

From: Peter Tam
Sent: Thursday, March 19, 2009 10:47 AM
To: 'Craig.D.Sly@dom.com'; 'Jack.Gadzala@dom.com'; Thomas Breene (thomas.l.breene@dom.com); Davis Sommers (david.sommers@dom.com)
Cc: Clayton Pittiglio; Justin Poole
Subject: Kewaunee - Draft RAI re. Preliminary Decommissioning Cost Estimate (TAC ME0253)

David:

The NRC staff has reviewed Dominion's 12/18/2008 submittal regarding Kewaunee's preliminary decommissioning cost estimate and irradiated fuel management plan in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Sections 50.75(f)(3) and 50.54(bb). The NRC reviewer, Larry Pittiglio, has identified issues for which additional information is needed. This information need is set forth below. Please set up a conference call with us to discuss these draft RAI questions. **I recommend that we hold the conference call after 4/10/09; however, if you desire to hold it during the period before 4/10/09, please contact my backup Justin Poole (301-415-2048).**

Kewaunee Preliminary Decommissioning Cost Estimate (08-0704)

RAI No. 1: Page 2

In this submittal, DEK applied a fund growth rate of 6.24 percent for the period from 2008-2013, and 5.233 percent growth rate for the period from 2014 to the end of the projected decommissioning period. For the entire period, DEK applied an escalation cost rate of 3.233 percent. DEK needs to provide a basis that supports using a real rate of return of greater than 2 percent for the period from 2008-2013.

RAI No. 2: Attachment, Page 6, Section 3.2 Escalation to 2008 Dollars

In the submittal, DEK references a 2006 EnergySolutions site- specific cost estimate, and stated that the costs were escalated to 2008 dollars; however, the 2006 cost estimate was not included as part of the submittal. The 2006 site-specific cost estimate needs to be submitted to NRC for the staff to be able to complete its review.

This submittal escalates the \$334.3 million identified in the 2006 cost estimate in 2005 dollars to \$380.6 million in 2008 dollars based on the following escalation rates: 3.863 percent for the period from 2005 to 2006, 3.80 percent for the period from 2006 to 2007, and 3.814 percent for the period from 2007 to 2008. The formula amount calculated in Table 1 by DEK, as of December 31, 2007, is \$327.5 million. The formula amount calculated as of December 31, 2008, is \$360.4 million. Since the 2008 formula amount is based on NUREG-1307, Rev. 13 and represents an increase that is greater than 10 percent for the period 2007 to 2008, and the sum of DEK's escalation rates is approximately 13.0 percent for the entire period of 2005-2008, DEK's escalation rate is significantly lower than the escalation based on NUREG-1397, Rev. 13. DEK needs to provide more detail on what factors its escalation was based on.

RAI No. 3: Page 3, Table 1 – Annual Cash Flow Calculations

The staff applied a 2 percent real rate of return to the trust fund balance of \$380.7 million as of October 31, 2008, thru the remainder of the operating license period. Following the expiration

of the operating license, the staff applied 2 percent real rate of return and deducted the License Termination Expenses identified in Column 6 of Table 1 in 2008 dollars. The staff was not able to reconcile the difference between DEK's analysis and the staff's analysis. The staff also applied the recommended 5.233 percent fund growth rate and escalation factor of 3.233 percent, to compare future dollar analysis, and was still not able to reconcile the difference between the staff's analysis and DEK's analysis. DEK needs to reconcile the difference between the staff's and DEK's analyses.

RAI No. 4: Document No. A 82A9584, Revision O, Addendum No. 001, Page 4, Table 2-2

DEK has selected immediate dismantlement (DECON) as their decommissioning option. For immediate dismantlement, the cost associated with isolation of the spent fuel pool (wet storage) to support cooling the last core while the plant is being dismantled was not identified as part of KPS's radiological decommissioning cost. The staff disagrees with allocating that cost under "spent fuel" as it is a necessary step to DECON the plant. DEK has estimated a cost of \$20.8 million for fuel pool planning and design, and an additional \$103.3 million associated with the cost for fuel cooling, wet storage, and eventual transfer to dry cast storage. The staff has taken the position that these are essential activities necessary to support immediate dismantlement and part of the radiological decommissioning costs, and therefore it is necessary to have the supporting funding set aside as part of the decommissioning trust funds (DFT) to complete radiological decommissioning. When the staff included the cost identified in Table 2 of the December 19, 2008, (No. 08-0754) submittal that addressed the annual expenses for spent fuel management for the years from 2013-2020, in their analysis as part of the radiological decommissioning costs needed, the DFT balance was not sufficient to address all of the DECON costs. DEK needs to address the DTF shortfall.

Kewaunee Irradiated Fuel Management Plan (08-0702)

RAI No 5: Page 2

In this submittal, DEK references a "Parent Support Agreement" in the amount of \$60.0 million to be used for supplementing DEK in the event of an operational outage lasting more than 6 months and for decommissioning. Provide documentation regarding the "Parent Support Agreement" and how there is reasonable assurance that these funds will be available in 2013 to support decommissioning since the funds are also allocated to support an extended outage. Please identify whether the additional amount of \$131.8 million is assured by a financial mechanism or has it been established to support a spent fuel management program.

RAI No. 7: Submittal 08-0702, Page 3, Table 2

In this submittal, Table 2 lists spent fuel management costs of \$322.6 million in 2008 dollars. Based on a DFT balance of \$74.5 million in current (2008) dollars combined with a proposed supplement of \$60.0 million in 2013 (in 2013 dollars), and an additional \$131.8 million in 2016 dollars, the total amount of funds available is less than the referenced \$322.6 million in 2008 dollars. The total available funds, notwithstanding the discounting of 2013 and 2016 funds to 2008 dollars, is unfunded by more than \$60.0 million dollars. DEF needs to address this funding shortfall.

Peter S. Tam, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Tel. 301-415-1451

E-mail Properties

Mail Envelope Properties (C56E360E9D804F4B95BC673F886381E71D99BB6C6A)

Subject: Kewaunee - Draft RAI re. Preliminary Decommissioning Cost Estimate (TAC ME253)

Sent Date: 3/19/2009 10:47:00 AM

Received Date: 3/19/2009 10:47:00 AM

From: Peter Tam

Created By: Peter.Tam@nrc.gov

Recipients:

Craig.D.Sly@dom.com ('Craig.D.Sly@dom.com')

Tracking Status: None

Jack.Gadzala@dom.com ('Jack.Gadzala@dom.com')

Tracking Status: None

thomas.l.breene@dom.com (Thomas Breene (thomas.l.breene@dom.com))

Tracking Status: None

david.sommers@dom.com (Davis Sommers (david.sommers@dom.com))

Tracking Status: None

Clayton.Pittiglio@nrc.gov (Clayton Pittiglio)

Tracking Status: None

Justin.Poole@nrc.gov (Justin Poole)

Tracking Status: None

Post Office:

HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	19511	3/19/2009

Options

Expiration Date:

Priority: o!ImportanceNormal

ReplyRequested: False

Return Notification: False

Sensitivity: o!Normal

Recipients received: