

STAFF 4/29/82

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of  
SOUTH CAROLINA ELECTRIC & GAS COMPANY  
(Virgil C. Summer Nuclear Station,  
Unit 1)

Docket No. 50-395

NRC STAFF RESPONSE TO SECOND LATE  
INTERVENTION PETITION OF FAIRFIELD UNITED ACTION



I. INTRODUCTION

On April 9, 1982, Fairfield United Action (FUA or Petitioner) filed its second late intervention petition in this proceeding. This Board's grant of the first late intervention petition of March 23, 1981 was reversed by the Appeal Board on June 1, 1981. South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 NRC 881 (1981). The Commission declined review and the matter is now before the Court of Appeals. Fairfield United Action v. NRC, No. 81-2042 (D.C. Cir.).

The Appeal Board concluded that the first late intervention petition, filed shortly before the start of the evidentiary hearing, was wholly unjustified based on its assessment of the five specified factors governing consideration of late petitions under 10 CFR

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§ 2.714(a).<sup>1/</sup> This second late petition, filed months after the completion of the hearing with an initial decision imminent, suffers the same, if not greater, infirmity. See Houston Lighting and Power Co. (Allens Creek Nuclear Generating Station, Unit 1), ALAB-671, 15 NRC \_\_\_\_ (March 31, 1981).<sup>2/</sup> For this reason, as set forth more fully below, the NRC Staff opposes FUA's second late petition to intervene.

## II. DISCUSSION

Denial of the present late petition is mandated under the operative law and facts. Since the record would have to be reopened before the proposed new contention in the petition could be admitted, the legal standards governing reopening must be evaluated along with the factors

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1/ Those factors are:

- (i) Good cause, if any, for failure to file on time.
- (ii) The availability of other means whereby the petitioner's interest will be protected.
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
- (iv) The extent to which the petitioner's interest will be represented by existing parties.
- (v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding. 10 CFR § 2.714(a)(1).

2/ Citing approvingly from its decision in Summer, supra, 13 NRC 881, the Appeal Board in Allens Creek affirmed a Licensing Board's denial of a second late intervention petition therein filed just before the close of the record.

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governing late intervention.<sup>3/</sup> The Staff will address these distinct standards in turn.

A. Late Intervention

The Commission's regulations provide that nontimely filings will not be entertained absent a favorable balancing of the five factors enumerated above. 10 CFR § 2.714(a)(1). FUA's present petition attempts to address these factors:

The first factor is whether there is good cause for the filing delay. The sole issue raised in the present petition is a concern over the potential for accelerated steam generator tube wear caused by flow-induced vibrations in the preheater region of Westinghouse Model D3 steam generators to be used at Summer.<sup>4/</sup> Petitioner acknowledges that the

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3/ See n.1 supra.

4/ Specifically, the contentions proffered by Petitioner state:

- (1) The license should not issue because rapid tube wear caused by flow-induced vibrations in the preheater region of the Westinghouse Model D3 steam generators employed at Summer presents a highly credible likelihood of tube weakening, leakage, or rupture which, in combination with other sequences of events which can reasonably be expected to occur within the lifetime of the facility, would result in the release of significant amounts of radiation to the atmosphere and endanger the health and safety of the public. Petition at 2.
- (2) The favorable cost-benefit analysis struck at the Construction Permit stage is fatally compromised by the failure of the NRC to calculate costs and benefits based on operation at half power and to include in the balance costs of repairs and/or replacement of the steam generators as well as the very high worker exposure rates which will result from frequent repairs and/or replacement. Petition at 6.

existence of this phenomenon was disclosed in a January 20, 1982 Board Notification (BN-82-02) in which the Board was informed about the appearance of the problem at two foreign reactors. Unrelated concerns over steam generator tube integrity have been extant for a considerable period of time as specifically addressed in the February 1981 Summer Safety Evaluation Report (SER). See SER, § C.5 (A-3).

Along with the subject Board Notification, the petition cites other documents allegedly expositive of the matter. This includes a February 19 letter from the Applicant to the Staff covering the former's preliminary plans for addressing the potential problem,<sup>5/</sup> two local newspaper articles of March 10 and 11 which report that the Summer plant could be forced to operate indefinitely at reduced capacity (50%) until the immediate problem can be resolved<sup>6/</sup> and a March 12, 1982 [sic]<sup>7/</sup> Staff memorandum summary of a February 19 meeting with Westinghouse and owner utilities on Model D steam generators.<sup>8/</sup>

An argument can be made that good cause may have been present to seek to adjudicate the specific steam generator matter advanced in the present petition if requested promptly following the January Board Notification on the subject. It is now April, however, three months have elapsed since the close of the record, and an initial decision is finally

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5/ See petition at 2, 8.

6/ See petition, attachments 1 and 2.

7/ The memorandum is actually dated March 15, 1982.

8/ See petition at 2, 9.

imminent in this five-year old licensing proceeding. Under the exigencies of this case, months of delay in submission of the present petition renders it "crucially tardy." Cf. Summer, 13 NRC at 895.

The second and fourth factors, the availability of other means whereby the petitioner can protect its interest and the extent to which other parties will represent that interest, are somewhat analogous. With regard to the former factor, other means, perhaps less expansive in scope, such as the submission of a request for Commission action under 10 CFR §2.206, exist to obtain formal consideration of the perceived problem. A decision by the Director of Nuclear Reactor Regulation thereunder is reviewable by the Commission itself. Therefore, consideration of this factor does not necessarily weigh in favor of Petitioners.

With regard to the latter of these complementary factors, the Staff is dedicated to assure a safe and timely resolution of the tube vibration wear problem and to take whatever measures are necessary to protect the public health and safety in the interim as evidenced by the attached affidavit of Staff members Murphy, Collins, Rajan and Feld (Staff affidavit). This includes the imposition of operating restrictions as necessary.

This effort is consistent with the firmly established regulatory scheme whereby reconciliation of concerns unrelated to the contested issues in an operating license proceeding rests within the sole province of the Staff. It is not the responsibility of a licensing board at the operating license stage to supplant or duplicate this role. Summer, supra, 13 NRC at 895. Further, no operating license may issue unless and until the agency makes the specified safety findings in 10 CFR § 50.57. Any eventual full-power operating license for the Summer facility,

including any terms and conditions relevant to the subject problem, must receive Commission approval. The steam generator concern at issue has and will continue to receive paramount attention by the Staff. Therefore, like factor two, consideration of this factor does not necessarily weigh in favor of Petitioner.<sup>9/</sup>

The third factor, the extent to which the petitioner can assist in developing a sound record, weighs importantly against this belated intervention petition. The technical problem raised in the petition is one for which a design solution is being actively pursued, and believed probable, by industry, Westinghouse, and NRC experts in the field.<sup>10/</sup> Pending a successful design solution, conservative operating and surveillance procedures will be imposed by the NRC to prevent any undue risk to the health and safety of the public from interim plant operation.<sup>11/</sup>

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<sup>9/</sup> Whatever their objective merits herein, the Appeal Board has observed that these two factors are accorded relatively less weight than the other factors. Summer, supra, 13 NRC at 895. As demonstrated above, the balance of the factors weigh substantially against the grant of this exceedingly untimely intervention.

<sup>10/</sup> See Staff affidavit at 8-9.

<sup>11/</sup> Id.

By contrast with the considerable technical resources already being devoted to the problem, the petition is devoid of any indication that petitioner possesses any expertise in this unique matter which would in any way contribute to its potential evidentiary consideration. The petitioner makes the bald assertion that it could significantly contribute to the consideration of certain unspecified "substantial issues of law and fact" which would not otherwise be raised.<sup>12/</sup> This assertion is unsubstantiated. Petitioner is not represented by counsel nor does it identify, or indicate an intent to produce, any potential expert witnesses on the issues. Therefore, this important factor weighs decisively against Petitioner.

Finally, factor five, the extent to which admission of the late petition will broaden the issues or delay the proceeding, weighs almost conclusively against petitioner. The instant proceeding commenced in 1977. Evidentiary hearings begun in June, 1981 concluded with the close of the record in January, 1982. Petitioner's earlier bid to become a late party to the proceeding was unsuccessful. Two motions to reopen the record, one granted<sup>13/</sup> and the other pending,<sup>14/</sup> have already been

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<sup>12/</sup> See petition at 13.

<sup>13/</sup> See Licensing Board Memorandum and Order, dated January 5, 1982.

<sup>14/</sup> See Intervenor's motion for the admission of a new contention, dated February 24, 1982.

lodged by the intervenor in the case. An initial decision is expected any day. The admission of a new party and contentions on the eve of an initial decision will obviously delay the proceeding to an unjustified degree. As the Appeal Board opined in dismissing FUA's first late petition, "its participation in the proceeding could no longer be sanctioned without destructive damage to both the rights of other parties and the integrity of the adjudicatory process itself." Id. at 895. The passage of almost a year since that ruling has lent it even greater credence today. The Appeal Board then found that this Board had "no latitude", under the prevailing circumstances, to admit FUA as a new party "as the hearing date approach[ed]." See Summer, ALAB-643, 13 NRC 898, 900 (1981) (stay application). Similarly, the denial of FUA's latest petition, filed as the date for an initial decision approaches, is virtually mandatory under the circumstances which presently obtain. Therefore, on balance, the five pertinent factors appear to weigh substantially against the grant of this untimely petition. The Staff will now turn to a discussion of the standards for reopening the record.

B. Reopening

The standards for reopening a record in Commission proceedings are set forth in Kansas Gas and Electric Company (Wolf Creek Generating Station, Unit No. 1), ALAB-462, 7 NRC 320, 338 (1978). Therein, the Appeal Board makes it clear that the proponent of a motion to reopen bears a heavy burden. The movant must demonstrate that: (1) the motion is timely, (2) the motion is directed to a significant safety or

environmental issue,<sup>15/</sup> and (3) a different result would have been reached initially had the material submitted in support of the motion been considered.<sup>16/</sup> These standards were reiterated in Public Service Company of Oklahoma, et al. (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775, 804 (1979), where, as here, the motion to reopen was filed after the record was closed but prior to issuance of a decision by the licensing board.<sup>17/</sup> Thus, the motion to reopen must be timely and not based on information that reasonably could have been raised prior to the close of the record, it must involve a matter which is of some significance, and it must be such that the outcome of the case is likely to be affected by the alleged new information.

Even if these factors are resolved in the movant's favor, there is no justification to reopen the record for an additional evidentiary hearing unless a triable issue of fact (that which would defeat a summary

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<sup>15/</sup> See Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-598, 11 NRC 846, 887 (1980); Georgia Power Co. (Alvin W. Vogtle Nuclear Power Plant, Units 1 and 2), ALAB-291, 2 NRC 404, 409 (1975); Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 (1973).

<sup>16/</sup> See Northern Indiana Public Service Co. (Bailly Generating Station, Nuclear-1), ALAB-227 8 AEC 416, 418 (1974). In this connection, the Appeal Board has recently observed that the proponent of a motion to reopen must establish the existence of newly discovered evidence having a material bearing on the proper result in the case. Duke Power Co. (McGuire Nuclear Station, Units 1 and 2), ALAB-669, 14 NRC \_\_\_\_\_, Slip op. at 20 (March 30, 1982).

<sup>17/</sup> See also Pacific Gas and Electric Company (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-644, 13 NRC 903 (1981).

disposition motion) exists. Vermont Yankee, supra, 6 AEC 523. According to the Appeal Board, a hearing should not be reopened if the affidavits submitted in response to the motion to reopen "demonstrate that there is no genuine unresolved issue of fact, i.e., if the undisputed facts establish that the apparently significant safety issue does not exist, has been resolved, or for some other reason will have no effect upon the outcome of the licensing proceeding." Id. As the accompanying Staff affidavits attest, that is precisely the situation which obtains in the case at bar.

The first relevant factor is the timeliness of the request. As discussed above, under the circumstances of this case, an April, 1982 late intervention petition is untimely to raise a potential safety issue identified by the Staff in January, 1982 in view of the extremely late stage of this proceeding

The second criterion involves the safety significance of the matter in question. Obviously, any avoidable potential for steam generator tube leakage is important from a safety standpoint. The Staff attaches considerable importance to devising a solution to the problem of flow-induced vibrations in the steam generators and has taken concrete steps to eliminate the risk of any attendant tube wear in the interim. This includes the installation of instrumentation to measure the extent of vibratory effects, surveillance and temporary restrictions on power levels to those below which no adverse consequences due to this

particular phenomenon in Model D steam generators have been known to occur.<sup>18/</sup>

As a result of a concerted NRC program for dealing with the technical problem raised in the present petition, which must be acceptable to the Commission, the outcome of the instant proceeding should not be affected if the potential problem of vibration and tube wear are litigated. There is no practical necessity for formal adjudication of the problem nor could this Board fashion any relief beyond that already being undertaken by the Staff. Therefore, this final criterion for reopening the record weighs against the petitioner.

Even assuming the petitioner could prevail on the criteria applicable to a request to reopen the record, the proposed contention does not present triable issues necessitating an evidentiary hearing as the accompanying Staff affidavits demonstrate. Both subparts of the proposed new contention are without substantive merit.

The first subpart of the proposed contention evinces a concern that tube vibration could lead to tube degradation or leakage of significant amounts of radiation to the environment. As the attached Staff affidavit attests, this concern is unfounded. In the first place, a design modification to the Model D steam generator which will eliminate the vibration problem is potentially available by the latter part of 1982.<sup>19/</sup> An operating plan is being carefully devised to govern interim power

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<sup>18/</sup> See Staff affidavit at 8.

<sup>19/</sup> See Staff affidavit at 8-9.

operation for the Summer facility until the design modification is fully implemented and verified.<sup>20/</sup> It will likely be comparable to the operating plan in effect for the McGuire facility which also utilizes the Model D steam generator.<sup>21/</sup>

This plan will likely include the use of internal instrumentation in selected steam generator tubes to detect vibration and restrictions on power levels to those below which no damaging tube vibration has been known to occur.<sup>22/</sup> Coupled with careful vigilance and periodic eddy current testing, this prospective plan provides reasonable assurance that the plant can be operated with the Model D steam generators in the prescribed manner without undue risk to the public health and safety. Accordingly, there are no genuine issues of material fact relevant to part one of the proposed new contention. Therefore, there is no justification to reopen the record for an additional evidentiary hearing under the circumstances of this case. See Vermont Yankee, supra, 6 AEC at 523.

The second subpart of the proposed new contention claims that the favorable cost-benefit balance struck at the construction permit stage

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<sup>20/</sup> Id. at 7-8.

<sup>21/</sup> See attachment to Staff affidavit.

<sup>22/</sup> Id. at 8.

has been compromised because it did not consider the prospect that the Summer station may have to operate at half power for a prolonged period of time or the alleged high worker exposure that could result from steam generator repairs and/or replacement. This contention is erroneous on both legal and factual grounds.

First and foremost, the need for the added electrical generation from a completed nuclear power plant is not to be considered at the operating license stage of the process. The Commission has recently amended its regulations to expressly provide that need for power issues will not be considered in operating license proceedings.<sup>23/</sup> The sole exception to this rule is where special circumstances are shown to justify a waiver or exception to application of the rule in a petition filed in accordance with 10 C.F.R. § 2.758.<sup>24/</sup> If a licensing board finds that a prima facie showing has been made warranting a waiver or exception, the matter must be certified directly to the Commission for determination. 10 C.F.R. § 2.758(d). No petition for waiver or exception has been filed herein nor, in the opinion of the Staff, could the requisite showing be made.

The purpose of the recent amendments is to avoid unnecessary consideration of issues that the Commission has found are not likely to

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<sup>23/</sup> 47 F.R. 12940 (March 26, 1982).

<sup>24/</sup> Id.

tilt the cost-benefit balance.<sup>25/</sup> As the accompanying Staff affidavit attests, the prospect of limited plant operation at 50% power occasioned by the steam generator concern in question does not vitiate the specific favorable cost-benefit balance struck in this case nor contradict the generic finding on the relationship of need for power and cost-benefit considerations which formed the underpinning for the Commisison's recent amendments.

In addition to the regulatory bar to this aspect of the proposed new contention, the allegations therein are factually unsupportable. As the petitioner correctly observes,<sup>26/</sup> the primary benefit found by the Staff in its May, 1981 operating license Final Environmental Statement (FES) includes the baseload electrical energy the plant will be able to produce, improved system reliability, about \$90 million in production cost savings per year, and increased fuel diversity.<sup>27/</sup> The Staff analysis of baseload energy assumed an average 60% capacity factor.<sup>28/</sup> Petitioner apparently argues that, based on referenced newspaper accounts, the plant may have to operate at 50% capacity for some indefinite period, thereby appreciably reducing the benefits of operation. First, whether and for how long the plant may need to

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<sup>25/</sup> 47 F.R. at 12940.

<sup>26/</sup> Petition at 6.

<sup>27/</sup> FES, § 9.2.

<sup>28/</sup> Id.

operate at less than full power has not been determined.<sup>29/</sup> It is presently expected that a design modification solution to the vibration problem may be available by the latter part of 1982.<sup>30/</sup> Even assuming, nonetheless, that the plant is required to operate at 50% capacity for this period or longer, this does not significantly alter the benefits assigned plant operation in the FES or invalidate the cost-benefit balance struck in the FES.<sup>31/</sup> In this context, a 50% capacity is not markedly less than the 60% annual average assumed in the FES over the lifetime of the plant. Moreover, this annual average would likely be restored in subsequent years of commercial operation at anticipated capacity factors in excess of 60%.<sup>32/</sup>

The second facet of this proposed new contention concerns increased postulated occupational exposure due to the assumed need for frequent steam generator repairs and/or replacement.<sup>33/</sup> In the first place, resolution of the vibration problem is not expected to entail either frequent repairs or steam generator replacement. Rather, the problem is believed resolvable by a relatively simple design modification.<sup>34/</sup>

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<sup>29/</sup> See Staff affidavit at 8.

<sup>30/</sup> Id. at 8-9.

<sup>31/</sup> Id. at 10-11.

<sup>32/</sup> Id.

<sup>33/</sup> Petition at 6.

<sup>34/</sup> See Staff affidavit at 8.

It is estimated that a one-time 450-525 man-rem occupational dose commitment will be involved in this design modification.<sup>35/</sup> The Staff environmental evaluation projected that occupational doses at Summer could average as much as 1300 man-rem on an annual basis over the life of the plant.<sup>36/</sup> This evaluation was based, in part, on the "conservative assumption" that the Summer plant may have a higher than average level of special maintenance work.<sup>37/</sup> The anticipated steam generator design modification reasonably falls within this category of work and clearly involves far less of a dose commitment than already estimated for environmental impact purposes. Accordingly, there are no genuine issues of material fact relevant to part two of the proposed new contention. Therefore, there is no justification to reopen the record for an additional evidentiary hearing under the circumstances of this case. See Vermont Yankee, supra, 6 AEC at 523.

C. Sua Sponte Review

Petitioner requests the Board to examine the issues raised in its proposed new contention under its sua sponte authority in 10 C.F.R. § 2.760a<sup>38/</sup> should it deny FUA's present petition.<sup>39/</sup> A licensing

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<sup>35/</sup> Id. at 9.

<sup>36/</sup> See FES, § 4.5.2.3.

<sup>37/</sup> Id.

<sup>38/</sup> That provision permits a licensing board to examine an uncontested matter on its own if it determines that it presents a serious safety, environmental or common defense and security question.

<sup>39/</sup> Petition at 14.

board's discretion to consider matters sua sponte is to be exercised with restraint. See Texas Utilities Generating Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-81-36, 14 NRC \_\_\_\_ (December 29, 1981). Given the post-hearing posture of this already prolonged case, and the responsible and proper Staff efforts to address the matter raised in the late petition, the Board's exercise of sua sponte authority is unjustified. Indeed, in an analogous context, the Commission has recently concluded that a perceived need to "monitor" Staff progress in the identification and/or evaluation of a potential safety issue is not a factor which authorizes a licensing board to exercise its sua sponte authority order 10 C.F.R. § 2.760a. Comanche Peak, supra; See also Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 1 and 2), CLI-81-33, 14 NRC \_\_\_\_ (December 8, 1981) wherein the Commission took the extraordinary step of reversing a licensing board's exercise of sua sponte authority on its own motion. These recent Commission decisions display a decided intention to limit a licensing board's introduction of adjudicatory issues under 10 C.F.R. § 2.760a. It is the Staff's view, in the present context, that a Board decision to review sua sponte the vibration/tube wear concern in an evidentiary hearing would constitute the kind of unwarranted supervision of Staff review responsibilities to which the Commission has stated its objection. See Comanche Peak, supra, slip op. at 3.

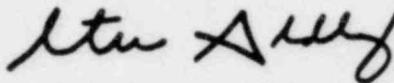
In sum, all of the relevant considerations militate against the grant of FUA's exceptionally untimely petition. Specifically, the five factors governing late intervention and the standards for reopening weigh against petitioner's request to be permitted to litigate this new issue and

sua sponte consideration is not justified. Viewed objectively, this latest petition represents little more than a late attempt to prevent the rendition of a timely licensing decision. It should not be countenanced.

III. CONCLUSION

In light of the foregoing, FUA's second late petition to intervene should be denied.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Steven C. Goldberg".

Steven C. Goldberg  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 29th day of April, 1982.