01/28/82

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.	)	Docket Nos. 50-440 OL 50-441 OL
	)	
(Perry Nuclear Power Plant, Units 1 and 2)	)	

RESPONSE OF NRC STAFF TO MOTIONS OF SUNFLOWER ALLIANCE TO RESUBMIT HYDROGEN CONTROL CONTENTION AND TO EXPAND QUALITY ASSURANCE CONTENTION

I. INTRODUCTION

On January 8, 1982, in two separate filings, Sunflower Alliance, et al., ("Sunflower") moved (a) to resubmit its original Contention 7 concerning hydrogen control[1/] in light of a late-proposed scenario for a loss of coolant accident which entailed hydrogen generation, and (b) to expand the scope of the present contention on quality assurance in the light of certain events which occurred at the Perry site in November of 1981.[2/] In this response, the NRC Staff opposes the

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1/ Sunflower Alliance et al., Motion to Resubmit Contention 7, dated January 8, 1982 ("Hydrogen Control Motion").

2/ Intervenor, Sunflower Alliance, et al., Motion to Expand Quality Assurance Contention, dated January 8, 1982 ("Quality Assurance Motion").

hydrogen control motion because Sunflower has satisfied neither the directive of the Commission's decision in Metropolitan Edison Company (Three Mile Island, Unit 1)[3/] nor the requirements for a late-filed contention. The Staff opposes the quality assurance motion because Sunflower has failed to establish the required basis and specificity for the late-filed contention and has failed in part to satisfy the standards governing a late filing.

The principles governing contentions have been discussed in several recent pleadings.[4/] In essence a party proposing a contention must state a basis[5/] and articulate the issue proposed with sufficient specificity to put the parties on notice of what they must defend against or address.[6/] When a contention is late-filed, it must also be judged by a balancing of the five factors listed in 10 C.F.R. § 2.714(a)(1).[7/]

3/ CLI-80-16, 11 NRC 674 (1980).

4/ E.g., Response of NRC Staff to Motion of Sunflower Alliance for Leave to File an Additional Contention, dated January 13, 1982, at 2-3.

5/ 10 C.F.R. § 2.714(b).

6/ Philadelphia Electric Co. (Peach Bottom, Unit 3), ALAB-216, 8 AEC 13, 20-21 (1974).

7/ Pacific Gas and Electric Co. (Diablo Canyon, Units 1 and 2), CLI-81-5, 13 NRC 361, 364 (1981).

II. HYDROGEN CONTROL MOTION

A. Background

Both Sunflower[8/] and the Ohio Citizens for Responsible Energy (OCRE)[9/] had originally proposed contentions addressing the need for hydrogen control measures. The Licensing Board at the June 2, 1981 prehearing conference had expressed the tentative view that hydrogen control contentions must comply with the Commission's directive in the

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8/ Sunflower's proposed Contention 7 read:

> "Petitioners allege that there is insufficient documentation of the ability of the containment structures of said facilities to safely inhibit a hydrogen explosion of the magnitude and type which occurred at the Three Mile Island Unit 2 near Harrisburg, Pennsylvania and of which the Commission is aware. Petitioners further allege that licensing of the subject facilities to emit certain minimal amounts of radiation is inadequate to ensure the health and safety of persons, animals and vegetation near the plant, including your petitioners herein."
>
> The Board held that the portion of this contention on radiation levels had been dropped by the Intervenors, Special Prehearing Conference Memorandum and Order Concerning Party Status, Motions to Dismiss and to Stay, the Admissibility of contentions and the Adoption of Special Discovery Procedures. LBP-81-24, 14 NRC 175, 209. In their hydrogen control motion, Intervenors make no attempt to reassert their interest in radiation levels.

9/ OCRE's proposed contention 5 read:

> 5) Hydrogen bubbles
>
> "OCRE contends that the Perry containment buildings could not sustain a hydrogen burn similar to the one which occurred at TMI Unit 2. Containment failure could gravely harm the interests of OCRE members everywhere."

TMI-1 case.[10] That case addressed the way in which hydrogen control questions, which are founded on assumptions at variance with 10 C.F.R. § 50.44, are to be raised.

Both Sunflower[11] and OCRE[12] indicated that each was then unable to articulate a scenario which met the standards of TMI-1. The Board confirmed its tentative view on the applicability of TMI-1 in its July 28, 1981 Order.[13]

Seven months after the prehearing conference [illegible] filed the present hydrogen control motion proposing the following accident scenario:

> 1. a pipe break in the reactor coolant pressure boundary causes a LOCA, as defined by 10 C.F.R. 50.46(c)(1).
>
> 2. failure of the ECCS to maintain coolant inventory. The cause of this failure may be: electrical or mechanical component failure; common mode failures resulting from the LOCA; design deficiencies which undermine ECCS effectiveness; and/or operator error.
>
> 3. the Zircaloy fuel cladding melts; the zirconium reacts with water, liberating hydrogen gas.
>
> 4. the hydrogen concentration within the containment increases to the flammability limit before the combustible gas control system becomes effective, or said system never operates effectively.
>
> 5. uncontrolled hydrogen-oxygen reaction (explosion) occurs.

10/ CLI-80-16, supra.

11/ Tr. 322.

12/ Tr. 323.

13/ Order of July 28, 1981, supra, at 207-209.

6. containment is breached; a substantial fraction of the core inventory of fission products is released to the atmosphere, resulting in offsite doses at the LPZ boundary which exceed the 10 C.F.R. 100.11 guidlelines of 25 rems whole body and 300 rems thyroid.

With this supporting scenario, Sunflower asked in its motion that a major portion of its original Contention 7 be admitted as follows:

Petitioners allege that there is insufficient documentation of the ability of the containment structures of said facilities to safely inhibit a hydrogen explosion of the magnitude and type which occurred at Three Mile Island Unit 2 near Harrisburg, Pennsylvania, and of which the Commission is aware.

B. Sunflower Has Failed To Articulate A Contention Possessing The Requisite Specificity And Basis

In its TMI-1 decision, the Commission indicated that "hydrogen control measures beyond those required by 10 C.F.R. § 50.44 would be required if it is determined that there is a credible loss-of-coolant accident scenario entailing hydrogen generation, hydrogen combustion, containment break or leaking and offsite radiation doses in excess of Part 100 guideline values." Whenever an Intervenor alleges certain deficiencies in plant design--whether or not these concern hydrogen control--he must come forward with an acceptable contention stating his concern. The TMI-1 decision teaches that in the hydrogen control area--because of an existing regulation on hydrogen control, 10 C.F.R. § 50.44--a party attempting to raise an issue which assumes hydrogen generation at odds with § 50.44 must pursue the issue in the context of Part 100 of the Commission's regulations. To do this, the party must allege a scenario for the generation of hydrogen which leads to offsite radiation doses in excess of Part 100 values.

The scenario which the party alleges is in essence a contention. While it must be specific and possess a basis, its "credibility"--that is, its merits--need not be proven before the contention can be admitted by the Licensing Board.[14/] An Intervenor's failure to articulate a specific scenario, however, is fatal, for it is the scenario itself which is the matter litigated. Until a specific scenario is alleged, litigation cannot proceed to determine whether a credible LOCA sequence resulting in excessive offsite radiation exists. Until a licensing board concludes that there is such a sequence, it is unable to require additional hydrogen control measures.

Sunflower has not met this requirement, failing to provide both a specific scenario and a basis for it. This deficiency is apparent when the second paragraph of Sunflower's scenario is analyzed. In this second paragraph Sunflower has proposed a number of broadly defined areas, such as "electrical failure" or "operator error," which "may" result in a failure of the emergency core cooling system (ECCS).

14/ If one pretermits the question of whether the substance of a late-filed contention should be judged by the same standards as for one timely filed, a Licensing Board is not to consider the merits of a contention in deciding its admissibility. Houston Lighting and Power Co. (Allens Creek), ALAB-590, 11 NRC 542, 546 et seq. It would thus be inappropriate, for example, to find Sunflower's accident scenario inadmissible because Sunflower may be incorrect on the effectiveness of hydrogen recombiners.

Unlike the accident scenario accepted in the McGuire proceeding[15/] Sunflower's proposal does not tell the parties what specifically is to be the focus of the litigation. Clearly, unless this litigation is to become a massive fishing expedition to find possible causes for ECCS failure, an intervenor must do more than assert that one or more of several broadly defined causes "may" lead to an ECCS failure.

Sunflower must articulate more particularly how a failure in the ECCS will occur. Sunflower's scenario fails to put the parties on notice of (a) which of the myriad of electrical and mechanical components in a reactor are asserted to fail; (b) which common mode failures are thought to result from a loss-of-coolant accident; (c) which design deficiencies undermine the effectiveness of the ECCS; and (d) what type of "operator error" would cause a failure of the ECCS.

These defects in Sunflower's scenario are more than mere technicalities. They go to the heart of the reason for requiring contentions to be specific and have a basis. For example, to litigate Sunflower's assertion that some mechanical failure may cause a loss-of-coolant accident, the parties effectively would have to present a fault-tree analysis of every switch, valve and other component in the plant.

If the scenario were drafted with specificity, litigation could focus on the area of Sunflower's concern. If Sunflower's concern with common mode failures after a loss-of-coolant accident were premised, for example, on the belief that the environmental conditions associated with

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15/ In that case the hydrogen control contention specified a clearly understood accident sequence, a TMI-2 type accident sequence. Duke Power Co. (Wm B. McGuire, Units 1 and 2), LBP-81-13, 13 NRC 652, 656, and 660-661 (1981).

the accident would cause specified equipment to malfunction, then the parties could readily respond with appropriate testimony. But that testimony would not be relevant if Sunflower's concern were actually in another area.

C. Sunflower Has Failed To Meet The Standards Required For A Late-Filed Contention

Sunflower has failed to provide any reason for its delay of 7 months in filing an amended hydrogen control contention. Sunflower argues that it has relied upon the NRC's hydrogen control rulemaking to resolve its concerns. As Sunflower views it, the failure of the Commission to "act definitively" with respect to BWR Mark III containments in its December 2, 1981 final rule[16/] indicates that "plant-specific litigation is therefore appropriate."

Sunflower's argument fails under close analysis. First, if the pendency of rulemaking in this area was truly a consideration, it would appear that Sunflower would never have filed its original Contention 5 or at the very least would have withdrawn its proposed Contention 5 at the June 2, 1981 prehearing conference. The Commission on October 2, 1980, had published a proposed rule on interim requirements related to hydrogen control.[17/] In fact, Sunflower now appears to admit that the

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16/ Interim Requirements Related to Hydrogen Control, 46 Fed. Reg. 58484 (December 2, 1981).

17/ Domestic Licensing of Production and Utilization Facilities; Interim Requirements Related to Hydrogen Control and Certain Degraded Core Considerations, 45 Fed. Reg. 65466 (October 2, 1980).

scope of that very rulemaking defines the limits of its concern in the hydrogen control area.[18/] Even if Sunflower was unaware of the pendency of the rulemaking when it filed its petition, Applicants in their May 22 brief on contentions[19/] made Sunflower aware of this rulemaking in advance of the June 2 prehearing conference. Without a more complete explanation from Sunflower for its lateness, one cannot reconcile the inconsistencies in Sunflower's argument that it awaited the outcome of any pending rulemaking.

Second, even if these apparent inconsistencies in Sunflower's argument on good cause can be reconciled, Sunflower still fails to meet the good cause standard. Even if the December 2, 1981, final rule[20/]

18/ "The proposed rule, published on October 2, 1980 (45 FR 65466), included 12 items; eight of these items were also included in a proposed OL rule (46 FR 26491, May 13, 1981) and therefore were not considered in this final rulemaking. Of the four remaining items, only one would directly address the Perry plant design: item 2, requiring design analyses for Mark III BWRs and PWRs. This item was not incorporated into the final rule; indeed, it is not even given further mention in the Federal Register notice. This failure of the Commission to act definitively on this matter, which had been under consideration for at least a year, clearly indicates that the rulemaking process is not adequately addressing this issue." Hydrogen Control Motion, supra, at 5.

19/ Applicants' Brief on Contentions of Sunflower Alliance, Inc., et al.," dated May 22, 1981, at 10 et seq.

20/ Interim Requirements Related to Hydrogen Control, 46 Fed. Reg. 58484 (December 2, 1981).

did not "adequately address" those hydrogen control issues which concern Sunflower, the group still has failed to support the premise of its good cause argument--that the rulemaking process now lacks applicability to the Perry plant. In fact, the Commission on December 23, 1981, proposed a rule addressing hydrogen control for BWR Mark III containments.[21/] Sunflower does not address this December 23 rulemaking, failing to indicate how it can be reconciled with its position on the "lack of applicability" of rulemaking to the Perry plant.

For both these reasons, the argument Sunflower offers for its tardiness lacks merit.

Sunflower's showing on the remaining four elements of 10 C.F.R. § 2.714(a) does not outweigh this lack of good cause for its tardiness. Sunflower has another means, participation in the pending rulemaking promulgated on December 23, to protect its interest, § 2.714(a)(1)(ii). The Board is presented with no basis to accept Sunflower's assertion that the group "will surely aid in developing a sound record," § 2.714(a)(1)(iii). The facts that Sunflower's interest is not now being represented by another, § 2.714(a)(1)(iv), and that the proceeding, while broadened, may not be delayed by admission of this contention, § 2.714(a)(1)(v), hardly counterbalance the negative determinations on the

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21/ Interim Requirements Related to Hydrogen Control, 46 Fed. Reg. 62281 (December 23, 1981).

other three factors. Therefore, this proposed contention should also be rejected for failure to meet the standards for a late-filed contention.

III. QUALITY ASSURANCE MOTION

A. Background

In its July 28, 1981 Order the Board admitted the following issue on quality assurance:

> Issue No. 4: Applicant has an inadequate quality assurance program that has caused or is continuing to cause unsafe construction. 22/

Subsequently in a September 9 Order, the Board limited this issue "to the quality assurance implications arising from the [February 1978] stop work order issued to it and the steps taken by it to remedy alleged deficiencies leading up to the stop work order."23/ In its January 8, 1982 quality assurance motion, Sunflower now attempts to expand this issue to include "any violation of a quality assurance/quality control standard at the Perry nuclear power plant whenever it occurred."24/

Sunflower's quality assurance motion is properly viewed as a late-filed contention. As such it must meet the applicable standards of § 2.714 before the Board can admit it.

22/ 14 NRC at 210.

23/ Memorandum and Order Concerning the Status of Ashtabula County and Objections to the Special Prehearing Conference Order, dated September 9, 1981, LBP-81-35, 14 NRC 682, 686-687.

24/ Quality Assurance Motion, supra, at 16.

B. Sunflower Has Failed To Provide A Basis With Specificity For Any Expansion Of The Present Quality Assurance Issue

The supporting basis for Sunflower's motion must be divided into two separate parts: (a) the specific allegations with respect to the defective weld and the improper cable pulling, and (2) the general allegations founded on a large number of NRC inspection reports, which Sunflower incorporates by reference. Neither provides an adequate basis for expanding Issue No. 4 on quality assurance.25/

1. With respect to the defective weld and the improper cable pulling, Sunflower has failed to show any nexus between these alleged deficiencies and "an inadequate quality assurance program." As the Board itself recognized "a good, working quality assurance program identifies deficiencies for correction."26/ Thus the mere noting of a deficiency without supporting reason or articulated nexus provides not basis for an assertion that the Applicants' quality assurance program is inadequate.

The requirements of § 2.714(b) that a contention possess a basis with specificity are not mere formalisms. Rather, they are vital to the integrity of the NRC's hearing process, for a party cannot be expected to litigate and indeed, if an applicant, bear the burden of proof on an

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25/ Of course, if the Board should hold that some but not all of the proffered bases would support a valid contention in the quality control area, the expansive contention proposed by Sunflower would have to be modified accordingly. See, e.g., Order of September 9, supra, at 686-87.

26/ July 28 Order, supra, at 211.

issue which has not been clearly framed. Until Sunflower is able to articulate,[27] with basis, some nexus between deficient weld and cable pulling and an inadequate quality assurance program, the contention should be rejected for failing to satisfy the requirements of § 2.714(b).

2. The submission of an unexplained laundry list of NRC inspection reports provides no basis for a proposed contention. First, such an incorporation is inconsistent with the requirement that the basis of a contention be set forth with "reasonable specificity."[28] In essence, Sunflower has established no nexus between deficiencies in construction and defects in a quality assurance program.

Second, the Board in its July 28 Order appears to have already considered and rejected this same contention as supported by a majority of the inspection reports cited in Sunflower's pending quality assurance motion. As the Board noted in that Order:

> Indeed, Sunflower referred specifically to "the Commission's own inspection reports" and alleged Applicant's general inability to comply with its Quality Assurance Program. This should have alerted Applicant and Staff to consult with quality

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27/ Staff believes it inappropriate to consider the merits of these two events in the light of the Appeal Board's decision in Allens Creek, supra, at 546 et seq. This case, however, does not undermine the requirement that an intervenor support its contentions with some precise reason or citation.

28/ § 2.714(b); see Tennessee Valley Authority (Browns Ferry, Units 1 and 2), LBP-76-10, 3 NRC 200, 216 (1976).

assurance personnel and to review the inspection reports to ascertain further what was being alleged. 29/

However, the Board then held that an "intervenor cannot fashion an admissible contention merely by filing deficiency reports without further explanation."30/ Thus for the majority of Sunflower's listed reports--those predating the June 2, 1981 prehearing conference--the Board has already held that they provided an insufficient basis for supporting a contention similiar to that which Sunflower now proposes.

C. Sunflower In Part Has Not Properly Complied With the Standards Governing Filings Which Are Out Of Time

1. With respect to the defective weld and the improper cable pulling--occurrences which took place in November of 1981--the Staff agrees that Sunflower possesses "good cause" under § 2.714(a)(1) for filing on January 8, 1982, its motion to expand the quality assurance contention. However, Sunflower must still successfully meet the requirements of § 2.714(b) for a valid contention.

2. With respect to Sunflower's lengthy list of NRC inspection reports--almost all of which predated the June 2, 1981 prehearing conference--Sunflower has failed to advance any justification for proposing that the Board rely upon these reports at this late date. First, even if these reports were not included by reference in

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29/ July 28 Order, supra, at 211. See also June 2, 1981 Prehearing Conference, Tr. 626 where Judge Bloch indicated that he would "receive" the inspection reports.

30/ Id. See also Order of September 9, 1981, supra, at 686-687.

Sunflower's original Contention 9,[31] they were clearly known to Sunflower at that time.[32]

31/ This contention read:

> Petitioners allege that Applicants have demonstrated throughout the construction process their inability to comply with the Quality Assurance Program established by both the Commission and the Applicants. Applicants construction practices, as demonstrated in the Commission's own inspection reports, are totally inexcusable. Petitioners allege that Applicants have not constructed Perry in accordance with applicable standards and that there are the following but by no means the only deficiencies:
>
> A) that the General Electric reactors, being used at Perry, have developed cracking at the primary coolant nozzles. Thus, the safety of these reactors are currently undergoing investigation.
>
> B) that Perry is built on a geological fault and that the plant has not been built to earthquake standards.
>
> C) that this plant uses baffles in the cooling towers made of asbestos; that during operation of the reactor the asbestos will flake causing asbestos to leak into the air or otherwise interfere with the safe operation of the plant.
>
> D) that Perry is being built in an area with a high water table; that as a consequence of this the concrete being poured into the ground is porous which will require that water be pumped from the concrete; that the containment floor is being built on this type of concrete construction; that this technique is not a proven construction technique.
>
> Petitioners further allege that Applicants have wholly failed to operate Davis-Besse in a professional, economic and efficient manner as demonstrated by the Commission's own reports. Petitioners allege that there is no reason to believe that Applicants will operate Perry in the public interest either. [Emphasis added]

32/ June 2, 1981 Prehearing Conference, Tr. 626.

Second, if these reports have previously been incorporated into Sunflower's original Contention 9--as they appear to have been[33/]--then the tardy reappearance of these reports in Sunflower's quality assurance motion must be judged against the standard for an objection to a special prehearing conference order, 10 C.F.R. § 2.751a(d). Because an objection to a special prehearing conference order must be filed within five days after such an order is served, Sunflower's motion is clearly out of time to the extent it is based on these referenced reports--more than five months late with respect to the July 28 Order, and almost four months late with respect to the Board's clarification of this contention in its September 9 Order. Sunflower offers no good cause for this failure to comply in a timely fashion with the Commission's rules.

Judged against the standards for a late-filed contention, Sunflower's motion, to the extent it relies upon the referenced inspection reports, provides no good cause for its delayed filing, § 2.714(a)(1)(i), and fails to provide any assurance that Sunflower's participation "may reasonably be expected to assist in developing a sound record," § 2.714(a)(1)(iii). The fact that there are no other means available to protect Sunflower's interest, § 2.714(a)(1)(ii), that its interest is not being represented by another, § 2.714(a)(1)(iv), and that the proceeding, while broadened, may not be delayed by admission of this contention, § 2.714(a)(1)(v), do not outweigh the negative determinations on the other two factors.

33/ Tr. 624-626; see also discussion at footnote 29.

IV. CONCLUSION

For the several reasons stated above, Sunflower's motions to resubmit a hydrogen control contention and to expand a quality assurance contention should be denied.

Respectfully submitted,

James H. Thessin

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Counsel for NRC Staff

Dated at Bethesda, Maryland,
this 28th day of January, 1982.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that copies of "RESPONSE OF NRC STAFF TO MOTIONS OF SUNFLOWER ALLIANCE TO RESUBMIT HYDROGEN CONTROL CONTENTION AND TO EXPAND QUALITY ASSURANCE CONTENTION" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system, this 28th day of January, 1982:

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