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

In Re:) Docket No. 50-142
)
THE REGENTS OF THE UNIVERSITY) (Proposed Renewal of
CALIFORNIA) Facility License
(UCLA Research Reactor)) Number R-71
)

UNIVERSITY'S RESPONSE TO SUPPLEMENTED PETITION TO
INTERVENE OF THE COMMITTEE TO BRIDGE THE GAP

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I. INTRODUCTION

On July 21, 1980 the Chairperson of the Atomic Safety Licensing Board ordered a prehearing conference in the above-captioned license renewal action to consider the petition to intervene of The Committee to Bridge the Gap ("BTG"), dated May 22, 1980. The prehearing conference order invited BTG to supplement its petition to intervene and also invited The Regents of the University of California

1 ("University") to respond to any supplemented petition
2 submitted by BTG. At the request of BTG the date of the
3 prehearing conference as set in the July 21 order was
4 changed. The prehearing conference is now scheduled to be
5 held on September 25, 1980 in Los Angeles.

6
7 Pursuant to the prehearing conference order, the
8 University hereby submits its response to BTG's supplemental
9 petition to intervene.

10 II. GENERAL DISCUSSION: INTERVENTION IN NRC
11 LICENSING PROCEEDINGS

12
13 Intervention in NRC Licensing Proceedings is
14 governed by the provisions of the 10 Code of Federal
15 Regulations section 2.714. According to these provisions
16 petitioner is required to supplement the petition to
17 intervene with "a list of the contentions which petitioner
18 seeks to have litigated in the matter, and the bases for
19 each contention set forth with reasonable specificity." (10
20 C.F.R. § 2.714(b).) A petitioner who has satisfied the
21 interest requirement will be granted intervention if he
22 states at least one contention within the scope of the
23 proceeding with a proper factual basis (Id.).

1 Although the main purpose of the prehearing
2 conference is to determine whether the test of the "one good
3 contention" has been met, where that rule is satisfied the
4 presiding officer is also charged to consider "simplification,
5 clarification, and specification of the issues" and other
6 matters that will assist in avoiding unnecessary proof and
7 in defining the matters in controversy to be determined in
8 the proceeding. (10 C.F.R. § 2.752.)
9

10 Including the latest supplement, petitioner has
11 now submitted 179 pages of material allegedly questioning
12 the propriety of a license renewal for the UCLA Nuclear
13 Energy Laboratory reactor ("NEL reactor"). The supplement
14 to the petition to intervene, which contains 137 unnumbered
15 pages, purports to establish 23 separate contentions for
16 consideration by the Atomic Safety Licensing Board. While
17 petitioner suggests that its supplement is not necessarily
18 inclusive of its contentions previously stated in its
19 Petition, it is readily apparent that it constitutes no more
20 than a detailed restatement of those contentions.
21

22 Petitioner's supplement is exceedingly repetitive,
23 cumulative, and in large part, irrelevant to this license
24 renewal proceeding. Moreover, many of the separate
25 allegations rest on incorrect factual bases, depend on
26 misunderstanding of the laws of physical science or mis-

1 interpretations of Nuclear Regulatory Commission standards
2 and requirements, or raise matters that have long since been
3 considered and disposed of by the Commission. Indeed, many
4 of the allegations which fall into this latter category
5 amount to no more than a historical account of past NRC
6 inspection findings with BTG interpretative and editorial
7 comments. On the basis of the supplement it would not be
8 possible to develop a sound, clear and concise record in the
9 proceeding. Instead, it is likely to broaden and unduly
10 delay consideration of the University's license renewal
11 application.

12
13 Nevertheless, the University recognizes the
14 public's interest in the general safety of the NEL reactor
15 facility and is prepared to demonstrate that petitioner's
16 contentions lack substantive basis and are without merit.
17 At this stage in the proceeding, however, the University
18 limits its response to a recommendation of those inherently
19 incorrect or irrelevant contentions, and a request for
20 simplification of the remainder of petitioner's arguments.

21
22 III. DISCUSSION OF CONTENTIONS

23
24 As indicated in its introductory pages, BTG's
25 supplemental contentions can be organized into three major
26 categories: (1) the completeness and adequacy of the

1 application; (2) the history of alleged reactor
2 deficiencies; and (3) the safety of current reactor
3 operations. The University's discussion below is organized
4 accordingly.

5
6 A. Incomplete And Inadequate Application

7 The following contentions are included in this
8 category:

- 9
10 I. Application Grossly Inadequate
11 II. Wrong Class of License
12 VIII. Failure to Meet 10 C.F.R. 100 Siting
13 Criteria Regarding Radiation Release in
14 an Accident
15 X. Inadequate Environmental Impact
16 Appraisal
17 XVII. Inadequate Financial Qualifications
18 XVIII. Failure to Adequately Examine Maximum
19 Credible Accident for this Reactor
20 XIX. Physical Security Plan
21 XX. Emergency Response Plan
22 XXI. Safeguards Contingency Plan
23

24 None of these contentions are suitable for
25 adjudication before the Atomic Safety Licensing Board
26 ("ASLB"). It is the NRC staff which determines the

1 completeness and adequacy of the University's application.
2 (NRC Staff Practice and Procedure Digest, Supplement 1,
3 section I.5.1; New England Power Co., et al. (NEP, Units 1 &
4 2), LBP-78-9. / NRC 271, 280 (1978).) The staff has raised
5 no objections to the adequacy or completeness of the
6 University's application. Where questions have been raised,
7 they have been or will be answered, which the University
8 understands is a part of the normal license renewal process.
9 Furthermore, a brief response to the contentions raised by
10 BTG reveals that they lack merit or are irrelevant to the
11 instant proceeding.

12
13 1. The whole of Contention I is redundant
14 or irrelevant and requires no separate consideration in this
15 proceeding. Allegations concerning the certification of
16 "Part 70" information are properly subsumed under
17 petitioner's Contentions XII, Special Materials License;
18 allegations concerning an Environmental Impact Appraisal
19 repeats Contention X, Inadequate Environmental Impact
20 Appraisal; allegations concerning vibration tests are
21 subsumed under Contention XVI, Seismic Vulnerability;
22 allegations regarding hazards analysers are appropriately
23 considered under Contentions V, Too Much Excess Reactivity,
24 VIII, Failure to Meet 10 C.F.R. 100 Siting Criteria, XI,
25 Lack of Adequate Safety Features, XIV, Siting, and XVI,
26 Seismic Vulnerability. Other allegations, for example those

1 related to the educational uses of the facility and the fact
2 that AMF is out of the reactor business, are simply
3 irrelevant.

4
5 2. With regard to the Contention II, Wrong
6 Class of License, the NEL reactor was licensed as a "class
7 104" facility prior to December 19, 1970 and clearly is
8 still properly characterized as a "class 104" facility. (10
9 C.F.R. § 50.21.) BTG has misread sections 50.21 and 50.22
10 of Title 10 to derive, apparently, a "50%-commercial-contribution"
11 test for "class 103" license applicants, and misinterpreted
12 NEL reactor financial data to its own conclusions about
13 whether its "test" has been met.

14
15 3. Contention VIII is concerned with 10
16 Code of Federal Regulations section 100 Siting Criteria. In
17 the first place, it should be noted that 10 Code of Federal
18 Regulations section 100 applies to stationary power and
19 testing reactors. (10 C.F.R. §§ 100.1(a) and 100.2.) The
20 NEL reactor is neither a stationary power nor a testing
21 reactor under the criteria of section 50.2(r). The NEL
22 reactor is a 100 kilowatt research reactor. In applying 10
23 Code of Federal Regulations section 100 criteria to data
24 extracted for NEL reactor performance, a fission product
25 release postulated on any core meltdown scenario, as
26 suggested by the footnote to section 100.11, is hardly

1 credible.

2
3 4. Contention X alleges the inadequacy of
4 the Environmental Impact Appraisal, without regard to the
5 distinction between an Environmental Impact Statement and an
6 Environmental Impact Appraisal (10 C.F.R. § 50, et seq.).
7

8 5. Contention XII faults the University for
9 failing to apply for a Special Materials License. The
10 University's application for this license is contained in
11 its license renewal application for the reactor (see p. 5),
12 which is the usual practice in multi-license applications
13 and is specifically authorized under the regulations. (10
14 C.F.R. §§ 50.52, 70.21 and 70.23.)
15

16 6. Contention XVII alleges that the
17 University is not financially qualified. The University
18 requests that the ASLB take judicial notice of the fact that
19 the University of California is a governmental entity of the
20 State of California and is financially qualified.
21

22 7. Contention XVIII faults the University
23 for failing to examine the maximum credible accident for
24 this reactor. As stated earlier, the sufficiency of the
25 hazards analysis and the various scenarios to be considered
26 in the application are matters for the NRC staff to

1 determine. BTG's concerns in this area have been raised in
2 other of its contentions, for example, the contentions on
3 "too much excess reactivity," seismic vulnerability," or
4 "lack of operational reliability." In addition, a maximum
5 credible accident has not been established for Argonaut
6 reactors.

7
8 8. Contentions XIX and XXI are concerned
9 with the physical security and safeguards contingency plans.
10 Information related to the security of the facility and
11 materials handling is privileged information under 10 Code
12 of Federal Regulations section 2.790. BTG's alleged
13 concerns regarding these plans are too speculative to be
14 admitted as contentions.

15
16 9. Contention XX alleges deficiencies in
17 the emergency response plan. As indicated above, the
18 adequacy of the elaboration of any such plan in the
19 application is a matter for the NRC staff to determine.

20
21 B. History of Alleged Reactor Deficiencies

22
23 Petitioner's second major contention category
24 centers around its allegation that a ". . . history of
25 deficiencies in the reactor operation over the previous
26 twenty years makes it impossible for the Applicant to

1 reasonably assure that, in the future, they (sic) will
2 comply with the regulations applicable to them, and that
3 they will not endanger the public health and safety. . . ."
4 (Supplemental Contentions, Introduction.) Petitioner's
5 Contentions III, IV, VI, and IX fall into this category:

6
7 III. Inadequate Managerial And Administrative
8 Controls

9 IV. Violations of NRC Regulations

10 VI. Excessive Radiation; Violation of
11 Radiation Standards; Inadequate
12 Monitoring

13 IX. Inadequate Maintenance and Calibration

14
15 1. In Contention III, petitioner
16 incorrectly asserts that the NEL suffers from "inadequate
17 managerial and administrative controls." In support of this
18 contention, petitioner dredges up "incidents" which occurred
19 at the reactor as early as 1965. In fact, of the ten
20 "incidents" cited by petitioner as having occurred between
21 1965 and 1979, nine occurred prior to 1974. The University,
22 therefore, objects to Contention III on the basis that the
23 remoteness of the "incidents" set forth have little or no
24 relevance to the operation of the reactor today. The
25 University submits that an appropriate timeframe for the
26 Board's consideration of this license renewal application is

1 two years, and, in any case, not before 1975.

2
3 Many of the incidents which petitioner
4 cites were resolved long ago with the AEC or the NRC staffs.
5 Indeed, the most recent inspection referred to in Contention
6 III occurred in 1974. Petitioner makes no claim of any
7 chronic, longstanding, or deliberate problems or patterns
8 which have not been resolved as a result of administrative
9 changes undertaken since 1975. The Board should note that
10 in 1975 a new Director of Reactor Operations was appointed;
11 a reactor advisory group was constituted by the Dean of the
12 UCLA School of Engineering; and the process of in-depth
13 review of reactor operations was intensified. This process
14 resulted, in part, in the NRC's issuance of Amendment 10 to
15 the NEL reactor license (February 5, 1976) which clarified
16 its operating hours, restated the required stack height and
17 ventilation rate for emissions, and allowed the removal of
18 the stack nozzle. The reactor currently operates in
19 conformity with the requirements of its license and the
20 amendments thereto.

21
22 In addition, petitioner neglects to
23 mention the results of a very recent (Fall 1979) surprise
24 inspection made by the NRC in response to petitioner's
25 concerns over purported excess Argon-41 exposures from the
26 stack effluent. The report issued as a result of that

1 inspection is attached as Exhibit A, and concludes that "No
2 items of noncompliance or deviations were identified."
3

4 2. In Contention IV, petitioner alleges
5 that the NEL has "consistently been cited for violations of
6 NRC regulations as well as violations of the provisions of
7 its own Technical Specifications." (Supplemental Contentions,
8 Part IV.) Again, as part of this "consistent pattern,"
9 petitioner cites a string of "incidents," none of which
10 occurred after 1975, and at least three of which are
11 permitted under Amendment 10 to the reactor's license.
12

13 The University's objections to
14 Contention III, above, are equally applicable to Contention
15 IV and are incorporated in its response to Contention IV.
16

17 3. In Contention VI, petitioner again cites
18 early violations or incidents. The document prepared and
19 referred to by petitioner ("The UCLA Reactor: Is It Safe?")
20 was the subject of a detailed response dated January 3, 1980
21 submitted by the University to NRC Chairman Aherne, and
22 entitled "The UCLA Reactor is Safe." A copy of this
23 response is attached as Exhibit B and does not support
24 petitioner's claims.
25
26

1 Also in Contention VI, petitioner refers
2 to future emissions, the possibility of a future increase in
3 reactor use and power, and to the fact that the stack height
4 has not been increased and the stack nozzle has been
5 removed. Both the stack nozzle removal and height are in
6 conformity with Amendment 10 to the University's license.
7 Moreover, any increase in reactor use or power beyond that
8 already permitted in its license would of course be subject
9 to separate NRC review and approval, and is not properly
10 part of this proceeding.

11
12 Contention VI also contains the
13 allegation that the NEL reactor fails to meet the radiation
14 standards imposed by 10 Code of Federal Regulations section
15 20 (Appendix B and 10 C.F.R. §§ 20.106(b) and 20.106(b)(1)
16 and (2)). Again, petitioner relies on a 1975 finding of
17 violation and, further, cites sections of NRC Regulatory
18 Guide 1.109 and 10 Code of Federal Regulations part 50
19 which, by definition and scope are applicable only to power
20 reactors, not research reactors such as the UCLA NEL
21 reactor. Whether power reactor radiation standards should
22 apply to research reactors, such as NEL, is properly a
23 question of rule making and not properly the subject of this
24 proceeding. (Potomac Electric Power Co. (Douglas Point
25 Nuclear Generating Station, Units 1 & 2), ALAB-218, 8 AEC 79
26 (1974).)

1 4. Contention IX is an allegation that the
2 University has not adequately maintained its equipment or
3 calibrated its monitoring instruments properly. Again, the
4 violations upon which petitioner bases its conclusions date
5 from 1968, 1974 and 1975.

6
7 Petitioner's allegation that the
8 requirement for conducting heat balance calibrations are no
9 longer in the University's Technical Specifications is
10 untrue--(see Application, Technical Specifications, V.4.2,
11 p. V/4-1). Additionally, petitioner incorrectly characterizes
12 the University's attempt to make all annual calibration
13 tests uniform at 14 month intervals as a "relaxation." In
14 fact, all "annual" calibration and testing with the
15 exception of the heat balance has been on a 14-month basis.

16
17 C. Safety Of Current Reactor Operations

18
19 Petitioner's third major contention category is
20 based upon allegations that ". . . inherent problems of the
21 reactor, such as age, seismic vulnerability, location in a
22 densely populated area, etc., indicate that the reactor
23 cannot be operated in a manner that will not be inimical to
24 the public health and safety." (Supplemental Contentions,
25 Introduction.) The following contentions fall within this
26 category:

- 1 V. Too Much Excess Reactivity
2 VII. Lack of Operational Reliability
3 XI. Lack of Adequate Safety Features
4 XIII. Inherent Problems in Argonant Reactors
5 XIV. Siting
6 XV. Reactor is Too Old
7 XVI. Seismic Vulnerability
8 XXII. Technical Specifications Inadequate
9 XXIII. Procedural Contentions

10
11 1. Contentions V, XI, XIII, and XVI contain
12 allegations that amount to the general charge that continued
13 operation of the reactor poses serious public health and
14 safety risks. The University disputes any such conclusions
15 and is prepared to demonstrate their lack of merit.

16
17 2. Contention VII of the Petition alleges a
18 ". . . persistant pattern of numerous unscheduled shutdowns,
19 abnormal occurrences and accidents." (Supplemental Contentions,
20 Part VII.) There are no standards in law or in the
21 regulations for raising a presumption of unsafe reactor
22 operation by reference to a particular number of shutdowns
23 or "abnormal occurrences." In fact, such occurrences
24 provide evidence that the reactor systems are functioning
25 properly.
26

1 3. Contention XIV contains allegations that
2 are properly subsumed elsewhere (seismic vulnerability), or
3 are irrelevant (the 10 C.F.R. 100 Siting Criteria).
4

5 4. Contention XV alleges that the present
6 age of the NEL reactor poses an unacceptable hazard for the
7 proposed license renewal period. Petitioner has confused
8 concerns expressed by the Director for upgrading and
9 modernizing the facility with concerns (not expressed) for
10 the safety of the facility. Petitioner also incorrectly
11 asserts that the age of the reactor has a bearing on the
12 ability to get spare parts for it. Indeed, the NEL reactor
13 was custom-built and the vendor, even if still in the
14 business of assembling reactors, would not be stocking
15 "spare parts." Parts for the NEL reactor are often
16 fabricated and repairs "customized" to update and improve
17 upon reactor safety.
18

19 5. Contention XXII alleges that the
20 technical specifications included in the application
21 unacceptably reduce safety standards. The relevant safety
22 aspects are already the subject of other contentions, and
23 thus Contention XXII is redundant and should not be
24 considered separately.
25
26

1 6. Contention XXIII of petitioner
2 speculates about matters which are not the subject of this
3 license renewal application. Contention XXIII is irrelevant
4 to this proceeding.
5

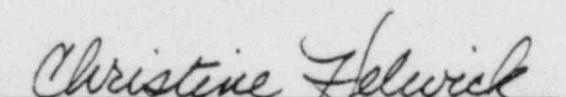
6 IV. ADDITIONAL HEARING CONSIDERATIONS
7

8 If the Board determines at the prehearing
9 conference that this matter should proceed to hearing, the
10 University requests that consideration be given at the
11 conference to certain procedural matters, such as what will
12 constitute appropriate service of documents, scope and
13 conduct of any necessary discovery, scheduling and
14 accommodation of any site tours, and location, time and
15 appropriate security for the actual hearing. The University
16 will be prepared to explain and elaborate its concerns in
17 each of these areas, as necessary, at the prehearing
18 conference.
19

20 Dated: September 9, 1980

21 DONALD L. REIDHAAR
22 GLENN R. WOODS
23 CHRISTINE HELWICK

24 By 
25 Glenn R. Woods

26 By 
 Christine Helwick

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

NEL

OCT 22 1979

Docket No. 50-142

University of California at Los Angeles
Los Angeles, California 90024

Attention: Dr. Harold V. Brown
Environmental Health and Safety Officer

Gentlemen:

Subject: NRC Inspection of UCLA Research Reactor

This refers to the special inspection conducted by Mr. J. B. Baird of this office on September 27-28, 1979, of activities authorized by NRC License No. R-71, and to the discussion of our findings held by Mr. Baird with Mr. N. Ostrander and other members of the staff at the conclusion of the inspection on September 28, 1979.

Areas examined during this inspection are described in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

No items of noncompliance with NRC requirements were identified within the scope of this inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office, within 20 days of the date of this letter, requesting that such information be withheld from public disclosure. The application must include a full statement of the reasons why it is claimed that the information is proprietary. The application should be prepared so that any proprietary information identified is contained in an enclosure to the application, since the application without the enclosure will also be placed in the Public Document Room. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Date
7912050346

EXHIBIT "A"
PAGE 1 OF 11

OCT 22 1979

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely,

H. E. Book

H. E. Book, Chief
Fuel Facility and Materials
Safety Branch

Enclosure:
IE Inspection Report
No. 50-142/79-04

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Report No. 50-142/79-04
Socket No. 50-142 Licensee No. R-71 Safeguards Group _____
Licensee: University of California at Los Angeles
Los Angeles, California 90024

Facility Name: UCLA Research Reactor (Argonaut-100KW)

Inspection at: UCLA Campus

Inspection Conducted: September 27-28, 1979

Inspectors: J. B. Baird 10/19/79
J. B. Baird, Radiation Specialist Date Signed

_____ Date Signed

_____ Date Signed

Approved by: R.F. H. E. Book 10/19/79
H. E. Book, Chief, Fuel Facility and Materials Safety Branch Date Signed

Summary:

Inspection of September 27-28, 1979 (Report No. 50-142/79-04)

Areas Inspected: Special, unannounced inspection to evaluate UCLA based group's concerns of excessive Argon-41 exposures from the stack effluent. The concerns and allegations included: (1) failure to adequately maintain restricted area on the roof around the stack, (2) application of a reactor use factor without considering whether the time of use is during the time of public occupancy of surrounding areas, (3) underestimation of occupancy factor for adjacent areas, and (4) failure to evaluate concentration of Argon-41 inside adjacent building.

The inspection activities involved 13 inspector-hours by one NRC inspector.

_____ conditions were identified.

DUPLICATE DOCUMENT

Entire document previously entered into system under:

ANO 7912050355

No. of pages: 9

EXHIBIT " A "

PAGE 3 OF 11