



444 South 16th Street Mall  
Omaha NE 68102-2247

December 16, 2004  
LIC-04-0133

U. S. Nuclear Regulatory Commission  
Attn.: Document Control Desk  
Washington, D.C. 20555

- References:
1. Docket No. 50-285
  2. Letter from OPPD (R. L. Phelps) to NRC (Document Control Desk) dated May 21, 2004, "Trisodium Phosphate (TSP) Dodecahydrate Volume," (LIC-04-0045)
  3. Letter from NRC (A. B. Wang) to OPPD (R. T. Ridenoure) dated August 27, 2004, "Request for Additional Information (RAI)," (TAC No. MC3214) (NRC-04-0111)
  4. Letter from OPPD (R. L. Phelps) to NRC (Document Control Desk) dated October 29, 2004, "OPPD Response to NRC RAI," (LIC-04-0102)

**SUBJECT: NRC RAI on Trisodium Phosphate (TSP) License Amendment Request**

As requested by the NRC, this letter provides documentation of a teleconference held on December 6, 2004 between the NRC and OPPD. Two questions concerning OPPD's Response (Reference 4) to an NRC Request for Additional Information (Reference 3) were discussed during the teleconference. The two NRC questions and OPPD's responses are attached.

I declare under penalty of perjury that the forgoing is true and correct. (Executed on December 16, 2004). No commitments to the NRC are made in this letter.

If you have any questions or require additional information, please contact Tom Matthews at (402) 533-6938.

Sincerely,

R. L. Phelps  
Division Manager  
Nuclear Engineering

RLP/MLE/mle

Attachment

**NRC Question 1:**

**In your response to [Reference 3] question 2, you stated that you have determined that enhanced administrative controls are needed to ensure that the maximum mass-equivalent limit of TSP for EEQ is not exceeded in the future. The staff requests the licensee to explain the administrative controls that will be taken in response to this issue.**

**OPPD Response:**

OPPD has revised the surveillance test (CH-ST-CH-0002) to incorporate an upper limit of 135.71 ft<sup>3</sup> for the total effective volume of TSP allowed in the TSP baskets. This limit supports current EEQ requirements by ensuring that containment sump pH does not exceed 7.5 should a loss-of-coolant accident (LOCA) occur at end of cycle. Total effective TSP volume is the cumulative volume of TSP initially placed into the baskets and the volume of TSP added to top-off the baskets (due to the effects of settling) during subsequent refueling outages.

CH-ST-CH-0002 records the cumulative volume of TSP added to the TSP baskets from cycle to cycle. At the point where topping off one or more baskets would cause the total effective volume limit to be exceeded, the densified TSP in one or more baskets is changed out. This ensures that the limit is not exceeded and preserves the accuracy of the calculation for subsequent surveillance tests.

**NRC Question 2:**

**In your response to [Reference 3] question 3, you stated that the assay TSP is 92 weight % minimum with a total moisture of 47 – 52%. If the moisture content of the TSP is going to be anywhere between 47 – 54.2%, shouldn't the amount of TSP be between 45.8 and 53%? Please explain.**

**OPPD Response:**

OPPD's purchase specification requires a minimum of 92-weight percent Na<sub>3</sub>PO<sub>4</sub>, which allows up to 8 percent inert matter. The purchase specification also allows moisture content between 47 and 54.2 percent in the product supplied by the vendor. The moisture content percent and minimum 92-weight percent Na<sub>3</sub>PO<sub>4</sub> are not directly related. If there were no inert matter, the amount of Na<sub>3</sub>PO<sub>4</sub> would be between 45.8 and 53 percent as stated in the question, based on subtracting the moisture content from the total mass. However, the inert matter slightly reduces the resulting percentage of Na<sub>3</sub>PO<sub>4</sub>.