From: James Haugen [mailto:haugen@lanl.gov]
Sent: Wednesday, November 29, 2006 1:12 PM
To: Folk, Kevin T.
Subject: RE: Fwd: RE: Historic LANSCE Water Use

There was a strap on meter on the supply pipe to the water tank and the meter reading for FY05 was 54,834 kgal. The site was being supplied water via one line during the year and the second tank is connected to the first tank.

At 11/29/2006 10:44 AM, you wrote:

Jim:

Ok and thanks. Just so I am clear, estimated FY05 water use at LANSCE was an estimated 55 M gallons?

Kevin

-----Original Message-----
From: James Haugen [mailto:haugen@lanl.gov]
Sent: Wednesday, November 29, 2006 12:20 PM
To: Folk, Kevin T.
Subject: RE: Fwd: RE: Historic LANSCE Water Use

At this time, I will use the FY05 tank input readings of 55 mgal for the LANSCE site.

At 11/21/2006 01:22 PM, you wrote:

Jim:

Just wanted to follow-up to see if you had made any progress on nailing down LANSCE's current water use?. I do have a couple of numbers from LANL sources for historic *maximum* water demand including 77 Mgal annually cited in LA-UR-01-3040 (ESH-20 NEPA Determination Document 11, Los Alamos Neutron Science Center (LANSCE)) and 64.9 Mgal annually from LA-UR-01-6377 (Site-Wide Water Conservation Program). Again, we had spoke with Ben Poff about possible future level of operations at LANSCE and utility demands after completion of the LANSCE Refurbishment project, but he did not have any data to offer at the time. Our goal remains trying to baseline current water use as a basis for presenting good projections in the EIS within the context of addressing the public comments we received.

If I don't hear from you, have a Happy Thanksgiving. Thanks and feel free to call at anytime.
Kevin

-----Original Message-----
From: haugen@lanl.gov [mailto:haugen@lanl.gov]
Sent: Monday, November 06, 2006 5:26 PM
To: Susan D. Radzinski; Folk, Kevin T.
Cc: Owens, Kirk W.
Subject: Re: Fwd: RE: Historic LANSCE Water Use

Please DISREGARD my previous e-mail with a LANSCE water usage.
We suspect that the meter used for the reading is not accurate and we are looking at replacing it.
There are two tanks (55 and 987) at TA-53 floating on the distribution system. There is also a pipe between the tanks so that filling one tank actually fills both tanks.
We have strap on meters on Tank 55. The meters on Tank 987 were damaged by the fire in 2003 and haven't been replaced.
There old cooling towers were replaced with new cooling towers sometime in 200?. I will get a more exact date and the differences between the cooling towers.
I started as water distribution engineer in June 2003 and only have monthly data since that date.
For information only at this point,
The Tank 55 input meter readings were FY04 49,339 and FY05 54,834.
The cooling towers meter readings were FY04 32,353 and FY05 40,836.
Before you use this quantities, please allow me to check on their accuracy.

At 11/6/2006 01:37 PM, Susan D. Radzinski wrote:

Jim,

This is the comment we are trying to answer. It is in the usual Chris Mechels style, but we must come up with a answer. Thx for any help or insight you can provide.

Susan

X-Sieve: CMU Sieve 2.2
Subject: RE: Historic LANSCE Water Use
Date: Mon, 6 Nov 2006 13:41:44 -0500
X-MS-Has-Attach:
X-MS-TNEF-Correlator:
Thread-Topic: Historic LANSCE Water Use
Thread-Index: AccBvi5hcrsO+xfVRKO2zSQbqLrIKQABxzAA
From: KEVIN.T.FOLK@saic.com
To: <sradz@lanl.gov>
Cc:

Hi, Susan. Got your message. We were actually having our biweekly project status conference call when you called.

Understand that data availability might be problematic. Even annual total LANSCE water use would help to try to put LANSCE water use on par with the LANSCE electric power demand that has always been cited in the yearbooks. The main reason for my latest data request is to see how closely annual electric power demand and water demand at LANSCE are tied and to present more balanced data. Specifically, I am trying to respond to the rather convoluted comment from Chris Mechels (former LANL) and just trying to see where is going with his concerns. This and his other comments really express his dislike for the Reduced Operations Alternative but he takes numbers for LANSCE out of context. His issue is not with

Refurbishment per se, which I have spoken with Ben Poff about, but he trying to discredit the overall analysis by saying we make LANSCE's energy and water demands look better than they are. In any event, I have highlighted the key text as follows:

It presents the "Reduced Operations" alternative as shutting down LANSCE, which suggest that this alternative can at least be considered. Not "same as No Action" mind you, but shut down. Then under G.5.2.3 the SWEIS explains how it is impossible to shut down LANSCE. This suggests that the shut down alternative is simply off the board, and "same as No Action" was the real option for "Reduced Operations". The "real" shut down option would have to consider not the absence of capabilities but their priorities and availability at other sites. An obvious place to obtain some of the capabilities is the Spallation Neutron Source (SNS) where a much more powerful beam line and neutron source is just coming on line. Failure to consider the SNS, and other DOE sites, **to replace LANSCE capabilities is a fatal flaw in considering the "Reduced Operations" alternative, and reason enough to throw out the analysis, and redo it. Other problems abound with the LANSCE analysis. Some of them follow: Table 3-16 has LANSCE operating 10 months (6400 hours) per year. It is this level of operation that the "Refurbishment Project", the "Expanded Operations" option would restore and sustain. However, the current level of LANSCE operations is described in G.5.3.2 as using 86,275 megawatt hours and ~77 million gallons (historical) for water annually. A quick calculation, using the 21 megawatts figure given shows that 6400 hours would require 134,000 megawatt hours and 119 gallons of water annually. The very large differences, due to the current unreliability of LANSCE, are not analyzed as to their effect on overall LANL power and water usage. This analysis needs to be supplied, as the additional 42 million gallons per year would push LANL well over its water capacity. The figures from the 1999 SWEIS cited for LANL, and LANSCE, power and water usage are so completely divorced from reality that some explanations needs to be provided. How can figures cited, at G.5.3.2, from the 1999 SWEIS annual forecasts of LANL (759,000,000 gallons) and LANSCE (265,000,000 gallons) have any possible use, when the total LANL usage allowed is 522,000,000 gallons? LANSCE water usage is listed as "about 15%" of LANL usage**, and all the figures available refute this statement. This whole section needs to be revisited, and rewritten, as its current content seems to have no relation to reality. In summary, the LANSCE analysis avoids any "real" analysis of the "Reduced Operations" option, which would include prioritizing the workload and looking around the DOE for real alternatives to LANSCE. Thereby, by this failure of honest evaluation, the "Expanded" option seems the only one left. In turn, the failure of the "Expanded" option to acknowledge the increased power and water usage incumbent to that choice avoids the very real problems of this option. Likewise the LANSCE avoids the additional 43,000,000 gallons per year of water required for their "preferred" option and the simple fact that LANL does not have the water available. Likewise the SWEIS does not acknowledge a simple fact; that the LANSCE front end, the accelerator, is past its design life, and obsolete. Newer facilities, such as SNS, exist to replace the functions of LANSCE, and an evaluation needs to be made, on the merits, of the "essential" needs met by LANSCE. This evaluation is not provided thus the, unexamined, claims of the critical need for LANSCE is presented as a fact. It is not a fact. The "real" option for LANSCE is not that of refurbishment of this obsolete accelerator. It the capabilities are "essential" and they "must" be at LANL for the mission to be performed, then the "real" option is a new accelerator, and that is the option that should be analyzed in depth. The "preferred" option presented, and the dishonesty supporting it, needs to be reexamined.

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-----Original Message-----
From: sradz@lanl.gov [mailto:sradz@lanl.gov]
Sent: Monday, November 06, 2006 11:11 AM
To: Folk, Kevin T.
Subject: Re: Historic LANSCE Water Use

Kevin,

I have forwarded your request on to utilities. Should hear soon from Jim Haugen.

Susan

At 08:17 AM 11/6/2006, you wrote:

Susan:

Once again, thanks very much for doing the heavy lifting on data collection. As such, I have another request as we are working a couple of difficult comments regarding LANSCE. Would it be possible to provide LANSCE water use for the period 1999-2004 (we already have FY05 below)? If you had the monthly numbers, that would be just as good as I could then compile the CY and FY totals for comparison (as I would assume LANSCE water use is tracked first and foremost by CY so as to compare with FY electric load information).

Please let me know if you have any questions or need clarification. Thanks.

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-----Original Message-----
From: sradz@lanl.gov [mailto:sradz@lanl.gov]
Sent: Monday, October 30, 2006 2:56 PM
To: Folk, Kevin T.
Subject: Fwd: Re: FW: Remaining Data Needs to Update LANL SWEIS Infrastructure

More from utilities.

Susan

X-Sieve: CMU Sieve 2.2
X-Mailer: QUALCOMM Windows Eudora Version 7.0.1.0
Date: Mon, 30 Oct 2006 11:10:38 -0700
To: "Susan D. Radzinski" <sradz@lanl.gov>
From: James Haugen <haugen@lanl.gov>
Subject: Re: FW: Remaining Data Needs to Update LANL SWEIS
Infrastructure
X-PMX-Version: 4.7.1.128075

Facility-Specific Data Needs

Water and electric power consumption for Metropolis (previously provided by Nick Nagy)
SCC FY 2005 45,798,072 KWH No water meter installed

If available, 2005 (CY or FY), water consumption for LANSCE.
LANSCE FY 2005 23,468 KGAL

If available, 2005 (CY or FY), water and electric power consumption for TA-55 facilities and/or PF-4.
TA-55 FY 2005 15,715,459 KWH No water meter installed for filling tanks at TA-55

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