Gray

November 30, 1983

Note to Eleanor Adensam

SUBJECT: MCGUIRE

As you requested, I have looked at McGuire's most recent request for change of tech specs to relieve it from the power reductions resulting from the low flow experience at McGuire Unit 2. As we discussed, there is some question about whether this could reasonably be characterized as an emergency.

As a result of the low flow, the plant is operating at less than full power. It is now operating at the power level (90%) which the present tech specs indicate is appropriate for the particular reactor coolant flow experienced (96% - 98%). It has been recognized for some time that the McGuire units were not going to meet the design flow rate for the reactor coolant system. The SER issued on June 28, 1983 in connection with this summer's quick amendment relating to the same subject for Units 1&2 discusses the history of the low flow problems at McGuire Units 1&2. Duke has from time to time requested various changes to allow them to up the power level despite a flow less than design. This last summer, the argument was that a thermal heat balance technique would result in smaller uncertainties in the flow rate and therefore do away with unnecessary penalties resulting from the uncertainties. Apparently, they have now done a heat balance for Unit 2 and still find that it is substantially below design flow rates. The present request is now based on an analysis that concludes that they don't need the design flow rate to operate at 100% power. That they can operate at 100% power at 98% design flow rate. There is a second portion of the tech spec change request which proposes changing the penalty from 2% power reduction for each 1% reduction in flow to 1% power reduction for each 1% reduction in flow. There is no basis in the incoming for concluding that they could not have requested the second change at any time in the past, so with respect to the second change, the change reducing the power penalty from 2% - 1% to 1% - 1%, this could have been done at any time in the past. There is no justification that the licensee could not have reasonably foreseen this change and could not have asked for this change earlier. The licensee didn't think he was going to need it - that's his only justification. He now finds that the unnecessarily conservative restriction proposed sometime ago is now something that binds and is requesting us to change that. It doesn't strike me that that qualifies as an action that the licensee could not have reasonably anticipated.

With respect to the change based on the assertion that says its now acceptable to operate at full power at 98% of flow, I can't quite tell from looking

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at it whether there is any reasonable basis for arguing that licensee could not have reasonably foreseen the need for this change earlier. But it does have problems. The licensee has known for a long period of time that the reactor coolant flow characteristics of the McGuire units are substantially less than design. He has proposed from time to time various fixes to get him out of the problem (June 28, 1983 SER). Why he could not have re-done his calculations a year ago to demonstrate that the plant would operate at full power with 98% reactor coolant flow, I don't know. I'd be surprised if he could not have done it a year ago. (I have no doubt that the reactor coolant flow could be reduced significantly below 98% and still permit full power operation but the licensee is not requesting that).

If the technical staff concludes before November 18, 1983, that the licensee could not have submitted a calculation demonstrating that the plant will operate safely at 100% power with only 98% reactor coolant flow - you may have a reasonable argument for an emergency. Otherwise, I cannot see how you can argue that this situation was not reasonably foreseeable by the licensee. He knew he had low flow problems and chose to try to fix the problem in other ways that didn't fix the problem. In those circumstances, I can't see how you can argue that this is a valid emergency.

Joe Scinto

cc: J.Gray
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