

438
COMMITTEE TO BRIDGE THE GAP
1637 Butler Avenue, Suite 203
Los Angeles, California 90025
(213) 478-0829

DOCKETED
USNRC

April 6, 1984
'84 APR 10 P12:34

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

THE REGENTS OF THE UNIVERSITY)
OF CALIFORNIA)

(UCLA Research Reactor))

Docket No. 50-142

Proposed Renewal of
Facility License

CBG'S RESPONSE TO APPLICANT'S MARCH 30 REPORT AS TO REACTOR
SHUTDOWN, REPAIR, AND TESTING SCHEDULE

I. Introduction

On February 2, the UCLA reactor was found to be in violation of its technical specifications because the control blade system, for some unknown prior period, was not functioning in the time frame required for rapid shutdown of the reactor. Believing the problem may be radiolytic decomposition of lubricant, the facility was shut down until repairs could be made and compliance restored.

The next week, a prehearing conference occurred at the reactor, yet the Board and parties were not informed that the reactor had suffered the malfunction and was shutdown and would remain shutdown for some period.

By letter dated March 2 and postmarked several days thereafter, counsel for UCLA informed the Board and parties of these developments that had occurred a month earlier.

On March 8 and 9, UCLA announced that it had acceded in part to demands of Assemblymen Gray Davis and Mike Roos to shut the reactor down during the upcoming Olympics and to

DS03

put up a few concrete vehicle barricades outside the reactor building and post some guards during the Olympics. The University continued to refuse to ship the fuel off-site during the Olympics, although Assemblyman Davis indicated that the cost of such shipment would be approximately one third that of the cost of the security measures involved. Davis continued to press for eventual off-shipment and conversion of the reactor to low enriched uranium.

By letter of March 14, counsel for CBG informed the Board and parties of the University's announcement of March 9, including the fact that, upon inquiry by reporters, the University admitted that the reactor was already shutdown for repairs and would remain shutdown through the Olympics. CBG expressed concern that UCLA failed to inform the Board and parties of these developments and the related February 2 malfunction and shutdown developments.

During the same time period, the Board Chairman wrote to UCLA indicating that he had seen in the Washington Post of the weekend of March 10-11 an article indicating the reactor was to be shutdown during the Olympics and directing that the Board be informed regarding whether what it had read in the paper was indeed the case.

By letter dated March 14, but once again postmarked three days later, Counsel for UCLA informed the Board of the matters referred to in CBG's letter of the 14th.

In its March 14 letter, CBG suggested to the Board that the core opening would provide an opportunity to inspect the core configuration to see whether the representations made by UCLA's Ostrander as to water escape pathways during a power excursions, based as they were on memories of a decade ago, were accurate, and that certain other observations related to the graphite (spaces for airflow during fire, lack of thermal contact between graphite logs, Wigner energy, and so on) could also occur. CBG also expressed the view that the Board should have been timely informed of these matters as the matter before the Board was now whether restart should be permitted absent an affirmative safety finding, rather than whether it should be shut down.

In its March 22 Order, the Board responded to one of the matters in the CBG letter, that of potential for observations related to the safety issues in the proceeding, directing UCLA to explain in detail the maintenance anticipated, the schedule for said maintenance and restart, and its views on the potential for observations of significance to the safety issues in the proceeding. Upon receipt of said UCLA report, the other parties were to respond.

II. Discussion

UCLA's letter of March 30 states as follows:

(a) there is no schedule for maintenance or restart, (b) such a schedule will not even be considered by the University until after the Olympics in August, (c) observations related to the safety issue can thus not, in UCLA's view, occur in this phase of the proceedings, (d) UCLA desires that those observations not occur--and in fact no independent observers be present--when the core is opened sometime after August but rather some months thereafter after it has had an opportunity to "redefine" aspects of the core configuration, and (e) that UCLA intends to, in addition to aforementioned "redefinition" of aspects of its existing testimony on where the water goes in a power excursion, take measurements ("attempt to measure") of Wigner energy stored in graphite at core center.

CBG's Response

The UCLA letter is most unsatisfactory in providing details as requested by the Board. It does, however, make certain remarkable revelations. One, after the Board being forced to violate its own rules on permissible rebuttal and permit in improper rebuttal because it was viewed as essential to a full record, the University now announces that the substantive basis of both pieces of testimony (Pearlman on Wigner, Ostrander on power excursion) will be altered--sometime after this phase of the hearing. Pearlman's testimony essentially asserts that

CBG is wrong in its testimony when it asserts that actual measurements of stored energy at the UCLA reactor should be made. CBG presented calculations based on the Battelle methodology showing that the storage could be quite high; Pearlman finally presents calculations (which CBG believes are quite wrong) that that methodology, with certain alterations, would indicate that the storage could be quite low, and that measurements are unnecessary.

However, it is the Pearlman testimony that is now unnecessary. After years of refusing, UCLA now agrees to permit measurements to be made. The entire issue of the Pearlman testimony is now moot, because it is there to assert no measurements should be conducted. Measurements will be conducted, and it is measurements that will tell us how much Wigner energy is in the reactor graphite--if the measurements are conducted in a scientifically controlled and accurate, independent experiment.

Likewise with the Ostrander "where does the water go" testimony. The core will be opened up, and we can see whether he is right. Apparently fearing that, UCLA wishes no one present when the core is opened until after it has had a chance to alter the evidence, and "redefine" both the substance and basis of the Ostrander testimony. However, in both cases, UCLA wishes the Board to go ahead with this phase of the proceeding, although for some unexplained reason, actual evidence which will make moot UCLA's submissions in this phase will not be available until sometime after this phase.

CBG cannot understand--and UCLA does not explain--why if the maintenance is lubricating bearings and replacing gaskets, that does not occur in the four months before the Olympics. UCLA implies the reactor will sit idle until then; after the Olympics, they will begin to consider a schedule for repairs, which will take some months thereafter. And UCLA wishes to delay any observations until the end of that period, after it has altered the evidence and the reactor upon which the application is based.

CBG perceives the UCLA March 30 letter as proof positive of its concerns about the Board's March 22 Order. Permitting in late-filed material, violating the Board's rules thereon, saying that we would start at the beginning again with regards the evidentiary hearing, is a grant of carte-blanche for any additional delaying late-filed new material. UCLA tells the Board, go ahead and have a hearing, but be on notice that we we will change our testimony again ("redefine" the escape pathways) and will come in with Wigner data, even after close of the record.

UCLA's assertions that it wishes no one present when the core is opened is a blatant attempt at covering up evidence until it can be altered. The excuse about health physics reasons is nonsense--the decay curves are such that there is very little difference after seven months than after ten. Furthermore, if it is safe for the core to be uncovered for many months, given the gamma shine to the people in offices above the reactor, and if it is safe enough for people to do maintenance work in the core itself and with the fuel over a period of months, then a few minutes or hours of observation at some distance must be permissible as well. Lastly, that is a choice for the individuals to make, not the withholder of the evidence.

The second argument that it is more relevant to the issues involved in the case to examine the core after they have had a chance to alter the evidence is nonsense. The reactor must be safe for the full license period, which may (and probably will) entail several times of unstacking and rebuilding. In the past, before the last major maintenance, the core was opened and unstacked every year or two. There are no technical specification requirements about water escape pathways. It is relevant how it is now (the application applied for); it may also be relevant how they can try to alter it; but it also relevant how it may be re-altered in future openings. Observers should be present both when the core is opened and closed.

As to the proposed Wigner measurements, these should be done under a controlled experiment, with clear proof (requiring independent observers) of the locations where the graphite was taken, duplicate samples for duplicate, independent measurements, and a scientific protocol for the experiment that meets standards of acceptable control. UCLA proposes to measure graphite at core center, whereas it now admits the flux is higher near the boxes; the height of the locations where the samples are taken are also important because of varying temperatures and annealing rates. A sufficient number of samples must be taken from various locations, there must be duplicate samples from each location independently measured, and the experiment should be done in normal double-blind scientific fashion. CBG is now arranging to conduct its own measurements independently.

As to the schedule, it appears from UCLA's assertions that the reactor is to be shutdown through the end of the year, if not longer. It should be noted that this in no way removes the risks of this facility, and that delay in resolving them only exacerbates the problems. Power excursions are more likely in shutdown reactors undergoing maintenance than even at other times, as evidenced by the SL-1 and RA-1 disasters. Fire similarly (see Battelle study to that effect). Theft is more of a problem during shutdown because what little self-protection the fuel has decays, making it easier to steal. Arson is more of a problem; sabotage remains a substantial problem (the long-lived isotopes are not going to decay in a shutdown of a few months).

Therefore, the relief requested in CBG's January 9 motion for license suspension until such time as the safety of the facility is resolved remains essential, perhaps even more so now. It would be no burden for the University, as the reactor is to be shutdown anyway, they have no use for either the license nor the SNM during this period. It will save them considerable money because the shipment cost is so much less than the cost of security necessitated during the Olympics if the material is on site. And since the Commission is preparing a rule that

will require UCLA's conversion to LEU, UCLA is going to have to ship the material off anyway. CBG believes that the arguments made in its January 9 motion that the violation of the timely application rule necessitate under law the revocation of the expired license are underscored by the March 30 UCLA letter, which tells the Board that additional measurements (in fact, the answer to the entire Wigner contention) and "redefinition" of the water escape pathways (resolution of the central matter of the central issue in the case, as seen by the Board) will not be found in the original application, the revised application, the direct testimony, the rebuttal testimony, or the revised rebuttal testimony it has submitted, but that the Board must wait at least another year or so for that information which should have been in the original application to begin with. Timely application requires expiration of license if timely application (and sufficient application, as made clear in the case law and APA) are not provided. UCLA's March 30 letter tells the Board that sufficient application to resolve even the preliminary inherent safety issues remains a year off, at least, let alone the remaining issues. Restart should not be permitted without Board approval, and license should be revoked in the interim, with the SNM shipped off because of lapse of possession authorization.

III. CONCLUSION

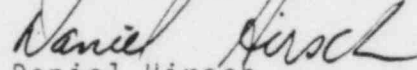
1. UCLA should be required to explain exactly what its intentions are--why is the reactor to remain shut for months without maintenance efforts even being considered?
2. There should be an evidence preservation order--core should not be permitted to be opened without notifying the Board and parties in advance and permitting them to be present for independent observation.
3. A proposed experimental protocol for measuring the Wigner energy in the graphite should be submitted by UCLA and CBG (and Staff if it wishes), and comments permitted by each on the other's proposal. The Board should then establish the acceptable

protocol, identifying number of samples to be taken and location thereof, system for double-blinding, and one sample from each location should be provided to CBG and one to UCLA for independent measurement.

4. The reactor should not be permitted to restart without Board approval and resolution of the outstanding safety issues.

5. CBG's motion for license suspension of January 9, which has not been acted upon, should be expeditiously determined.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Daniel Hirsch", written in a cursive style.

Daniel Hirsch
President

dated at Santa Cruz, CA

April 6, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA

(UCLA Research Reactor)

Docket No. 50-142

(Proposed Renewal of
Facility License)

DECLARATION OF SERVICE

I hereby declare that copies of the attached: CBG'S RESPONSE TO
APPLICANT'S MARCH 30 REPORT AS TO REACTOR SHUTDOWN, REPAIR,
AND TESTING SCHEDULE

in the above-captioned proceeding have been served on the following by
deposit in the United States mail, first class, postage prepaid, addressed
as indicated, on this date: April 6, 1984.

John H. Frye, III, Chairman
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission

Dr. Emmeth A. Luebke
Administrative Judge
Atomic Safety & Licensing Board.
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Glenn O. Bright
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Chief, Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
attention: Ms. Colleen Woodhead

William H. Cormier
Office of Administrative Vice Chancellor
University of California
405 Hilgard Avenue
Los Angeles, California 90024

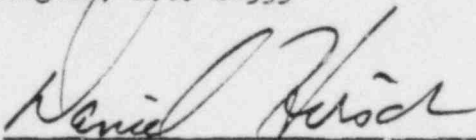
Christine Helwick
Glenn R. Woods
Office of General Counsel
590 University Hall
2200 University Avenue
Berkeley, CA 94720

Mr. John Bay
3755 Divisadero #203
San Francisco, CA 94123

Lynn Naliboff
Deputy City Attorney
City Hall
1685 Main Street
Santa Monica, CA 90401

Dorothy Thompson
Nuclear Law Center
6300 Wilshire Blvd., #1200
Los Angeles, California 90048

Ms. ~~Carole~~ Kagan, Esq.
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555


Daniel Hirsch
President
COMMITTEE TO BRIDGE THE GAP