9 Twin Orchard Drive
Oswego, NY 13126
March 11, 2000

Michele G. Evans, Chief, Branch I
Division of Reactor Projects, Region I
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Michele G. Evans:

Let me tell you of this vision I am having. My wife and I are driving west on the Pennsylvania Turnpike to our son-in-law and daughter's house. We are under the last bridge before Exit 24. I see some emergency people treating an ill motorist. But that is not what catches my eye. I tell my wife: "we just have to stop."

The ambulance door is open and the motorist is being placed inside. The eye catcher is the tow truck hooked up to the front of the ambulance. I go over and ask:

> "Did the ambulance break down?"
>
> "No, not today."
>
> "Well, why is the tow truck hooked up to it?"
>
> "This way, we don't have to admit that the ambulance is no good. We can declare it technically inop but operating. And we continue to use it. After all, everything else but the transmission works."

Luckily, that is a totally fictional vision, and it should be. Travel now to Oswego County in New York. What do we see?

April 24, 1999	Scram	RCIC Inop, failed to come up to speed
June 24, 1999	Scram	RCIC Declared Inop and recovered
July 3, 1999		Shut down to fix RCIC

September 30, 1999 Plant Performance Review-Nine Mile Point, Page 2 of 3,

> "However, weakness in engineering support led to repeat failures and reduced reliability of some important plant systems. The most notable example was the poorly coordinated engineering effort associated with RCIC system maintenance."

March 3, 2000 Scram RCIC Inop in Auto & Manual

Unluckily, this is a totally factual account of Nine Mile Point, Unit 2.

Calculate two failures in three valid demands, (one RCIC failure was recovered), to get a value of 0.66. This compares unfavorably with the value of 0.04 for RCIC system unreliability (including recovery) that is given in the NRC Report S97-02, Reactor Core Isolation Cooling System Reliability, 1987 – 1993.

Although I feel that safely shutting down a big nuclear power reactor with all high pressure systems inop and without dumping steam to the suppression pool is quite an achievement, it is one I hope will not need to be repeated. As a result, in Attachment A, I am providing some ideas that may help improve the reliability of high pressure water delivery to the Nine Mile Point Unit 2 reactor.

Thank you,

Thomas Gurdziel

Attach. A

Copy to:

R. Fernandes

Attachment A

Relating to pump seals

Obtain manufacturer's installation instructions for the main feed pump and its motor. Have they been followed? For example, if the requirement is continuous support by a full length sole plate, intermittent support on shim packs would not be acceptable. (Purpose: to reduce "parasitic" vibration at the seal.)

Is an ample supply of clean, cool water provided at a pressure greater than feedwater pump discharge pressure? It must be provided somewhat before the pump motor is given a start signal. It may be needed even when the pump is idle, if the reactor is at pressure.

Relating to the ability to restart all feedwater pump (motors)

Are all relays and protective devices on the transmission lines between the plant and its Scriba Substation now being maintained according to all manufacturer's recommendations? (Ref.: NRC Special Inspection Report Nos. 50-220/99-06 and 50-410/99-06 dated Sep. 14, 1999, Section M2.1.b. "The breaker vendor manual showed that the auxiliary switch mechanism and contacts should undergo periodic maintenance and checks. Previous maintenance report checklists identified that these checks were not made."

Relating to redundancy

At 100% power, can the idle feedwater train be started and put into service without reducing reactor power? The main feed pump of the train being started needs a good supply of water when it starts and this water has to have recirculation piping to return it someplace since the reactor is already getting just the amount it needs to maintain a steady water level. If adequate piping, valves, breakdown orifice, and controls do not exist, there is only an installed spare, not a redundant train.

Relating to a dependable emergency source of high pressure water

Completely replace the existing RCIC system with a High Pressure Coolant Injection system, (not a (lower pressure) High Pressure Core Spray system) with one of diverse design. (This means no steam turbine for the pump prime mover.)