John White - meeting handout for 9:00

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Date: 01/31/2007 8:43 AM
Subject: meeting handout for 9:00

See attached.

B/19

Indian Point Fish Sampling Conference Call
1/31/07 9:00 - 11:00 AM
NRC, DEC, DOH, Entergy

The Issues

The recent Entergy REMP fish sampling on the Hudson has raised concerns over the possibility of Sr-90 impacts to humans and the biota of the River. The limited data from that sampling supports the position that there is no measurable impact from plant releases and groundwater, but several questions need to be addressed to provide a sufficient level of confidence in the data interpretation.

A. Primary Questions to be Answered:
1. Is IP making a measurable contribution to Sr-90 concentrations in Hudson River fish?
2. If so, does that additional Sr-90 pose a human health threat?

B. In order to answer those questions we have to ask:
1. Is Roseton a viable control location.
    a. Are the control and indicator fish separate populations?
    b. Is Roseton impacted by IP discharges?
2. Are the appropriate species being collected?
3. Is fish flesh the only needed sample?
4. Have the indicator and control samples been compared on a species by species basis?

Recommendations

1. Institute a second control location upstream of Roseton, at least for this round.

2. Focus fish sampling on Carp, Sunfish (pumpkin fish), White Perch, Catfish (channel or white), and American Eel.

3. Analyze both flesh and bone/organs for this round.

4. Composite all members of the same species at each location into one sample for splitting.
    ex: All Carp at IP location composited and separated into flesh and bone/organs, and each split 3 ways.

5. Analyze all samples for Sr-90, Cs-137, and other routine REMP analytes.

Attached is a draft of the outcomes from yesterdays fish sampling conf call.
Please review and provide feedback.
Make sure you check your organizations participant names and add their respective program identifications.
Thank you,
Tim

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

PARTICIPANTS

DEC	NRC
Tim Rice, Radiation	John White,
Barbara Youngberg, Radiation	Jim Noggle,
Larry Skinner, Fish & Wildlife	Jim Kottan,
Larry Wilson, Fish & Wildlife	Tim Frye
Larry Rosenmann, Geologist	Adam Schwartzman,
Alex Czuhanich, Geologist	Steve Geary,
DOH	**Entergy**
Robert Snyder,	Jay Adler,
Toni Forti,	Pat Donahue,
Ed Horn,	Dennis Quinn,
	Gary Hinrich,
	Don Croulet,
	Jim Ferfarro,
	Dara gray,
	Tom Burns,
	Gary Ray,

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 an 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.

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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 sample volume 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 include: Carp, Pumpkinseed, White Perch, catfish (channel or white), American Eel, Shad, and Blue Crab.

5. All members of each species collected at a given location will be composited into one sample, homogenized, and split three ways for analysis by Entergy, NRC, and State labs.

6. All samples will be analyzed for Sr-90, Cs-137, and other routine REMP analytes.

7. The State will analyze both fish flesh and a sample consisting of fish bone and organs. Entergy and the NRC 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 representatives of the three laboratories who will be performing the sample analyses.