

From: Thomas Kenyon
To: Maher, Bill
Date: 2/25/04 2:31PM
Subject: Additional Agenda Items

Bill,

Attached are some additional discussion items concerning construction worker dose for the Clinton site audit. I am still trying to clarify some other items (same subject), and will send you a complete set tomorrow. But I wanted to give you a heads up on these questions .

Tom

CC: Hickey, Eva; Stoetzel, Greg

Exelon (Clinton) ESP Site Audit Questions

1. In Section 4.5.2 of the ESP application, Exelon states that the two principal sources of direct radiation are the cycled condensate storage tank and skyshine from N-16 activity. Are there any other significant radiation sources onsite (such as an independent spent fuel storage installation) that may contribute to construction worker dose?
2. In Section 4.5.3.2 of the ESP application, Exelon discusses measurements recorded using both indicator and control TLDs. What is the criteria used in locating these two types of TLDs to ensure that the control TLDs were not exposed to any exposure from direct radiation (either from onsite radioactive tanks or from N-16 skyshine) from the CPS Facility?
3. In Section 4.5.3.2 of the ESP application, Exelon references the use of environmental TLD measurements from the year 2001 and the third quarter of 2002 to arrive at the average measured direct dose from the CPS Facility. How do these measurements compare with TLD measurements from earlier years (prior to 2001)? Why did you use TLD measurements from 2002 for the average direct shine measurement when TLD measurements from earlier years may have been higher?
4. In Section 4.5.3.2 of the ESP application, Exelon states that third quarter 2002 TLD measurements at the CPS protected area fenceline averaged approximately 0.021 mrem/hr.
 - a. What was the plant capacity factor during this quarter for which these measurements were taken?
 - b. Why was this data based on a single quarter of plant operation instead of the most recent full year of TLD measurements?
 - c. What was the average dose at the portion of the CPS protected area fenceline which is closest to the proposed ESP site?
 - d. Exelon states that some of the third quarter TLD measurements at the CPS protected area fenceline were as high as 0.050 mrem/hr. Where were these measurements taken with respect to the proximity of the proposed ESP site and the distance from the turbine building? Why was this number (0.050 mrem/hr.) not used as the dose rate at the fenceline?
5. In Section 4.5.4 of the ESP application, Exelon states that the gaseous effluent contribution was adjusted for worker site occupancy time based on the measurements and calculated values reported in Section 4.5.3.1. Does that mean that the highest calculated offsite dose from gaseous effluents received by a member of the public of 0.003 millirem was corrected by the occupancy factor

of 1080/8760 to reflect the portion of this gaseous effluent annual dose that Exelon expects a construction worker to receive?

6. In Section 4.5.4 (fourth from the last paragraph) of the ESP application, Exelon states that the annual construction worker dose is less than 0.045 mrem. Should this read "0.045 rem?"