

-----Original Message-----

From: Owens, Kirk W.

Sent: Saturday, January 08, 2005 5:12 PM

To: 'Peggy Powers'

Cc: 'Susan D. Radzinski'; Hoffman, Robert; Schinner, James R.

Subject: RE: Data Request for : SCC aka MCMS

Peggy,

Thank you for continuing to feed the information to us as you are able to acquire it. This helps keep us moving forward. It also helps us recognize other information that we need. I told Susan that I was going to work on identifying outstanding data needs. In addition to the items you already acknowledged that you are working on (peak demand), the attached includes the remaining outstanding questions, some new additional questions and follow-up questions to earlier responses.

Please give me a call if you need to discuss anything.

Thanks,

Kirk Owens

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-----Original Message-----

From: Peggy Powers [mailto:peggy.powers@lanl.gov]

Sent: Friday, January 07, 2005 6:22 PM

To: KIRK.W.OWENS@saic.com

Subject: Data Request for : SCC aka MCMS

Kirk, additional information shown in red on attached. I am expecting the peak electrical demand soon but wanted to get this information to you now.

Peggy Powers

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1/8/05

Data Request (follow-up 1) for:

Metropolis Center for Modeling and Simulation (MCMS)

The following is a follow-up to the initial data request. It includes the questions that are still outstanding as well as some new

Water Resources

MCMS-6 The SCC EA provided a conservative water use estimate of 172,800 gallons per day (GPD) for cooling water (72 gallons per minute [GPM]) and blowdown water (48 GPM). At the 100 TeraOps capability, what would be the estimated daily water need for cooling and blowdown?

MCMS-7 The SCC Project committed to no net increase in water demand, and therefore pumping from the aquifer, by using treated water from the Sanitary Wastewater Systems Consolidation Plant. What is the status of using treated water to meet the MCMS water demands? **RESPONSE: New treatment facility has been tested but not yet approved for use (discussion involves hazard level).**

FOLLOW UP: What is the current schedule for getting approval and starting to use the facility to provide the water needs of MCMS? Also, with the change to 100 TeraOps is the project still committed to a no net increase in water demand as was stated in the SCC EA?

MCMS-8A Will all wastewater from cooling tower blowdown and standard building use continue to be discharged to the SWSC? **This is a new question.**

Air Quality and Noise

MCMS-10A Are there exterior noise sources associated with construction and what measures would be taken to control them? **This is a new question.**

MCMS-10B Would there be additional exterior noise sources associated with the increased operation (e.g., from providing additional power or cooling)? **This is a new question.**

Ecological Resources and Biodiversity

MCMS-11 Has the Sandia canyon wetland undergone a reduction in size as predicted in the SCC EA? What impact has this had? Would a further reduction be expected as a result of the proposed expansion to 100 TeraOps? **RESPONSE: Since treatment facility is not yet operational, there have been no changes to Sandia Canyon wetland due to use of treated water.**

FOLLOW UP: Once the treatment facility is operational what will be the effects on wetlands? What would be the effect on wetlands of an increase from 50 TeraOps to 100 TeraOps?

MCMS-16 Would the increase from 50 to 100 TeraOps increase utility usage requirements

- a. Electricity – Energy (megawatt hours per year) and Peak load demand (megawatts):

30T: 5.1 MW (3.2 MW for the computers, .7 MW for the chillers (1200 T), 1.2 MW for the building)

100T: 9.0 MW (6.4 MW for the computers, 1.4 MW for the chillers (2400 T), 1.2 MW for the building)

FOLLOW UP: Are the numbers above correct for 30 and 100 TeraOps, i.e., the electrical usage for the computers and chillers at 100 TeraOps is 2x the 30 TeraOps level?

Also, as noted by P. Powers, peak load data still needed.

- a. Water – (gallons per year):

30T: 53,000 gpd, or 19,345,000 gpy. This is consistent with the usage data that we reported last year.

100T: 88,416 gpd, or 32,271,840 gpy. We can send you the details of this calculation if you need them.

- b. Sewage – was the pipeline assumed for use in the SCC EA actually used and was it lined or replaced (p 22)?

A stormwater pipe was replaced on the east side of the building.

FOLLOW UP: Where does sewage from the MCMS get treated/disposed and how is it routed to the treatment facility?