

From: Charles Hinson
To: Tony_Banks@dom.com
Date: 12/4/03 2:17PM
Subject: Draft questions for N. Anna site audit

Hi Tony

Sorry to be so late in getting back to you but a lot of things came up today. I am attaching a list of draft items that we would like you to address at the site audit next week. Please be aware that it is not necessary for you to provide detailed responses to these questions when we meet next week (since these questions may appear later as part of our RAIs). However, I am sending these questions to you so that you will be aware, ahead of time, that these are some the areas where we will be seeking additional information as we continue our review of your ESP application.

If you have any questions on this material, please contact me at (301) 415-1845.
Charlie Hinson

CC: Andrew Kugler; Bruce Musico; Eric Weiss; Jack Cushing; Michael Scott;
Stacey Imboden; Stephen Klementowicz

Dominion (North Anna) ESP Site Audit Draft Questions

- 1) In Section 4.5.4.2 and 4.5.4.3 of the ESP application you multiply the annual gaseous and liquid effluent doses by a factor of 10 (to cover uncertainty regarding the location of the worker compared to the maximally exposed member of the public) in arriving at the estimated worker doses from gaseous and liquid effluents. We would like for you to justify the use of this factor in arriving at the annual construction worker doses from gaseous and liquid effluents.
- 2) In Table 4.5-1 of the ESP application you provide TLD dose measurements for each of the years 1996 to 2002. We would like to know the location of the TLD (s) used to obtain these measurements and why this TLD location was chosen as the representative location for the direct shine dose.
- 3) The calculated annual TEDE dose to construction workers from direct radiation of 18 mrem is based on the maximum TLD reading measured at the west protected area fence of the existing units. Since construction workers working in the southern portion of the ESP construction site will also be receiving direct radiation from the nearby independent spent fuel storage installation, verify that the annual dose to these construction workers will be bounded by the same calculated 18 mrem TEDE annual dose.
- 4) In Section 4.5.2.1 of the ESP application you state that the boron recovery tanks and the low-level contaminated storage area are among the existing units' principal sources contributing to direct radiation exposure at the construction site. Provide layout maps showing the location of these sources with respect to the ESP construction site.
- 5) If available, we would like to see your calculations of how you modeled the existing direct radiation sources (such as the boron recovery tanks, the low-level contaminated storage area, and the independent spent fuel storage installation) to determine their contribution to construction worker dose.
- 6) We would like to see your basis for using a peak loading number of 5000 construction workers per year. Your calculation of the annual construction worker dose should consider the location of workers, the duration of their stay at a particular location (consistent with the proposed plant layout), the schedule of construction, and the nature of the construction task.
- 7) In addition to the 10 CFR 50, Appendix I Criteria Guidelines for doses from liquid and gaseous effluents, Appendix I (section C) contains limits of 15 millirem to any organ from radioactive iodine and radioactive material in particulate form. Table 4.5-5 of the ESP application should be modified to include the comparison of the estimated dose to construction workers with this limit.