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**From:** Wayne Slawinski  
**To:** Charles Phillips; Jan Strasma; Mark Ring; Viktoria Mitlyng  
**Date:** Tue, Oct 19, 2004 8:12 AM  
**Subject:** Re: Information for Dave Lochbaum on Dresden leak

The offsite wells (I believe there is only two - one on a residence and one at the lock and dam facility) have been sampled routinely every quarter as required by their REMP program and they continue to be sampled. We review the offsite well sampling results as part of our biannual REMP review. Onsite wells (which are not required by their REMP program) had been sampled routinely (typically quarterly) until 2001, at which time they were discontinued as a cost saving measure. They may have discontinued sampling some of the onsite wells (they have about 20 or 30 of these wells) earlier than 2001, but most were discontinued in 2001. We normally do not review the results of onsite well sampling because these wells are not required. Most sites don't have onsite wells. Dresden installed onsite wells following tritium leak problems a decade or more ago.

>>> Mark Ring 10/14/04 07:37AM >>>  
Wayne,

Thanks for this additional clarification. Do you know if/when the licensee stopped sampling the various wells, both shallow and deep, on site and off? Mr. Lochbaum says he "was told" that they stopped sampling in 1993. However, I thought sampling continued as late as 2001. Can you provide any insight?

-Mark

>>> Wayne Slawinski 10/13/04 08:37PM >>>  
Chuck, Mark, et al. -

During my July 2004 REMP inspection at Dresden, I noted that one of the offsite well water samples routinely collected/analyzed to meet REMP requirements has been trending slowly upwards over the last 4-5 years. Tritium levels from this privately owned residential well were about 400 pCi/l in 1999, increased to about 500 -600 pCi/l in 2000, 2001, and 2002, and up to about 800 pCi/l in 2003. The EPA drinking water limit for tritium is 20,000 pCi/l (NRC limits are much higher than the EPAs). The presence of tritium in this well is not attributed to the CST line leak. Rather, it is likely caused by a combination of plant produced tritium and possibly a small component from naturally occurring activity.

I discussed this well water issue with the licensee during the inspection and at my exit meeting. At the exit, I indicated that the licensee's HP staff had developed plausible theories for the presence of tritium in this well based on 1991 and 1995 geologic evaluations, plant operating (H-3 production) history and its presumed offsite transport mechanisms. However, I indicated that the licensee needed to perform an evaluation to better support its theory and to document this issue. Obviously, the licensee needs to be proactive to ensure EPA limits will not be approached in the future.

This is most of what I can recall for now. I plan to be back in the office the week of October 25th and can do more research on this if necessary. Wayne

>>> Charles Phillips 10/13/04 11:14AM >>>  
Mark,

Its my understanding that during the REMP inspection the licensee stated that detectable levels of Tritium were found at one deep well sample location outside the OCA about 1000 pci/l. This was observed before the licensee was aware of the leak. This was not new. I believe the licensee has detected tritium levels of about 300-500 pci/l at that location before. Need to check this with Wayne Slawinski.

Chuck  
>>> Mark Ring 10/13/04 11:01AM >>>  
Jan & Vika,

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In the attached, please find a summary of info known to date on the Dresden CST line leak for your use in replying to Dave Lochbaum. Note: I'm waiting on the specific values of activity from DRS to fill in the blank spots.

-Mark

**CC:** Desiree Smith; Karen Gladden; Kenneth Riemer; Mina Sheikh; Paul Pelke