

**Lent, Susan**

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**From:** Wilkins, Lynnea  
**Sent:** Monday, December 03, 2012 1:14 PM  
**To:** 'McCutchen, Edward L.'  
**Cc:** Lent, Susan; Burkhardt, Janet  
**Subject:** Request for Additional Information Re: Cooper P-T Curves LAR (ME7324)

Ed,

By letter dated September 22, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML 11272A057), Nebraska Public Power District (the licensee) submitted a license amendment request (LAR) to revise the Technical Specifications (TSs) for Cooper Nuclear Station. The proposed LAR would revise TS 3.4.9, "RCS [Reactor Coolant System] Pressure and Temperature (PIT) Limits," to include new pressure-temperature (P-T) limits for heat-up and cool-down operations with the core critical and core not critical, as well as for pressure test conditions. The proposed P-T limits would be valid for 32 effective full power years (EFPY) of facility operation. The proposed revisions to TS 3.4.9 also would revise surveillance requirements for verifying that the reactor vessel flange and reactor vessel head flange temperatures are greater than the revised minimum operating temperature (70 degrees Fahrenheit) specified for the proposed 32 EFPY P-T limits. By letter dated February 29 and August 10, 2012 (ADAMS Accession Nos. ML120590085 and ML12205A216, respectively), the U.S. Nuclear Regulatory Commission (NRC) issued requests for additional information (RAIs). By letters dated March 30, September 10 and September 28, 2012 (ADAMS Accession Nos. ML12094A119, ML12258A072, and ML122780161, respectively), the licensee provided its RAI responses.

The NRC staff has reviewed your submittals and determined that additional clarification is needed for the staff to complete its evaluation:

- (1) By letter dated September 28, 2012, the licensee revised their License Amendment Request (LAR) to include new proposed 32 EFPY Technical Specification (TS) P-T limit curves. The new proposed P-T limit curves differ from the ones submitted in the original LAR, dated September 22, 2011, in that they remove consideration of the reactor pressure vessel (RPV) instrument nozzles. Whereas the 32 EFPY curves submitted in the original LAR showed the instrument nozzles to define part of the bounding curves, these revised curves were developed without consideration of the instrument nozzles. Therefore the staff cannot approve the new proposed curves if these curves are not bounding for the RPV instrument nozzles.

Therefore, the staff requests that the licensee either (1) provide technical justification for why the new proposed P-T limit curves are bounding for the instrument nozzles, or (2) revise the proposed P-T limit curves such that they are consistent with those proposed in the original LAR submittal.

- (2) Ferritic reactor coolant pressure boundary (RCPB) components that are not part of the reactor pressure vessel (RPV) may have initial nil-ductility reference temperature ( $RT_{NDT}$ ) values that may define a more restrictive lowest service temperature (LST) in the P-T limits than those for the RPV components. For any ferritic piping pumps and valves greater than 2.5 inches in thickness, the staff requests that the licensee address how the proposed 32 EFPY P-T limit meet the Lowest Service Temperature Requirements of the ASME Code, Section III, NB-2332(b)

The clarification RAIs were transmitted via e-mail to you on November 8, 2012 and the clarification call was held on November 14, 2012. Via email on December 3, 2012, you stated that the response would be provided within 30 days of receipt of this email.

Please contact me if you have any questions.

*Lynnea Wilkins*, Project Manager  
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