November 30, 1979

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY	)	Docket No. 50-289
	)	(Restart)
(Three Mile Island Nuclear Station, Unit No. 1)	)	

LICENSEE'S OPPOSITION TO PETITION OF STEVEN C. SHOLLY FOR AN EXCEPTION TO 10 C.F.R. § 50.44

Intervenor Steven C. Sholly ("Sholly"), pursuant to 10 C.F.R. § 2.758(b)(1979), has filed with the Licensing Board a petition seeking an exception from the provisions of 10 C.F.R. § 50.44 with respect to proceedings in the above-captioned docket. For the reasons set forth below, Licensee opposes the petition.

Grant of the Sholly petition is a necessary predicate to litigation of his proposed contention no. 11. That contention states:

> It is contended that the production of hydrogen in the reactor core from clad metal-water reactions following a LOCA poses an unacceptably high risk of catastrophic failure of the reactor pressure vessel and the reactor containment, with the subsequent release of a substantial portion of the core inventory into the environment. It is further contended that until a safe and reliable means for eliminating hydrogen gas from the containment is installed at

Unit 1, and is provided with suitable redundancy as required by GDC 41, restart of Unit 1 poses a risk to public health and safety and must be denied.

As noted in Licensee's October 31, 1979 Response, this contention is inappropriate for litigation in an adjudicatory proceeding because it challenges the adequacy of 10 C.F.R. § 50.44, which provides that no hydrogen gas control system other than purging is required for plants, such as TMI-1, constructed in the time frame and in the manner described in 10 C.F.R. § 50.44(g).[1/] Sholly seeks to avoid the impact of this regulation by seeking an exception from its provisions.[2/] That request should be denied because the issue of hydrogen gas control is beyond the scope of this restart proceeding. Should the Board disagree with Licensee on this matter, and should the Board thereafter find that Sholly has made the prima facie showing required by 10 C.F.R. § 2.758(d), Licensee respectfully requests that when the Board certifies the matter to the Commission, it include within that certification the scope issue -- i.e., whether hydrogen gas control is a subject intended by the Commission in its August 9 Order to be litigated in this proceeding.

1/ Section 50.44(g) applies to facilities for which the notice of hearing on the application for a construction permit was published on or before December 22, 1968. In the case of TMI-1 that notice was published on January 27, 1968 (33 Fed. Reg. 1082).

2/ Licensee notes that, in addition to Sholly's contention no. 11, other intervenors also have sought to litigate contentions which challenge the provisions of 10 C.F.R. § 50.44(g). See ANGRY Contention No. 5(a); UCS Contention No. 11. To date neither of these parties has sought an exception from the provision of 10 C.F.R. § 50.44(g).

Hydrogen Gas Control is Beyond the Scope of this Restart Proceeding

It is axiomatic that a licensing board does not have the power to explore matters beyond those which are embraced by the notice of hearing for the particular proceeding. Public Service Company of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 N.R.C. 167, 170-171 (1976). This rule is especially true in proceedings, like that here, where the notice of hearing is limited to certain specified issues, rather than a more general listing of topics as set forth in a construction permit or operating license proceeding. E.g., Portland General Electric Company (Trojan Nuclear Plant), ALAB-534, 9 N.R.C., 287, 285-90 n.6 (1979)(interim operation of facility pending completion of control building modifications); Union Electric Company (Callaway Plant, Units 1 and 2), LBP-78-31, 8 N.R.C. 366, 370-71 (1978), aff'd, ALAB-527, 9 N.R.C. 126, 144 (1979)(construction permit show cause proceeding). See also Virginia Electric & Power Company (North Anna Nuclear Power Station, Units 1 and 2), ALAB-551, 9 N.R.C. ___, ____ n.7 (June 26, 1979).

Thus, the scope of this restart proceeding is as set forth in the Commission's August 9, 1979 Order and Notice of Hearing. The Licensing Board already has received a brief on the scope of this proceeding from Licensee, and has heard

extended oral argument on the matter during the special prehearing conference. On the basis of this briefing and oral argument, the various positions of the parties on the scope of the proceeding were identified. Both Licensee and the NRC Staff agree that the scope of this proceeding is confined to the bases for suspension (Tr. at 151 & 365); Licensee contends that the bases for suspension are limited to matters covered in orders and bulletins issued to other Babcock & Wilcox reactor owners and to other specified issues unique to TMI, while the NRC Staff views the bases for suspension as those matters having a clear and close analogue to the TMI-2 accident.[3/] In determining whether the hydrogen gas control issue is within the scope of this proceeding, the Licensing Board need not, however, decide if Licensee's or the NRC Staff's understanding of the bases for suspension is the more accurate. This is because the structure and content of the Commission's August 9 Order evidences a clear intent by the Commission to treat the hydrogen gas control issue in a generic manner, outside the scope of this particular proceeding.

In this regard, the August 9 Order identified eight

3/ A third view, expressed by some of the intervenors (but not Sholly), is that this proceeding is to encompass a complete review of TMI-1, including all health and safety concerns and all environmental factors relating to nuclear power. This position clearly is contrary to the well-accepted view that the authority of this Licensing Board is limited by the notice of hearing.

short-term items (slip op. at 5-7) and four long-term items (slip op. at 7-8) which the Licensing Board was directed to address. The last of the short-term items was compliance with the Category A recommendations specified in Table B-1 of NUREG-0578, while the third long-term item was compliance with the Category B recommendations specified in Table B-1. With respect to the recommendations in Table B-1 relating to hydrogen gas control, this directive means that Licensee must comply with items 2.1.5.a (dedicated hydrogen control penetrations) and the last part of 2.1.5.c (review procedures and bases for recombiner use). Significantly, however, matters dealing with the more general issues relating to hydrogen gas control (item 2.1.5.b and the first part of item 2.1.5.c) are not listed as either Category A or B items, but rather are marked with an asterisk -- denoting that "[i]mplementation schedules will be established by the Commission in the course of the immediately effective rulemaking." By specifically identifying the Category A and B items, but not those marked by an asterisk for which a rulemaking proceeding would be conducted, the Commission limited the scope of this proceeding in the natural, common-sense manner -- i.e., to exclude from concurrent individual adjudication matters which the Commission intends to handle through rulemaking.

Nor is the reasoning behind the Commission's approach to the hydrogen gas control issue difficult to discern. The issue raised is not only complex and far ranging, but it

turns upon concerns that cannot adequately be presented in a proceeding involving only one plant, one utility, and a limited set of intervening parties. Compare Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-74-40, 8 A.E.C. 809, 814-15 (1974).

To begin with, Licensee notes that, in issuing its August 9 Order, the Commission had before it the NRC Staff's conclusion that the lessons learned from the TMI-2 accident with respect to hydrogen gas control do not raise immediate safety concerns. As stated in the TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations at A-19 (July 1979)(NUREG-0578):

> For the short term, the experience at TMI-2 does not by itself provide conclusive reason to significantly increase the current design basis for hydrogen control systems. Further study is required regarding the entire design basis for combustible gas control systems and core cooling systems to assure a proper balance of hydrogen prevention and mitigation features.

Moreover, the issue is not simply whether hydrogen recombiners should be required at all plants regardless of age. Rather, the hydrogen gas control issue raises very fundamental questions with respect to the design approach and philosophy used in preventing, controlling and mitigating a LOCA. As the Lessons Learned Task Status Report went on to note (NUREG-0578 at A-23):

> The course of events at TMI-2 with respect to hydrogen production and control in containment

> has indicated a need for thorough reconsideration of the Commission's design basis for combustible gas control systems. * * * In general, the accident at TMI-2 raises the question of whether the short-term design basis for post-accident combustible gas control systems (metal-water reaction) is underestimated and the long-term design basis (radiolysis and corrosion) is overestimated, resulting in a hydrogen recombiner design that is not capable of providing short-term protection and may not have been needed in the long term.
>
> Because of these considerations, it is the conclusion of the majority of the Lessons Learned Task Force that provisions for the post-accident installation of recombiners should not be required as a short-term action. Such consideration should be part of the long-term reconsideration of the design basis for combustible gas control systems.

And, as already noted, the Commission also had before it the NRC Staff's recommendation that the subject of post-accident hydrogen gas control be handled through rulemaking, including implementation schedules. The "long-term reconsideration" recommended by the Lessons Learned Task Force is particularly appropriate for treatment in a rulemaking forum. It involves matters of a generic nature, likely to affect numerous licensees and plants, where no clear consensus as to the appropriate technical approach yet exists. While various proposals for additional hydrogen gas control measures have been advanced, information sufficient to provide an informed decision on these proposals must still be developed and analyzed. The current state of affairs is aptly summarized in the TMI-2 Lessons Learned Task Force Final Report at 3-5 (October 1979) (NUREG-0585):

> Because the accident at Three Mile Island exceeded many of the present design bases by a wide margin and was evidently a significant precursor of a core-melt accident, the Task Force has concluded that the NRC should begin to formulate requirements for design features that could mitigate the consequences of core-melt accidents. * * * It appears to us that sufficient studies have been completed to support a preliminary conclusion that controlled filtered venting of containments is an effective and feasible means of mitigating the consequences of core melting. We do not recommend going beyond that degree of mitigation, at least for all currently approved designs, except for continued core-melt research. However, not all of the relevant information on the use of filtered venting of containment has been evaluated, and the issuance of a regulatory requirement within the next few months is impossible. Sufficient information can probably be generated within the next year, including information from the NRC's research program for improved reactor safety. An evaluation and a Commission decision could be made soon thereafter as to whether to require this specific design feature for core-melt accidents in light water reactor power plants. [Emphasis added.]

The final Lessons Learned Report goes on to warn (NUREG-0585 at 3-6):

> It appears from information that we have reviewed that hydrogen control measures, for degraded core events short of core melt, that might be feasible and effective in some containment designs would not be as effective or feasible in others. For some designs, it might also be possible that strong engineering arguments can be presented to prove that their degree of prevention of degraded core events is sufficient to offset the reduction of risk attainable by hydrogen control measures in other designs. These should be considerations in the rulemaking. [Emphasis added.]

In view of these circumstances, an individual adjudication of the hydrogen gas control issue in this proceeding would be wasteful and not likely to result in a complete record. Cf. Potomac Electric Power Company (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 A.E.C. 79, 84 (1974); Natural Resources Defense Council, Inc. v. NRC, 547 F.2d 633, 641 (D.C. Cir. 1976), rev'd on other grounds sub nom. Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519 (1978); Note, The Use of Generic Rulemaking to Resolve Environmental Issues in Nuclear Power Plant Licensing, 61 Va. L. Rev. 869, 882 (1975); Note, Judicial Review of Generic Rulemaking: The Experience of the Nuclear Regulatory Commission, 65 Geo. L. Rev. 1295, 1301-02 (1977).

In addition, requiring adjudication of the hydrogen gas control issue in this proceeding, while TMI-1 remains shut down, would be highly discriminatory. Contrary to the unsupported representation in the Sholly petition (see p. 2), there is no distinction between the "obvious generic problem of hydrogen generation and the specific circumstances being addressed [with respect to TMI-1]." No other reactor in the country has been shut down while an "obvious[ly] generic problem" has been resolved in an individual adjudication. The Commission specifically decided in its August 9 Order that, if additional long-term requirements are imposed on other operating reactors by an immediately effective Commission order, then the Commission will, to the extent appropriate in the circumstances, issue orders, effective immediately, to require that Licensee demon-

strate in this proceeding reasonable progress toward completion of such additional actions as a condition to restart. In the absence of a further order of that type, however, litigation of the hydrogen gas control issue is unwarranted and would only serve to hold TMI-1 "hostage" pending resolution of an industry-wide concern (compare Tr. at 741).

Licensee reaches this result notwithstanding that it may appear to some that a significant safety issue is being excluded from consideration in this proceeding. Commission procedures already exist which ensure that full consideration will be given to any significant safety issues regardless of whether such matters are litigated in this proceeding. The Appeal Board recently commented on these procedures, and the role that such procedures play in the broad framework of the Commission's safety reviews, during the course of its decision in Virginia Electric & Power Company (North Anna Nuclear Power Station, Units 1 and 2), ALAB-551, 9 N.R.C. ____ (June 26, 1979).

There, the Appeal Board had retained jurisdiction over the North Anna proceeding with respect to three specific and isolated issues. Subsequently, the NRC Staff transmitted a "Board Notification" relating to the use of nonsafety grade equipment in mitigating consequences of anticipated operational occurrences. The question thus raised was the Appeal Board's jurisdiction to consider the nonsafety grade equipment issue.

The Appeal Board held that it retained jurisdiction to hear the matter only if a "reasonable nexus" exists between the matter and the limited issues still pending before it (ALAB-

551, slip op. at 4-5). That such a conclusion might preclude Appeal Board consideration of the matter did not, however, mean that the matter must be ignored. Rather, the Appeal Board stated (id. at 8-9):

> We hasten to add that * * * the absence or loss of appeal board jurisdiction over a particular issue because of finality considerations does not mean that, even if clothed with serious safety or environmental implications for the facility in question, the issue must be ignored. To the contrary, it just falls within the staff's bailiwick, not ours. It can be there reviewed on an informal basis; beyond that, either on his own initiative or upon the request of any individual (whether or not a party to the licensing proceeding), the Director of Nuclear Reactor Regulation is empowered to institute a show-cause proceeding looking to the modification, suspension or revocation of a particular permit or license. 10 CFR 2.202, 2.206. In the show-cause proceeding, the new matter would be subject to full ventilation and the grant of such relief as might be warranted by the disclosures of record. [Footnotes omitted.]

A similar result is required here. As to matters which raise or may raise significant safety concerns, but are not within the scope of this proceeding, resolution of such matters lies initially with the NRC Staff outside the framework of this proceeding. The only modification to this procedure here is that the Commission already has reserved for itself the right to interject new matters into this proceeding by means of an immediately effective order to that effect. Thus, overview by both the NRC Staff and the Commissioners themselves assure that safety matters related to TMI-1 but not within the scope of this proceeding will receive a full airing.

For all these reasons Licensee believes that the Sholly petition should be denied because it seeks to place in controversy a matter beyond the scope of this proceeding.

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE

By: George F. Trowbridge

Dated: November 30, 1979

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CERTIFICATE OF SERVICE

I hereby certify that copies of "Licensee's Objection to Petition of Steven C. Sholly for an Exception to 10 C.F.R. § 50.44", dated November 30, 1979, were served upon those persons on the attached Service List by deposit in the United States mail, postage prepaid, this 30th day of November, 1979.

George F. Trowbridge

Dated: November 30, 1979

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