UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	Docket No. 9999004
	)	(General License Authority
WRANGLER LABORATORIES, LARSEN	)	of 10 C.F.R. 40.22)
LABORATORIES, ORION CHEMICAL COMPANY	)	
AND JOHN P. LARSEN	)	E.A. 87-223
	)	ASLBP No. 89-582-01-SC

TESTIMONY OF EDWIN D. FLACK

I, Edwin D. Flack, do testify and state:

1. I am presently employed by the United States Nuclear Regulatory Commission (NRC) as a Senior Health Physicist in the Office of Nuclear Material Safety and Safeguards. I have held this position since January 20, 1989. Before January 20, 1989, I was a Senior Enforcement Specialist in NRC's Office of Enforcement. I held that position from January 1982 to January 1989. A statement of my professional qualifications is attached to this testimony.

The Office of Enforcement (OE) is responsible for implementation of NRC's Enforcement Policy (10 C.F.R. Part 2, Appendix C). My duties as Senior Enforcement Specialist included reviewing assigned escalated enforcement actions, originally prepared by the NRC Regional Offices, to ensure technical adequacy and conformance with established enforcement policy. The Wrangler Laboratories case was assigned to me by the Director of Enforcement. My review of the case involved comparing the findings contained in the inspection reports and supporting documents with the proposed enforcement action by Region IV to ensure technical accuracy and to ensure that the proposed enforcement was in accordance with NRC's Enforcement Policy.

2. Explanation of NRC's Enforcement Program

The purpose of the NRC enforcement program is to promote and protect the radiological health and safety of the public, including employees' health and safety, the common defense and security, and the environment by:

- Ensuring compliance with NRC regulations and license conditions;
- Obtaining prompt correction of violations and adverse quality conditions which may affect safety;
- Deterring future violations and occurrences of conditions adverse to quality; and
- Encouraging improvement of licensee and vendor performance, and by example, that of industry, including the prompt identification and reporting of potential safety problems.

Consistent with the purpose of this program, prompt and vigorous enforcement action is taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and do not adhere to the high standards of compliance that NRC expects of its licensees. It is NRC's policy that licensees who cannot achieve and maintain adequate levels of protection should not be permitted to conduct licensed activities.

The nature and extent of NRC enforcement actions are intended to reflect the seriousness of the violations involved. Each enforcement action depends on the circumstances of the case and is evaluated in accordance with NRC's Enforcement Policy. The formal enforcement actions available to the Commission in the exercise of its regulatory responsibilities under the Enforcement Policy may be divided into three basic types, as follows:

A. Written Notices of Violations with no proposed civil penalty, which are generally used when violations are not serious, repetitive, or numerous, and the items are readily correctable.

B. Civil monetary penalties with written Notice of Violations, which are generally used for serious, repetitive, or chronic violations.

C. Orders, which are generally used when a licensee is conducting unauthorized activities, when other enforcement sanctions were not effective, or when there is an immediate threat to health and safety or to the safeguards of special nuclear materials.

Written Notices of Violations are issued by the Regional Offices. Civil Penalties and Orders are issued by or with the concurrence of the Office of Enforcement and the Deputy Executive Director of Regional Operations.

The civil penalty is the enforcement tool most frequently employed by NRC and is most familiar to industry and the public. Its purpose is to attract attention to the problem and to emphasize an identified need for lasting remedial action. The civil penalty is not designed to place undue punitive penalties upon the licensee but, rather, is designed to emphasize to licensee management the seriousness of the violations involved. It is an enforcement action to bridge the gap between the Notice of Violation, issued by the Regional Office, and the more severe suspension or revocation Orders.

An Order is a written NRC directive to modify, suspend, or revoke a license; to cease and desist from a given practice or activity; or to take

such other action as may be proper. Orders may also be issued in lieu of, or in addition to, civil penalties, as appropriate.

Modification Orders are issued when some change in licensee equipment, procedures, or management controls is necessary.

Suspension Orders may be issued for various reasons, including:

(a) To remove a threat to the public health and safety, common defense and security, or the environment;

(b) When the licensee has not responded adequately to other enforcement action;

(c) When the licensee interferes with the conduct of an inspection or investigation; or

(d) For any reason not mentioned above, for which license revocation is legally authorized.

Suspensions may apply to all or part of the licensed activity. Ordinarily, a licensed activity is not suspended (nor is a suspension prolonged) for failure to comply with requirements where such failure is not willful, and adequate corrective action has been taken.

Revocation Orders may be issued for various reasons, including:

(a) When a licensee is unable or unwilling to comply with NRC requirements;

(b) When a licensee refuses to correct a violation; or

(c) For any other reason for which revocation is authorized under Section 186 of the Atomic Energy Act (e.g., a material false statement or any condition which would warrant refusal of a license on an original application).

Orders are made effective immediately, without prior opportunity for hearing, whenever it is determined that the public health, interest, or safety so requires, or when the order is responding to a violation involving willfulness. Otherwise, a prior opportunity for a hearing on the order is afforded. For cases where NRC believes a basis could

reasonably exist for not taking the action as proposed, the licensee will ordinarily be afforded an opportunity to show cause why the order should not be issued in the proposed manner.

3. February 25, 1988 Order Suspending Licenses (Effective Immediately)

The February 25, 1988 Order Suspending License (Effective Immediately) was issued for a number of reasons, including: (1) Mr. Larsen had failed to fulfill commitments made on behalf of his firms to NRC and the State of Utah; (2) Mr. Larsen had made contradictory statements to NRC and the State of Utah authorities; and (3) Mr. Larsen's firms had processed uranium in an unsafe manner with inadequate controls and resulting contamination. These actions demonstrated an unwillingness to comply with NRC regulatory requirements and safe work practices for many years.

As denoted in the February 25, 1988 Order Suspending License, Mr. Larsen's firms have a history of not complying with NRC's and the State of Utah's regulatory requirements. On September 3, 1982, NRC issued an Order to Show Cause and Order Temporarily Suspending License, based on a number of violations, including: (1) possession of source material at one time in excess of the 15-pound limitation on such material; (2) refusal to make records available to NRC; (3) unauthorized disposal of depleted uranium; and (4) failure to maintain complete records. In Mr. Larsen's response to this Order he admitted the violations and stated that he would comply with NRC's regulations in the future. In addition, on December 15, 1982, NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty for these violations. In December 1983, a specific license (SUB-1436) was issued to Larsen Laboratories of Provo, Utah. The responsibility for

overseeing this specific license was transferred to the State of Utah, upon its becoming an Agreement State.

On November 5, 1986, the State of Utah issued an Order Suspending License (Effective Immediately) and Order Imposing Civil Monetary Penalties in the amount of $13,000. The Order, which is still in effect, required, among other specified actions, that the licensee: (1) not receive or use source material except to secure or transfer such source material in its possession; (2) dispose of radioactive wastes; (3) decontaminate two facilities in the Oren area; (4) move to production facilities that have been approved through license amendment procedures; and (5) obtain a qualified Radiation Protection Officer. On January 15, 1987, a Settlement Agreement between the State of Utah and Larsen Laboratories was signed. The Agreement required that the specified activities in the Order be completed by April 15, 1987, and that $8,000 of the civil penalties would be suspended. The Licensee paid the remaining $5,000 civil penalties, but has not complied with Items (4) and (5) of the Order.

On November 12, 1987, December 8, 1987, and December 31, 1987, Confirmation of Action Letters (CALS) were issued to Wrangler Laboratories because of potentially hazardous conditions at this facility. As a result of an enforcement conference held with Mr. Larsen on December 2, 1987 in Salt Lake City, it was determined that:

A. Mr. Larsen made contradictory statements regarding locations where he had previously conducted chemical processing of depleted uranium operations.

B. Wrangler Laboratories deviated from commitments described in the November CAL in that: (a) baseline analyses were not conducted; and (b) lapel air samplers were not worn by the individuals who performed the processing of licensed material.

C. Mr. Larsen made contradictory statements regarding his companies being the only ones supplying uranyl acetyl acetate (UAA) to the Department of Defense (DOD).

D. Mr. Larsen made contradictory statements regarding UAA shipments.

E. Mr. Larsen made contradictory statements regarding purchases of depleted uranium.

F. Wrangler Laboratories deviated from commitments described in the December 31st CAL regarding the submittal of urine samples for uranium analyses.

Based on the aforementioned information NRC concluded that: (1) Mr. Larsen had failed to fulfill commitments and abide by requirements made on behalf of his firms to NRC and the State of Utah; (2) Mr. Larsen had made contradictory statements to NRC and the State of Utah authorities; and (3) Mr. Larsen's firms had processed uranium in an unsafe manner, with inadequate controls and resulting contamination. These actions demonstrated an unwillingness to comply with regulatory requirements and safe work practices for many years. Accordingly, the February 25, 1988 Order Suspending License was issued.

The February 25, 1988 Order Suspending License was also in accordance with Section V.C of the Enforcement Policy, which states that Suspension Orders may be used for various reasons, including: (a) to remove a threat to the public health and safety, common defense and security, or the

environment; or (b) when a licensee has not responded adequately to other enforcement action. The Order was made effective immediately, in accordance with 10 C.F.R. § 2.202 of the Commission's regulations and Section V.C of the Enforcement Policy, since it was determined by the Deputy Executive Director for Regional Operations that the public health, interest, and safety required this action, and since the actions of Mr. Larsen's firms involved willfulness, examples of flagrant NRC-identified violations, and repeated poor performance in an area of concern.

Section V.B of the Enforcement Policy states that: "In cases involving willfulness, flagrant NRC-identified violations, repeated poor performance in an area of concern, or serious breakdown in management controls, NRC intends to apply its full enforcement authority where such action is warranted, including issuing appropriate orders and assessing civil penalties for continuing violations on a per day basis, up to the statutory limit of $100,000 per violation, per day." Furthermore, in Section VI of the Enforcement Policy, it states that "in serious cases where the licensee's actions in not correcting or providing information raises questions about its commitment to safety or its fundamental trustworthiness, the Commission may exercise its authority to issue orders modifying, suspending or revoking the license."

4. August 15, 1988 Order Revoking Licenses

The August 15, 1988 Order Revoking Licenses was issued for a number of general reasons, including: (1) Mr. Larsen's past enforcement history and noncompliance in 1982 under a general NRC license; (2) Mr. Larsen's past enforcement history and noncompliance in 1986 under a State of Utah's specific license; (3) Mr. Larsen's noncompliance in 1988-1989 under a general NRC license; (4) Mr. Larsen's failure to fulfill commitments and

abide by requirements made on behalf of his firms to NRC and the State of Utah; (5) Mr. Larsen's contradictory statements to NRC and the State of Utah authorities; and (6) Mr. Larsen's firms processing uranium in an unsafe manner with inadequate controls and resulting contamination. Mr. Larsen was verbally informed by NRC officials, after the noncompliances in 1982, and later, by State of Utah officials, that his activities were of such a nature that the radiation safety, chemical safety, and waste disposal aspects of his operations should not be conducted under a general license.

In addition, Mr. Larsen's March 18, 1988 reply to the NRC Order Suspending Licenses confirmed other facts, including: (1) the 15-pound limit for transfer of source material under a general license allowed pursuant to 10 C.F.R. 40.22 was exceeded at Mr. Larsen's Wyoming facility; (2) the annual limit of 150 pounds for receipt of source material under a general license was exceeded at Mr. Larsen's Wyoming facility; (3) deviation from Item 1 of the CAL dated November 12, 1987, regarding failure to obtain baseline urine samples from two individuals who worked in the final processing and cleanup of the Wyoming facility; (4) deviation from Item 2 of the CAL dated December 31, 1987 regarding failure to submit, with the workers' urine samples, background sample; (5) deviation from Item 3 of the CAL dated December 31, 1987, regarding collecting urine samples from two individuals every three days; (6) deviation from Item 4 of the CAL dated December 31, 1987, regarding submitting certain urine bioassay results, showing a high uranium concentration, to the Region IV Office, when they were received by Mr. Larsen.

Based on the above, NRC again concluded that: (1) Mr. Larsen had failed to fulfill commitments made on behalf of his firms to NRC and the

State of Utah; (2) Mr. Larsen had made contradictory statements to NRC and the State of Utah authorities; and (3) Mr. Larsen's firms had processed uranium in an unsafe manner with inadequate controls and resulting contamination. These actions demonstrated an unwillingness to comply with regulatory requirements and safe work practices for many years. Accordingly, the August 15, 1988 Order Revoking Licenses was issued.

The August 15, 1988 Order Revoking Licenses was issued in accordance with Section V.C of the Enforcement Policy, which states that Revocation Orders may be issued for various reasons, including: (a) when a licensee is unable or unwilling to comply with NRC requirements; or (b) when a licensee refuses to correct a violation. In addition, as discussed in the previous section regarding the suspension of the licenses, revocation orders may be issued in serious cases where the licensee's actions in not correcting or providing information raise questions about the licensee's commitment to safety or its fundamental trustworthiness.

PROFESSIONAL QUALIFICATIONS OF EDWIN D. FLACK

EDUCATION

FORMAL

- A.B. Biology and Chemistry, Transylvania University, 1964
- M.S. Health Physics, Colorado State University, 1968

OTHER

- The Manager and Program Planning and Evaluation
- Transportation of Radioactive Material
- Pressurized Water Reactor Course
- Boiling Water Reactor Course
- Environmental Impact of Energy Generation, Nuclear and Fossil
- Medical Use of Radionuclides
- Calibration of Teletherapy Machines
- Safety Aspects of Industrial Radiography
- Health Physics Course
- Evaluation of Laser Hazards
- Fundamentals of Non-Ionizing Radiation

EXPERIENCE

1989 - Present — Senior Health Physicist

Develops policies, criteria and procedures for the NRC program of licensing and inspection of fuel facility and materials licensees; monitors the licensing and inspection of activities carried out by the NRC regional offices; evaluates the radiological safety significance and generic implications of reported abnormal occurrences and events and recommends action to assure protection of public health and safety. Represents the NRC in the conduct of liaison with agencies of the federal, state, and local governments in the formulation and implementation of fuel cycle and materials licensing and inspection.

1982 - 1989 — Senior Enforcement Specialist

Developed enforcement policy, prepared criteria, instructions, and guidance for carrying out NRC's Enforcement Policy. Reviewed and processed proposed escalated enforcement actions to assure conformance to established policy and criteria. Appraised the enforcement program as carried out by the Regional Offices. (NRC, IE)

1981 - 1982 Senior Health Physicist

Performed as the Office of Inspection and Enforcement (IE) appraisal expert for all Regional Offices for matters relating to radiation protection programs at reactors, fuel facilities, and material licensees. Responsible for: (1) evaluating results of inspections and investigations conducted by the Regions to determine whether there were weaknesses in the inspection program, and provided the technical expertise for changes in the inspection requirements as indicated by the evaluations; (2) evaluated inspections, investigations, Regional Office activities, documentation of the inspection results, records of modules and manpower expended, and to a limited extent licensee records, to determine whether the program is adequate. This was done on a national basis to appraise the effectiveness of inspection requirements, uniform treatment of licensees, and the application of enforcement sanctions. (NRC, IE)

1980 - 1981 Senior Health Physicist

Served as a senior IE staff specialist and was the NRC expert in inspection of radiation protection programs at operating reactor facilities. Planned and developed the program for inspection of radiation protection programs of operating reactors. This work encompassed the diverse areas of occupational radiation exposure programs and ALARA controls, management of control of radioactive effluents and radioactive wastes, environmental monitoring programs, and radiological emergency planning and preparedness programs of licensees. (NRC, IE)

1973 - 1980 Health Physicist

Served as a member of the Radiological and Environmental Protection Branch. Assisted in the development and improvement of inspection programs for environmental protection and effluent control activities of NRC licensees, and provided staff assistance and technical advice to the Inspection and Enforcement staff. Evaluated results of investigations, inspections, and enforcement cases. Reviewed, evaluated, and provided recommendations on NRC regulations and license requirements and regulatory guides,

rules, and standards as they applied to the inspection program. (NRC, IE)

1973 - 1975 Health Physicist

Analyzed and evaluated from the radiological safety and environmental protection standpoint specific portions of license applications, safety analysis reports, and environmental reports for assigned fuel cycle plants to assess the adequacy of the applicant's protection program. (NRC, NMSS)

1969 - 1973 Health Physicist

Provided radiation protection services in departments and associated labs. (Massachusetts Institute of Technology, Cambridge, Massachusetts)

1965 - 1966 Laboratory Instructor

Conducted laboratories for short courses on application of radiation and radioisotopes in all disciplines of science. (Oak Ridge Associated Universities, Oak Ridge, Tennessee)