215-HCDB-1" downstream of valve PSV-105 continued to GRP-001 (F-8).
- Location G-6, line N-221-HCDB-½" downstream of valve V100.

Drawing LR-PVNGS-CH-01-M-CHP-003:

- Location F-10, line N-322-HCDA-3" downstream of valve V655.
- Location E-9, line N-218-HCDA-3" downstream of valve UV-567.
- Location E-8, line N-331-HCDA-4" downstream of Pump No. 1 CHN-P05A.
- Location D-8, line N-332-HCDA-4" downstream of Pump No. 2 CHN-P05B.
- Location H-6, line N-363-HCCA-2" downstream of valve V-686.
- Location G-1, line N-497-HCDB-1" downstream of valve VM61.

- Location G-1, line N-498-HCDB-1" downstream of valve VM61.
- Location G-1, line N-499-HCDB-1" downstream of valve VM61.
- Location F-1, line N-402-HCDB-1½" downstream of valve V762.
- Location F-1, line N-432-HCCA-1½" downstream of valve V861.
- Location E-1, line N-401-HCDB-1½" downstream of valve V692.
- Location D-7, line (1½" temporary injection conn. for s/u testing) downstream of valve V709.

Drawing LR-PVNGS-SI-01-M-SIP-001:

- Location E-8, line N-024-HCDA-2" downstream of valve V474.

Drawing LR-PVNGS-RD-01-M-RDP-005:

- Location G-1, line 134-HCDA-6" upstream of the hold-up tank sump.

Drawing LR-PVNGS-AS-01-M-ASP-001:

- Location D-1, line 118-HBDB-4" downstream of valve V186.

Request:

Provide additional information explaining why these sections of pipe are not within the scope of license renewal and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4 (a).

**RAI 2.3.3.10-02**

Background:

License renewal rule 10 CFR 54.21(a) requires applicants to list all component types subject to an AMR. The staff confirms inclusion of all component types subject to an AMR by reviewing components within the license renewal boundary.

Issue:

A continuation drawing was not provided in the license renewal package for the following piping continuations:

Drawing LR-PVNGS-CH-01-M-CHP-002, Sht. 1:

- Location F-6, line 509-HCDB-1/2" downstream of valve V104, drawing SSP-001, Sht. 2.

Drawing LR-PVNGS-CH-01-M-CHP-003:

- Location C-10, line N-341-HCDB-1/2" downstream of valve V458, drawing SSP-001, Sht. 2.

Request:

Provide additional information to locate the license renewal boundaries.

### **RAI 2.3.3.10-03**

#### **Background:**

LRA Section 2.3.3.10, Chemical Volume and Control System, states components are in-scope for license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing a structural integrity, insulation, pressure and leakage boundary.

#### **Issue:**

License renewal drawings show several lines as not within the scope of license renewal yet are connected to piping and tanks which are shown as within the scope of license renewal as follows:

#### **LR-PVNGS-CH-01-M-CHP-002, Sht.1:**

- Location F-15, line N-713-HCDA-8" attached to in-scope Refueling Water Tank (CHE-T01).
- Location E-13, line N-171-HCDB-2" attached to in-scope Boric Acid Batching Eductor (CHN-J01).

#### **LR-PVNGS-CH-01-M-CHP-003:**

- Location C-16, line SI-N-201-HCDA-1" attached to in-scope line 277-HCDA-3".
- Location D-16, line N-121-HCDA-2" attached to in-scope line 273-HCDA-3".
- Location D-15, line N-281-HCDB-1" attached to in-scope Reactor Drain Tank (CHN-X02).
- Location D-14, line N-278-HCDB-1" attached to in-scope Reactor Drain Tank (CHN-X02).
- Location A-11, line N-339-HCCA-1" attached to in-scope Equipment Drain Tank (CHN-X04).
- Location B-9, line N-906-HCDB-1" attached to in-scope Receiving Vessel (Note 9).
- Location C-5, line N-378-HCDA-3" attached to in-scope Reactor Makeup Water Tank (CHN-T02).
- Location C-5, line N-727-HCDA-3" attached to in-scope Reactor Makeup Water Tank (CHN-T02).
- Location D-5, line N-393-HCDA-3" attached to in-scope Reactor Makeup Water Tank (CHN-T02).
- Location D-5, line N-381-HCDA-3" attached to in-scope Reactor Makeup Water Tank (CHN-T02).
- Location D-5, line N-415-HCDB-1½" attached to in-scope Reactor Makeup Water Tank (CHN-T02).
- Location C-5, line N-384-HCDA-3" attached to in-scope valve V771.
- Location D-5, line N-694-HCDB-¾" attached to in-scope Reactor Makeup Water Tank (CHN-T02).
- Location D-5, line N-380-HCDB-1" attached to in-scope Reactor Makeup Water Tank (CHN-T02).

Request:

Provide additional information to justify why these lines are not within the scope of license renewal.

**RAI 2.3.3.20-01**

Background:

LRA Section 2.3.3.20, License Renewal Drawings, provides the license renewal drawings for the diesel generator fuel oil storage and transfer system.

Issue:

Drawing LR-PVNGS-DF-01-M-DFP-001 could not be found in the LRA drawing package. License renewal drawing LR-PVNGS-DF-02-M-DFP-001 was found in the LRA drawing package.

Request:

Provide additional information to verify which drawing was the correct drawing to use during the scoping and screening review.

**RAI 2.3.3.21-01**

Background:

In LRA Section 2.3.3.21 portions of the diesel generator system are in-scope based on criteria 10 CFR 54.4(a)(1) and 10 CFR 54.4(a)(2). License renewal rule 10 CFR 54.21(a) requires applicants to list all component types subject to an AMR.

Issue:

The following license renewal drawing locations show components that are within the scope of license renewal for criteria 10 CFR 54.4(a)(1) or 10 CFR 54.4(a)(2) and not included in Table 2.3.3-21. The components and their drawing locations follow:

- Diesel air intake silencers at locations H-3 and H-7 and diesel exhaust silencers at locations H-2 and H-5 on drawing LR-PVNGS-DG-01-M-DGP-001-01.
- Local observation glasses, LG 344 and LG 343, at locations G-3 and G-7 on drawing LR-PVNGS-DG-01-M-DGP-001-01.
- Turbocharger housings at locations E-4 and E-7 on drawing LR-PVNGS-DG-01-M-DGP-001-02.
- Diesel generator air intake manifolds at locations C-3, C-7, G-3, and G-7 and exhaust manifolds at E-3 and E-7 on drawing LR-PVNGS-DG-01-M-DGP-001-02.
- Starting air header in the Starting Air Subsystem at locations C-4, C-8, G-4 and G-8 on drawing LR-PVNGS-DG-02-M-DGP-001-06.

- Injector housings in the Fuel Oil Subsystem at location F-1, F-2, F-5, and F-6 on drawing LR-PVNGS-DG-01-M-DGP-001-07.

Request:

Provide additional information explaining why the components identified above are not included as component types subject to an AMR in LRA Table 2.3.3-21.

**RAI 2.3.3.21-02**

Background:

License renewal rule 10 CFR 54.21(a) requires applicants to list all component types subject to an AMR. The staff confirms inclusion of all component types subject to an AMR by reviewing components within the license renewal boundary.

Issue:

The following pipelines lack drawing continuation information at the end locations of criterion 10 CFR 54.4(a)(2) pipe.

- Piping N-098-HBDA-2" at location E-5 and N-091-HBDB-2" at location E-1 on drawing LR-PVNGS-DG-M-DGP-001-03.
- Overflow piping at locations G-1 and G-5 on drawing LR-PVNGS-DG-M-DGP-001-04.
- Piping N-040-HBDA-¾" at location B-5, N-038-HBDA-¾" at location D-5, N-042-HBDA-¾" at location F-5, and N-044-HBDA-¾" at location G-5 on drawing LR-PVNGS-DG-M-DGP-001-09.

Request:

Provide additional information to locate the license renewal boundary.

**RAI 2.3.3.22-01**

Background:

LRA Section 2.3.3.22, Domestic Water System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing a pressure and leakage boundary.

Issue:

Drawing LR-PVNGS-DS-01-M-DSP-002 (B-4) shows continuation of lines N-446-YDGA-1½" and N-065-YDGA-1½" as within the scope of license renewal. The continuations on LR-PVNGS-HD-01-M-HDP-001 are not within the scope of license renewal.

Request:

Provide additional information to clarify the scoping classification for these pipe sections.

**RAI 2.3.3.22-02**

Background:

License renewal rule 10 CFR 54.21(a) requires applicants to list all component types subject to an AMR. The staff confirms inclusion of all component types subject to an AMR by reviewing components within the license renewal boundary.

Issue:

Drawing LR-PVNGS-DS-01-M-DSP-002 (D-3) shows continuation of line N-266-YDGA-1 to HJP-001 (A-13). The continuation on LR-PVNGS-HJ-02-M-HJP-001 could not be located.

Request:

Provide additional information to locate the license renewal boundary.

**RAI 2.3.3.22-03**

Background:

LRA Section 2.3.3.22, Domestic Water System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing a pressure boundary and leakage boundary.

Issue:

Drawing LR-PVNGS-DS-13-P-KDE-002 (F-6) and LR-PVNGS-DS-13-P-KDE-003 (G-2 and C-7) show 13-MDSN-X02, 13-MDSN-X03 and 13-MDSN-X05 with reliefs and drain lines as not within the scope of license renewal. Note that similar components on LR-PVNGS-DS-13-P-KDE-001 (F-2), 13-M-DSN-X01A and 13-M-DSN-X01B, are within the scope of license renewal.

Request:

Provide additional information to explain why 13-MDSN-X02, 13-MDSN-X03 and 13-MDSN-X05 are not within the scope of license renewal.

**RAI 2.3.3.24-01**

Background:

LRA Section 2.3.3.24, Water Reclamation Facility Fuel System, states components are within the scope of license renewal for 10 CFR 54.4(a)(3) and have intended functions of providing a pressure boundary, filter, and pressure relief.

Issue:

License renewal drawing LR-PVNGS-FS-A0-W-FSP-300 shows two lines as not within the scope of license renewal that are connected to tanks which are shown as within the scope of license renewal as follows:

- Zone C-5, line 042-HBDB-8" attached to in-scope Fuel Oil Storage Tank (FSN-T02), and
- Zone G-5, line 043-HBDB-8" attached to in-scope Fuel Oil Storage Tank (FSN-T01).

There is also no indication where these lines go.

Request:

Provide additional basis for not including these lines in the scope of license renewal. Also, identify where these lines go.

**RAI 2.3.3.24-02**

Background:

License renewal rule 10 CFR 54.21(a) requires applicants to list all component types subject to an AMR. The staff confirms inclusion of all component types subject to an AMR by reviewing components within the license renewal boundary.

Issue:

On drawing LR-PVNGS-FS-A0-W-FSP-300 the following pipe lines lack drawing continuation information at the end locations of pipe.

- Location B-4, line 042-HBDB-8" attached to in-scope Fuel Oil Storage Tank (FSN-T02).
- Location F-4, line 043-HBDB-8" attached to in-scope Fuel Oil Storage Tank (FSN-T01).

Request:

Provide additional information to locate the license renewal boundary.

**RAI 2.3.3.25-01**

Background:

The service gases system is within the scope of license renewal based on the criteria of 10 CFR 54.4(a)(1). Portions are within the scope of license renewal as non-safety-related affecting safety-related components for structural integrity and/or spatial interaction based on the criteria of 10 CFR 54.4(a)(2). Portions of the service gases system support equipment qualification and station blackout requirements based on the criteria of 10 CFR 54.4(a)(3).



Issue:

Drawing LR-PVNGS-GA-01-M-GAP-002 (E-8) shows continuation of a 10 CFR 54.4(a)(3) pipe sections (to Nw accumulators) to drawing LR-PVNGS-SG-01-M-SGP-001. Review of drawing LR-PVNGS-SG-01-M-SGP-001-01 could not locate this continuation.

Request:

Provide additional information to locate the license renewal boundary.

**RAI 2.3.3.26-01**

Background:

The gaseous radwaste system is within the scope of license renewal based on the criteria of 10 CFR 54.4(a)(1). Portions are within the scope of license renewal as non-safety-related affecting safety-related components for structural integrity and/or spatial interaction based on the criteria of 10 CFR 54.4(a)(2) and portions support the criteria of 10 CFR 54(a)(3).

Issue:

Drawing LR-PVNGS-GR-01-N-GRP-001 (F-8) shows continuation of 10 CFR 54.4(a)(2) pipe section CH-N-215-HCDB-1" "to volume control tank relief" to drawing LR-PVNGS-CH-01-M-CHP-002. The staff noted that the pipe section on drawing LR-PVNGS-CH-01-M-CHP-002 was not within the scope of license renewal.

Request:

Provide additional information to clarify the scoping classification for this pipe section.

**RAI 2.3.3.27-01**

Background:

The radioactive waste drains system is within the scope of license renewal based on the criteria of 10 CFR 54.4(a)(1). Portions are also within the scope of license renewal as non-safety-related affecting safety-related components for structural integrity and/or spatial interaction based on the criteria of 10 CFR 54.4(a)(2) and portions are required to support environmental qualification based on the criteria of 10 CFR 54(a)(3).

Issue:

License renewal drawing LR-PVNGS-RD-01-M-RDP-002 (F-9) shows a section of piping continuing from LR-PVNGS-EC-M-ECP-001 (Essential ACU) as not within the scope of license renewal. This section is included in-scope for 10 CFR 54.4(a)(2) on LR-PVNGS-EC-M-ECP-001. Note similar piping section as included in-scope at F-12 (Essential ACU).

Request:

Provide additional information to justify why this section of the piping is included within the scope of license renewal on LR-PVNGS-EC-M-ECP-001 and not within the scope of license renewal on LR-PVNGS-EC-M-ECP-001.

**RAI 2.3.3.27-02**

Background:

The radioactive waste drains system is within the scope of license renewal based on the criteria of 10 CFR 54.4(a)(1). Portions are also within the scope of license renewal as non-safety-related affecting safety-related components for structural integrity and/or spatial interaction based on the criteria of 10 CFR 54.4(a)(2) and portions are required to support environmental qualification based on the criteria of 10 CFR 54(a)(3).

Issue:

Drawing LR-PVNGS-RD-01-M-RDP-003 (F-15 and F-16) show continuations of 10 CFR 54.4 (a)(2) pipe sections, CH-N-444-HCDB-2" and CH-N170-HCDB-1", to drawing LR-PVNGS-CH-01-M-CHP-002 (G-11 and F-11), respectively. On drawing LR-PVNGS-CH-01-M-CHP-002 the continuations are not within the scope of license renewal.

Request:

Provide additional information to explain why the continuations on LR-PVNGS-CH-01-M-CHP-002 are not within the scope of license renewal.

**RAI 2.3.3.27-03**

Background:

The radioactive waste drains system is within the scope of license renewal based on the criteria of 10 CFR 54.4(a)(1). Portions are also in-scope as non-safety-related affecting safety-related components for structural integrity and/or spatial interaction based on the criteria of 10 CFR 54.4(a)(2) and portions are required to support environmental qualification based on the criteria of 10 CFR 54(a)(3).

Issue:

Drawing LR-PVNGS-RD-01-M-RDP-005 (G-2) shows continuation of 10 CFR 54.4(a)(2) pipe sections, RD-N-331-HCDA-4" and RD-N-332-HCDA-4", to drawing LR-PVNGS-CH-01-M-CHP-003 (E-8 and D-8), respectively. On drawing LR-PVNGS-CH-01-M-CHP-003 these continuations are not within the scope of license renewal.

Request:

Provide additional information to explain why the continuations on LR-PVNGS-CH-01-M-CHP-003 are not within the scope of license renewal.

**RAI 2.3.3.30-01**

**Background:**

Portions of the oily waste and non-radioactive waste system that are located in the auxiliary building, diesel generator building and control building have effects of spatial interaction with safety-related components and are within the scope of license renewal as non-safety affecting safety-related components based on the criteria of 10 CFR 54.4(a)(2).

Portions of the floor drains in the diesel generator building and control building are credited for protection of safety-related equipment from flooding in an event of pipe break in the associated areas. They are included within the scope of licensing renewal for the criteria of 10 CFR 54.4(a)(2).

Portions of the oily waste and non-radioactive waste system attach to safety-related essential chilled water system piping through the demineralized water system such that the structural failure of the oily waste and non-radioactive waste system piping could prevent satisfactory accomplishment of safety-related essential chilled water system functions. These portions of the oily waste and non-radioactive waste system are within the scope of license renewal as nonsafety components affecting safety-related components based on the criterion of 10 CFR 54.4(a)(2).

**Issue:**

Drawing LR-PVNGS-OW-01-M-OWP-002 (E-3 and E-6) shows sections of lines 193-XBDA-4" and 191-XBDA-4" not within the scope of license renewal. The two lines are connected to lines 101-XBDA-4" and 112-XBDA-4" which are shown within the scope of license renewal based on 10 CFR 54.4(a)(2).

**Request:**

Provide additional information to justify why lines 193-XBDA-4" and 191-XBDA-4", attached to lines 101-XBDA-4" and 112-XBDA-4" are not within the scope for license renewal.

**RAI 2.3.3.30-02**

**Background:**

Portions of the oily waste and non-radioactive waste system that are located in the auxiliary building, diesel generator building and control building have effects of spatial interaction with safety-related components and are within the scope of license renewal as non-safety affecting safety-related components based on the criteria of 10 CFR 54.4(a)(2).

Portions of the floor drains in the diesel generator building and control building are credited for protection of safety-related equipment from flooding in an event of pipe break in the associated areas. They are included within the scope of license renewal for the criteria of 10 CFR 54.4(a)(2).

Portions of the oily waste and non-radioactive waste system attach to safety-related essential chilled water system piping through the demineralized water system such that the structural failure of the oily waste and non-radioactive waste system piping could prevent satisfactory accomplishment of safety-related essential chilled water system functions. These portions of the oily waste and non-radioactive waste system are within the scope of license renewal as non-safety components affecting safety-related components based on the criterion of 10 CFR 54.4(a)(2).

Issue:

Drawing LR-PVNGS-OW-01-M-OWP-003 (D-2 and D-7) shows lines 170-HGDH-4" and 165-HGDH-4" within the scope for license renewal based 10 CFR 54.4(a)(2). Several lines attached to lines 170-HGDH-4" and 165-HGDH-4", at the same location, are shown as not within the scope of license renewal for 10 CFR 54.4(a)(2).

Request:

Provide additional information to justify why the lines attached to 170-HGDH-4" and 165-HGDH-4" are not within the scope of license renewal.

**RAI 2.3.3.30-03**

Background:

Portions of the oily waste and non-radioactive waste system that are located in the auxiliary building, diesel generator building and control building have effects of spatial interaction with safety-related components and are within the scope of license renewal as non-safety affecting safety-related components based on the criteria of 10 CFR 54.4(a)(2).

Portions of the floor drains in the diesel generator building and control building are credited for protection of safety-related equipment from flooding in an event of pipe break in the associated areas. They are included within the scope of license renewal based on the criteria of 10 CFR 54.4(a)(2).

Portions of the oily waste and non-radioactive waste system attach to safety-related essential chilled water system piping through the demineralized water system such that the structural failure of the oily waste and non-radioactive waste system piping could prevent satisfactory accomplishment of safety-related essential chilled water system functions. These portions of the oily waste and non-radioactive waste system are within the scope of license renewal as non-safety components affecting safety-related components based on the criterion of 10 CFR 54.4(a)(2).

Issue:

Drawing LR-PVNGS-OW-01-M-OWP-003 (C-3) shows line DS-449-HBDD-4" not within the scope of license renewal. Several lines adjacent to DS-449-HBDD-4" on LRA drawing LR-PVNGS-OW-01-M-OWP-003, at the same location, are shown as within the scope for license renewal per 10 CFR 54.4(a)(2) for spatial interaction.

Request:

Provide additional information to justify why line DS-449-HBDD-4" is not within the scope of license renewal.

**Main Steam System (2.3.4.1)**

The following requests for additional information (RAIs) were generated as part of the scoping and screening review for the main steam system for the Palo Verde Nuclear Generation Station LRA.

**RAI 2.3.4.1-01**

Background:

LRA Section 2.3.4.1, Main Steam System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing structural integrity, insulation and pressure and leakage boundary.

Issue:

License renewal drawings show several locations where the license renewal spatial interaction termination cannot be determined as follows:

LR-PVNGS-SG-01-M-SGP-002:

- Piping N-007-DCDA-8" upstream of valve UV-172 (G-13)
- Piping N-010-DBDB-8" upstream of valve UV-175 (C-13)
- Piping E-039-DABA-6" downstream of valve UV-5000 (E-2)
- Piping E-048-DABA-6" downstream of valve UV-5008 (B-2)

LR-PVNGS-SG-01-M-SGP-001-02:

- Piping N-335-HDDA-1" upstream of valve V346 (G-4)
- Piping N-335-HDDA-1" upstream of valve V348 (G-4)
- Piping N-321-HDDA-1" upstream of valve V358 (D-4)
- Piping N-321-HDDA-1" upstream of valve V357 (D-4)

Request:

Provide additional information to locate the license renewal spatial interaction terminations.

#### **RAI 2.3.4.1-02**

##### **Background:**

LRA Section 2.3.4.1, Main Steam System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing structural integrity, insulation and pressure and leakage boundary.

##### **Issue:**

Drawing LR-PVNGS-SG-01-M-SGP-002 (D-8 and G-8) shows 2 flow nozzles out of each of the steam generators 1 & 2 (RCE-E01A & B) as not within the scope of license renewal.

##### **Request:**

Provide additional information explaining why the flow nozzles out of steam generators 1 & 2 are not within the scope of license renewal.

#### **RAI 2.3.4.1-03**

##### **Background:**

LRA Section 2.3.4.1, Main Steam System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing structural integrity, insulation and pressure and leakage boundary.

##### **Issue:**

Drawing LR-PVNGS-SG-01-M-SGP-001-01 shows eight boxes on the main steam piping downstream of the main steam isolation valves that are not defined:

- 2 boxes on piping E-206-DLBB-28" downstream of valve UV-170 (G-9)
- 2 boxes on piping E-207-DLBB-28" downstream of valve UV-180 (E-9)
- 2 boxes on piping E-208-DLBB-28" downstream of valve UV-171 (D-9)
- 2 boxes on piping E-209-DLBB-28" downstream of valve UV-181 (B-9)

##### **Request:**

Provide additional information explaining this box symbol and if this component type is subject to an AMR.

#### **RAI 2.3.4.1-04**

##### **Background:**

LRA Section 2.3.4.1, Main Steam System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing structural integrity, insulation and pressure and leakage boundary.

##### **Issue:**

Drawing LR-PVNGS-SG-01-M-SGP-001-02 (D-8 and G-8) shows 2 drag resistors N-299-HBDB-54" and N-300-HBDB-54" as not within the scope of license renewal. However, both the inlet piping E-059-DLBB-12" and E-084-DLBB-12" as well as the outlet piping N-306-GBDB-1" and N-312-GBDB-1" are within the scope of license renewal. Also, FX-178 & FX-179 are shown as within the scope of license renewal inside of the drag resistors.

##### **Request:**

Provide additional information explaining why the drag resistors are not within the scope of license renewal.

#### **Condensate Transfer and Storage System (2.3.4.2)**

The following request for additional information (RAI) was generated as part of the scoping and screening review for the condensate transfer and storage system for the Palo Verde Nuclear Generation Station LRA.

#### **RAI 2.3.4.2-01**

##### **Background:**

LRA Section 2.3.4.2, Condensate Transfer and Storage System, states that components are within the scope of license renewal for 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2) and 10 CFR 54.4(a)(3) and have intended functions of providing a pressure and leakage boundary, and structural integrity.

##### **Issue:**

Drawing LR-PVNGS-CT-01-M-CTP-001 (C-2) shows line N-031-HCDA-3" not within the scope of license renewal for 10 CFR 54.4(a)(2). However, the continuation of this 3" line on drawing LR-PVNGS-PC-01-M-PCP-001 (H-11) shows this line is within the scope of license renewal for 10 CFR 54.4(a)(2).

##### **Request:**

Provide additional information explaining why there is a difference in the scope classification between drawing LR-PVNGS-CT-01-M-CTP-001 and the continuation on LR-PVNGS-PC-01-M-PCP-001.