August 28, 2016

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To:	CHAIRMAN Resource
Cc:	Screnci, Diane; Lyon, Jill:(NMP); T Holden; Bridget Frymire; ESTRONSKI@aol.com; Johnson, Michael
Subject:	[External_Sender] Fukushima-related Comments for July 21, 2016
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Good morning,

Now that Tokyo Electric Power Company Holdings has been more or less forced to admit their failure to freeze out site ground water, (previously and presently flowing continuously into the Fukushima Dai ichi building foundations), the question naturally arises, why didn't that work?

I think the answer is this: it is harder to freeze water that is flowing. For example, advice on how to keep home water pipes from freezing on page 65 of "Plumbing 1-2-3" from Meredith Books is:

"Should your area experience unusually cold temperatures, use this stop-gap method for preventing pipes from freezing. Leave faucets that are connected to piping on outside walls open so water trickles from them."

So, even though I thought the soil-freezing idea would work, it didn't. I am glad they tried it, though. The question now is: what should be done next?

Well, I have an answer for that question, too.

Give up on the idea that you are going to transport corium from where you do not know it is to someplace, (after 5 years), you still have not selected. In other words, leave the corium where ever it is, cover with shielding material, and contain it.

It would appear that a significant change in Japanese commercial nuclear industry decision-making is required. Namely, the industry must realize that some decisions may only be good for a limited period of time while other decisions that they made may always have been bad ones. Results from the decision-path chosen must be periodically compared with the predicted or desired results (at that point) and corrections implemented quickly. I do not believe this to be the present case with Tokyo Electric Power Company Holdings' Fukushima Dai ichi powerplants.

Summary

Stop pumping water out of the buildings.
Fill the buildings with sand and high density aggregate.
Remove nuclear fuel from the spent fuel pools.
Provide containment.

Thank you,

Tom Gurdziel

One example of a bad decision is the choice to wait until two times design pressure before beginning to vent the primary containment. By this time, failure most likely has already occurred. A reference is INPO 11-005 Addendum, "Lessons Learned from the Nuclear Accident at the Fukushima Daiichi Nuclear Power Station", page 16, Containment Venting section.

A second example of a bad decision would be the intention to remove all corium from the Fukushima Dai ichi site instead of leaving it in place.

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