

# New England Coalition on Nuclear Pollution, Inc.

Box 545, Brattleboro, Vermont 05302

Phone (802) 257-0336

120 341  
MONTPELIER, VT 05602

December 16, 1992

DEC 17 10 45 AM '92

Ivan Selin, Chairman  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Chairman Selin:

We have received your response to our letter of September 15, 1992 raising concerns about the rupture of the steam jet air ejector rupture disc and subsequent release of radiation. We appreciate your detailed reply to those concerns and are preparing our response.

The purpose of this letter, however, is to alert you to an alarming and potentially disastrous situation: systematic degradation of safety components at the Vermont Yankee plant.

Because of an ongoing pattern of industry mismanagement and regulatory neglect, Michael Mulligan resigned his position as a control room operator for the Vermont Yankee nuclear plant, and joined our organization.

In July, 1990, after many months of repeated efforts to bring important safety problems to the attention of plant management and NRC officials failed to produce substantive change, Mr. Mulligan wrote the Coalition an anonymous letter regarding four major areas of concern at the plant: gashed fuel pins, spent fuel pool cooling, shift staffing, and nocturnal burning of waste oil. He sent similar letters to the NRC and to the State of Vermont Nuclear Engineer, who eventually made the letter public at the request of then Governor Madeline Kunin.

Shortly thereafter, Mr. Mulligan contacted us by telephone -- still anonymously -- and made it clear that his primary concern was much larger. The plant, he told us, was headed for catastrophe, because the management was shortsightedly focusing on the bottom line, and because the NRC has failed to recognize the consequences of that shortsightedness. The only hope, he told us, was to open Vermont Yankee's operations to the light of day. Only public demands for safer operation would force management to allocate more resources on safety concerns.

The issues Mr. Mulligan has brought to our attention have

-----  
1. Gashed pins increase off-gas levels and radiation doses to the public and especially to plant workers. Mike and other Vermont Yankee workers were especially concerned about their increased exposure.

9302110077 930128  
PDR ADOCK 05000271  
F PDR

1

*Educating the Public in Clean Alternatives to Nuclear Power*

- 2) AC and DC power systems<sup>1</sup> which include:  
-- the emergency diesel generators,<sup>2</sup>

-----

1. LER 90-009-00: "Inadvertent Reactor Scram Due to a Short Circuit on the Vital AC Bus as a Result of Personnel Error," Event Date: 6/1/90. Also, LER 88-012-00: "Overloaded Power Supply in Vital Fire Protection Control Panels," Event Date: 9/28/88; LER 90-008-00: "Failure to Meet Separation Criteria for Power Cables to Regulatory Guide 1.97 Instrumentation Loops," Event Date: 5/29/90. See also, LER 89-009-00: "Lack of Redundancy in Residual Heat Removal Service Water Systems," Event Date: 5/28/89.

2. LER 90-010-00: "Failure to Meet Technical Specifications for Diesel Generator Operation Readiness Test," Event Date: 8/15/90; LER 90-010-01 and LER 90-010-02: "Failure to Meet Technical Specifications for Diesel Testing Generator," Event Date: 8/15/90; and LER 91-012-00 and LER 91-012-01: "Reduced Cooling Water Flow to Diesel Generator Heat Exchangers and Station Service Air Compressors Due to High Service Water System Backpressure Caused by Weak Design." Event Date: 4/23/91. Also, Harold Eichenholz, Thomas G. Hiltz, and Richard S. Barkley: "Inspection Report 50-271/91-19," Section 4.2.1: "'A' Emergency Diesel Generator Fuel Oil Transfer Pump Operability" and Section 4.2.2: "'B' Emergency Diesel Generator Failure to Start." These events took place on July 25 and July 26, 1991 respectively. Also, H. Eichenholz and P. Harris, "Inspection Report 50-271/92-06," Section 4.2.2: "'B' EDG Maintenance Associated with the ECCS Tests:" "The April 5 test was not successful because the "B" EDG failed to start, due to incomplete resetting of the diesel governor shutdown plunger following the last operation of the diesel on April 3.... Vermont Yankee preliminarily determined that the root cause for the first failure was the advanced age of the "B" diesel generator ... However, based on satisfactory performance during surveillance testing, and in part, due to unavailability of parts, VY was reasonably assured that the "B" EDG governor would continue to perform its safety function until its scheduled replacement in May, 1992."

On June 3, 1992, Vermont Yankee submitted to NRC a "Request for Temporary Waiver of Compliance from Technical Specification LCO Requirements Pertaining to Emergency Diesel Generator," (BV 92-058). Technical Specification 3.5.H.1 requires that "During any period when one of the standby diesel generators is inoperable, continued reactor operation is permissible only during the succeeding seven days ...." On June 4, 1992, Charles W. Hehl, Director of the Division of Reactor Projects at the NRC granted a "Temporary Waiver of Compliance" allowing Vermont Yankee to run an additional 24 hours without a safety backup diesel generator.

# New England Coalition on Nuclear Pollution, Inc.

Box 545, Brattleboro, Vermont 05302

Phone (802) 257-0336  
120 01 11 DEC 17 05602  
MUTUAL SERVICE

December 16, 1992

DEC 17 10 45 AM '92

Ivan Selin, Chairman  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Chairman Selin:

We have received your response to our letter of September 15, 1992 raising concerns about the rupture of the steam jet air ejector rupture disc and subsequent release of radiation. We appreciate your detailed reply to those concerns and are preparing our response.

The purpose of this letter, however, is to alert you to an alarming and potentially disastrous situation: systematic degradation of safety components at the Vermont Yankee plant.

Because of an ongoing pattern of industry mismanagement and regulatory neglect, Michael Mulligan resigned his position as a control room operator for the Vermont Yankee nuclear plant, and joined our organization.

In July, 1990, after many months of repeated efforts to bring important safety problems to the attention of plant management and NRC officials failed to produce substantive change, Mr. Mulligan wrote the Coalition an anonymous letter regarding four major areas of concern at the plant: gashed fuel pins, spent fuel pool cooling, shift staffing, and nocturnal burning of waste oil. He sent similar letter to the NRC and to the State of Vermont Nuclear Engineer, who eventually made the letter public at the request of then Governor Madeline Kunin.

Shortly thereafter, Mr. Mulligan contacted us by telephone -- still anonymously -- and made it clear that his primary concern was much larger. The plant, he told us, was headed for catastrophe, because the management was shortsightedly focusing on the bottom line, and because the NRC has failed to recognize the consequences of that shortsightedness. The only hope, he told us, was to open Vermont Yankee's operations to the light of day. Only public demands for safer operation would force management to allocate more resources on safety concerns.

The issues Mr. Mulligan has brought to our attention have

-----  
1. Gashed pins increase off-gas levels and radiation doses to the public and especially to plant workers. Mike and other Vermont Yankee workers were especially concerned about their increased exposure.

9302110077 930128  
PDR ADOCK 05000271  
F PDR

been profoundly shocking to us. We believe they go straight to the core of the problems confronting this industry. The Coalition has always known Vermont Yankee's design was vulnerable to severe accidents, and that the plant participated in the broadly unacceptable risks inherent in the use of nuclear technology, but we must admit to having taken a margin of comfort in the notion that Vermont Yankee was one of the better run utilities. However, we no longer enjoy the comfort of that illusion.

By themselves, the circumstances surrounding Mr. Mulligan's resignation are an indication of an extraordinary situation at the plant. Combined with an investigation of the issues he has brought to our attention, the situation proves to be nothing short of alarming.

We have checked and verified each of Mr. Mulligan's reports in NRC documents, not because we doubted his story, but because we knew others would. There is simply no question that a variety of major safety systems at Vermont Yankee have had substantial difficulties during the past four years. We list them here, with accompanying footnotes documenting the equipment failures. Each document is available in the NRC public document room; most can also be found on the NLDOS computerized document system.

- 1) emergency core cooling system (ECCS),<sup>1</sup>, which includes:
- the core spray system,<sup>2</sup>
  - HPCI<sup>3</sup> and
  - the RCIC<sup>4</sup> system;

-----

1. Licensee Event Report LER 89-015-00 (hereafter, simply LER): "Spurious Relay Actuation Caused ECCS Initiation Signal Due to Lack of Procedure for Reenergizing Local Instrument Cabinet." Event Date: 3/10/89.

2. LER 89-016--00 and LER 89-015-01: "Primary Containment Leak Rate Test Caused Inadvertent Core Spray and RHR Pump Start Due to Inadequate Procedure." Event Date: 3/30/89.

3. LER 91-007-00: "HPCI Declared Inoperable Due to Flow Controller Set Point Drift," Event Date: 3/13/91. See also, LER 92-004-00: "High Pressure Coolant Injection System Inoperable Due to Degradation of Station Battery Bus Voltage Caused by Failed Battery Charger Component." Event Date: 2/20/92.

4. LER 89-014-00: "Reactor Core Isolation Cooling System Inoperable Due to Motor Burn Out on RCIC-21 Valve," Event Date: 7/18/89; and LER 92-015-00: "Reactor Core Isolation Cooling System Inoperable Due to Flow Controller Setpoint Drift," Event Date: 4/24/92.

- 2) AC and DC power systems<sup>1</sup> which include:  
-- the emergency diesel generators,<sup>2</sup>

-----

1. LER 90-009-00: "Inadvertent Reactor Scram Due to a Short Circuit on the Vital AC Bus as a Result of Personnel Error," Event Date: 6/1/90. Also, LER 88-012-00: "Overloaded Power Supply in Vital Fire Protection Control Panels," Event Date: 9/28/88; LER 90-008-00: "Failure to Meet Separation Criteria for Power Cables to Regulatory Guide 1.97 Instrumentation Loops," Event Date: 5/29/90. See also, LER 89-009-00: "Lack of Redundancy in Residual Heat Removal Service Water Systems," Event Date: 6/28/89.

2. LER 90-010-00: "Failure to Meet Technical Specifications for Diesel Generator Operation Readiness Test," Event Date: 8/16/90; LER 90-010-01 and LER 90-010-02: "Failure to Meet Technical Specifications for Diesel Testing Generator," Event Date: 8/16/90; and LER 91-012-00 and LER 91-012-01: "Reduced Cooling Water Flow to Diesel Generator Heat Exchangers and Station Service Air Compressors Due to High Service Water System Backpressure Caused by Weak Design," Event Date: 4/23/91. Also, Harold Eichenholz, Thomas G. Hiltz, and Richard S. Barkley: "Inspection Report 50-271/91-19," Section 4.2.1: "'A' Emergency Diesel Generator Fuel Oil Transfer Pump Operability" and Section 4.2.2: "'B' Emergency Diesel Generator Failure to Start." These events took place on July 25 and July 26, 1991 respectively. Also, H. Eichenholz and P. Harris, "Inspection Report 50-271/92-06," Section 4.2.2: "'B' EDG Maintenance Associated with the ECCS Tests:" "The April 5 test was not successful because the "B" EDG failed to start, due to incomplete resetting of the diesel governor shutdown plunger following the last operation of the diesel on April 3.... Vermont Yankee preliminarily determined that the root cause for the first failure was the advanced age of the "B" diesel generator ... However, based on satisfactory performance during surveillance testing, and in part, due to unavailability of parts, VY was reasonably assured that the "B" EDG governor would continue to perform its safety function until its scheduled replacement in May, 1992."

On June 3, 1992, Vermont Yankee submitted to NRC a "Request for Temporary Waiver of Compliance from Technical Specification LCO Requirements Pertaining to Emergency Diesel Generator," (BV 92-068). Technical Specification 3.5.H.1 requires that "During any period when one of the standby diesel generators is inoperable, continued reactor operation is permissible only during the succeeding seven days ...." On June 4, 1992, Charles W. Hehl, Director of the Division of Reactor Projects at the NRC granted a "Temporary Waiver of Compliance" allowing Vermont Yankee to run an additional 24 hours without a safety backup diesel generator.

- emergency battery systems,<sup>1</sup>
- emergency battery charge system,<sup>2</sup>
- switchyard bus,<sup>3</sup>
- and relays<sup>4</sup> ;

3) residual heat removal (RHR) systems, which includes:

- RHR service water systems and pumps<sup>5</sup>;

-----

1. LER 89-020-00: "Removal of a Technical Specification Surveillance Requirement from a Procedure Due to an Inadequate Technical Specification Review," Event Date: 8/11/89: "On 8/11/89, with the plant at 100% power, Vermont Yankee discovered the procedure controlling battery maintenance and testing was not consistent with Technical Specification requirements."

2. LER 92-004-00: "High Pressure Coolant Injection System Inoperable Due to Degradation of Station Battery Bus Voltage Caused by Failed Battery Charger Component." Event Date: 2/20/92.

3. LER 91-005-00: "Reactor Scram Due to Mechanical Failure of 345 kV Switchyard Bus Caused by Broken High Voltage Insulator Stack," Event Date: 3/13/91; LER 91-009-00: "Reactor Scram Due to Loss of Normal Off-Site Power (LNP) Caused by Inadequate Procedure Guideline," Event Date: 4/23/91; and LER 91-014-00: "Reactor Scram Due to Loss of 345 kV Switchyard Caused by Defective Off-site Carrier Equipment," Event Date: 6/15/91. See also, NRC Information Notice 91-81: "Switchyard Problems that Contribute to Loss of Offsite Power," December 16, 1991. See also, LER 87-008-00 and LER 87-008-01: "Loss of Normal Power During Shutdown Due to Routing All Off-site Power Sources Through One Breaker," Event Date: 8/17/87.

4. LER 92-012-00: "Degraded Grid Undervoltage Relays Found Below Technical Specifications Limits," Event Date: 3/31/92. Also, LER 91-010-00: "Failed Relay Coil Results in Primary Containment Isolation System Actuation," Event Date: 4/12/91.

5. LER 89-009-00: "Lack of Redundancy in Residual Heat Removal Service Water Systems," Event Date: 6/28/89; LER 91-005-00, LER 91-006-01, and LER 91-006-02: "Loss of [RHR] 'B' Loop Shutdown Cooling Due to Pressure Switch Activation," Event Date: 3/14/91: "On 3/14/91 at 0450 hours, with reactor vessel cooldown in progress following a reactor scram on 3/13/91 ... and with the 'B' loop Residual Heat Removal (RHR) (BO\*) System flushed and lined up for shutdown cooling, a Group 4 Primary Containment Isolation Signal (PCIS) (JM)\* was received during two attempted starts of the 'B' RHR pump and closure of Shutdown Cooling Suction Isolation valves. Also, LER 89-023-00: Failure to Perform Daily Instrument Checks on the Low Pressure Coolant Injection System Crosstie Monitor Due to Interpretation of Tech. Spec. Requirements", Event Date: 9/11/89: "Vermont Yankee Technical Specification 4.2.A, Table 4.2.1, requires an instrument check of

4) feedwater system<sup>1</sup> and check valves<sup>2</sup> ; and

5) service water system check valves<sup>3</sup> .

-----  
...Continued...

the indication for the residual heat removal (RHR) system crosstie valve, RHR-20, be completed once per day. Contrary to this requirement, it was discovered, on 9/11/89, that the indication to the valve had not been available from 3/20/89, when the power supply breaker to the indication was removed ...." Also, LER 91-015-00: "Containment Isolation Valve Failure to Close Due to Erosion/Corrosion and Displacement of Screw-in Seat," Event Date: 6/14/91: "On June 14, 1991 ... Residual Heat Removal Valve V10-34A Failed to Close."

1. LER 88-007-00: Main Turbine Trip and Reactor Scram from Feedwater Flow Controller Malfunction Due to Failed Feedwater Flow Integrator," Event Date: 5/18/89.

2. LER 92-010-00: "1992 Appendix J Type B and C Failure Due to Seat Leakage," Event Date: 3/8/92. "On 3/8/92, 3/12/92, and 3/17/92 ... Liquid Radwaste Valve LRW -83 (EIIS=WD), Feedwater Check Valve FDW-28B (EIIS=SJ) and Control Rod Valves CRD-413A and 413-B (EIIS=AA) were found to have seat leakage above that permitted by Technical Specification 3.7.A.4."

LER 90-012-01: "1990 Appendix J Type B and C Failure Due to Seat Leakage," Event Date: 9/3/90: "On 9/3/90 and 9/5/90 ... Feedwater Check valve FDW-96A (EIIS=SJ) and Primary Containment Atmospheric Control valve PCAC-5B (EIIS=BB) were found to have seat leakage above that permitted by Technical Specification 3.7.A.4."

LER 89-007-00: "1989 Appendix J Type B and C Failure Due to Seat Leakage," Event Date: 2/16/89: "On 2/16/89, 2/17/89, 3/5/89 and 3/7/89 ... Liquid Radwaste Valves LRW-83, LRW-94, LRW-95 (EIIS=WK), Primary Containment Atmospheric Control valve PCAC-8,9,10,23 and PCAC-6,7,6A,7A 7B (EIIS=BB), Containment Air Compressor Discharge Check Valve CA-89C (EIIS = LD) and Feedwater Check valve FDW-96A (EIIS=SJ) were found to have seat leakage above that permitted by Technical Specification 3.7.A.4."

LER 84-011-01 and 84-011-02: "Update on Leaking Containment Isolation Valves," Event Date: 6/16/84: " ... FDW-96A and CA-89C ... were found to have seat leakage above that permitted by Technical Specification 3.7.A.4."

IT SHOULD BE NOTED THAT THE SAME FEEDWATER CHECK VALVE -- FDW 96A -- WAS REPORTED LEAKING FOR AT LEAST 5 YEARS, FROM 1984 THROUGH 1990.

3. LER 89-017-00: "Service Water Check Valves Inoperable Due to Corrosion of Internal Parts," Event Date: 3/30/89.

In addition, there have been equipment problems in other key areas during the last four years as well: for example, core water level indicators,<sup>1</sup> and the diesel fire pump,<sup>2</sup> among others.

As though all of this weren't enough, major questions have been raised during this same period about personnel training programs and plant procedures<sup>3</sup>, about the plant's emergency

-----  
1. LER 92-014-00: "Inadvertent Scram and ECCS Initiation While Shutdown When Restoring Four Level Transmitters to Service," Event Date: 4/12/92. Also, letter from Ernest C. Hadley, attorney for We the People, Inc. to Ivan Selin, July 21, 1992, concerning generic problems with water level instrumentation at U.S. nuclear reactors.

2. LER 91-003-00: "Missed Diesel Fire Pump Fuel Oil Surveillance Due to Inadequate Procedure," Event Date: 2/27/91.

3. Williams, J.H.; Conte, R.J. & Bettehausen, L. "Training Program Inspection Report 50-271/91-92 on 911021-25. Deficiencies noted...." Also LER 89-013-00 and LER 89-013-01: "Reactor Vessel Inventory Decrease Due to Personnel Error," Event Date: 3/10/89. PNO-I-89-021, a notice of unusual event, covers the same event.

Another set of events due to incorrect procedures is described in LER 88-001-00 and LER 88-001-01: "Plant Service Water Effluent Stream Not Monitored Due to Procedure Deficiency," Event Date: 2/11/88, Inspection Report 50-271/88-03 and Notice of Violation from [the same] Inspection Report," and LER 88-014-00: "Missed Effluent Sample Due to Inadequate Corrective Action in LER 88-01, Rev. 1," Event Date: 10/19/88.

Other reports triggered by incorrect procedure include: LER 89-24-00 and 89-24-01: "Missed Residual Heat Removal Valve Leakage Surveillance Due to Incomplete Procedure Review," Event Date: 9/13/89; LER 90-018-00: "Primary Containment Isolation System Spurious Actuation Due to an Inadequate Procedure," Event Date: 10/10/90; and LER 92-015-00: "Improper Inservice Flow Testing of the Control Room Chilled Water Pump Due to ASME Code Misinterpretation and Subsequent Missed Quarterly Test Due to Incorrectly Following the Surveillance Procedure," Event Date: 4/22/92.

See also, LER 89-015-00, LER 89-015-00, LER 89-015-01, LER 89-020-00, LER 89-023-00, LER 91-003-00, and LER 92-014-00, all of which are cited above.

operating procedures (EOPs)<sup>1</sup>, and about plant security<sup>2</sup>. Problems with training and security were identified, in part, with a lack of adequate funding.

We do not intend to detail in this letter each of the problems we have just enumerated: they are already well documented. Instead, we want to point to the extraordinary and pervasive pattern of these shortcomings. It may be true that no one of these shortcomings, by itself, constitutes an adequate reason to challenge the ongoing operation of this plant. But when they are combined as they have been here, the possibility is raised that disastrous results could ensue.

Each of these malfunctions and system degradations has already been brought to the attention both of management and of the NRC. The question then arises: why has the systematic degeneration of this plant been allowed to continue? Why has this not been corrected?

We can see no other explanation for this than that utility decision-making is unduly driven by the bottom line and that your staff is in some way acquiescing in this state of affairs.

In recent years, plant workers and mid-level management alike have been keenly aware of subtle and not-so-subtle messages from top management that maintaining or improving the plant's capacity factor -- acknowledged to be one of the highest in the industry -- is far more important than resolving safety issues. In its day-to-day scramble to produce more electricity and therefore higher profits, plant management has created an atmosphere that causes employees to think twice before raising safety concerns that might jeopardize corporate financial goals.

For instance, the plant just recently shut down because of problems with a recirculation pump controller. This pump controller has experienced chronic problems and its erratic behavior has been of considerable concern to on-duty operating personnel. Yet time after time the utility has attempted a quick fix. A look at the maintenance history of this piece of equipment would reveal a resistance to carrying out a thorough troubleshooting that might lead to unwelcome down time.

-----  
1. Bennett, F.P.; Conte, R.J. & Bettehausen, L. "Inspection Report #50-271/92-80: Emergency Operating Procedures inspection 50-271/92-80, on 920224-28. Weaknesses and deficiencies noted...."

2. Initial Systematic Assessment of Licensee Performance Report No. 50-271/91-99. October 13, 1992.

Cost cutting and cost containment activities lead to subtle interactions that impact plant operations, such as tight inventory control resulting in the unavailability of parts. As noted above, this occurred with the fuel pool motor, and the governor on the "B" emergency diesel generator. This, in turn, leads to non-conservative judgments about running the plant with equipment in a degraded mode like the tolerance, for over six years, of leakage in feedwater check valve 95A<sup>1</sup>

These activities are multiplying just as many of the plant's key components are feeling the effects of age-related degradation. Thus, rather than improving plant safety through increased vigilance, management is moving the plant in the opposite direction. For example, it has pushed hard to reduce the time spent for planned outages. This means that the plant can make more money (since even scheduled plant shutdowns are expensive), but it also reduces the amount of time and resources available for fixing major safety systems. In large measure, the degradation of the switchyard equipment appears to stem from lack of time and resources during the shortened outages to perform necessary testing and maintenance.

Increasing the fuel cycle from 12 months to 18 months generates more profits, but it also increases the strain on the system. Plant components work harder and longer, with less frequently scheduled maintenance. To maintain short outage times, the utility has begun to shift various maintenance activities normally performed during an outage into periods when the plant is operating at full power. This practice has had unsettling consequences, resulting in a reactor scram that seriously challenged safety equipment<sup>2</sup>, and a release of radiation into the environment<sup>3</sup>.

Proposed new NRC regulations would actually reduce the plant's accountability by extending reporting periods to match

-----  
1. LER 84-011-01 and 84-011-02: "Update on Leaking Containment Isolation Valves," Event date: 5-15-84: "...FDW 95A and 89C...were found to have seat leakage above that permitted by Technical Specification 3.7.A.4." reports continuing into 1990.

2. LER 91-009-00: "Reactor Scram Due to Loss of Normal Off-Site Power (LNP) Caused by Inadequate Procedure Guideline," event date 4/23/91.

3. LER 92-003: "AOG Rupture Disc Temporary Repair Not Within System Design Basis" February 13, 1992 and NECNP letter to Chairman Selin date September 15, 1992.

the longer cycles<sup>1</sup>, at a time when aging plants clearly require greater regulatory scrutiny.

Informed of all of the system failures noted above, the NRC has imposed no fines and no shutdowns, and Staff regulatory practice seems focused on symptoms without any real understanding of the underlying pattern leading to the failures on such a wide scale. On-site NRC inspectors, informed of ongoing uncorrected conditions with potential safety implications respond to employees by calling for the utility to "self-correct" and for employees to submit more "maintenance requests" (MRs). Yet the utility's internal practice for handling MRs allows a screening of requests before they are actually logged onto the official computerized tracking system. Given the atmosphere we have been describing, it is unreasonable for your Staff to assume that this screening is performed with safety considerations as the prime criterion.

Your staff's inability, or unwillingness, to identify the pattern described here is part of a structural weakness in the oversight program. Because of limited resources, NRC must focus on individual problems and their resolution, leaving inspectors too little time to explore underlying causes.

Officials from the NRC Region I inspection branch told members of the Vermont State Nuclear Advisory Panel as much at a December 2, 1992 meeting. Regional Supervisor E. Kelley spoke of the difficult "art" of allocating limited personnel and resources to the twenty nuclear plants in the region. Senior Vermont Yankee Resident Inspector Harold Eichenholz and his partner, Paul Harris, mentioned a high reliance on the utility's ability to identify and correct its own problems because with only two inspectors on site, they must "choose and prioritize" the issues they follow.

The very nature of the problem we are describing would not be amenable to either self-identification or self-correction. In addition, the recent SALP Report identified deficiencies in Vermont Yankee's self-assessment and engineering evaluations, concluding that "Performance declines [three deratings out of seven SALP categories] attributed to the failure of self-assessment programs to effectively identify

---

1. "Reducing the Regulatory Burden on Nuclear Licensees," Proposed Rule RIN 3150-AE 30, Federal Register, June 18, 1992, pp. 27187-27191 and "Review of Reactor Licensee Reporting Requirements," Federal Register, June 19, 1992, pp. 27394-5.

fundamental issues in major program areas"<sup>1</sup>.

In addition to having limited resources in the field, your agency has no policy to determine when the type of systematic failure we are describing sufficiently jeopardizes public safety to warrant the shut down of the plant<sup>2</sup>. This worries us. Experience has taught us that simply bringing these matters to the attention of your Staff will not lead to action to counteract these trends at Vermont Yankee. Many NRC decisions have, in fact, served to reinforce Vermont Yankee's misguided activities by relying too heavily on the utilities judgments of what constituted safe operation.

For example, for over 5 months the NRC has tolerated the operation of Vermont Yankee with the E and F Intermediate Range Monitors (IRMs) inoperable and two unshared Average Power Range Monitors (APRMs) in bypass. This problem was discovered at the beginning of start-up after the March refueling outage. Yet the utility did not halt the start-up to repair the IRMs, even though plant technical specifications, the FSAR, and plant procedures require, as a minimum condition for operation, two operable APRM downscale scram per channel.

NRC is allowing the utility to avoid a shutdown to correct this deficiency in the reactor protection system, although neither Vermont Yankee (after 20 years running this reactor!), or your staff, can determine the importance of this function for protecting public safety. Since there is no way to predict or determine when the reactor might enter a power level requiring this protective function, the NRC decision to allow operation in this degraded mode represents an unacceptable trade-off of safety interests for the utility's interests.

NRC allowed the increase of intervals between the inspection and overhaul of the emergency diesel generators when the utility shifted to 18 months between outages, despite the fact that these machines are over 20 years old and near or beyond the end of their useful lives. The protracted and nearly intractable problems with the "A" EDG documented above, and the first ever failure of the "B" EDG to start (twice!) during an integrated ECCS test, casts doubt on the wisdom of allowing such reductions.

Compounding the generator failures themselves, NRC has made

-----

1. NRC presentation on the Vermont Yankee Inspection Program and Recent SALP Report, December 2, 1992, before the Vermont State Nuclear Advisory Panel. See also SALP Report No.50-271/91-99.

2. GAO report "NUCLEAR REGULATION -- Efforts to Ensure Nuclear Power Plant Safety Can be Strengthened" GAO/RCED-87-141.

questionable judgments about Vermont Yankee's reliance on the Vernon tie-line when granting Limited Condition of Operation requests. This has led to situations where only one back-up generator has been available for emergencies for as long as eight days at a time with the plant running at full power.

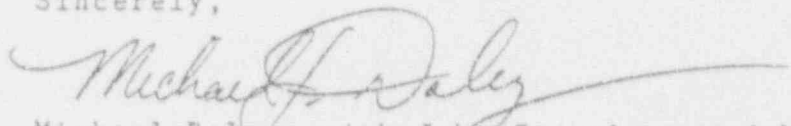
The burden of owning and operating such a complex machine as a nuclear power plant demands an unwavering commitment to perfect housekeeping. Every safety system is needed, and its perfect operation must be assumed to be essential. This simply should not be a matter for negotiation between management and regulators. NRC must therefore ensure that the maintenance of essential safety systems is immune to budgetary pressures of any kind.

The evidence we have presented here suggests that the NRC's current oversight activities at Vermont Yankee are failing to achieve this goal.

We hope Vermont Yankee is only in the initial stages of degradation due to a neglect of preventive maintenance from the combined factors of cost-cutting, cost containment, and over-emphasis on capacity factor. But only a comprehensive analysis of Vermont Yankee's decisions in these areas can demonstrate this, and only immediate steps to halt these misguided decisions can curtail further deterioration.

Since the situation we have described undermines public confidence in Vermont Yankee's dedication to a "safety first" philosophy, we call on you to conduct a public investigation of the issues we have raised, and allow the public opportunity to participate in any corrective action plan you develop.

Sincerely,

A handwritten signature in cursive script, reading "Michael Daley". The signature is written in dark ink and is positioned above the typed name and affiliation.

Michael Daley, with John Greenberg and Michael Mulligan, for the Board of the New England Coalition on Nuclear Pollution

RECEIVED-REGION I  
'93 JAN 13 P2:05