

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judge
Peter B. Bloch

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In the Matter of)
THE CURATORS OF)
THE UNIVERSITY OF MISSOURI)
(Byproduct License)
No. 24-00513-32;)
Special Nuclear Materials)
License No. SNM-247))

Docket Nos. 70-00270
30-02278-MLA

RE: TRUMP-S Project

ASLBP No. 90-613-02-MLA

LICENSEE'S RESPONSE TO
INTERVENORS' RENEWED STAY REQUEST

Intervenors (on behalf of themselves and the Individual Intervenors) filed on October 15, 1990, the Written Presentation of Arguments of Intervenors and Individual Intervenors ("Intervenors' Written Presentation") and Intervenors' Renewed Request for Stay Pending Hearing ("Renewed Stay Request").

During a conference call on October 19, 1990, Licensee's counsel pointed out that since Intervenors' request for a stay apparently incorporated their entire direct case, a full and complete response to the Renewed Stay Request would require Licensee to present its entire direct case within 10 days after service (i.e., by October 30, 1990). In response to Licensee's request, the Presiding Officer extended the date for filing of Licensee's Response to Intervenors' Renewed Stay Request to the same date that the Licensee's Written Presentation was due (November 14, 1990). Memorandum (Memorandum of

Conference Call of October 19, 1990) at 4 (Oct. 30, 1990). The Licensee was requested to respond to two matters (one was on the curie content of Pu-241 and the other included the response of the Columbia Fire Department ("CFD") to a fire in the Alpha Laboratory) by October 30, 1990. Id.

During the conference call of October 19, 1990, the Presiding Officer did not inform the Licensee that he was considering taking immediate action nor direct the Licensee to respond immediately to any allegations of the Intervenors. Nevertheless, on October 20, 1990, apparently based solely upon his further consideration of the matter, the Presiding Officer issued a temporary stay of TRUMP-S experiments involving plutonium, neptunium and americium, prior to receiving any response from Licensee. See Memorandum and Order (Grant of Temporary Stay), LBP-90-35, slip op. (issued on Oct. 20, 1990; reissued with editorial changes on Oct. 22, 1990).

Consistent with the schedule established by the Presiding Officer, the Licensee filed on October 30, 1990 a response to Intervenors' allegations regarding the curie content of Pu-241 and the response of the CFD to a fire in the Alpha Laboratory. See Licensee's Submittal In Accordance With "Memorandum (Memorandum of Conference Call of October 19, 1990)" (Oct. 30, 1990) ("Licensee's October 30 Submittal"). Based on Licensee's October 30 Submittal, the Presiding Officer concluded that "many of the grounds for the temporary stay have been eroded . . ." but ordered that the temporary stay remain in

effect until the Licensee responded concerning Intervenor's 'likelihood of success on the merits regarding the use of improperly tested HEPA filters.' See Memorandum and Order (Licensee's Partial Response Concerning Temporary Stay) LBP-90-38, slip op. at 2-3 (Nov. 1, 1990).

Today, Licensee is filing Licensee's Written Presentation which, collectively with Licensee's October 30 Submittal, contains its initial written presentation under § 2.1233. 1/ Licensee believes that its presentation demonstrates, without the slightest doubt, that the Intervenor's admitted concerns are totally without merit.

Since Licensee's Written Presentation fully addresses the remaining issue of concern to the Presiding Officer (testing of HEPA filters) when he issued his temporary stay, in its letter to the Presiding Officer of November 14, 1990, Licensee is separately requesting that he dissolve that temporary stay.

Whatever may be the Presiding Officer's ruling on the temporary stay, the question will remain as to Intervenor's entitlement to its renewed request for a stay pending completion of the hearing.

For the reasons stated below, Licensee believes that Intervenor's long deferred request for a stay should now be finally denied. Intervenor has had access to extensive

1/ Licensee is also filing the related Licensee's Response to "Intervenor's Motion for Summary Disposition and Other Relief."

information and have had over four months to prepare both their presentation and their request for a stay. Nevertheless they have failed to carry their burden on any of the criteria governing a request for a stay. 2/ In fact, each of the relevant considerations weighs heavily against granting a stay. In particular, in light of Licensee's Written Presentation, it is more than obvious that Intervenors have not made a strong showing that they are likely to prevail on the merits of their concerns.

2/ There have been numerous stay requests in this proceeding. The Presiding Officer's June 15, 1990 Order summarized the considerations governing a stay request:

The criteria governing issuance of a stay are set forth in 10 CFR § 2.788(e) and are:

- (1) Whether the moving party has made a strong showing that it is likely to prevail on the merits;
- (2) Whether the party will be irreparably injured unless a stay is granted;
- (3) Whether the granting of a stay would harm other parties; and
- (4) Where the public interest lies.

Pursuant to § 2.1237(b), the burden of proof to show the grounds for a stay is on the movants -- the petitioners. General Public Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Unit 2), ALAB-914, 29 NRC 357, 361 (1989); Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-395, 5 NRC 772, 785 (1977).

Curators of the University of Missouri, LBP-90-18, 31 NRC 559, 575 (1990); see also 10 C.F.R. § 2.1263 (1990).

I. INTERVENORS HAVE NO PROBABILITY OF SUCCESS ON THE MERITS

It is hard to tell from reading Intervenors' discussion of the first criterion (Renewed Stay Request at 4-7) exactly which of their admitted concerns they claim they will prevail on (since they mention none) or which of the arguments in the Intervenors' Written Presentation they rely on (since they reference none, although they mention a couple of Intervenors' Exhibits). They take a blunderbuss approach, claiming that their written presentation, which they incorporate by reference, demonstrates "many reasons" why they must prevail. Renewed Stay Request at 5. However, Licensee's Written Presentation has responded painstakingly to each argument raised in Intervenors' Written Presentation. In Licensee's view it has demonstrated that such arguments are totally without merit; certainly it has demonstrated that there is not a strong likelihood that Intervenors will prevail on any of its arguments.

The Renewed Stay Request then discusses only a few specific points, presumably those arguments that Intervenors consider to be their strongest.

First, Intervenors criticize the summary of an accident analysis provided by Dr. Morris with his affidavit of June 14, 1990. Id. at 5-6. In the Affidavit of Dr. J. Steven Morris Regarding Safety Analysis at ¶¶ 7-18 (Licensee's Written Presentation, Licensee's Exhibit 3), Dr. Morris rebuts effectively every criticism of that summary.

Next, Intervenors allege, without detail, that Dr. Morris' June 14, 1990 Affidavit "is without substance," referring only to an explanation in the Declaration of the Review Panel. Renewed Stay Request at 6. Again, Licensee's Exhibit 3 (at ¶¶ 17-18) responds to criticisms of his previous affidavit. More importantly, Licensee's Written Presentation explains not only the validity of Dr. Morris' earlier analysis of the limited potential off-site effects of a postulated severe accident but presents corroborative analyses by Dr. Langhorst and an expert consultant retained by Licensee, Mr. Osetek. See, e.g., Licensee's Written Presentation, Sections F.1, F.1.a.

Intervenors' claim that there is no plan for dealing with a fire (Renewed Stay Request at 6) has been dealt with comprehensively in Licensee's October 30 Submittal, including the Affidavit of Walter A. Meyer, Jr. Regarding Emergency Planning (Oct. 29, 1990) ("Meyer Affidavit"). Licensee's presentation has already been found persuasive by the Presiding Officer in LBP-90-38.

Similarly, both the allegations that responsible fire officials have never been notified of "these materials" and that the local fire department would not fight a fire involving radioactive materials (Renewed Stay Request at 6) were put to rest by the Meyer Affidavit and the Affidavit of Battalion Fire Chief Erman L. Call (Oct. 24, 1990), submitted with Licensee's October 30 Submittal. Again, Licensee's factual presentation was found persuasive in LBP-90-38.

Intervenors' argument that Material Safety Data Sheets have not been submitted to local officials (Renewed Stay Request at 6) is rebutted by Licensee's showing that the pertinent NRC regulation was not in effect when the subject license amendments were issued and that Licensee is exempt from the federal statute that provides for such submittal. Licensee's Written Presentation at Section D.5.

Intervenors' claim that hospital facilities within one mile will have to be evacuated in case of an emergency (Renewed Stay Request at 6-7) are refuted by Licensee's conservative site-specific analyses showing that EPA's protective action guides will not be exceeded at 100 meters and that the analysis by Intervenors' TRUMP-S Review Panel is hopelessly flawed. See Licensee's Written Presentation at Sections F.1.d, F.1.e and F.1.f.

Finally, Intervenors' argument that the experiments should be conducted in a facility surrounded by a "substantial buffer zone" (Renewed Stay Request at 7) utilizes a term coined by Intervenors that has no regulatory basis. Licensee's Written Presentation at Section F.2. Moreover, although not regulatorily required, the Alpha Laboratory benefits from the existing MURR Facility Emergency Plan and from its location on a site owned and controlled by Licensee. Id.

Thus, the arguments deemed by Intervenors to have the most merit turn out to be unsupported and worthless.

II. INTERVENORS WILL NOT BE IRREPARABLY INJURED BY THE COMPLETION OF THE EXPERIMENTS

The remote and speculative fears of future harm alleged by Intervenor in their Renewed Stay Request (at 7-8) do not constitute irreparable injury. Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-85-14, 22 NRC 177, 180 (1985); Florida Power & Light Co. (Turkey Point Nuclear Generating Station, Units 3 and 4), LBP-81-30, 14 NRC 357, 359-60 (1981). Petitioners must demonstrate that their alleged injury is "both certain and great." General Public Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Unit 2), ALAB-914, 29 NRC 357, 361 (1989); Curators of the University of Missouri, LBP-90-18, 31 NRC 559, 576 (1990); Memorandum and Order (Admitting Parties and Deferring Action on a Stay), slip op. at 9 (Aug. 28, 1990).

Intervenor allege that they are entitled to a "definitive assurance," based on a careful analysis, that the proposed operation will protect health and minimize danger to life or property. Their claimed irreparable injury is that they are forced "to live in the shadow of an operation which lacks this definitive assurance." Renewed Stay Request at 7. Intervenor have shown no credible risk of harm to themselves or to their membership. Their assertion amounts to, at most, a remote and speculative fear of future harm that cannot conceivably constitute a showing of an irreparable injury.

Intervenors have nothing to fear other than their own wild, unsupported accusations.

III. THE GRANT OF A STAY WOULD CAUSE SIGNIFICANT INJURY TO THE UNIVERSITY

The Intervenors conclude that no further harm can accrue to the Licensee because the Licensee previously stated that the experiments were an important source of funding to University personnel during the summer of 1990. See Renewed Stay Request at 8-9. Since the summer has passed, they assert that such claim of harm is no longer available to Licensee.

To the contrary, the attached Affidavit of Dr. J. Steven Morris Regarding Renewed Stay Request ("Morris Stay Affidavit") shows that significant injury will result to Licensee if the stay is granted.

The temporary stay issued on October 20 has caused the experiments to be ceased, delays in the recruitment of graduate students, suspension of contract negotiations for continuation funding, postponement of a planning trip to Japan, characterization of the MURR staff as incompetent by the media, and unnecessary concern about the safety of the research project in the Columbia community. Morris Stay Affidavit at ¶ 3.

If a stay is issued until this hearing is completed -- in essence an indefinite period -- the harm caused by the temporary stay will be continued and compounded. It could result in the end of actinide research at the Licensee's facilities for several reasons. Reluctant faculty and graduate students will

likely be concerned that it is not possible to build a productive research program utilizing actinide elements. Postponement of negotiations and a planning trip may make it impossible to negotiate a follow-on contract after the current one expires on January 21, 1991, thus eliminating expected funding for four faculty members, five MURR professional staff and a secretary, as well as for three graduate students and support staff. The Licensee is unable to continue the project without outside support. Id. at ¶ 4.

This injury to Licensee and its faculty, staff and graduate students would be specific, real and significant.

IV. THE PUBLIC INTEREST WEIGHS HEAVILY IN FAVOR OF NOT GRANTING THE REQUESTED STAY

Intervenors' sole arguments 3/ regarding the public interest are that the TRUMP-S Project will, if successful, "aggravate" the problems of radioactive waste disposal and nuclear proliferation. Renewed Stay Request at 9. Intervenors' reliance on either of these arguments is in error.

3/ Intervenors repeat their vague claim about the safety of these experiments, their allegations about the CFD response and their dissatisfaction with Dr. Morris' Summary Accident Analysis. As is shown in Licensee's Written Presentation, none of these arguments have any validity.

Once again, Intervenors make the false and unsubstantiated accusation that the NRC Staff and the University are withholding documents and information. Renewed Stay Request at 10. The NRC Staff has supplemented the hearing file and the Licensee has voluntarily provided documents beyond that which is contemplated by 10 C.F.R. § 2.1231(b) (1990). Intervenors cannot overcome the lack of merit in their allegations by a claim of "withholding information."

Intervenors' concern with the problem of waste disposal is based on a misunderstanding of the TRUMP-S process. If successful, the process would separate long-lived actinides from the shorter lived fission products in spent nuclear fuel and weapons wastes. This results in a significant reduction of the waste volume, with much shorter-lived radioactive half lives than the actinides that were removed. Dr. Warf's speculations ^{4/} as to the particular processes in which the results of this research might be used and any effects of those processes are simply too remote to be considered by the Presiding Officer.

Intervenors' fear that the TRUMP-S experiments could lead to nuclear proliferation through the reprocessing of nuclear fuel to recover plutonium (Renewed Stay Request at 9,) is in direct conflict with national policy. In 1981, President Reagan declared national policies encouraging commercial reprocessing activities and breeder reactor technology. Statement Announcing a Series of Policy on Nuclear Energy, 1981 Public Papers of the Presidents of the United States 903, 904 (Oct. 8, 1981).

However, these arguments as to future public policy decisions are largely irrelevant to whether the Licensee should be allowed to perform basic research activities under the license amendments already issued by the NRC. As demonstrated in the Licensee's Written Presentation, the TRUMP-S experiments are

4/ See Attachment to Intervenors' Exhibit 1 ("Warf, A Critique of the TRUMP-S Process [Including a Review of the Oxidation of Plutonium]" at 11 (Oct. 1990)).

being conducted in a safe manner, consistent with NRC requirements. The research objectives of the TRUMP-S research project are to measure the thermodynamic properties of pure uranium, neptunium, plutonium and americium trichlorides in fused salts and to study the separation of these metals from prepared mixtures with rare earth metals chlorides. See attached Affidavit of Truman S. Storvick Regarding Academic and Research Objectives of the TRUMP-S Program at ¶ 3. It will be up to future policy makers to decide how the results of this research will be used.

The interdisciplinary research program at the Alpha Laboratory provides a unique opportunity to train this country's next generation of scientists and engineers needed to address the energy and environmental consequences of the actinide elements. Id. at ¶ 4. A national need to train young people in this area has been identified by the National Research Council. Id. In addition, the TRUMP-S research program's expansion of the research scope of the MURR is consistent with the national need identified by the National Research Council to select and support a set of university research reactors. Id.

In summary, the TRUMP-S project at the Alpha Laboratory is basic academic research that is highly relevant to the nation's scientific and engineering agenda. The project has already begun to develop basic knowledge in the form of an article submitted to the Journal of the Electrochemical Society. These first few months of operation already show that the Alpha

Laboratory is a national resource for the study of the thermodynamic properties of the actinides. Id. at ¶ 5.

Because of its unique importance to the University and the State and local community, the performance of this research at MURR has received the support of the Governor of Missouri; both United States Senators from Missouri; the local Congressman; members of the Missouri Senate and the Missouri House of Representatives; the Mayor of Columbia; the Columbia Chamber of Commerce; and Regional Economic Development, Inc. See letters attached to Affidavit of J. Steven Morris (May 24, 1990).

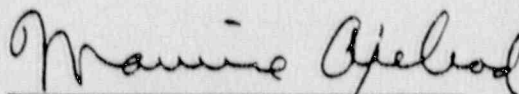
Thus, performing this basic research is clearly in the interests of the local community and national policies.

V. CONCLUSION

In light of the minimal risks to public health and safety, it would be unconscionable to further delay performance of the TRUMP-S research components at the Alpha Laboratory, particularly in view of the impact of such delay on the conduct of Licensee's research program and the possibility that it will cause the program to be terminated. Such a result would have a severe impact on national needs related to training of students, improvements of university research reactors, and basic research in the actinides. As Intervenors have failed to demonstrate any likelihood of success on the merits or any irreparable injury,

the Licensee respectfully requests that the Presiding Officer deny the renewed request for a stay.

Respectfully submitted,



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