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Date: Thu, Feb 8, 2007 3:01 PM
Subject: IPEC Fish Sampling

Hello All,

Attached is the summary of the 1/31 fish sampling conf call.

I believe I was able to adequately accommodate all of the comments received. If not please let me know.

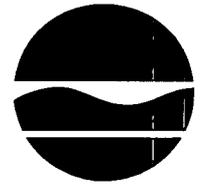
We need to hold a follow-up call to finalize the species to be sampled, verify the new upstream sample location, arrange how, where and by whom the sample homogenizing and splitting will take place, and any other details that we need to be addressed. The main participants for this call would be the biologists and REMP sampling personnel needed to resolve the issues mentioned above. We will still need to arrange for a call with the lab staff and biologists at a future date to address sample prep and detection limit standardization to minimize variables to the extent possible.

Given preliminary contacts with Entergy and DOH I suggest a call at 1:30 in the afternoon next Tuesday, 2/13. Please let me know if you need to be on this call but can not make this date and time and I will try to accommodate conflicts.

Thanks,

Tim Rice
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**Outcome of the 1/31/07 Indian Point
 Hudson River Fish Sampling Conference Call**

PARTICIPANTS

<p><u>DEC</u> Tim Rice, Radiation Barbara Youngberg, Radiation Larry Skinner, Fish & Wildlife Larry Wilson, Fish & Wildlife Larry Rosenmann, Geologist Alex Czuhanych, Geologist</p> <p><u>DOH</u> Robert Snyder, Toni Forti, Ed Horn,</p>	<p><u>NRC</u> John White, Jim Noggle, Jim Kottan, Tim Frye, Adam Schwartzman, Steve Geary,</p> <p><u>Entergy</u> Jay Adler, Groundwater Project Pat Donahue, Groundwater Project Dennis Quinn, DAQ, Inc. Project support Gary Hinrich, Groundwater Project Don Croulet, Licensing Jim Furfaro, Sr, Engineer, Corporate Engineering Dara Gray, Environmental Tom Burns, REMP Supervisor Gary Re', Engineering Supervisor, Corporate Engineering Steve Sandike, RS&CS Project Support</p>
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BACKGROUND

Entergy's 2006 Radiological Environmental Monitoring Program (REMP) Hudson River fish sampling effort generated data showing that one of five samples at the indicator location near the plant discharge, and three of five samples from the control location upriver near Roseton, contained concentrations of Sr-90 in fish flesh above their analytical detection limits. Entergy has concluded this data, and data provided by the State on control samples from Brookhaven National Lab and the West Valley site, indicate that concentrations near the plant are indistinguishable from background levels. The NYS Department of Environmental Conservation (DEC) and NYS Department of Health (DOH) reviewed the available data and agreed that it appears to support Entergy's conclusion. However, the agencies also concluded that additional work was needed to enhance the level of confidence in the data and the conclusions that had been drawn. DEC held preliminary discussions with the Nuclear Regulatory Commission (NRC) who agreed that a short term enhanced sampling effort was appropriate. Both agencies later discussed the issue with Entergy, who agreed that there was a need to bring all parties together to discuss the potential of enhancing the next round of Hudson River fish sampling.

DISCUSSION

Due to the presence of new participants on this call DEC and NRC started by reviewing the circumstances resulting in contaminated groundwater reaching the Hudson River that resulted in Entergy adding Sr-90 to their list of REMP fish sample analytes. The NRC reviewed the purpose behind REMP

sampling at power reactors (to validate the dose/pathway to man calculated by their licensees based upon plant effluents) and the relevant requirements (include commercially important species in sample collection and focus analysis on edible portions of fish). DEC laid out the questions that the State agencies believe need to be answered and presented their list of recommendations for supplemental sampling during the spring REMP sampling that are designed to try to answer those questions (see attached handout). A general discussion ensued focused on State recommendations and NRC REMP requirements. The NRC and Entergy were in general agreement with the State recommendations.

OUTCOME

The outcome of this conference call was an agreement on how to proceed with the enhanced Spring REMP fish sampling effort in the Hudson River.

Agreement

1. The enhanced round of sampling will be in addition to the routine NRC required REMP sampling program, but is to take place in conjunction with the REMP sampling effort. This effort is not intended as an expansion of the REMP protocols developed to comply with NRC requirements.
2. An additional sampling location further upstream of the Roseton location will be established for the round of sampling. DEC and DOH staff with extensive experience in fish behavior and sampling efforts in the Hudson will work with representatives of the NRC, Entergy, and Entergy's fish sampling contractor to establish the appropriate sampling location.
3. Every reasonable effort will be made to collect enough mass for each sample at each location to provide sufficient sample mass to allow for three-way splits for analysis by laboratories used by Entergy, the NRC, and analysis by the DOH Wadsworth Laboratory.
4. Sampling will focus on the species selected by the State biologists as relevant for this sampling effort as well as those required to be collected as part of Entergy's REMP program in order to comply with NRC requirements. These are expected to include: carp, pumpkinseed, white perch, catfish (channel or white), American eel, shad, and blue crab. List to be finalized during upcoming conf call.
5. In a laboratory setting, all members of a species collected at a given location will be composited into individual samples. Each sample will be homogenized, and split three ways for analysis by Entergy, NRC, and State labs for edible tissue and two ways by NRC and State labs for bone/organ portions.
6. All samples will be analyzed for Sr-90, Cs-137, and other routine REMP analytes.
7. The State and the NRC will analyze both fish flesh and a sample consisting of fish bone and organs. Entergy will continue to analyze edible portions only, as indicated in NRC REMP requirements.
8. Entergy will share for review a copy of a draft sampling plan which be based upon their REMP program.
9. We will hold follow up conf calls to address issues such as the location of the upstream sample location and the laboratory needs for sample preparation and detection limits. In addition to the staff who are routinely work on the Indian Point investigative efforts, the laboratory call on sample preparation and analysis will include state biologists and representatives of the three laboratories who will be performing the sample analyses.