PMSummerColpEM Resource

From: Ravindra Joshi
Sent: Tuesday, October 28, 2008 1:03 PM
To: MONROE, AMY
Cc: Kenneth See; SummerCOL Resource
Subject: Information needs for the Hydrology safety audit at Summer from November 17 through 20, 2008
Attachments: VCSummer Information Needs.doc

Amy,
Attached is a tabulation related to information need for the Hydrology safety audit at the Summer site from November 17 through 20, 2008.
If you have a question or need a conference call to discuss the items included in the attached table, please give a call.
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Lead PM for Summer COLA
NRO/DNRL/Ap1000 Projects Branch 1
US NRC
301-415-6191

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V.C. Summer Safety Information Needs

Serial #	FSAR Section	Discipline	Information Needs	Reviewer
1	2.4.12 & 2.4.13	Groundwater Hydrology	Provide for staff review photos or other materials from excavation of Unit 1 to provide understanding of subsurface environment	M Williams
2	2.4.12 & 2.4.13	Groundwater Hydrology	Provide for staff review the following reports: Mactec 2006 "Results of Geotechnical Exploration and Testing, SCE&G COL Project, V.C. Summer Nuclear Station" Mactec 2007 "Kd Distribution Coefficient Test" Report by SRNL, WSRC-STI-2007-00244, May 2007.	M Williams
3	2.4.12 & 2.4.13	Groundwater Hydrology	Provide a subject matter expert (SME) to describe aquifer testing and analysis.	M Williams
4	2.4.12	Groundwater Hydrology	Provide an SME to discuss occurrence of springs/seeps in the area and other features that may be indicative of larger-scale, interconnected fractures/joints (e.g. subtle trellis drainage pattern in area as noted in FSAR, occurrence of diabase dikes, bedding planes, geophysical surveys)	M Williams
5	2.4.12	Groundwater Hydrology	Provide a map showing the locations and pumping rates of nearby groundwater supply wells	M Williams
6	2.4.12 & 2.4.13	Groundwater Hydrology	Provide an SME to discuss possible eastward pathways toward Mayo Creek.	M Williams
7	2.4.12	Groundwater Hydrology	Provide an SME to discuss impact of post-construction / operational setting on water table elevations (site grading including infilling on east below cooling towers, removal of saprolite/shallow bedrock zone, hydraulic properties and use of common fill and structural fill, changes in surface recharge).	M Williams
8	2.4.12	Groundwater Hydrology	Provide an SME to discuss impact of drought in the area the past few years and earlier in the decade on 2006-2007 water level monitoring from site.	M Williams
9	2.4.13	Groundwater Hydrology	Provide for staff's review all calc packages associated with assessment in 2.4.13 of FSAR.	M Williams
10	2.4.13	Groundwater Hydrology	Provide an SME to discuss why a pathway through the bedrock zone was not fully evaluated.	M Williams
11	2.4.13	Groundwater Hydrology	Provide an SME to discuss possibility of deeper groundwater flow pathways that may not be intercepted by local streams adjacent to Units 2 and 3 (i.e. intercepted by water supply wells).	M Williams

12	2.4.13	Groundwater Hydrology	Provide an SME to discuss impact of post-construction / operational setting on groundwater pathways (site grading including infilling on east below cooling towers, removal of saprolite/shallow bedrock zone, hydraulic properties and use of common fill and structural fill, changes in surface recharge).	M Williams
13	2.4.13	Groundwater Hydrology	Provide an SME to discuss uncertainties in effective porosity estimate used	M Williams
14	2.4.13	Groundwater Hydrology	Provide an SME to describe the process used to determine that the conceptual model for the transport processes is the most conservative plausible conceptual model.	M Williams
15	2.4.1	Surface water Hydrology	Provide a map clearly showing the locations and elevation of all safety related structures and the maximum water surface elevation at these locations.	L Hibler
16	2.4.2.1 & 2.4.3.3	Surface water Hydrology	Provide for staff's review all calculation packages related to the use of weir equations and coefficients used for Parr Reservoir water level calculations	L Hibler
17	2.4.2	Surface water Hydrology	Provide for staff's review of HEC-RAS input files and topographic maps showing locations of cross-sections used in the model	C. Cook
19	2.4.2/2.4.6	Surface water Hydrology	Provide an SME to discuss landslide induced floods.	C. Cook
17	2.4.2.2.	Surface water Hydrology	Provide an SME to discuss the structures (dike) that would control the elevation in Monticello Reservoir.	L Hibler
18	2.4.2.3	Surface water Hydrology	Provide for staff's review all calculation packages associated with assessment in 2.4.2.3 of FSAR (Effects of Local Intense Precipitation) including the Rational Method runoff rates.	L Hibler
19	2.4.3	Surface water Hydrology	Provide for staff's review all calculation packages associated with assessment in 2.4.3 of FSAR.	L Hibler
20	2.4.3	Surface water Hydrology	Provide calculation packages associated with the Broad River Unit Hydrograph Development including the HEC-1 model.	C. Cook
21	2.4.3	Surface water Hydrology	Provide calculation packages associated with the Frees watershed PMF calculation and wind-generated wave setup.	C. Cook
22	2.4.3	Surface water Hydrology	Provide for staff's review the HEC-HMS model used to develop the PMF for the Broad River	C. Cook
23	2.4.3	Surface water Hydrology	Provide an SME to discuss the unit loss rate of 0.6 in/hr.	C. Cook

24	2.4.3	Surface water Hydrology	Provide an SME to discuss the accuracy of the local topographic information.	C. Cook
25	2.4.4	Surface water Hydrology	Provide for staff's review a copy of the following report: SCE&G, Dam Safety Analysis for Fairfield Pumped Storage Facility, FERC Project No. 1894, prepared by Post, Buckley, Schuh and Jernigan, Inc., 1990.	C. Cook
26	2.4.4.3	Surface water Hydrology	Provide for staff's review all calculation packages associated with assessment in 2.4.4.1 thru 2.4.4.3 of the FSAR	L Hibler/C. Cook
27	2.4.4.4	Surface water Hydrology	Request copy of Reference 223 (Dam Safety Analysis for Fairfield Pumped Storage Facility)	L Hibler
28	2.4.7	Surface water Hydrology	Provide Monticello Reservoir and Broad River water temperatures discussed in FSAR 2.4.7.	L Hibler
29	2.4.11	Surface water Hydrology	Provide an SME to discuss data and procedures for computation of low flows in rivers and streams.	L Hibler
30	2.4.11.5	Surface water Hydrology	Provide SME to explain significance of assuming that FERC requirement for Unit 1 will be the same for Units 2 and 3.	L Hibler
31	2.4.13.1.2.4	Surface water Hydrology	Provide an SME to discuss dilution calculations in Broad River.	L Hibler