October 25, 1977

Note to Victor Stello, Jr., Director. Division of Operating Reactors, NRR

STEAM GENERATOR CHANGEOUT

I have skimmed briefly the Steam Generator and Repair Reports by Surry and Turkey Point. I gave special attention to the description of safety considerations involved in the repair activity. It is interesting to note that Turkey Point considers only safety effects of possible accidents outside of containment, whereas Surry does not consider accidents outside of containment, but does, at least superficially, address a range of accidents (including fires) inside containment. Our review and our subsequent evaluation should carefully consider accidents inside as well as outside of containment.

1. Specifically, we ought to identify all shared systems which will be operational in the unit under repair. We should consider the consequences of damage to the portion of the system in the unit under repair which could result from any credible drop (including a drop of the steam generator bundle) onto the system. We should consider the consequences of flooding of a portion of a shared system which could result from any credible drop onto a functioning water pipe inside containment.

 We should consider the impact on the walls or on any piping along the upper walls of containment which can result from swinging of a crane hook or swinging of the steam generator during the lift.

3. With respect to any functioning electrical system inside containment of the unit under repair, we should consider whether there are any credible feedback mechanisms which could affect the operating unit which could result from shorts or open circuits resulting from flooding or fire, etc.



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4. I would think with all of that welding and cutting going on inside containment on the unit under repair the fire protection program should be in place to prevent possible interaction with the operating unit. (I think the main lesson from Brown's Ferry is that unexpected things can happen - let's eliminate expected little problems so we don't have to spend endless hours analyzing whether they can turn into big ones.)

• 5. In addition to pipe cutting, if there is a significant amount of cable splicing in the repair program, we ought to evaluate the cable splicing criteria as we did in Brown's Ferry.

 The spent fuel pool (SFP) systems should be "gold plated" per Brown's Ferry.

7. Can the SFP take a full "ripping hot" core? It is my understanding that there will be little or no decay time in the pot before the fuel is transferred out to the pool.

8. The outside problems seem to be somewhat easier to handle and Turkey Point does a reasonable, even though superficial, job. We ought to make sure that Surry does at least as well in its analysis of potential outside problems.

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cc: D. Eisenhut

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STEAM GENERATOR REPAIR REPORT

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TURKEY POINT UNITS 3 AND 4

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