FPL Energy
Seabrook Station

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October 8, 2004

Docket No. 50-443
SBK-L-04077

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Seabrook Station
Response to Request for Additional Information
Inspection Report 50-0443/2004003/Predecisional Enforcement Conference

FPL Energy Seabrook, LLC (FPL Energy Seabrook) provides in the enclosure the additional information requested by the Region I staff during the September 23, 2004 predecisional enforcement conference to discuss an apparent violation identified in Inspection Report 50-443/2004003. The additional information addresses questions regarding the manual operation of the turbine building rollup doors, rollup door operation during flooding and a review of expansion joint operating experience. As noted in the attached slides, the additional information supports our position that the operators will be able to open the rollup door in a timely manner in all conditions and there is no industry operating experience of a catastrophic failure of an expansion joint of the type used at Seabrook Station.

The inclusion of the additional information does not change our conclusions, as presented during the predecisional enforcement conference, regarding the results of the 10CFR50.59 Evaluation performed under the new rule or the significance of the apparent violation. Copies of the attached slides were provided to Region I by fax on October 4, 2004.

IE01

Very truly yours,

FPL Energy Seabrook, LLC

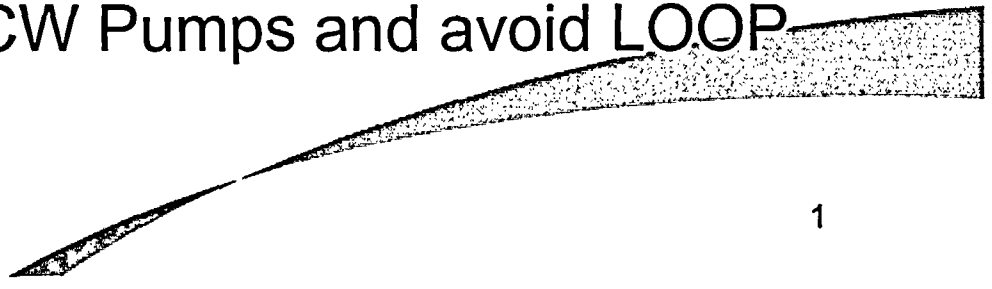
Mark E. Warner
Site Vice President

cc. S. J. Collins, NRC Region I Administrator
S. P. Wall, NRC Project Manager, Project Directorate I-2
G. T. Dentel, NRC Resident Inspector
Dr. R. R. Bellamy, Region I Branch Chief

ENCLOSURE TO SBK-L-04077

Manual Operation of Rollup Doors

- Reviewed original NSO timing sheets.
  - 3 NSO's unfamiliar w/ manual operation, 1 familiar
  - 1 NSO (unfamiliar) not given opportunity to open door
  - 3 NSO's successful
- Effect of manual door operation on timing
  - First rollup door adds 2.15 minutes
  - Second rollup door adds 1.2 minutes
  - Total time from start of scenario to manually open doors is 7.96 minutes
  - Opening doors within 8 minutes approximately doubles the time to secure the CW Pumps and avoid LOOP



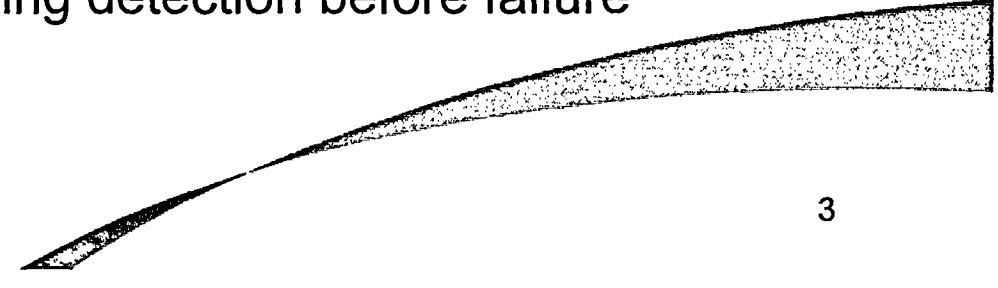
Manual Operation of Rollup Doors
(Continued)

Results

- HEP assumption of NSO's not trained to open doors yields minimal impact on CDF increase
- Therefore, no impact on original conclusions

Expansion Joint Operating Experience

- Reviewed rubber expansion joint failure data referred by NRC
- Reviewed EPRI/NMAC Report 1008635, "Expansion Joint Maintenance Guide"
  - Most failures in systems w/ different operating parameters than our Circulating Water system
  - No indication of gross failures that resulted in leakage approaching the 56,000 gpm design
  - No circumferential tears identified
  - EPDM material, as used at Seabrook Station,
    - Will not age rapidly when exposed to low temperature
    - Deterioration of reinforcing rings and cord delamination will progress slowly, allowing detection before failure



Expansion Joint Operating Experience
(Continued)

Results

- No impact on initiating event frequency
- No impact on risk increase.

Expansion Joint Operating Experience

Additional Information

- From EPRI/NMAC Report 1008635
  - 15 of 31 events: smaller (24",30",34") expansion joints
    - *less robust construction and less force to deflect joint*
  - 15 of 31 events: condensate pump expansion joints, higher temperature, more rapid aging
  - 20 of 31 events: expansion joints on suction or discharge of pumps - higher stresses and pressure surges
  - 1 event: 108" expansion joint, 2000 gpm leak- Water Hammer initiated

Expansion Joint Operating Experience

EPRI Failure Data for Rubber Expansion Joints

Plant	Age	Event Description
ANO 2	18	30-in. expansion joint condensate pump. Expansion joint inspected and found to have pinholes because of aging
Beaver Valley		Expansion joint collapsed
Beaver Valley 1	19	24-in. SW expansion joint ruptured because of erosion of tube (replaced in 1985)
Beaver Valley 2	4	30-in. condensate pump suction expansion joint deformed and partially collapsed, no leakage
Beaver Valley 2	10	30-in. suction expansion joint for condensate pump found to have pinhole leak
Brunswick 1	14	Rupture of screen wash pump expansion joint
Byron 1	7	Condensate pump expansion joint cover found torn 180 degrees
Calvert Cliffs 1	3	24-in.suction side of condensate pump expansion joint-tube imploded and core of joint visible

Expansion Joint Operating Experience

EPRI Failure Data for Rubber Expansion Joints

Plant	Age	Event Description
Clinton 1	4	Condenser water box over-pressurized, damage to water box expansion joint, no leakage
Clinton 1	3	Inlet expansion joint to condenser leaking (1 cup/hr)
Comanche Peak 1	8	Circulation pump expansion joint ruptured because of normal aging
Cook 1	15	8-in. SW header expansion joint leaked because of 4-in. gash in the joint, cause unknown
Cook 2	9	Expansion joint in discharge header of essential service water pump ruptured because of degradation
Crystal River 3	8	10-in. SW pump suction expansion joint failed - hole in joint
Diablo Canyon 1,2	13	Two cooling system synthetic expansion joints experienced catastrophic failures
Ft. St. Vrain 1	14	CCW expansion joint failed because of degradation

Expansion Joint Operating Experience

EPRI Failure Data for Rubber Expansion Joints

Plant	Age	Event Description
Indian Pt. 3	12	30-in. condensate pump expansion joint leaking
Indian Pt. 3	11	Expansion joint on suction side of condensate pump deformed and leaked because of degradation
Indian Pt. 3	16	30-in. expansion joint on suction side of condensate pump had minor leakage (excessive forces)
Indian Pt. 3	17	Expansion joint on suction side of condensate pump deformed and leaked because of degradation
LaSalle 1&2	1	108-in. circ water pump expansion joint failed resulting in flooding (2000 gpm) water hammer
Limerick 1	12	Leak in expansion joint on suction side of condensate pump
Limerick 2		Leak on ESW expansion joint
Millstone 2	2	Main feedwater pump turbine condensor pump expansion joint developed leak because of high temperature

Expansion Joint Operating Experience

EPRI Failure Data for Rubber Expansion Joints

Plant	Age	Event Description
Sequoyah 1	13	Main feedwater pump turbine condenser pump expansion joint developed leak because of high temperature
St. Lucie 1	10	30-in. SW system, rubber expansion joint ruptured because of aging and cyclic fatigue
St. Lucie 1	14	Intake 30-in. cooling water expansion joint had through wall leak, aging
VC Summer	11	36-in. expansion joint on suction side of condensate pump had a hole in liner with no leakage
VC Summer	9	36-in. expansion joint on suction side of condensate pump developed leak, cyclic fatigue
VC Summer	9	36-in. expansion joint on suction side of condensate pump developed leak, cyclic fatigue
Turkey Point 3	16	30-in. suction expansion joint for condensate pump leaked

Rollup Door Operation during Flooding

- Overhead Door Company response:
  - Safety edges designed to be weather resistant
  - If water seeps into the bottom door safety edges the most common reaction would be for the door to auto open
  - If water seeps into the bottom connection box the electric operator may become inoperable
  - Manual action to open the door is unaffected
- Operator timeline validates door open (auto or manual) prior to water accumulation on the Turbine Building floor