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	Docket No. 50-142 (Proposed Renewal of Facility License Number R-71)
(UCLA Research Reactor)	December 30, 1983

UNIVERSITY'S RESPONSE TO BOARD'S NOVEMBER 30, 1983 MEMORANDUM AND ORDER

DONALD L. REIDHAAR
GLENN R. WOODS
CHRISTINE HELWICK
590 University Hall
2200 University Avenue
Berkeley, California 94720
Telephone: (415) 642-2822

Attorneys for Applicant

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA

I. INTRODUCTION

In its Memorandum and Order of November 30, 1983, the Board requested each party's further views on whether the use of the UCLA reactor by Dr. Emil Kalil (doing business as Uranium West Laboratory, Inc.) as described at the hearing before the Alternate Board Member, constitutes ". . . research . . . activities of the types specified in Section 31 . . ." of the Atomic Energy Act, and, if so, whether that fact is dispositive of Contention II.

University has argued that its UCLA reactor facility is not operated for any commercial purpose within the meaning of Section 50.22 of the regulations. No evidence has been addressed to demonstrate that the UCLA facility's activities are engaged in for any commercial purpose. University has submitted uncontroverted evidence that the opposite is true and that, in any case, University does not devote more than 50% of its costs to any commercial activity. University herein submits the further argument that the use of the reactor that is made by Dr. Kalil is a type of activity contemplated by Section 31 of the Atomic Energy Act and that that fact is dispositive of Contention II, although Contention II may be disposed of in University's favor on other grounds.

II. DISCUSSION

1. Legislative Background

Section 31 of the Atomic Energy Act of 1954 (42 U.S.C. Sec. 2051, as amended; the "Act") provides, in relevant part, as follows:

> Sec. 31. Research Assistance
>
> a. The Commission is directed to exercise its powers in such manner as to insure the continued conduct of research and development and training activities in the fields specified below, by private or public institutions or persons, and to assist in the acquisition of an ever-expanding fund of theoretical and practical knowledge in such fields. To this end the Commission is authorized and directed to make arrangements (including contracts, agreements, and loans) for the conduct of research and development activities relating to --
>
> (1) nuclear processes;
>
> (2) the theory and production of atomic energy, including processes, materials, and devices related to such production;

(3) utilization of special nuclear material and radioactive material for medical, biological, agricultural, health, or military purposes;

(4) utilization of special nuclear material, atomic energy, and radioactive material and processes entailed in the utilization or production of atomic energy or such material for all other purposes, including industrial or commercial uses, the generation of usable energy, and the demonstration of advances in the commercial or industrial application of atomic energy;

(5) the protection of health and the promotion of safety during research and production activities; and

(6) the preservation and enhancement of a viable environment by developing more efficient methods to meet the Nation's energy needs.

b. The Commission is further authorized to make grants and contributions to the cost of construction and operation of reactors and other facilities and other equipment to colleges, universities, hospitals, and eleemosynary or charitable institutions for the conduct

of educational and training activities relating to the fields in subsection a.

* * *

Section 104 of the Act 42 U.S.C. Sec. 2134, as amended) provides in relevant part, as follows:

Sec. 104. Medical Therapy and Research and Development

* * *

c. The Commission is authorized to issue licenses to persons applying therefor for utilization and production facilities useful in the conduct of research and development activities of the types specified in section 31 and which are not facilities of the type specified in subsection 104b. The Commission is directed to impose only such minimum amount of regulation of the licensee as the Commission finds will permit the Commission to fulfill its obligation under this Act to promote the common defense and security and to protect the health and safety of the public and will permit the conduct of widespread and diverse research and development.

* * *

Sections 31 and 104 were amended to their present form by Congress in 1970 to eliminate the requirement that the Commission make a special finding of "practical value" before issuing commercial licenses to power reactor and fuel reprocessing facilities which were initially licensed under section 104b. of the Act.[1/] Related amendments were also made to sections 102, 103 and 105. Prior to adopting the amendments the Commission was required to make a written determination that each such facility was "sufficiently developed to be of practical value for industrial or commercial purposes" before a commercial license would be issued under section 103 of the Act. Before 1970 the Commission had declined to make any such determination and, as a consequence, all nuclear power reactor facilities were licensed as "research and development" reactors under section 104b. of the Act.[2/]

The purpose of the 1970 amendments to these sections of the Act was to end the two-stage licensing process for power reactors, the significant effect of which had been to insulate 104b. facilities from prelicensing anti-trust review under section 105 of the Act. With the 1970 amendments, in particular the new section 105c., the Commission was directed to determine whether licensing the construction or operation of a nuclear power plant

---

1/ Public Law 91-560, 91st Cong., 2nd Sess., approved December 19, 1970.

2/ The purpose of the amendments is discussed in detail in the report of the Joint Committee on Atomic Energy: H.R. Rep. No. 91-1470 (also S. Rep. No. 91-1247), 91st Cong., 2nd Sess. (1970). Also, see Houston Lighting and Power Co. (South Texas Project, Units 1 & 2), CLI-77-13, 5 NRC 1303, 1316 (1977); Toledo Edison Co. et al. (Davis-Besse Nuclear Power Station, Unit 1), ALAB-323, 3 NRC 331, 332, 337.

would create a situation inconsistent with the traditional antitrust statutes. New power reactor license applications were required to be made under section 103; however, facilities formerly licensed to operate under section 104b. were "grandfathered,"[3/] The significant result of the 1970 amendment was to require that nuclear power facilities be licensed under section 103 and thereby (by operation of section 105) fully extend application of the nation's antitrust laws to the nuclear power industry.[4/]

It was in the context of proposing amendments to solve problems relating to the application of the antitrust laws to the nuclear industry that the Joint Committee on Atomic Energy made the observation concerning the "commercial" use of research reactors.[5/] The Joint Committee observed that, although university-licensees under subsection 104c. and other licensees under subsections 104a. or 104c. sometimes use their reactor for industrial or commercial purposes, such insubstantial use was not to affect licensing under section 104. The Joint Committee left it for the Commission to determine whether such use is sufficiently substantial to entail licensing under section 103 and thereby antitrust review by the Commission and the Attorney General under section 105.[6/] It may reasonably be inferred that

---

[3/] Section 102 (42 U.S.C. Sec. 2132).

[4/] Joint Committee Report, pp. 8-13, 26, 28-31.

[5/] Joint Committee Report, p. 28; cited by the Board in the instant proceeding in its Memorandum and Order of April 22, 1983, p. 8.

[6/] Id.

the Joint Committee was concerned about financially self-sufficient facilities engaged in commercial activities that may have anti-competitive effects injurious to the public under the antitrust laws. No other concern is expressed in the Joint Committee Report.

In response to the Joint Committee's observation concerning the other "104" licensees, the Commission in 1973 adopted amendments to Part 50 of its regulations to define the circumstances under which research and development and training reactors would be considered to be used "substantially for industrial and commercial purposes" licensable by the Commission under section 103 (and subject to antitrust review under section 105).[7/] The formulation adopted by the Commission which is contained in the proviso clause to Section 50.22 of the regulations, is based on an assessment of the percentage of facility costs that are devoted to commercial purposes. More specifically, section 50.22 states:

> ". . . in the case of a production or utilization facility which is useful in the conduct of research and development activities of the types specified in section 31 of the Act, such facility is deemed to be for industrial or commercial purposes if the facility is to be used so that more than 50 percent of the annual cost

---

[7/] See the Statement of Consideration accompanying the notice of the adoption of the Part 50 amendments at 38 Federal Register 11445-46; cited in University's Response in Support of Staff's Motion for Reconsideration, dated September 6, 1983, pp. 10-11.

> of owning and operating the facility is devoted to the production of materials, products, or energy for sale or commercial distribution, or to the sale of services, other than research and development or education and training." 10 C.F.R. Sec. 50.22.

As expressed in the Statement of Consideration, nonprofit educational institutions would continue to be licensed under section 104c. of the Act, since the licensed operation "would not be devoted to production of goods or services for sale or commercial distribution."[8/] Certainly, the Commission had taken into account the Joint Committee's observation that university facilities are sometimes used for commercial purposes.

The legislative history of the 1970 amendments to the Act and the subsequent changes made to the regulations demonstrate that Congress did not intend to require licensing under section 103 except for new applications for facilities, power reactors and fuel reprocessing plants and possibly certain research reactor facilities (but not university facilities under the Commission's formulation), that raised questions concerning the application of the antitrust laws. Neither Congress nor the Commission expressed concern over any other consequence of section 103 licensing, whatever those consequences may be. A reasonable, if not necessary inference of this history is that section 103 licensing is essentially "reserved" for power reactor and other facilities engaged in commercial operations warranting full antitrust review under section 105.

[8/] 38 Federal Register 11445, at 11446.

2. Specific Questions Raised by the Board

The Board's first question is whether Dr. Kalil's use of the reactor constitutes research activities of the types specified in section 31 of the Act, with particular attention directed to section 31a.(4). The research and development activities specified in section 31 include, in subparagraph a.(4), activities relating to ". . . processes . . . (utilizing) atomic energy . . . for all . . . purposes, including industrial or commercial uses . . . and the demonstration of advances in the commercial or industrial application of atomic energy . . ."

Dr. Kalil's testimony on his activities at the UCLA facility is summarized, with transcript references, in University's Proposed Findings of Fact and Conclusion of Law (Concerning Hearing on Contention II), dated June 23, 1983, pp. 8-12. The Board is directed to that discussion.

The "delayed-neutron-counting" sample analysis technique that Dr. Kalil developed and employed beginning around 1978 which required the availability of the UCLA research reactor clearly constitutes an advance in the commercial and industrial application of atomic energy. Tr. 189-199, 207-209, 228-229, 244-245. The analyses he has been able to provide the Energy Resource Development Administration (for the "NURE" project), other university researchers and industrial clients like Exxon and Occidental petroleum companies represents a technical advance over other analysis methods and has been, and is in all respects, a socially useful enterprise. Tr. 202, 206, 210-211, 223-224, 233, 235. Dr. Kalil's business has not been in

competition with other commercial business entities such as would raise antitrust questions. Tr. 201, 210-211. The services that Dr. Kalil provides may very well be unique in that he not only performs the analysis but also is qualified as a geochemist to interpret the results and write the reports. Tr. 244-245.

The evidence of record well supports the conclusion that Dr. Kalil's activities are precisely those which the Commission seeks to encourage under the activities specified in section 31 of the Act. Moreover, it is such activities that are exempted from consideration under Section 50.22 of the regulations. The relevant concern in that section is with the sale of services "other than research and development or education or training"; that is, by reasonable implication, the types of activities specified in section 31a.(4) of the Act as well as education or training which come under section 31b. of the Act. Accordingly, the determination that Dr. Kalil's activities are a type of activity specified in section 31 of the Act and that the UCLA facility supports such activities by permitting Dr. Kalil's use of its reactor completely disposes of any question of the proper class of license raised under Section 50.22 of the regulations, such as is raised by Contention II.

Nevertheless, University submits that while a determination that Dr. Kalil's activities are of a type specified in section 31 will be sufficient to dispose of Contention II, that determination is not necessary to the disposition of Contention II as University has previously argued.[9/]

[9/] See University's Proposed Findings of Fact and Conclusion of Law (Concerning Hearing on Contention II), dated June 23, 1983, and University's Response in Support of Staff's Motion for Reconsideration, dated September 6, 1983.

The Commission's mandate to promote and support widespread and diverse research and development activities is clearly stated in sections 3, 31, and 104 of the Act (42 U.S.C. Secs. 2013, 2051 and 2134). The purpose of the 1970 amendments to the Act and the subsequent changes in Part 50 of the regulations to subject power reactors and certain other "commercial" facilities to antitrust review is clear upon review of the legislative record and later case histories. Dr. Kalil's use of the UCLA reactor constitutes a type of activity specified in section 31 of the Act. Limiting Dr. Kalil's use of the UCLA reactor by imposing additional conditions on the UCLA "104c." license or otherwise requiring licensing under section 103 serves no Commission purpose and results in no public benefit.

III. CONCLUSION

For the reasons above, University respectfully requests that the Board decide that University is entitled to a renewal of its "Class 104" license without additional conditions being imposed on the use of the reactor.

Dated: December 30, 1983.

DONALD L. REIDHAAR
GLENN R. WOODS
CHRISTINE HELWICK

By _____
WILLIAM H. CORMIER
Representing UCLA

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the attached: UNIVERSITY'S RESPONSE TO BOARD'S NOVEMBER 30, 1983 MEMORANDUM AND ORDER.

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: December 30, 1983.

John H. Frye, III, Chairman
Administrative Judge
ATOMIC SAFETY AND LICENSING BOARD
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Emmeth A. Luebke
Administrative Judge
ATOMIC SAFETY AND LICENSING BOARD
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Glenn O. Bright
Administrative Judge
ATOMIC SAFETY AND LICENSING BOARD
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Counsel for the NRC Staff
OFFICE OF THE EXECUTIVE LEGAL DIRECTOR
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attn: Ms. Colleen P. Woodhead

Chief, Docketing and Service Section (3)
OFFICE OF THE SECRETARY
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Daniel Hirsch
Cte. to Bridge the Gap
1637 Butler Avenue, #203
Los Angeles, CA 90025

Mr. John H. Bay, Esq.
Chickering & Gregory
Three Embarcadero Center
Suite 2300
San Francisco, CA 94111

Mr. Daniel Hirsch
Box 1186
Ben Lomond, CA 95005

Nuclear Law Center
c/o Dorothy Thompson
6300 Wilshire Blvd., #1200
Los Angeles, CA 90048

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

WILLIAM H. CORMIER
Representing UCLA

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA