

OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

Date Printed: Jun 04, 2012 15:59

PAPER NUMBER: LTR-12-0261

LOGGING DATE: 06/04/2012

ACTION OFFICE: EDO

To: Leeds, NRR

AUTHOR: Della Pangborn

AFFILIATION: OR

ADDRESSEE: Chairman Resource

SUBJECT: Fukushima - Possible Solutions

cys: EDO
DEDMRT
DEDR
DEDCM
AO
Harrison, OEDO

ACTION: Appropriate

DISTRIBUTION: Chrm, Comrs

LETTER DATE: 05/30/2012

ACKNOWLEDGED No

SPECIAL HANDLING:

NOTES:

FILE LOCATION: ADAMS

DATE DUE:

DATE SIGNED:

Template: SECY-017

E-RIDS: SECY-01

Joosten, Sandy

From: Della Pangborn [Della.Pangborn@IPAPER.com]
Sent: Wednesday, May 30, 2012 12:35 PM
To: CHAIRMAN Resource
Subject: FW: FUKUSHIMA - POSSIBLE SOLUTIONS
Attachments: Document.pdf

Honorable Gregory Jaczko,

I urge you to read the attached document (only 2 pages), as it contains some ideas that I found for dealing with the meltdown of Reactor # 4. This is the most urgent issue facing the world today and needs immediate attention.

Thank you,

Della Pangborn

-----Original Message-----

From: International Paper [<mailto:hpmfp@ipaper.com>]
Sent: Wednesday, May 30, 2012 9:29 AM
To: Della Pangborn
Subject:

Please open the attached document. This document was digitally sent to you using an HP Digital Sending device.

Urgent

Please consider the following suggestions for containment of Reactor # 4 at FUKISHIMA. I ran across them on a website and know you are one of the few people who are concerned about this dire situation.

FIRST IDEA:

I have operated a business repairing cracks in concrete pools for the past thirty six years.

Reading of the issues related to the nos. 3 and 4 containment ponds I have come up with a few ideas that may greatly reduce or stop the water loss without endangering workers.

Repairs to Containment pond three will require the manufacture of an active-vacuum sealing double-walled hollow alloy column, much like a drain pipe cut down the middle with an end cap on one end, and open at the other. The unit is sized to encompass the crack. An o ring seat is fitted between the double walls. When a vacuum pump is connected and the unit is held against the pond wall with the open end above water, a partial vacuum occurs between the twin walls of the alloy column and the concrete wall, causing the unit to suck onto the wall and seal out water along the vertical crack during the repair process. Water is drawn out from the interior until the column is empty. At this point the column (covering the crack) can be filled with sealant. I use an insanely strong high temp two part mega epoxy to seal the crack without removing water from the pond. In twenty four hours the alloy column can be removed (or not) and the repair is complete. (In another twenty four hours the material has become so hard you require a diamond saw to scratch it.) This is a locally made substance from an engineering firm and has never failed me.

The no. Four remedy I thought of is a little more complicated and is designed to repair an unseen crack in a pond fouled with junk.

Please someone contact me and talk, we could repair no. 3 in perhaps two days and no. 4 in a week or two. I'm not a crackpot...I'm in the business of repairing underwater cracks in swimming pools and the ramifications of failing to seal these ponds frightens us all.

I'm willing to travel.

Ken

Mantelbrottset@yahoo.com.au

SECOND IDEA:

There is a possible approach to a solution:

There is nothing of real value in the reactor building under the spent fuel pool, so fill it with dirt and rubble – quickly, using conveyors and all necessary other equipment. This can be done quickly and run without too much human exposure. Proper compaction here is desirable, but it's not an affordable luxury.

Next, build up dirt/concrete/rubble to just under the spent fuel pool and pour another floor under it with heavy steel reinforcement. Not perfect as would be done in new construction, but something to carry the weight as necessary. After this is in place, prefabbed concrete walls can be lifted by crane around the perimeter. These can be grouted with the best available technology against the current SFP. If necessary, the perimeter prefab units can be in smaller segments to facilitate lifting. Of course, all the grouting will require some level of remote control, since the radiation is lethal.

Once the current SFP is stabilized and the water level is sufficient, and circulated if necessary, then additional raised and stabilized areas can be constructed for a large crane, and a mobile containment vessel and grapple can be designed and built. THEN the pool can be emptied of fuel assemblies and loaded into dry casks.

It's time to vet this plan and get on with it.

The person above who suggested building a rubble and concrete foundation around the #4 fuel pool has provided probably one of the best solutions, It may be necessary to bury the entire facility in boron, sand, and concrete (as they did at Chernobyl) but they probably won't do that until it actually starts burning, and then it will be too late because of sheer quantity of concrete, boron, and sand will not be available because of the geography of Japan (in Russia they had direct, rapid access to mines and a huge economic and physical infrastructure.

Sincerely,

Della Pangborn

14850 SW Glenbrook Road, Beaverton, OR 97007 503 351-0461