

May 24, 1999

Dr. William Travers
Executive Director of Operations
United States Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Travers;

As provided under 10 CFR 2.206, Citizens Awareness Network, Coalition on West Valley Nuclear Waste, Environmental Advocates, Greens of Greater Syracuse, Nuclear Information and Resource Service, Oswego Valley Peace and Justice, Sierra Club (Iroquois Group), Student Environmental Action Coalition (SU/SUNY-ESF), Syracuse Anti-Nuclear Effort, Syracuse Peace Council, and Dr. Steven Penn, Ph.D., petition the U.S. Nuclear Regulatory Commission to suspend the operating license of Niagara Mohawk Power Corporation (NMPC) for the Nine Mile Point Unit One (NMP1) nuclear power generating station. The petition calls for suspension of the license until such time as NMPC releases the most recent inspection data on the plant's core shroud and an adequate public review of the plant's safety is accomplished because of the following new and unreviewed information and safety concerns:

- 1) The public cannot rely upon NMPC to accurately perform the data analysis necessary to calculate the extent and rate of cracking in the core shroud. As demonstrated in two letters to the NRC by Dr. Steven Penn (December 14, 1998 and March 17, 1999) the research studies commissioned by Niagara Mohawk to estimate crack growth rates (CGR) in the core shroud were replete with procedural errors including selective omission of data and calibration inconsistencies in electropotentiokinetic reactivity (EPR) measurements used in calculations of the CGR. In many instances, the studies neglected proper error analysis, misrepresenting the accuracy with which the reported CGR was known and against which new data must be checked. While we acknowledge that the issue of estimating the CGR is less relevant given the recent direct measurements of the CGR, the public still has no assurance that the calculations and research being performed by NMPC and its research contractors is being conducted in an accurate and unbiased manner. Lingering public doubt over the research practices of NMPC necessitates a public review of the inspection data to assess the true safety status of the core shroud. Further, the NRC has not evaluated Dr. Penn's letters, and has stated it does not plan to review Dr. Penn's second letter until Fall 1999; NRC's refusal to assess these analyses poses an unreviewed safety issue. *The most recent inspection data must be properly analyzed and publicly reviewed prior to any potential restart in order to assess the current state of the core shroud material and the safety concerns of continued operation of NMP1.*
- 2) NMPC and NRC have reported in the May 1999 inspection that cap screws installed as a modification to the core shroud in 1997 suffered intergranular stress corrosion cracking (IGSCC), resulting in the fracture of at least one of the cap screws. The cap screws were part of bow spring mechanisms designed to prevent tie rods from rubbing against the core shroud. With the failure of one of the tie rods between 1995 and 1997 due to improper installation and the inferior material chosen for the cap screws, NMPC's record on installing repairs to the core shroud, and NRC's record on approving and overseeing them, indicate: (1) that NMPC's designs warrant in-depth review by the public; and (2) that the implementation of repairs requires closer scrutiny to assure safe operation of NMP1. The fact that the material chosen by NMPC and approved by NRC for the cap screws was so susceptible to IGSCC, the same mechanism by which the core shroud is believed to be deteriorating, indicates a shocking lack of forethought on the part of the licensee and a dismaying inadequacy of oversight by the regulator. *This new data concerning the cap screws, which has come to light since NRC approved the repair design for V-9 and V-10, raises safety-significant questions about the credibility of NRC's approval of the vertical weld repair design, and necessitates a further public review of the design's adequacy in order to determine the level of safety before restart of NMP1.*
- 3) Data from the May 1999 inspection of the NMP1 core shroud is new and NRC staff review will not occur prior to restart of the reactor on the current refueling outage schedule. This data constitutes new information on a significant safety issue, and permitting restart of the reactor before the data is reviewed and a safety evaluation issued constitutes an unreviewed safety issue. This inspection was initially scheduled for a mid-cycle outage after 10,600 hours of operating cycle 13 (approximately November 1998). The mid-cycle outage was required by NRC prior to restart in 1997 because of the unprecedented extent of deterioration of the core shroud. Analysis of the inspection data and a safety evaluation were necessary to determine (1) the extent of cracking, (2) to assess the safety consequences of continued operation of NMP1 with a severely cracked core shroud, and (3) to begin collecting empirical data on IGSCC and core shroud deterioration as part of an industry directive to monitor the age-related degradation of boiling water reactor internals. However, NRC postponed inspection at NMPC's request since estimates of the CGR suggested the

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cracks would not approach the next safety-significant threshold until the end of the operating cycle. The NRC staff's letter to NMPC approving postponement of the mid-cycle inspection states: "This approval of NMPC's request ... does not affect the NRC staff's earlier letter and SE dated May 8, 1997." The approval of postponement only deferred the necessary review of the status and level of safety of the core shroud. *Therefore, a review of the most recent inspection data to assess the current extent of cracking in the core shroud and a safety evaluation based on that assessment are necessary before the reactor is allowed to restart, as would have been the case during the mid-cycle inspection. Subsequent NRC approval of an unprecedented and unproven repair design for vertical welds, issued prior to the inspection and review of the May 1999 data, does not preempt the previously determined need to assess the actual extent of cracking in the vertical welds and the structural integrity of the core shroud.*

4) NMPC has informed NRC that a public review of the core shroud inspection data during this refueling outage would place an "undue regulatory burden" on NMPC management and possibly compromise safety at NMP1. NMPC management acknowledged that they have insufficient resources to respond to the regulatory process and the public on issues relevant to safe operation of NMP1. This fact in itself constitutes new information and an unreviewed safety issue relating to the core shroud inspection and implementation of the proposed core shroud repair. NMPC's record during the last 2 operating cycles and during this refueling outage do not warrant that level of trust. Moreover, there is precedent for increased concern about NMPC's ability to self-assess its safety performance at NMP1. In a civil penalty issued against NMPC on November 6, 1997, NRC cited "significant regulatory concern" with NMPC for violations at NMP1; the panel investigating the violations discovered, among other things, "inadequate management oversight" and "fail[ure] to monitor the effectiveness of maintenance activities for safety-significant plant equipment in order to minimize the likelihood of failure and of events caused by the lack of effective maintenance." These are issues directly pertinent to the failure of the tie rod installation (1995), faulty design of the bow spring modification (1997), flawed studies on core shroud boat samples (1998), postponement of mid-cycle inspection (1998), and miscalibration of instruments for vertical weld inspection (May 1999). Further, the core shroud at NMP1 is known to be "the worst case of cracking in the nuclear industry" (Union of Concerned Scientists). The question of "undue regulatory burden" is not relevant with a precedent-setting case of reactor degradation, but rather requires the strictest regulatory oversight and a full public review. Finally, if the licensee cannot guarantee that compliance with regulatory requirements can be met while protecting the public health and safety, this constitutes a violation of NMPC's operating license. *Therefore, NRC should suspend NMPC's operating license for NMP1 until there has been a public review of the May 1999 inspection data and the proposed repair to V-9 and V-10 and the safety of continued operation of the reactor can be determined. Postponing restart of NMP1 would eliminate the issue of "regulatory burden" for NMPC management and ensure that the safety-significant work being conducted during this refueling outage is properly reviewed.*

Therefore, for all of the above stated contentions, the Petitioners call upon the NRC to suspend NMPC's operating license for NMP1 by postponing the scheduled restart date until such time as a public meeting can be held in Oswego County to review the most recent core shroud inspection data and the proposed repair design to core shroud welds V-9 and V-10.

Sincerely,



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