From: John Hickman
To: Alice Carson
Date: 10/06/2006 3:10:56 PM
Subject: Comments on FSS

Alice,

Attached are some comments on FSSs and the draft technical report you provided on hot particles. Please forward to the appropriate people and we would like to discuss around Thursday of next week.

Thanks

John

Mail Envelope Properties (4526AA40.E2B : 12 : 35218)

Subject:	Comments on FSS
Creation Date	10/06/2006 3:10:56 PM
From:	John Hickman
Created By:	JBH@nrc.gov

Recipients	**Action**	**Date & Time**
comcast.net	Transferred	10/06/2006 3:11:17 PM
acarson1967 (Alice Carson)		

Post Office	**Delivered**	**Route**
		comcast.net

Files	**Size**	**Date & Time**
MESSAGE	695	10/06/2006 3:10:56 PM
Comments on AUS-02, BRT-02, NOL-04, OMB-06, OOL-05 & draft YA-REPT-00-019-06.wpd	7376	10/06/2006 3:08:42 PM

Options

Auto Delete:	No
Expiration Date:	None
Notify Recipients:	Yes
Priority:	Standard
ReplyRequested:	No
Return Notification:	
Send Notification when Opened	
Concealed Subject:	No
Security:	Standard
To Be Delivered:	Immediate
Status Tracking:	Delivered & Opened

NRC Comments
on
YR Final Status Survey Reports
AUX-02, BRT-02, NOL-04, OMB-06, OOL-05
*& **Draft Technical report** YA-REPT-00-018-06*

1. AUX-02

YR is requested to walk the Health Physics reviewer through the ISOCS data to show how they determined the value for the samples AUX-0202-111-F-G used in Table 8 - Original & Replicate ISOCS scan data.

2. BRT-02

BRT-02 has twelve (12) class 1 survey units of reinforced concrete structures. Measurements made & results provided were Table 6 & 7 - direct measurements & summary, SPA-3 scans and Table 8 - ISOCS scan summary.

Where are the results of the SPA-3 surveys for BRT-01-08 (electric duct tray), BRT-01-10, BRT-01-12 and BRT-01-13?

3. NOL-04

The NOL-04 survey unit was a soil area when surveyed, and Appendix A covers survey design & indicates that soil samples, ISOCS assays, and gamma scans would be performed.

Table 2 - the scan investigation level is provided in units of dpm/100-cm^2. The scans were done with ISOCS at 1-m with a 180-degree open collimation configuration. It would seems that a scan investigation level in units for soil of pCi/g would be appropriate? Appendix A refers to ISOCS measurements investigation level in units of pCi/g.

Table 6 - ISOCS Scan Summary - provides the scan results in "unity". Are the units for "Unity" in terms of sum of fractions or fraction of $DCGL_{EMC}$?

Section 7.0 - Conclusion - indicates that none of the "direct measurements" exceed $DCGL_W$. Does this statement refer to the soil sample data or the ISOCS scan survey results. [Why does YR refer to soil sample results as direct measurements?]

5. OMB-06

OMB-06-01 is a class 1 survey unit (structural surface) requiring 100% scans and systematic fixed-point samples.
Table 3 provides a systematic data summary & Table 4 provides biased data. Where is the scan data for this survey unit?

Also, where is the survey data for the class 2 survey unit - OMB-06-02? Appendix A covers survey design & generally discusses the survey results, but not in terms of pass/fail based on radiological units (pCi/g) or $DCGL_W$.

6. OOL–15

OOL-15 is a class 3 survey unit (land area). Table 4 provides the results of the systematic soil samples. Attachment A - Figure 2 indicates that gamma scans were done for three (3) areas, but the survey results are not provided in the Section 5.4 - Survey Results.

7. YA-REPT-00-018-06 - *Estimated Doses from Inhalation, Ingestion and Remote Exposure for Residual Particles at Yankee Nuclear Power Station Following License Termination.*

This report deals with the potential effective dose equivalent from inhalation & ingestion of a discrete particle, and the potential effective dose equivalent for remote exposure from a discrete particle remaining on the soil surface after the final status survey.

YR also indicates that the *draft* report YA-REPT-00-018-06 supplements the technical report YA-REPT-016-06 dated August 2006. Page 1 of the draft report indicates that YA-REPT-016-06 deals with potential skin doses from a particle in contact with the skin. Actually, the August 2006 report provided the (potential) effective dose equivalent for a discrete particle located on the skin. YR has not provided the estimated dose or dose equivalent to skin from a 1.7 μCi discrete particle located on the skin surface.