

Chang, Richard

From: Chang, Richard
Sent: Monday, February 07, 2011 2:42 PM
To: Ghosh, Tina
Subject: RE: ACTION: Draft memo to SOARCA steering committee/DEDO on removal of 10 mrem case - for your comments

Looks ok to me.

From: Ghosh, Tina
Sent: Monday, February 07, 2011 2:36 PM
To: Chang, Richard; Tinkler, Charles
Subject: ACTION: Draft memo to SOARCA steering committee/DEDO on removal of 10 mrem case - for your comments

To: SOARCA Steering Committee/DEDO
From: Jennifer Uhle (or Kathy G?)
Subject: Planned discussion with Commission TAs on removal of 10 mrem case from SOARCA report

Issue

The draft SOARCA NUREGs currently report consequences as individual risk to people living at three different distances from the plant, and using four different dose response models: [1] linear no-threshold (LNT), [2] linear with 10 mrem/yr threshold (truncation at 10 mrem/yr), [3] 620 mrem/year threshold representative of background radiation, and [4] 5 rem/yr threshold with 10 rem/yr lifetime cap, representative of the Health Physic Society (HPS) position.

SOARCA staff proposes to remove the 10 mrem threshold case from the report, and plans to discuss this during a Commission TA brief next week (to be scheduled sometime 2/16-2/18).

Background

In SRM-SECY-08-0029, the Commission approved the SOARCA staff's recommended option for assessing and reporting offsite health consequences, which was to include both [1] LNT and [2] 100 μ Sv (10 mrem) threshold dose response models. The 10 mrem threshold case was included to address the statement from scientific organizations (such as the U.S. National Academies and the International Commission on Radiological Protection in particular) that aggregation of small or trivial doses (using the LNT model) should not be used for risk projection.

Subsequently, the staff informed the Commission TAs that two additional cases would be added: [3] background threshold (620 mrem/yr) and [4] HPS position (5 rem/yr threshold and 10 rem lifetime cap). The SOARCA consequence calculations have been run for all four of these cases, and the 10 mrem and LNT results are essentially the same. Keeping the 10 mrem case dilutes the reporting of SOARCA results and adds no value.

The staff proposes to remove the 10 mrem results from the report. This would be replaced with a short discussion explaining that the 10 mrem case was calculated for all scenarios and the results were essentially the same as the LNT case.