

August 3, 2007

Mr. Britt T. McKinney
Sr. Vice President and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2, LICENSE
RENEWAL APPLICATION

Dear Mr. McKinney:

By letter dated September 13, 2006, PPL Susquehanna, LLC, submitted an application pursuant to 10 CFR Part 54, to renew the operating licenses for Susquehanna Steam Electric Station, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). 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.

These requests for additional information were discussed with Duane Filchner, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-4029 or via e-mail ehg2@nrc.gov.

Sincerely,

/RA/

Evelyn Gettys, Project Manager
License Renewal Branch A
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:
Requests for Additional Information

cc w/encl: See next page

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SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION
REQUESTS FOR ADDITIONAL INFORMATION (RAIs)

RAI 2.4-1

The first sentence in the fourth paragraph of the license renewal application (LRA) Section 2.4 “Scoping and Screening Results: Structures” states that “The major structures in the scope of license renewal are the: ...” Per 10 CFR 54.4, all structures that perform an intended function stated in 10 CFR 54.4(a) are required to be included within the scope of license renewal (LR) and not just the major structures. Please confirm that the in-scope structures and structure categories listed in Section 2.4 is all inclusive. Please clarify the language used in that section of the LRA, “The major structures in the scope ...” Please include any remaining structures that may be within the scope of LR and provide corresponding scoping, screening and aging management review (AMR) results information relevant to the LRA.

RAI 2.4-2

Section 3.8.4 of the final safety analysis report (FSAR) describes the Radwaste Building as a Safety-Related non-Seismic Category 1 structure. Page 3.8-45 of the FSAR also states that the reinforced concrete walls and floor and the concrete block masonry walls meet structural as well as radiation shielding requirements. Sections 2.3.3.19 and 2.3.3.20 of the LRA include the Radwaste Liquid System and the Radwaste Solids Handling System within the scope of LR and subject to an AMR. The first paragraph in Section 2.3.3.20 of the LRA states that all Radwaste Solids Handling System equipment serves both reactor units and is located in the Radwaste Building. Table 2.2-3 excludes the Radwaste Building from the scope of LR. Since the above mentioned in-scope systems are located inside the Radwaste Building, please confirm if this would bring the Radwaste Building within the scope of LR and subject to an AMR. If so, please include the Radwaste Building and describe its scoping, screening and AMR results. If not, provide technical basis for the exclusion.

RAI 2.4.1-1

Table 2.4-1 lists the Drywell Head (the term “Drywell Head Assembly” used in the FSAR is more appropriate) as a Primary Containment component type subject to an AMR. It is not explicitly clear from Table 2.4-1 and Table 2.4-10 if (i) the mating flange bolts that secure the head to the lower flange; (ii) the manhole bolts; and (iii) the double rubber gaskets that help prevent loss of joint leak-tightness at the head-to-lower flange connection and at the manhole are included within the scope of LR and subject to an AMR. Please confirm the inclusion or exclusion of these components. If they were not included as an oversight, please provide a description of their scoping, screening and AMR. If they are excluded from the scope of LR, please provide the technical basis for the exclusion.

RAI 2.4.1-2

Table 2.4-1 lists Penetrations (mechanical and electrical, primary containment boundary), as components subject to an AMR. This does not seem to include the penetrations through the Reactor Shield Wall with hinged doors or removable plugs that facilitate piping (feedwater, reactor recirculation, recirculation inlet, etc.) connections to the reactor vessel which would provide access for in-service inspection (see FSAR Section 3.8.3.1.3 and drawings C-1932 Sheets 3 & 5). Please confirm the inclusion or exclusion of these penetrations and their doors/plugs from the scope of LR and subject to an AMR. If they were not included as an oversight, please provide a description of their scoping, screening and AMR. If they are excluded from the scope of LR, please provide the technical basis for the exclusion.

RAI 2.4.1-3

Section 2.4.1 and Table 2.4-1 list Access Hatches (equipment hatch, personnel airlock, suppression chamber access hatches, and the control rod drive removal hatch) as Primary Containment components subject to an AMR. It is not explicitly clear from Table 2.4-1 and Table 2.4-10 if the flange double-gaskets, hatch locks, hinges and closure mechanisms that help prevent loss of sealing/leak-tightness for these listed hatches are included within the scope of LR and subject to an AMR. Please confirm the inclusion or exclusion of these components. If they were not included as an oversight, please provide a description of their scoping and AMR. If they are excluded from the scope of LR, please provide the technical basis for the exclusion.

RAI 2.4.1-4

Based on information provided in LRA Section 2.4.1 and Tables 2.4-1 and 2.4-10, it is not clear if all drywell pipe restraints/whip restraints are within the scope of LR. If they are not included as an oversight, please provide a description of their scoping and AMR. If they are covered somewhere else in the LRA, please indicate the location. If they are excluded from the scope of LR, please provide the technical basis for the exclusion.

RAI 2.4.1-5

Section 2.4.1 (page 2.4-5) of the LRA states that the suppression chamber vent pipe system is evaluated as a mechanical component in Section 2.3.2.5, Containment and Suppression System. Table 2.3.2-5 includes downcomers and piping and piping components as component types subject to an AMR. It is not clear if the vent pipe support assemblies and downcomer (vent) pipe bracing system (see drawing C-1932 Sheet 4 and FSAR Figure 6.2-56) are included and subject to an AMR. Please confirm the inclusion or exclusion of these components from the scope of LR and subject to an AMR. If they were not included as an oversight, please provide a description of their scoping and AMR. If they are excluded from the scope of LR, please provide the technical basis for the exclusion.

RAI 2.4.2-1

Table 2.4-2 list "Reinforced concrete: walls, floors, and ceilings" as a component type subject to an AMR within the Reactor Building. Please confirm if the two reinforced concrete girders (see last paragraph of FSAR page 3.8-41) supporting the refueling facility within the Reactor Building are in-scope and subject to an AMR. If so, please state so explicitly in the table. If not, please provide the technical basis for the exclusion.

RAI 2.4.2-2

Table 2.4-2 in Section 2.4.2 lists “Reactor well shield plugs” as a component type subject to an AMR within the Reactor Building. Because of lack of clarity, please confirm if the spent fuel pool plugs and dryer/separator pool plugs (see drawing C-1932 Sheet 5) are included in-scope and subject to an AMR. If so, please state so explicitly in the table. If not, please provide the technical basis for the exclusion.

RAI 2.4.2-3

Tables 2.4-2, 2.4-4, 2.4-6, 2.4-7, and 2.4-8 list “Cranes, including bridge and trolley, rails, and girders” as a component type subject to an AMR within the respective structures. It is not clear to the staff which cranes have been determined to be within the scope of LR and if all relevant sub-components (“...including bridge and trolley, rails, and girders”) of these in-scope crane systems have been screened as items requiring an AMR. Specifically, please identify the specific cranes in each of these structures that are included within the above component type as in-scope and subject to an AMR and those that are excluded. If excluded, please provide the technical basis. Please confirm if fasteners and rail hardware associated with this component type are in-scope and subject to an AMR. If not, please provide the technical basis for the exclusion. Are there any other hoists and lifting devices (e.g. reactor coolant pump, lifting slings, lifting rigs, etc.) that may need to be included in-scope and subject to an AMR? If so, please include in the tables and provide the associated scoping, screening and an AMR results.

RAI 2.4.6-1

Tables 2.4-6 and 2.4-7 list the components of the Diesel Generator (DG) Buildings A, B, C, D, and E that are subject to an AMR. Please confirm that the DG pedestals are components requiring an AMR are included in the referenced Tables of the LRA. If not, please provide the technical basis for the exclusion.

RAI 2.4.8-1

Table 2.4-8 lists the components of the Turbine Building that are subject to an AMR. Please confirm if the pipe tunnels at the foundation level for the off-gas piping (see third paragraph under the title “Turbine Building” on page 3.8-44 of the FSAR and drawing A-11 Sheet 1) are in-scope and subject to an AMR and are included in the referenced table. If not, please provide the technical basis for the exclusion.

RAI 2.4.10-1

Sections 2.4.1 thru 2.4.9 state that the structural commodities for these respective structures are addressed in the bulk commodities evaluation in Section 2.4.10. Table 2.4-10 lists the Bulk Commodities Components Subject to an AMR in categories based on the material of the component type. This table does not identify the specific structures addressed in Sections 2.4.1 thru 2.4.9 in which these individual component types are located. Please add a column to Table 2.4-10 listing the structure(s) in which each bulk commodity component type is located. Clearly state if the intent of the table is for every occurrence (all inclusive) of these component types in each of the applicable structures are in-scope and subject to an AMR. If not, specifically identify those cases which are in-scope and subject to an AMR and those that are not in-scope and excluded from an AMR with technical justification for exclusion. Please confirm and address if there is or is not any Lubrite sliding support bearings/surfaces in-scope

and subject to an AMR and will need to be included in Table 2.4-10.

RAI 2.4.10-2

Based on information provided in Table 2.4-10, the staff cannot specifically identify the insulation and insulation jacketing included in the LR scope nor the specific subsets of insulation and insulation jacketing that are included in Table 2.4-10. It is also unclear whether insulation and jacketing on the reactor vessel, reactor coolant system, main steam and feed water systems have been included. In order to help staff complete the screening review for insulation and insulation jacketing, please provide the following information:

- (a) Identify the structures and structural components designated within the LR scope that have insulation and/or insulation jacketing, and identify their location in the plant. Identify locations of the thermal insulation that serves an intended function in accordance with 10 CFR 54.4(a)(2) and describe the scoping and screening results of thermal insulation and provide technical basis for its exclusion from the scope of LR.
- (b) For insulation and insulation jacketing materials associated with item (a) above that do not require aging management, submit the technical basis for this conclusion, including plant-specific operating experience.
- (c) For insulation and insulation jacketing materials associated with item (a) above that require aging management, indicate the applicable LRA sections that identify the AMPs credited to managing aging.

RAI 2.4.10-3

Table 2.4-10 lists "Monorails, hoists and miscellaneous cranes" as a bulk commodity component type subject to an AMR. It is not clear to the staff which specific monorails, hoists and miscellaneous cranes have been determined to be within the scope of LR and if all relevant sub-components (including bridge and trolley, rails, girders, etc.) of these in-scope items have been screened in as items requiring an AMR. Please identify the specific monorails, hoists, and cranes that are included within the above component type as in-scope and subject to an AMR and those that are excluded with technical basis. Please confirm if there are any bridge and trolley, rails, and girders associated with these miscellaneous cranes and if they are included in-scope and subject to an AMR. Also, confirm if fasteners and rail hardware associated with this component type are in-scope and subject to an AMR. If not, please provide the technical basis for the exclusion.

Letter to B. T. McKinney from E. Gettys, dated August 3, 2007

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