

UNITED STATES OF AMERICA  
 NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

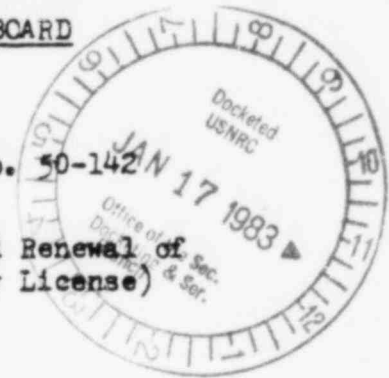
In the Matter of

THE REGENTS OF THE UNIVERSITY  
 OF CALIFORNIA

(UCLA Research Reactor)

Docket No. 50-142

(Proposed Renewal of  
 Facility License)



DECLARATION OF DR. SHELDON C. PLOTKIN

I, Sheldon C. Plotkin, declare as follows:

- i. I am President of S.C. Plotkin and Associates, a consulting engineering firm specializing in safety and systems engineering. A statement of professional qualifications is attached to my declaration for Contention I.
- ii. I am also a member of the Executive Committee of the Southern California Federation of Scientists, and chair the SCFS review group assessing reactor safety matters related to the UCLA reactor.
- iii. That review has included numerous site visitations to the Nuclear Energy Laboratory and its surrounding environs; examination of the architectural and mechanical drawings for the reactor building and the surrounding buildings, as well as for the reactor itself; examination of calibration and maintenance records, engineering change orders, experimental safety analyses, the inspection reports and responses thereto, the annual reports, the scram reports, abnormal occurrence reports, operating logs, calibration manuals for the reactor and radiation devices, and personal inspection of the facility and its equipment.
- iv. The conclusions arising from that review are as follows: That maintenance and calibration at the facility have been inadequate. That the reactor and its supporting equipment are aged, outdated, and having continuing operating difficulties arising from the lack of availability of spare parts and other support normally expected from a reactor vendor, which has, in this case, left the reactor business. That the reactor facility has a history of regulatory non-compliance, a history which continues to this date, and that numerous of those violations are of safety significance. That there has been and remains inadequate managerial and administrative control. That the reactor has experienced continuous evidence of operational unreliability, through a history of unintended scrams, equipment failures, leaks, fires, spills, and so on, which represent a substantially increased risk of accident. In short, our review indicates a facility which has not had the resources, financial, supervisory, and technical, to properly maintain and operate the reactor in a safe manner. Continued operation of the reactor for an extended period of time without extremely significant changes in the above would pose an unacceptable threat to public health and safety. Indeed, incidents have already occurred which have posed such threats. A summary of the bases for these conclusions follows.

1. It has been asserted that the inspection and enforcement record for UCLA since 1975 shows no violations of safety significance. The opposite is the case. A review of the inspection record since 1975 shows, as it does for the pre-1975 period, numerous violations of safety significance.
2. A brief review of just a few of the inspection reports for the last few years shows numerous violations of safety significance. The following discussion is not intended to be inclusive of all such violations.
3. The Notice of Violation for February 21, 1975, indicates that the technical specifications require that air drawn from the reactor room be diluted to 14,000 CFM and exhausted to the atmosphere at 125 feet above ground level. The NRC found, however, neither requirement was being met, and concluded, correctly, that the violation "had the potential for causing or contributing to an occurrence with safety significance."
4. The same Notice of Violation indicates that the technical specifications require that the reactor room area radiation monitors and the exhaust air radioactive gases monitor be calibrated semiannually; however, contrary to the requirement, they had not been so calibrated. This violation likewise had the potential for causing or contributing to an occurrence with safety significance; as later shown, it resulted in significant threat to public health and safety. The failure to calibrate at the appropriate interval contributed to the eventual determination that the Argon monitor had been inaccurately calibrated and that emissions were actually several hundred times higher than previously thought. This excessive emission has had significant impact upon public health and safety.
5. After the inspection for which the above-mentioned Notice of Violation was sent, UCLA re-calibrated their devices and determined the Argon-41 monitor was low, not by a factor of ten, but by a factor of roughly 300, which put the emissions considerably in excess of the 10 CFR 20 limits, another violation, of great safety significance. This violation is noted in F.A. Wenslawski's Memo to File of April 22, 1975, regarding the enforcement conference called in Walnut Creek to discuss these violations, particularly the annual average discharge concentrations being above the limits permitted by the Technical Specifications and 10 CFR 20.
6. In early 1977 UCLA was cited for a violation they have repeated several times. Their key procedures for the facility were revised, but neither approved by the Reactor Supervisor nor reviewed by the Reactor Director, as required by the Technical Specifications. This has safety significance because it is only by such administrative controls that serious safety problems can be avoided. In this case, review by the inspector detected errors in the emergency procedure that should have been caught by internal administrative controls, which obviously weren't working. The particular errors that were made in the procedures were far less important than the potential safety significance caused by failure of the Reactor Supervisor and Director to perform their review functions as required by the Technical Specifications. This violation had the potential for causing or contributing to an occurrence of safety significance because serious errors in the facility procedures could have been included and not "caught" by administrative review. The basic lack of controls and checks and balances, the essential absence of the Director from these required duties and failure of other members of the NEL supervisorial structure to perform their supervisorial and managerial duties, has been a repeated problem with grave potential safety consequences.

7. I note further than in this inspection report, as in many others, numerous observations and findings are reported which I would view as violations with safety significance that are not so viewed by the inspector. This is a dispute between safety engineers. For example, the inspector notes as a "discrepancy" that the low count rate meter has in its circuitry a relay which sticks on occasion and requires a tap from the operator for it to function properly. The UCLA representative is said to have known of the need to fix the problem but had not done so yet and was continuing to operate the reactor with that known, readily fixable problem. A device which sticks and requires a tap from its operator to function properly is most improper in a research reactor console, where students function as operators.

8. In 1978 the NRC during an inspection determined that UCLA was in violation of its Special Nuclear Materials license limit. This is a violation UCLA has repeated several times, and is very serious. Having more SNM than necessary, or, more particularly, more SNM than one's security system is capable of protecting, represents grave risks.

9. It took two years for UCLA to attempt to resolve the SNM matter. I witnessed the shipment attempt, and photographed portions of the effort. I understand that the licensing board has ruled that the disastrous events that occurred once the shipment left the licensee's property will not be considered in this hearing. But the events which occurred on site, particularly the contamination of the shipment, truckbed, and fuel drippings in public areas, and the failure of UCLA, despite several alleged radiation sweeps, to detect the contamination and prevent it from leaving its control in that condition are most serious. The lack of security I witnessed for handling weapons-grade uranium in public, unrestricted locations on the licensee's property is also significant. UCLA's contamination of that truck and failure to detect the contamination or prevent it from exposing members of the public has great safety significance and is likely to have caused substantial risks to public health and safety. Failure to cite, or even investigate UCLA for releasing the truck in contaminated condition and apparently for causing the contamination to begin with is further indication to me that in the absence of a record of compliance by UCLA reliance upon once-a-year NRC inspections to detect and correct all problems of safety significance would be insufficient, given the performance of the particular NRC inspectors assigned to this particular reactor.

10. In early 1980 another NRC inspection found more violations. The control blade system failed at UCLA, causing an unanticipated reactivity change. Contrary to the Technical Specifications, there was no emergency procedure for dealing with the failure, and UCLA failed to report the incident as required as an abnormal occurrence. More importantly, from a safety standpoint, the failure to have such procedures led to the reactor returning to operation within ten minutes without the cause of the occurrence being identified or corrected.

11. The same inspection also found another failure to calibrate instruments at the required intervals, this time devices important to preventing the reactor from exceeding licensed safety limits for power. The longer between calibrations, the greater the chance of significant drift in the calibration and thus a significant chance of exceeding the licensed power levels, producing reactor operating conditions exceeding those for which the reactor was licensed or analyzed for. In addition, the continued laxity regarding calibration is a dangerous precedent, particularly for a training reactor; given the past public health and safety problems associated with calibration not done at the required intervals, rigid compliance must be enforced to prevent other calibration errors.

12. I note further that the inspection report finds numerous logging errors, several of which indicated that the licensed power limit had been exceeded, and that the reactor supervisor had failed to review the logs and thus not detected the problems. These continued failures of supervision, and continued record-keeping errors, have safety significance at a facility where student operation is permitted and thus strict supervision and careful log-keeping are necessary to prevent safety limits from being exceeded.

13. I note in the same inspection report that a rabbit had returned with a cracked cap, i.e. the integrity of the containment for the radioactive material contained within was breached. However, in apparent contradiction to the procedures, the reactor was not scrammed and the exhaust ventilation not shut off (to prevent release of radioactivity into the environment). There was ambiguity in the procedure as written, leaving the operators unable to take proper steps. I note also that during a document inspection I was provided a sample rabbit that was asserted by the applicant to be perfectly representative of the ones they use at the reactor in the pneumatic tube system. I examined this sample rabbit and found it to be cracked, permitting radioactive material that might be inside upon return from irradiation to enter the environment. I have photographed this supposedly representative rabbit. For the above reasons, the failure to follow procedures regarding ventilation shutdown and reactor scram with a failed rabbit, and the ambiguity in the procedure, has safety significance. The rabbits, upon return from irradiation in the core, contain material that is very "hot" radioactively and must be very carefully dealt with.

14. In July, 1981, the NRC Inspection and Enforcement division of Region V notified UCLA that it had, on the basis of an inspection, determined that UCLA's actions in permitting high school and other students to operate the reactivity controls of the reactor, while critical, "may not be in strict compliance with NRC rules and regulations." The inspection had been conducted after I&E had become appraised of the UCLA practice by reading UCLA's answers to certain interrogatories submitted to UCLA by the Committee to Bridge the Gap, which has alleged that unlicensed operators have been permitted to operate the reactor's controls in violations of the regulations. In light of explicit, repeated denial of permission, in writing, by AEC a few years earlier, for UCLA to engage in such a practice, the violations are particularly of concern, because they amount to flagrant disregard of both Commission instructions and Commission regulations. In addition, they raise serious questions about the managerial controls at the facility. Most particularly, operation of the control blade instrumentation, including changes in reactivity and power, pose significant safety problems, particularly when done, as appears the case at UCLA, with one operator present who is licensed and a group of young junior high school or high school students, some of whom are actually at the controls while the reactor licensed operator is some distance away attempting to answer questions of the remaining members of the group. The rules that only licensed operators can manipulate the reactivity controls (except for students in nuclear engineering under the supervision of licensed operators) are very important from a safety standpoint; only those competent to operate a reactor are permitted to. The fact that controls require human judgment (the example of having to tap the low count rate meter mentioned above, in order to make sure it isn't sticking) underscores the correctness of the regulations requiring only those qualified to operate a reactor to be permitted to do so.

15. An additional comment about the adequacy of relying on annual inspections by NRC to prevent untoward incidents at UCLA. I find it surprising that the NRC inspectors, who have been supposedly inspecting UCLA annually for twenty years, would have to be apprised of UCLA's routine practice of permitting junior high and high school students to operate the reactor through reading interrogatory answers submitted by UCLA to Bridge the Gap. The record of such unlicensed operation is very clear and numerous throughout several years of operating logs; the denial of permission for such activity is very clear and repeated in written communications from the AEC to UCLA that is in the Commission docket.

16. In November of 1981, UCLA notified the NRC of two violations, one of which was very serious from a safety standpoint. "The first apparent violation was a failure to insert all control blades prior to removal of a sample of large negative reactivity," as required by the Technical Specifications. The Committee to Bridge the Gap has raised the issue in this proceeding that a power excursion that could release fission products could result from precisely such an operator error. UCLA has no interlocks or other mechanical devices to prevent a large insertion of reactivity by withdrawal of a large negative sample from an irradiation port without first inserting all control blades. The operator has to remember to perform the correct procedure, and must obey a procedure. In this fashion, as in many others, the facility is not inherently safe. In this instance, the sample was large, but not large enough to cause a destructive power excursion. The precise same violation, with a larger sample, could be devastating.

17. The cause of the two violations (the second being the failure to report the first) was attributed by UCLA to running a new and novel experiment, a faulty assumption in the procedure for the experiment, failure of the procedure to be reviewed by the Radiation Use Committee, failure of the operator to implement the standard procedures, acting with unnecessary haste, prosecuting a deficient procedure, and a failure to anticipate, and correctly respond to an unexpected development. These are all very serious. Running of new and novel experiments without review by the Radiation Use Committee, violations of procedure by the reactor operator, and failure to respond correctly to unexpected developments indicate a facility in need of substantial improvement. Particularly because so many of these failures are repeat performances. The failure of the Radiation Use Committee to review the procedure for the experiment is one more indication of what is readily seen by reviewing the RUC minutes-- the almost total abdication of responsibility to seriously review and manage the activities of the reactor.

18. On April 5-9, 1982, an additional inspection took place. The results of that inspection are shocking. It was determined: that the health physicist had no prior experience with reactors or health physics at a reactor, the only related experience being as an X-ray technician, with his degree being in education. That the health physicist was unfamiliar with his duties, because he had not read the Technical Specifications for the reactor, wherein they are included, nor was he familiar with the regulations he was to enforce, nor could he even locate the list of his duties provided by his superior when he was hired. Training at the facility, which authorized use of portable radiation survey equipment, did not include training in how to use that equipment. A confirmatory radiation check by the inspector revealed that the UCLA readings were consistently 10 to 40% lower than actual. The calibration of those instruments was performed without any procedure, without acceptance criteria, with large discrepancies, etc. Once again, the Director and the Radiation Use

Committee had failed to perform their required duty of reviewing and supervising, for which the facility was cited, once again. One other finding that is indicative of the continued state of affairs at the facility is that the health physicist had determined that several portable radiation monitors were malfunctioning, but he did not tag them out of service, and others at the facility thought they were functioning properly and did not hesitate to use them. The health physicist was reported as not understanding the safety significance that use of a defective instrument could cause. It is further interesting to note that not a single calibration label matched with the other records.

19. This inspection report is clear indication that the history of noncompliance continues to the present, and that there are very serious safety implications in these continued forms of noncompliance.

20. The most recent inspection report also report a violation. Once again the reactor Director failed to, as required by the Technical Specifications, approve changes to the important procedures for the reactor. The pre-start checkoff is essentially the procedure to follow to make sure that everything is operable, that all scram and interlock and alarm system are operating as required, and that it is safe to bring the reactor to critical. Failure of the Director, over a period of six months, to review those changes is another indication of the continued lack of involvement by the Director in the operation of the facility, the continued lack of administrative controls, and could have serious safety implications. A system of checks is extremely important, particularly when it is students who will be using those procedures.

21. The response by UCLA to the violation is indicative of the responses that have occurred. The Director was criticized by the NRC for failing to review, even six months after the change had been instituted, significant changes in procedures for the facility. The response was to issue a memorandum authorizing the Reactor Manager to perform the duties required by the Technical Specifications to be performed by the Director. The memorandum indicates that the Manager is "Acting Director" when the Director is absent. This does not explain how such a paper change would have avoided the initial violation, unless the Director had been absent from the facility for a full six months (which has happened in the past, creating understandable problems in degradation of administrative controls and increased violations.)

22. A review of the inspection reports, notices of violations, and UCLA responses thereto indicates a consistent pattern. Violations occur regularly; when the violation is cited, indicating UCLA has failed to obey a provision of its technical specifications or its license, the response is to change the technical specifications or license provision so that the same action, which was found to be a violation, will no longer be a violation. The same unsafe condition as initially cited remains, but is now permitted. This is very poor practice from a safety standpoint.

23. Examples: the licensee is cited for exhaust stack too short (below height of surrounding buildings), so the Technical Specifications are shortened, to the actual height, as opposed to the stack being raised to the specified height. An acceleration nozzle supposed to be on the stack to raise its effective height is found to be removed; rather than replace it, the Tech Spec is removed. UCLA fails to calibrate its instruments at the required interval; the interval is relaxed. The Director is supposed to review the actions of the staff; the staff is given permission to review itself.

The pattern at UCLA is, when cited for a violation, to change the rule (i.e. technical specification) to fit the cited behavior, as opposed to altering the behavior to fit the rule. This is hardly an appropriate response from a safety engineering viewpoint.

24. I understand it has also been asserted that the annual reports by UCLA show no occurrence of safety significance. This is contrary to numerous items in those reports.

25. A few examples will demonstrate that numerous items of safety significance are recorded in those reports. The 1972 report, for instance indicates that the reactor had to be shutdown from February 1972 through August of that year for extensive repair and maintenance upon the primary coolant system. Other records indicate that primary coolant (radioactive) was leaking, caused by damage to the primary loop, which had lost its integrity. In addition to releasing radioactive material from the primary system, it led to very substantial radiation exposures, including for several individuals to exceed the 1.25 Rem/quarter limit. Three individuals received in excess of 5 Rem for the year; one student received 1470 millirem. Numerous other significant exposures were encountered as well. Whatever caused the primary coolant system failure, be it the 1971 earthquake or unconnected corrosion, led, in addition to release of primary coolant, to over 34 person-rem of recorded radiation exposure. Two students each received approximately 500 mrem in just one day due to the work required to repair the leak.

26. The 1973 report indicates on pages 1-2 numerous faulty components such as tubes, diodes, or transistors which had safety significance, and points to the fact that the Startup Channel used to monitor low neutron flux levels failed or was found out of alignment thirteen times. The report notes that "replacement of this unit has been initiated." I find it of safety significance that replacement did not occur far earlier. Thirteen failures before replacement seems poor maintenance practice.

27. The 1974 report indicates a major shutdown of several months to once again repair a leak in the primary coolant system.

28. The 1975 report indicates numerous extended shutdowns, including one due to failure of the Radium Beryllium source (i.e., leakage of radium) and problems with the control rod drive logic system. The control rod problem included a control rod which continued to drive out of the core on its own. On another occasion the following was noted:

- (1) Rod #1 would not drive out when the "rod drive up" switch was depressed and rod #1 and rod #2 would both drive down when the "rod drive down" switch was depressed.
- (2) Rod #2 would not drive either way.
- (3) Rod #3 would not drive either way.
- (4) Rod #4 would not drive out when the "rod drive up" switch was depressed and rod #2 and rod #4 would both drive down when the "rod drive down" switch was depressed.

Such abnormal occurrences are serious, affecting the primary safety feature of the facility. I have trouble understanding how any competent observer would view such failures of primary safety features as trivial. Radium contamination from a leaking radium source likewise cannot be viewed as trivial.

The annual report indicates that the reactor was permitted to continue to operate, only restricting the kinds of control rod manipulations, after both the May and December abnormal occurrences involving the control rods. The correctness of permitting continued operation while the cause of the failure was still unknown seems questionable from a safety standpoint; but that has been standard practice at NEL, which seems not prudent. Elsewhere in the annual report is mention of the Argon-41 problem, and how subsequent recalibration of monitors indicated vastly greater levels of radioactive effluent than previously thought or permitted. This has great safety significance, as discussed elsewhere.

29. The above review is in no way means to be all-inclusive, nor even to identify the items of greater significance than others. It simply shows that it would be quite incorrect to assert (1) that there have been no significant violations since 1975, (2) that there have been no significant violations prior to 1975, (3) that violations, once identified, have been satisfactorily corrected, (4) that the identification of specific violations has prevented recurring noncompliance on other matters, (5) that no pattern of noncompliance exists, (6) that none of the occurrences at the facility have been of safety significance, (7) that once-a-year spot checks have been sufficient to either catch all major safety problems or to prevent their occurrence, (8) that no events which have raised a concern for public health and safety have occurred at the facility. A detailed review of the record--not merely the inspection reports and annual reports, but also the maintenance logs, calibration records, operating logs, Radiation Use Committee minutes, radiation survey records, and the like--yields precisely the opposite conclusions.

30. For example, a review of the Radiation Use Committee minutes indicates a Committee which often fails to meet as required; fails to review and approve facility changes, procedures, and experiments; fails to undertake its own safety review of the facility; and fails to exercise genuine supervision and control of the functions of staff associated with NEL. In fact, it is clear from the RUC minutes that it is the staff that runs the RUC, virtually unchecked and unreviewed, rather than the other way around.

31. A classic case occurred with one of the recent violations. The NRC determined that, once again, the Reactor Director had failed to perform his required review duty. Six months had passed since a new procedure had been instituted and at the time of the inspection the Reactor Director had still not found time to review and OK the procedure. (This fits a long-standing pattern at the facility; Directors in name only, absent for long periods of time from the facility and who, when present, are not involved in the activities of the reactor nor performing their review function.)

32. The response was typical of NEL responses to violations. Rather than take steps to get the Director to perform his required review duty (a very important safety function in a university reactor), the Director signed a three-sentence memorandum authorizing one of the reactor staff to sign for him and review and approve for him those procedural changes, engineering change orders, and experimental safety analyses which he is required by the Tech Specs to review. The Director accomplished this evasion of his required function by "designating" one of the NEL employees "Acting Director" for purposes of signature. This is similar to the procedural "getting around the rules" identified by Dr. Monosson in his declaration regarding not having a health physicist at the facility in the past and the overexposure that appears to have resulted.



33. One would think that such an action would require thorough review by the Radiation Use Committee. It was approved by "a quorum" of the RUC-- Director Catton, against whom the violation had been cited for not reviewing the procedure; NEL Supervisor Zane, who had been cited for not having his actions reviewed by Director Catton; and NEL Manager Ostrander, who was the other staffperson being delegated the authority the Director had failed to carry out. (The other RUC members apparently were not part of the decision, but were "subsequently polled" and none raised an objection.) Essentially, the Lab Manager, Director, and Supervisor, who are the ones who are supposed to be supervised by the RUC, are the RUC. The few remaining members not on staff of NEL are absentee or uninvolved members, members virtually in name only.

34. Another example of the poor administrative and managerial controls at the facility is the practice of permitting unlicensed operators, in violation of the regulations and good safety practice. The current argument that such behavior is permissible is indefensible. The regulations make clear that an operator of a reactor is someone who manipulates the controls. If you direct someone else in the manipulation of the controls, you are both operators. Permitting junior high school and high school students to operate the reactor both violates the regulations and shows very poor judgment.

35. The poor managerial controls in regard to the practice of unlicensed operators is made clear when the earlier docket is reviewed. UCLA in the late nineteen sixties, recognizing that the regulations prohibited the practice, requested an exemption from the AEC to permit visitors to the facility to operate the controls. The AEC responded in the negative, indicating the regulations were clear and there was good safety reason for the regulations. The NEL renewed their request for reconsideration, and once again the AEC once again emphatically denied the request. So, what was the response of NEL in the face of regulations recognized to forbid the practice and two explicit responses from the AEC denying request for exemption? NEL engaged in the practice for a number of years after the AEC told them not to. (Interestingly, the AEC didn't discover the fact, despite its annual-or-so inspections in which the operating logs were supposed to be reviewed. The Commission didn't learn that UCLA was disobeying until UCLA answered some questions served on it by CBG in this proceeding; it then conducted an inspection, determined the practice "may not be in strict compliance with the regulations" and told UCLA not to engage in the practice again without explicit permission, prior permission. This after UCLA disobeyed two previous denials of permission.

### Conclusions

36. The inspection and enforcement record for UCLA since 1975 shows numerous violations of safety significance. The inspection reports for prior to 1975 likewise show numerous such violations of significance to public safety. A pattern of regulatory noncompliance has existed at the facility during much of its licensed history, and that pattern continues through to the present.

37. The annual reports by UCLA to the Commission show numerous occurrences of safety significance. So do the annual reports not submitted to the Commission. A detailed review of operating logs, scram reports, and abnormal occurrence reports present a generalized picture of a facility in which violations of good safety procedures and NRC regulations and license conditions occur routinely. The compliance record for the full 22 year period is very poor and remains poor.

38. Administrative and managerial controls are essentially non-existent. The Radiation Use Committee fails to perform its required oversight function. The Reactor Director fails to perform, and his predecessor failed to perform, the review and supervisorial duties assigned in the license and Tech Specs. There are few if any serious internal checks. Safety analysis for proposed experiments, new procedures, engineering changes, facility alterations and the like are essentially not done--a form is checked off saying no unanalyzed safety considerations are involved, and so no review or analysis is performed. The history of the submission of the application, with essentially no analysis actually performed by NEL, nor any review performed by the Radiation Use Committee, the Lab Director, or others in positions of authority within the School of Engineering or the University, provides none of the required checks to ensure safe operation. The failure to have analyzed for Wigner energy storage, the failure to have realized after twenty years of reliance on the Hazards Analysis that it indicated temperatures exceeding those of the melting temperature of the fuel and unacceptable doses in case of accident, the failure to reconsider the effect of new void coefficient data--all indicate that adequate controls are not present. The administrative and managerial controls might be adequate for a normal engineering lab at a university, where the Director is expected to be in name only and potential hazards are minimal. But, as indicated in the Aftergood and Beyea declarations, the consequences of unsafe conditions, instrument failure, personnel error, violation of procedure and the like at this particular lab exceed the potential consequences of virtually any other university lab by many orders of magnitude. Suitable controls, consonant with potential consequences of accident, are not present and substantially increase the likelihood of serious accident.

39. Furthermore, the numerous violations cited are rarely corrected adequately. The violations are of real safety significance, but the solutions have almost entirely been procedural, paper solutions. Neither the annual or so checks by the NRC have caught all the violations nor have the University's responses corrected them appropriately. And the one unchangeable fact appears to be that UCLA will continue to violate its license conditions and the regulations. The violations are sometimes the same, sometimes different, but the violations continue, and the lack of adequate controls continues. Public safety is put substantially at risk by this situation.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

  
Sheldon C. Flotkin, Ph.D.

Executed at Los Angeles, California, this 12<sup>th</sup> day of January, 1983.

CONTENTION IV

RESPONSE TO STAFF'S ASSERTED MATERIAL FACTS

1. "Only five items of non-compliance with minor technicalities have been cited against UCLA since 1975."

DISPUTED\*

(see citations for response to "fact" #1 for Contention III; also I&E report 82-01 )

2. "The inspection record for UCLA shows no items of significant noncompliance with Commission regulations or the UCLA technical specifications."

DISPUTED\*

(citations for responses to "facts" #1 and 3, Contention III; note again that the cited Johnson affidavit only refers to the period 76-81)

3. "Appropriate actions have been taken by UCLA to correct all items of noncompliance."

DISPUTED\*

(citations for response to "fact" #4 of Contention III

4. "All licensee corrective actions described in responses to notices of violation are verified by NRC inspectors."

DISPUTED

(Johnson affidavit for Staff, P 3--the Staff citation merely says that NRC inspectors verified UCLA responses to two particular letters of violation).

5. "The Commission's records show that the UCLA research reactor has operated for twenty years without an incident posing risk to public health and safety."

DISPUTED

(Plotkin declaration for III, P iv, 1-39; Monosson declaration, P2-22; Cooperman declaration for IX, P2-5; Foster declaration, P3-26; Lyon declaration, P4-6,17-18, 20; Pulido declaration for XV, P3-12; Norton declaration for V,19,11,69-70; Plotkin declaration as to VII, P5-10; Docket 50-142)

\* see footnote for response to Staff on Contention III