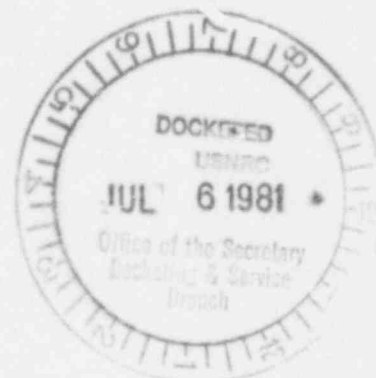


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Attorneys for Intervenor  
COMMITTEE TO BRIDGE THE GAP



7/1/81



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)

"INTERVENOR'S FOLLOW-UP INTERROGATORIES  
AS TO APPLICANT'S FURTHER ANSWERS  
TO INTERROGATORY SET ONE"

TO: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA AND THEIR  
ATTORNEYS OF RECORD, GLENN R. WOODS AND CHRISTINE HELWICK.

Intervenor, COMMITTEE TO BRIDGE THE GAP, hereby requests that said Applicant answer the following interrogatories fully and separately under oath. In answering these interrogatories, furnish all information available to Applicant, including information in possession of your attorneys, investigators, agents, employees, and such other persons and not merely such information as is known personally to the individual or individuals primarily responsible for drafting the answers. If Applicant cannot answer any of the following interrogatories in full, after exercising due diligence to secure the information to do so, so state, and answer to the extent possible specifying your inability to answer the remainder,

and stating whatever information or knowledge you may have concerning the

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unanswered portion.

1. On page 5 of the Applicant's June 11 "Further Answers," Applicant defines research as "any uses of the reactor whereby reactor operators. . . operate the reactor to conduct experimental sample analyses." Precisely what is experimental about the sample analyses done at NEL for Dr. Kalil's ore assaying business in 1979 and 1980?

2. On the page mentioned in 1 above, Applicant says that the reactor "is designed to carry out basic nuclear research and experimentation, particularly activator analysis and delayed-neutron counting." This use is referred to on the same page as the conducting of "experiments." Applicant further says on the same page, "In its experimental use, various researchers bring mineral and ore samples or other unique substances which they wish analyzed."

a. Is Dr. Kalil, when he brings ore samples to NEL for analysis, considered a "researcher" as the term is used above?

b. If so, why; if not, why not?

c. Precisely define "researcher" as used in the last quotation in 2 above.

d. Precisely how does sample analysis routinely done by NEL for Dr. Kalil's ore assaying business in 1979 and 1980 constitute "basic nuclear research"?

e. Does it constitute "basic nuclear research"? If not, why not?

f. Is the coloration of gems in the reactor for commercial "gemologists" considered by NEL to be either "experimental" activity or "research activity" as the terms are used in page 5 of Applicant's June 11 "Further Answers?"

g. If the answer to f above is affirmative, is the activity considered to be "research" or "experimental", or both? Please explain why it is so viewed by Applicant.

3. On page of the June 11 "Further Answers", Applicant states that "other extramural users" as it uses the term "are generally, but not necessarily users engaged in commercial activities" (emphasis added). On Page 16 Applicant states that "Currently all 'extramural' users are 'commercial' users in the sense that to the knowledge of the Applicant, the user is engaged in a 'for-profit' business activity." Elsewhere on page 16 Applicant states that it is "prepared to stipulate that all currently recorded 'extramural' uses of the reactor are, to the understanding of the Applicant, uses by those who are engaged in 'commercial' activity."

a. Which statement is correct--are "other extramural users" exclusively commercial users, or are they "generally, but not necessarily" commercial?

b. If the latter, please indicate the exceptions in current or past use; i.e. who is using the reactor or has used the reactor who is classified as "extramural" but not as "commercial."

c. If the statements on page 16 are correct (that all currently recorded 'extramural' users of the reactor are 'commercial'), and since Applicant used the term 'commercial' in the chart Intervenor requested be updated, why change the term from 'commercial' to 'extramural'?

d. What would have been the difficulty faced by Applicant, if asked at some time in the future to provide such a chart and if, at that time, it had non-UCLA users that didn't fit into any existing category, to add the new category that did fit?

4. Please show how the activities of students during reactor operation at UCLA for commercial users meet the functions outlined in lines 18-27 of page 4 of the June 11 "Further Answers" in a fashion substantially different from a student working at any nuclear reactor currently operating under a commercial license. This question does not refer to formal courses or other activity not connected with the student involvement during commercial use. It refers to those activities for which Applicant has admitted in answer to 2nd set interrogatories the students receive no credit for.

5. Regarding the definition of "education" on page 13, what is the relationship between those activities for which students receive academic credit and the University's educational process?

6. Can the knowledge or experience gained by a student paid to assist in Dr. Kalil's ore assaying efforts at NEL, not connected with thesis work, in any way count toward achievement of a degree from UC if no academic credit is received for that experience? Please explain your answer.

7. If Applicant does not know what "sold services" are, as it states on page 13, what facts can it produce to prove that less than 50% of the cost of owning and operating the reactor are not devoted to the sale of services?

8. Further Answer to 5c--is this a misprint which should read "research" instead of "sale of services"?

9. If none of the income derived from operating the reactor was devoted to sale of services, education, or research, to what purpose was the income devoted, specifically?

10. Applicant states in answer to Interrogatory 5 on page 14 that Intervenor misreads 10 CFR 50.22. Precisely what does Applicant refer thereto--what is, in Applicant's view, the correct reading?

11. Lines 5 and 6 of page 13 say that "research" includes the practical application of new or revised theories or laws.

a. Does coloration of gems for commercial enterprises constitute research given that definition?

b. Does ore assaying using proven and accepted methods of activation analysis constitute "research" as used in the above definition?

c. Given the above definition of "research," would mass-manufacturing of any commercial project which applied new or revised theories or laws to that mass-manufacturing be considered "research?"

d. Please explain your answers to a,b,c above.

12. Your "further answers" indicate that roughly 60% of the porthours in 1979 and 1980 were for commercial users. Do you so admit?

13. Your "further answers" indicate that for 1979 and 1980 commercial users (or "extramural users") were the singest largest category of user and yet provided only a small fraction of the annual cost of operating the reactor.

a. Why aren't commercial users charged a higher fee?

b. Does the current fee charged for commercial users accurately represent the cost of operating the reactor for them, including their share of the costs of owning and operating it?

c. Please explain your answer to b above, and provide all calculations that support your answer.

14. Commercial use, according to the information in the further answers, provided in 1980 roughly \$23,400 but used roughly 60% of the port hours. Application states at page I/2-1 that the estimated annual cost of operations in 1980 is \$167,000, thus having commercial use taking up 60% of the annual port hours in 1980 but providing only 14% of the cost of operations.

a. Does Applicant dispute any of the figures in the sentence above?

b. If so, which figures are disputed?

c. If figures are disputed, please provide the correct figures.

15. What facts can Applicant produce that could show that the commercial users of the NEL reactor are not being subsidized by the taxpayer in their use of that reactor or its services?

16. What is the difference, in terms of the definition of educational provided in the further answers, between a UCLA student working at a part-time paying job in Westwood Village in an accounting and bookkeeping firm (for which he or she received no academic credit, no evaluation or grade but learned something about accounting and bookkeeping, his or her field at school) and a nuclear engineering student working for pay at NEL, helping with Dr. Kalil's commercial endeavors, again receiving no credit, evaluation, or grade for that work?

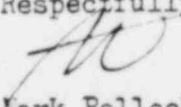
a. Would Applicant, given its definition of education, consider the experience of that student in the Westwood Village accounting firm, "educational" in the sense it uses that term to show compliance with its education and research reactor license? Please explain your answer.

b. Would Applicant, given its definition of education, consider the experience of a UCLA management student working in a McDonald's Hamburger facility in Westwood Village, for which he or she is paid but receives no academic credit, evaluation, or grade, "educational" in the sense it uses that term to show compliance with its education and research reactor license? Please explain your answer.

17. If, as Applicant has asserted, it is not possible to separate out cost and other financial information regarding the reactor from the overall NEL account, what facts can Applicant produce to show that less than 50% of owning and operating costs are devoted to sale of services or products of the reactor?

18. Mr. Cormier is reported in Science (June 26, 1981) as saying that it is true that 60% of the reactor's operating hours are logged to uses such as assaying ores or coloring diamonds; yet this doesn't make the reactor commercial; most of the "extramural" work is done by a former UCLA student. (a) Does the fact that a for-profit user of the reactor was formerly associated with UCLA, either as a student or faculty member, make their use of the reactor "educational" or "research" as those terms have been defined in the "further answers?" (b) If not, please explain the statements cited in Science.

Respectfully submitted,

  
Mark Pollock  
Attorney for Intervenor  
COMMITTEE TO BRIDGE THE GAP

Dated at Los Angeles, CA  
July 1, 1981

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that copies of "INTERVENOR'S FOLLOW-UP INTERROGATORIES AS TO APPLICANT'S FURTHER ANSWERS TO INTERROGATORY SET ONE" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, this 1st day of July, 1981.

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Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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Administrative Judge  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory Commission  
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Dr. Oscar H. Paris  
Administrative Judge  
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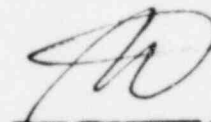
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