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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) (Proposed Renewal of Facility
OF CALIFORNIA) License Number R-71)
)
(UCLA RESEARCH REACTOR)) May 3, 1982
)

UNIVERSITY'S RESPONSE TO CBG'S MOTION TO COMPEL

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THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA

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1 THE REGENTS OF THE UNIVERSITY OF CALIFORNIA (University)
2 responds to CBG's Motion to Compel, dated April 8, 1982, as
3 follows.

4
5 On November 17, 1981, University submitted to a five-
6 hour inspection and tour of its Nuclear Energy Laboratory (NEL)
7 and adjacent facilities, including the rooftop areas of the
8 Reactor Building, Mathematical Sciences Building and the
9 Engineering Building (Boelter Hall). That inspection was reported
10 to the Board by letter dated November 23, 1981 (Attachment "A",
11 hereof). As reported, University representatives were present
12 during the inspection to identify equipment and controls, to
13 explain the ventilation and air exhaust systems, and to answer
14 questions. An NRC official was present during the inspection as
15 an observer. At no time has CBG taken issue with the matters
16 reported in University's November 23, 1981 letter and attached
17 checklist and map.

18
19 University objects to CBG's request for additional
20 inspection on the grounds that any further discovery of this
21 sort is not reasonably calculated to lead to the discovery of
22 admissible evidence. Moreover, CBG's September 3 and 11, 1981
23 requests for inspection and testing are defective, in part, in
24 failing to specify "the manner of making the inspection and
25 performing the related acts" as required by 10 C.F.R. Sec.2.741(c).
26 Furthermore, submission to any further inspection would un-
27 reasonably burden University, in light of the very extensive
28 discovery that has occurred in this proceeding and, in particular,

1 the five hours of facility inspection already provided. Specific
2 grounds for objection are discussed below with respect to the
3 specific items mentioned in CBG's motion to compel.

4
5 A. Control Panel Equipment

6 1. CBG claims that it was not permitted to inspect
7 certain items of equipment which it requested to inspect in its
8 September 11th pleading. Unfortunately, CBG's motion is not
9 entirely clear in identifying the items that allegedly were not
10 available for inspection. The motion names some specific items
11 of equipment, but uses language suggesting that the listing of
12 named items is not exhaustive. The motion then lists twenty
13 numbered items (the numbers corresponding to CBG's September 11th
14 list of items), which include all those specifically named as
15 well as others. The motion then refers to "the above equipment"
16 without a hint as to whether the non-specific set of named items
17 or the specific and all-inclusive set of numbered items is
18 intended. Regardless of what CBG intended, its claim is based
19 on a misrepresentation of the facts and, as a result, is
20 groundless.

21
22 2. University's letter to the Board of November 23, 1981,
23 contains a checklist prepared by the facility manager, who led
24 the tour and inspection, of the items that were pointed out and
25 described during the inspection. CBG has never complained, and
26 could not now in good faith complain, that the checklist is
27 erroneous. Yet, a review of that checklist reveals that, except
28 for item 51, all of the numbered items in the instant motion

1 (which includes all the items named in the motion) appear on
2 the checklist, indicating that these items of equipment were
3 pointed out for CBG's inspection. Item 51 (high level radiation
4 monitor) is the same as the item identified in CBG's September 11th
5 request as item 2 (. . . "high level GM radiation stack and area
6 monitor"). This area monitor on the east wall of the reactor
7 room was pointed out to CBG's representatives, who apparently
8 did not recognize that the items were one and the same. Note
9 that on page 2 of University's checklist (Attachment "A", hereof)
10 that under item "2" the east area monitor is listed as one of
11 the items that was shown. In fact, CBG was permitted to inspect
12 every item listed on the checklist which includes every item
13 identified in CBG's motion.

14
15 3. CBG was not permitted to disassemble or break down
16 any items of equipment, nor would University submit to having
17 the control console pulled apart to permit an examination of the
18 interior electronic components. University did unfasten and
19 remove one of its rear panels so CBG could observe the type of
20 electronics that were contained within. University refused to
21 take apart the other panels not for "no reason", as CBG falsely
22 asserts, but to avoid any unnecessary delays in the inspection,
23 which was eventually to take just over five hours to complete.
24 This was clearly explained to CBG's representatives and, in fact,
25 resulted in a brief discussion. But more to the point, CBG's
26 original request for inspection and testing (its September 11th
27 request) never specified a particular "manner of making the
28 inspection or performing the related acts", as is required by

1 10 C.F.R. Sec.2.741(c). University met with CBG on several
2 occasions in an attempt to get CBG to clarify its request. CBG
3 never suggested that its "inspection" would entail the disassembly
4 of part of the control console. In this respect the inspection
5 University provided is fully responsive to CBG's original
6 September 11th request.

7
8 4. There are other misstatements in CBG's motion that
9 should be pointed out. Contrary to CBG's claim, "the above
10 equipment" was not all contained within the control console.
11 The dual linear amplifier, for example, was one of the items of
12 equipment that University specifically placed on a bench top to
13 permit a more detailed examination. Moreover, much of item 3,
14 most of item 6, and all of items 51 and 75 are not at all within
15 the control console, but are located in the reactor room or other
16 remote areas. Also contrary to another CBG claim, the equipment
17 that is in the control console is not "readily accessible for
18 maintenance purposes by simple removal of a door-like panel at
19 the rear of the console." In fact, the basic items of electronic
20 equipment are removed from the console for maintenance from the
21 front of the panel. Finally, despite its suggestion otherwise,
22 CBG was permitted a detailed examination of the safety amplifier
23 (item 28), since its interior electronics were exposed when the
24 single rear panel was removed. Apparently, CBG was totally un-
25 aware of what it was observing despite University's explanations.

26
27 5. It is obvious to University that with respect to
28 the control console electronics, CBG did not always recognize

1 what was being displayed and did not fully understand what was
2 being explained. None of CBG's representatives appeared to have
3 any special electronics knowledge and none exhibited any
4 familiarity with the console equipment being shown. For example,
5 the "strip chart recorders", which open up for servicing from the
6 front of the console, were shown to CBG in the opened-up position.
7 Perhaps CBG did not recognize these as its so-called "recording
8 mechanisms for effluent activity". For example, items 21
9 (interlocks and inhibits), 43 (control blade logic system),
10 70 (bypass mechanism), and 74 (mechanism in inhibit) are not
11 discrete items of equipment, but functional names for diffuse
12 circuitry that is interconnected to several subsystems. For
13 example, item 73 (mechanism for clearing inhibit) is a procedure
14 not an item of equipment. Item 71 (fluorescent light) was shown.
15 It was explained that item 67 (fuse and resistor) had been dis-
16 carded. Either CBG was not listening during the inspection or it
17 did not understand. In any case, further inspection of these
18 items, as CBG requests, cannot be considered as reasonably
19 calculated to lead to the discovery of admissible evidence.
20 Whether based on deliberate or negligent misrepresentation, CBG's
21 claims regarding the inspection it received are false; CBG's
22 claim for further inspection of the control console lacks all
23 merit.

24
25 B. Areas Inspected

26 1. University permitted CBG to inspect all areas of
27 the Nuclear Energy Laboratory (NEL) that had any reasonable
28 relation to reactor operations. As can be seen from the diagrams

1 which appear in Attachment "A", the inspection included a tour
2 of the perimeter of the reactor room and the immediately adjacent
3 areas of both the first and second floors of the NEL. More
4 remote areas, including the "Tokomak" area, were excluded both
5 because they are entirely unrelated to research reactor operations
6 and because inspecting all outlying areas would have added
7 several hours to what was already planned to be a five-hour
8 inspection. With respect to the "Tokomak" area, an additional
9 concern was not to disrupt the activities of that intense research
10 activity (fusion physics research), which takes place under an
11 organizational unit entirely distinct from the NEL. A final
12 concern was that certain of the remote areas are high security
13 areas respecting which no inspection could be permitted. Under
14 all the circumstances, the areas provided for inspection were
15 more than reasonable.

16
17 2. CBG's sole claim for inspection of the remote areas
18 was "to accurately determine dispersion pathways and subsequent
19 public doses." However, CBG's postulated radiological releases
20 and presumed pathways have absolutely no basis in fact. All
21 studies and analyses which have been conducted of the reactor by
22 the NRC, its contractees and University indicate that the
23 radiological release potential of the UCLA reactor is quite small.
24 (Even in the event of the worst accident considered credible for
25 the facility, releases would not be expected to escape the reactor
26 room itself.) CBG has yet to provide any credible evidence that
27 would contradict this conclusion.

28

1 3. CBG has made no showing that inspection of its
2 dispersion pathways through the remote areas as it proposes is
3 reasonably calculated to lead to the discovery of admissible
4 evidence. For the inspection it was permitted to conduct, CBG
5 used no measuring instruments, made no air volume or flow rate
6 measurements or otherwise gathered data (other than what was
7 observed) that would permit it "to accurately determine
8 dispersion pathways and subsequent public doses." CBG's request
9 to make dispersion pathway determinations in remote areas is
10 really a thinly-disguised attempt to gain access to certain
11 of the high security areas of the facility.
12

13 C. Additional Photographs

14 CBG states that it has records of having taken 217
15 photographs during the inspection, although the number of photo-
16 graphs developed by University is 215. CBG assumes that two
17 photographs did not turn out and requests that it be permitted to
18 retake the missing two photographs and any that did not turn out.
19

20 In fact, none of the photographs failed to come out and
21 all are of more than satisfactory quality. University suggests
22 that CBG may have made mistakes in recording the photographs.
23 In any case, the omission of two photographs out of a set of
24 215 (or 217) should not be the occasion for an additional
25 inspection. University requests that this aspect of the motion
26 be deferred until CBG has had an opportunity to examine the
27 full set of photographs.
28

1 D. TLD and Film Badge Locations

2 CBG requested that it be permitted to inspect the
3 location of all past and present thermoluminescent dosimeters
4 (TLD's) and film badges, including the location of control
5 badges, placed outside the NEL to monitor releases from that
6 facility. CBG claims that it needs to know the "specific
7 geometry of placement" of those devices "in order to interpret
8 the radiation readings from those devices."
9

10 University objected to the request for several reasons.
11 In the first place, CBG's alleged concern with "specific geometry
12 of placement" suggests that CBG really does not understand
13 precisely how the devices function. The devices are not uni-
14 directional; they read from all directions. They intrinsically
15 measure radiation from a variety of sources and do not discriminate
16 against naturally occurring radiation. CBG's concern with possible
17 shielding from the exhaust stack is misplaced. In fact, the
18 problem is in the other direction. With TLD's, as University has
19 learned from its first TLD program, some shielding (usually lead)
20 must be introduced to ensure that the TLD's do not read the
21 radioactive releases naturally released from concrete for those
22 TLD's that are to be mounted on concrete.
23

24 Many film badges are located outside the NEL, but few
25 are used by the UCLA Radiation Safety Office to monitor for NEL
26 reactor releases. Most of those used to monitor for NEL releases
27 are located either inside the reactor exhaust stack or inside the
28 air supply shafts of the adjacent building. These are not readily

1 accessible. A number of film badges located in the adjacent
2 laboratory monitor releases from the fusion physics research
3 project and have no relevance to NEL operations. Several film
4 badges have been placed in the offices of individuals in the
5 adjacent buildings at the request of those individuals and are
6 outside the control of the Radiation Safety Office. Except for
7 the film badges located in the reactor exhaust stack, over the
8 years area film badges monitoring NEL reactor releases have
9 generally yielded zero radiation readings. For either the TLD's
10 or the film badges, inspecting to determine the precise geometry
11 of placement will not produce any useful information. Moreover,
12 no readings can be obtained from a direct inspection of these
13 devices.

14
15 University will have problems in attempting to comply
16 with CBG's request. The location of all past TLD and film badge
17 sites are known only generally. Sites used in the past have not
18 been marked and precise locations are not determinable. In
19 general, except for the TLD's placed in the immediate rooftop
20 area which are readily observable from the roof, the TLD's are
21 placed in inaccessible locations to discourage any tampering
22 with the devices. To reach these TLD's requires climbing ladders,
23 ascending towers, or rigging scaffolding especially for the
24 purpose. For general safety and liability reasons University
25 cannot permit such an inspection. From a single vantage point
26 on the Reactor Building rooftop University could point out the
27 locations of nearly all of its currently in place TLD's, most
28 of which could be seen from that spot with the unaided eye. Most

1 of the relevant film badges have been affixed to the insides of
2 air shafts and cannot be directly accessed. Except for pointing
3 out the locations of TLD's from the rooftop, CBG's proposed
4 inspection would impose an unreasonable burden on University's
5 staff. In any case, CBG's proposed inspection of the precise
6 placement of TLD's and film badges is not reasonably calculated
7 to lead to the discovery of admissible evidence.

8
9 E. Conclusion

10 For the reasons discussed above, University respectfully
11 requests that CBG's motion to compel further inspection be denied.

12
13 Dated: May 3, 1982.

14
15 DONALD L. REIDHAAR
16 GLENN R. WOODS
17 CHRISTINE HELWICK

18 By W H Cormier
19 William H. Cormier
20 UCLA Representative

21 THE REGENTS OF THE UNIVERSITY
22 OF CALIFORNIA
23
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27
28



OFFICE OF THE CHANCELLOR
LOS ANGELES, CALIFORNIA 90024

November 23, 1981

Elizabeth S. Bowers, Esq., Chairman
Administrative Judge
Atomic Safety and Licensing Board -
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Oscar H. Paris
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

In the Matter of
The Regents of the University of California
(UCLA Research Reactor)
Docket No. 50-142
(Proposed Renewal of Facility License)

Dear Administrative Judges:

This is to inform you that on Tuesday, November 17, 1981, the University permitted representatives of the Committee to Bridge the Gap (CBG) to inspect the UCLA Nuclear Energy Laboratory and surrounding areas in response to CBG's two requests for inspection and testing dated September 3 and 11, 1981.

CBG had agreed to the conditions set by the University for the inspection to take place in the parties' discovery conference held on November 12, 1981, although CBG stated that by agreeing to the inspection as proposed by the University it was not waiving any of its discovery rights (to additional inspection and/or testing). The University permitted eight CBG representatives to accompany UCLA representatives on the inspection tour (six CBG representatives were actually present). The areas inspected included the reactor room on two levels, adjacent offices, classrooms, laboratory areas, the area immediately above the reactor room known as the third floor equipment room, and the stack area on the eighth floor roof of the reactor building.

University representatives were present to identify equipment and controls, to explain the ventilation and air exhaust systems, and to answer questions. Items which CBG asked to be identified in its requests of September 3 and 11 were identified, except for certain "TLD's" which were located in other buildings on the campus and certain other items which were either non-existent or could not be identified without disassembling the reactor or other equipment.

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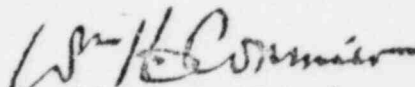
Administrative Judges
November 23, 1981

2

According to the prior agreement, CBG was permitted to take photographs of the facility and its equipment (over 200 photographs were taken); the film is being processed by the University and the parties will meet to discuss which photographs are relevant to the proceeding and can be released without compromising security.

The map of the inspection tour and the checklist of equipment and other objects identified during the tour is attached here as "Exhibit A." Mr. Hal Bernard of the NRC's Division of Licensing was present during the inspection.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "W. H. Cormier".

William H. Cormier
UCLA Representative

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA

Attachment

cc: Service List

III/4-5

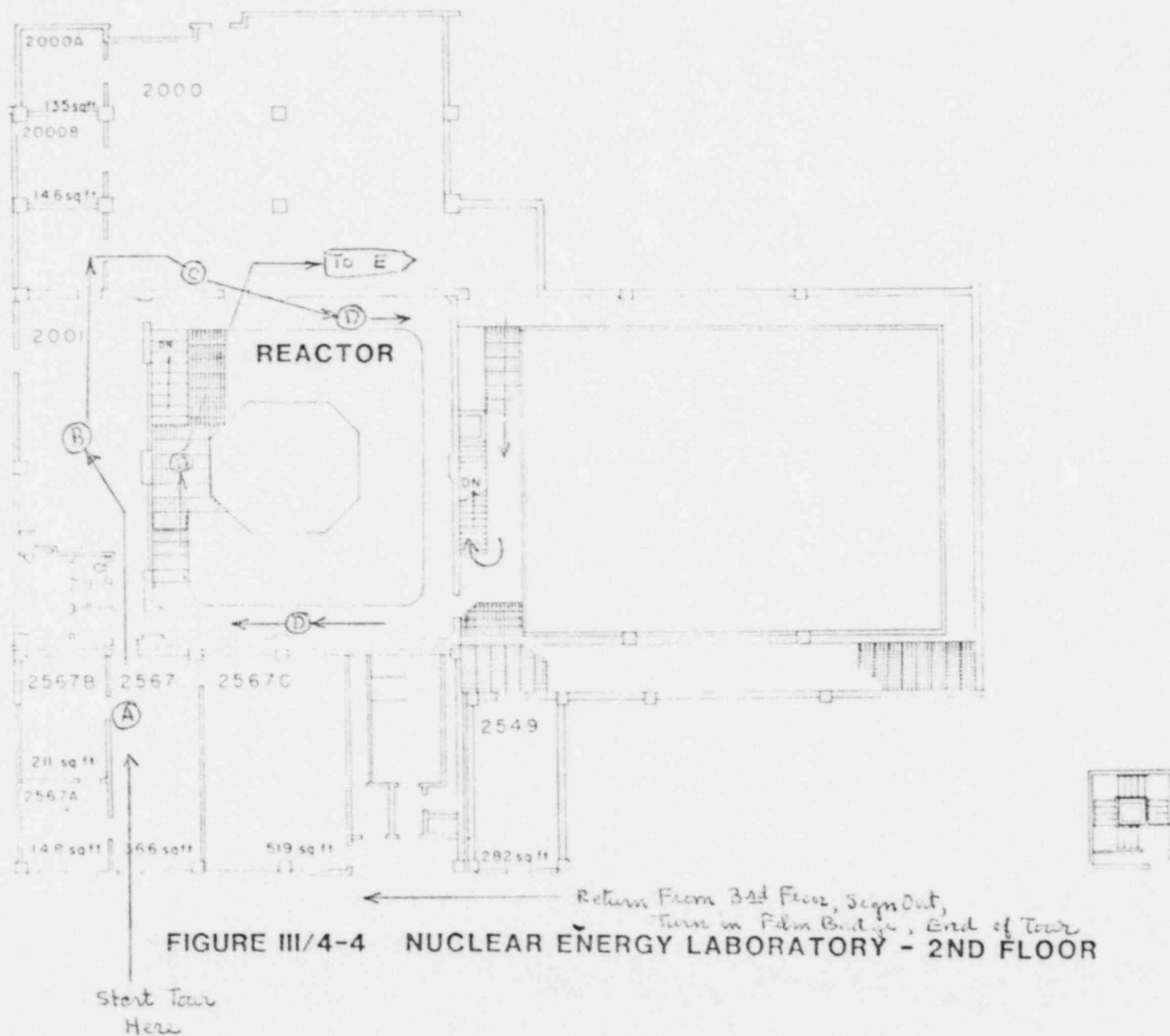


FIGURE III/4-4 NUCLEAR ENERGY LABORATORY - 2ND FLOOR

III/4-4

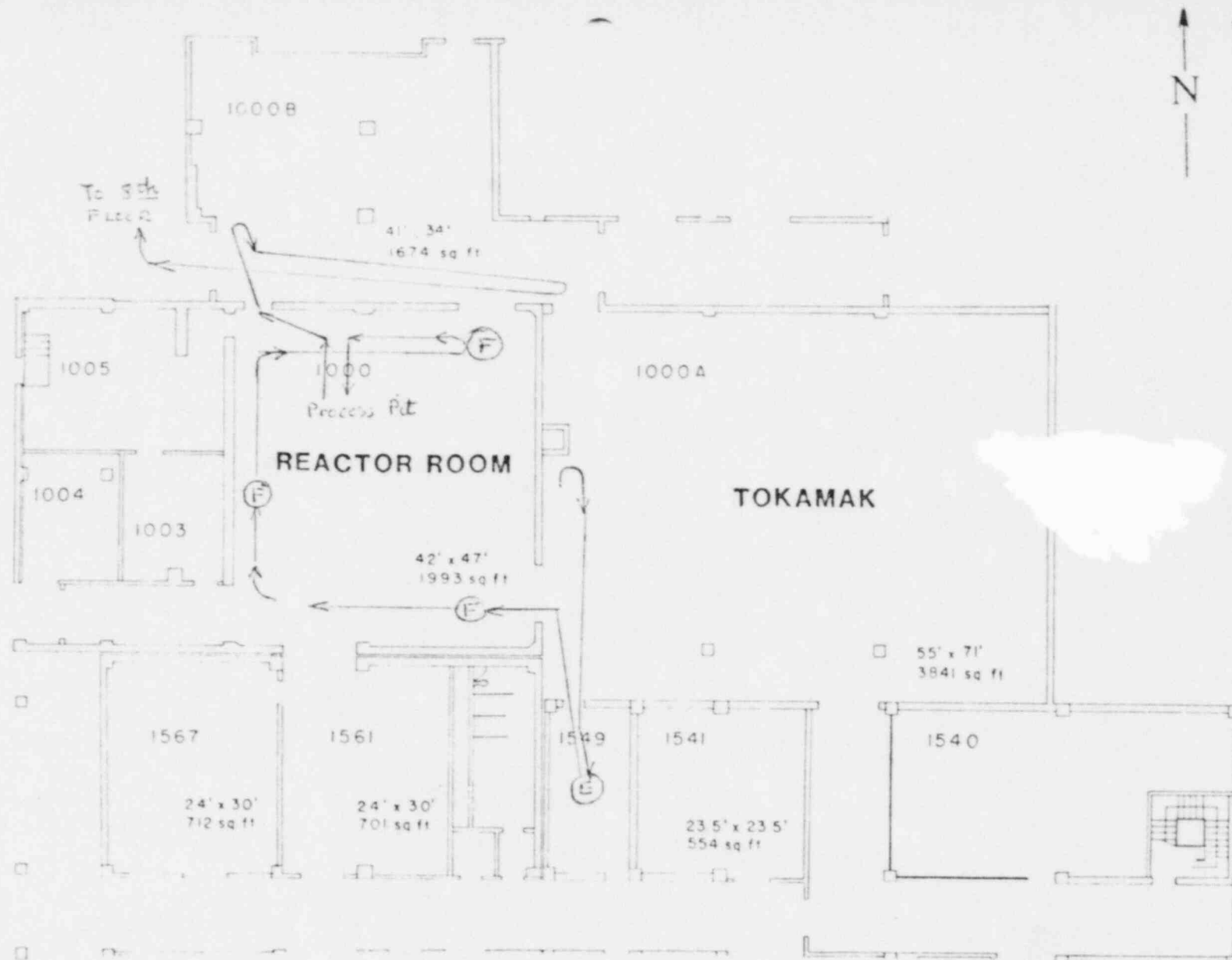


FIGURE III/4-3 NUCLEAR ENERGY LABORATORY - 1ST FLOOR (GROUND LEVEL)

A Room 2567

Sign In
Film Badge

- Visitors log
- 63. Film badge rack
- 15. 10 CFR
- 47. Fire Extinguishers
- Ventilation
- 6. Flashing lights
- 14. Emergency procedures

B. Control Room
(Room 2001)

- 47. Fire Extinguisher - water
- Ventilation
- 7. Fuel bundle mockup
- 27. Ceiling above control panel
- 31. Oscilloscope
- 61. Vacuum tube tester
- 41. Health Physics suitcase
- 19. Control blade motor
- 59, 11 Tech. manuals
- 47. Fire extinguisher
- 63. Area film badge
- 14. Emergency procedures
- 6. Intercom
- 13. Procedures
- 2, 76 monitoring Equipment (area,
secondary Effluent, argon-41).

3, 6 alarms, annunciators, lights

- 22 control panel
- 21, 76, 75 Interlocks, inhibits, and bypasses
- 28, 67 Safety amplifier
- 29, 71, 76 log N and period amplifier
- 30, 72, 76 dual channel, linear channel/controller
- 43, 72 control blade logic system
- 73, 74 button for clearing inhibit
(must clear the inhibiting condition)
- 77 24 pt temp recorder
- 78 control rod position display

C. HP Bench

(Room 2000)

Pack-up Survey
meter

- Ventilation System
- 4. Portable Survey meters
- 5. Lead bricks
- 6. Low Level Counting Eq.
- 2. Hand and Foot Counter

D. Reactor Room

(Balcony)

- 23. Reactor
- 6. Crane
- 26. Argon Extract lines
- Ventilation System
- 2. Area monitor detectors; north, East
- 36. Thermal column
- 37. Duct Tape
- 40. Supplementary shielding
- 75. Closures (2, one is taped)
- 2. Area monitor detector; south
- 9. Pneumatic Transfer system
- 47. Fire Extinguisher
- 35. Shield Tank
- 33. Demineralizers
- 20. High radiation area
- 37. Duct Tape
- 75. Closures
- 62. Reactor Top
- 50. HEPA Filters

Exit Reactor Room

(Room 2000 &

Tokamak)

- 2. Hand-and-Foot Counter
- 1. Area film badge
- Stack base
- 26. Dilution air

E. Rabbit Room

(Room 1549)

- 9. Pneumatic Air System
- 10, 69 Sample containers
- 9. Pneumatic Tube / closet
- 49, 50 HEPA filter
- 79. Sample loading
- 2. Hand-and-Foot Counter

F. Reactor Room
(First Floor)

52, 64	Rad Waste Hold/Dispose
39	Beam Ports
16	Storage of 2 nd cobalt source
47	Fire Extinguisher (water)
44	Poor man's Hot Cell (base)
47	Fire Extinguisher
39	Beam Ports
42	Control Blade Drive mechanism
57	Control Blade Drive Mech.
15	Control Blade Drive Shaft / Torquing
17	Ra-Be Source ("storage")
8	Lead Bricks
2	Secondary Effluent Detector
37	Duct Tape
47	Fire Extinguisher
18	Sump pump
32	Fuel storage pits, poor man's hot cell
16	Storage of First Co-60 source.
39	Beam ports
38	Graphite stringers
45	Fuel Handling cask
20	High radiation area

G. Reactor Room
(Process Pit)

24	Process Pit
20	High radiation area
52, 53	Holding tank (radioactive)
54	Delay tank
25	Dump valve
34	Corroded pipe
33	Demineralizers
7	Rupture disc
26	Ar-41 Extract line
25	Compressed air system

Exit Process Pit

Exit Reactor room

H. Eight Floor

2. Hand-and-Foot Counter

- Exhaust Fan
- Intake plenum # 7
- Dampers
- TLD
- Damper Drive
- Duct
- Windscreen
- Stack Top # 9

I. Third Floor
(Equipment Rm)

- 2. Particulate sample pump
- Intake & Exhaust Fan Control
- 33. Demineralizer
- 63. Motor-generator (MG) set
- 47. Fire Extinguisher

G. Third Floor
(Stacks)

- 2. Particulate filter location # 7 & # 8

1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

3 BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

4 In the Matter of)

5 THE REGENTS OF THE UNIVERSITY)
6 OF CALIFORNIA)

7 (UCLA Research Reactor))
8

Docket No. 50-142
(Proposed Renewal of Facility
License Number R-71)

9 CERTIFICATE OF SERVICE

10 I hereby certify that copies of the attached:
11 UNIVERSITY'S RESPONSE TO CBG'S MOTION TO COMPEL

12 in the above-captioned proceeding have been served on the
13 following by deposit in the United States mail, first class,
14 postage prepaid, addressed as indicated, on this date: May 3,
15 1982.

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

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

26 Dr. Oscar H. Paris
27 Administrative Judge
28 ATOMIC SAFETY AND LICENSING BOARD
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UCLA Representative

THE REGENTS OF THE UNIVERSITY
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