



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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FEB 08 1990

Docket No. 9999004

Board Notification 90-01

MEMORANDUM FOR: Atomic Safety and Licensing Appeal Board  
and All Parties

FROM: John E. Glenn, Chief  
Medical, Academic, and Commercial  
Use Safety Branch  
Division of Industrial and  
Medical Nuclear Safety  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: NEW INFORMATION POTENTIALLY RELEVANT AND MATERIAL TO APPEAL  
BOARD PROCEEDING IN THE MATTER OF WRANGLER LABORATORIES,  
LARSEN LABORATORIES, ORION CHEMICAL, ASLBP NO. 89-582-01-SC

In conformance with the Commission's policy on notification of Licensing  
Boards, Appeal Boards, or Commission of new, relevant, and material  
information, this memorandum calls attention to the document listed below.

The enclosed document, Notice of Violation and Order to Mitigate, dated  
December 22, 1989, is being brought to the attention of the Appeal Board as  
information which may be relevant and material to issues pending before the  
Appeal Board. On December 11, 1989, Board Notification 89-09 transmitted  
PNO-IV-89-67 which brought to the attention of the Board preliminary  
information regarding this matter.

John E. Glenn, Chief  
Medical Academic, and Commercial  
Use Safety Branch  
Division of Industrial and  
Medical Nuclear Safety  
Office of Nuclear Material Safety  
and Safeguards

Enclosure:  
Notice of Violation and  
Order to Mitigate

cc: J. Taylor, EDO  
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Docket No. 9999004  
89-582-01-SC

SERVICE LIST

Charles Bechhoefer, Chairman  
Administrative Judge  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Frederick J. Shon  
Administrative Judge  
Atomic Safety and Licensing Board  
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Washington, D.C. 20555

Atomic Safety and Licensing  
Board Panel (1)  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Office of the Secretary  
16-G-15  
ATTN: Docketing and Service Section

William L. Brown, Esq.  
U.S. Nuclear Regulatory Commission  
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Administrative Judge  
Christine N. Kohl, Chairman  
Atomic Safety and Licensing Appeal  
Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Administrative Judge  
W. Reed Johnson  
Atomic Safety and Licensing Appeal  
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Dr. Jerry R. Kline  
Administrative Judge  
Atomic Safety and Licensing Board  
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John P. Larsen  
Orion Chemical Company  
652 South, 850 East  
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Atomic Safety and Licensing  
Appeal Panel (5)  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Adjudicatory File  
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U.S. Nuclear Regulatory Commission  
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Administrative Judge  
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**UTAH DEPARTMENT OF HEALTH  
BUREAU OF RADIATION CONTROL**

In the Matter of

John P. Larsen  
Larsen Laboratories  
652 South 850 East  
Orem, Utah 84058

License No. UT 2500183

**NOTICE OF VIOLATION AND ORDER TO MITIGATE**

This Notice of Violation and Order are issued by the Executive Director of the Utah Department of Health pursuant to the Utah Code Annotated (1953, as amended) Sections 26-1-27 to 26-1-29 and rules adopted thereunder.

**FINDINGS**

I.

John P. Larsen, (hereafter referred to as the licensee), doing business as Larsen Laboratories, held a Utah radioactive material license number UT 2500183 until it was suspended on November 5, 1986, and allowed to expire on December 31, 1988, while under suspension. The license authorized the licensee to transfer, receive, possess, and use source material (depleted uranium) for manufacture of a reagent chemical. Condition 10 of the radioactive material license authorized use of radioactive material only at 2000 South 450 West, Orem, Utah, in the Gold Key Storage Unit #3. A business address of 3853 North Sherwood Drive, Provo, Utah, was identified in Item 2 of the radioactive material license. The licensee has also done business as Wrangler Laboratories and Orion Chemical Company.

II.

In a letter dated April 8, 1988, the Bureau of Radiation Control (hereafter referred to as the Bureau) authorized the temporary storage of source material radioactive waste, produced under a U.S. Nuclear Regulatory Commission (NRC) General License, and storage of contaminated process equipment at the licensee's facility which consists of a blue metal building with two unattached sheds located at approximately 1610 West 200 South, Lindon, Utah (hereafter identified as the Lindon facility). During the temporary authorization, source material waste and contaminated process equipment were required to remain in locked storage with access limited to the licensee. The authorization for temporary storage expired on October 31, 1988. Prior to this expiration date, all source material radioactive waste was required to be transferred to a licensed waste disposal facility. The contaminated process equipment was required to be transferred to a NRC or Agreement State radioactive material licensee or decontaminated to the Bureau limits established for the decontamination of facilities and equipment prior to release for uncontrolled use; or transferred to a licensed waste disposal facility. As will be shown in Section III, the licensee failed to comply with the temporary authorization for storage of source material radioactive waste.

III.

On November 15, 1989, Edkl Johnson, owner of Radiation Safety & Nuclear Products, Inc., informed the Bureau, that he had been employed by Karl and Carol Gates to perform a preliminary radiation survey of their home located at 3853 North Sherwood Drive, Provo, Utah. The purpose of this survey was to confirm the presence of radioactive material contamination in the home and to determine if there was any cause for concern regarding contamination from radioactive materials that may have been left by the licensee, the previous owner/occupant.



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On November 16, 1989, Edd Johnson informed the Bureau, that it definitely appeared that the lower basement area of the home was used as a laboratory for the chemical processing of compounds, minerals, or other materials and that some kind of activity involving radioactive material was being conducted at this location. Miscellaneous bottles and vials of radioactive material, both liquid and powder, had been found at various locations within and outside the home. Radiation contamination was found in various areas of the home.

On November 17, 1989, three representatives of the Bureau and one representative of the Bureau of Solid and Hazardous Waste Management, performed an inspection of the Galt's home. Bureau personnel confirmed the presence of radioactive material contamination in the home. Levels of contamination exceeded the Bureau's limits for the decontamination of facilities and equipment prior to release for uncontrolled use.

On November 21, 1989, two representatives of the Bureau were informed by Greg Sumner that on October 31, 1989, trash was removed from the garage of the home located at 3853 North Sherwood Drive via a dump truck and deposited upon a site near 368 Draper Lane, Orem, Utah. Upon inspection of the dump truck and trash, Bureau personnel determined that radioactive materials were present. Contaminated items include the truck and laboratory equipment mixed in with the trash. The contamination identified exceeded the Bureau's limits for decontamination of facilities and equipment prior to release for uncontrolled use.

On December 4, 1989, three representatives of the Bureau inspected two locations, listed below, and found contamination which exceeded the Bureau's limits for decontamination of facilities and equipment prior to release for uncontrolled use:

1. At the Larsen home located at 652 South 850 East, Orem, Utah, the following contaminated items were identified:
  - a. Wooden cabinets with a piece of linoleum placed in the bottom of one of the cabinets. These items were located on the patio at the back of the home.
  - b. Inside the home, in the basement, two contaminated items were found:
    - (a) A rusty metal workbench frame.
    - (b) A piece of carpet which was placed on the bottom of the metal workbench frame.
2. At the Lindon facility the following was identified:
  - a. Depleted uranium rods.
  - b. 55 gallon drums of radioactive waste material.
  - c. Glass bottles containing radioactive material.
  - d. Plastic containers of radioactive material in both liquid and solid form.
  - e. The following items were found to be contaminated:
    - (1) laboratory equipment;
    - (2) cinder blocks;
    - (3) wooden cabinets;

- (4) the hose of an industrial shop vacuum; and
  - (5) cardboard containers or boxes.
- f. On the grounds which surround the Lindon facility, four vehicles were inspected. Contamination was found on the passenger side of a white Ford flatbed truck I.D. number C61EVU48688. Radioactive materials were found in containers located in the back of a white GMC pickup truck, Utah license number NB 8648. The remaining vehicles were not contaminated.

### VIOLATIONS

The results of Bureau investigations conducted on November 17 and 21, and December 4, 1989, of the licensee's activities indicate that the licensee conducted licensed activities in violation of the Bureau Rules and the following violations are enumerated below:

1. R447-19-1(1) states, in part, that no person shall receive, possess, use, transfer, own or acquire radioactive material except as authorized in a specific or general license.

Contrary to this, the licensee's radioactive material license was suspended by Order on November 5, 1986, and allowed by the licensee to expire while under suspension. On December 4, 1989, Bureau inspectors found depleted uranium rods and radioactive waste material at the Lindon facility. The mass of depleted uranium was in excess of 15 pounds.

2. R447-15-301 states, in part, that no licensee shall dispose of any radioactive material except by transfer to an authorized recipient or as authorized by the Bureau Rules.

Contrary to this, on November 21, 1989, Bureau inspectors found radioactive waste material in a pile of trash and several brochures labeled "Orion Chemical Company" located near 368 Draper Lane, Provo, Utah. Greg Sumner told the inspectors that he picked up the trash from the garage of the home at 3853 North Sherwood Drive on October 31, 1989, and intended to haul it to the landfill at a later date, but instead dumped it on his personal property.

3. R447-15-207 states that licensed materials stored in an unrestricted area shall be secured from unauthorized removal from the place of storage and that licensed materials in an unrestricted area and not in storage shall be tended under the constant surveillance and immediate control of the licensee.

Contrary to this, on November 17, 1989, Bureau inspectors found licensable quantities of radioactive material at 3853 North Sherwood Drive, Provo, Utah, which were not under licensee control or supervision.

4. R447-19-61(2) states that any license may be revoked, suspended, or modified, in whole or in part, for any material false statement in the application or any statement of fact required under provisions of the Act, or because of conditions revealed by such application or statement of fact, or any report, record, or inspection, or other means which would warrant the Bureau to refuse to grant a license on an original application, or for violation of, or failure to observe any of the terms and conditions of the Act, or of the license, or of any rule, or order of the Bureau. In a letter dated April 8, 1988, the Bureau authorized temporary storage at the Lindon facility of waste material produced under a NRC general license. This authorization expired on October 31, 1988.



Contrary to this, on December 4, 1989, Bureau inspectors found a large quantity of such waste at the Lindon facility.

5. License Condition 15. requires, in part, that licensed material be used in accordance with statements, representations, and procedures contained in NRC license SUB-1435 as in effect April 1, 1984. License Condition 14. of the NRC license SUB-1435 required licensed material to be used in accordance with statements, representations, and procedures contained in an application received November 16, 1983, and a letter received December 16, 1983.

- a. The "Larsen Laboratory Operations Manual" states "Fixed and removable contamination limits for the release of equipment and facilities shall comply with the Guideline For Decontamination of Facilities and Equipment Prior to Release For Unrestricted Use or Termination of Licenses For Byproduct, Source or Special Nuclear Material. It is expected the administrative limits will, in conjunction with ALARA practices, be somewhat lower. For example, if repeated cleaning of an article reduces the contamination below the NRC guidelines mentioned above and no additional action can reduce the present level then the article may be released. If subsequent cleaning continues to reduce the contamination levels then it is prudent to continue in accordance with good Health Physics practices."

Contrary to this, on November 17, 1989, Bureau inspectors found at least 5 discrete locations within the home previously owned/occupied by the licensee with contamination in excess of the NRC Guidelines and Bureau limits for decontamination of facilities and equipment prior to release for uncontrolled use.

6. R447-19-34(3) states, in part, that each person licensed by the Bureau shall confine his use and possession of the material licensed to the locations and purposes authorized in the license. Condition 10. of license number UT 2500183 specifies the authorized place of use as 2000 South 450 West, Orem, Utah in the Gold Key Storage Unit #3.

Contrary to this, on November 17, 1989, Bureau inspectors found radioactive waste and contamination in a laboratory and garage of the home located at 3853 North Sherwood Drive, which was not an authorized location for use of radioactive materials. The home was owned or occupied by the licensee until October 31, 1989. The licensee stated to the Bureau inspectors that he had processed depleted uranium at 3853 North Sherwood Drive, Provo, Utah.

7. R447-19-407 states that each specific licensee shall, no less than 30 days before vacating or relinquishing possession or control of premises which may have been contaminated with radioactive material as a result of licensed activities, notify the Bureau in writing of intent to vacate. When deemed necessary by the Bureau, the licensee shall decontaminate the premises in such a manner as the Bureau may specify.

Contrary to this, the Bureau received no written notification of the licensee's intent to vacate or relinquish possession or control of the premises, located at 3853 North Sherwood Drive, Provo, Utah, contaminated with radioactive material as a result of the licensee's activities.

**ORDER****I.**

It must be noted that many of the violations enumerated in Section IV. of this Order are repeated violations which were previously identified by the Bureau and which lead to the issuance of an Order Suspending License and Order Imposing Civil Monetary Penalties dated November 5, 1986. The repetition of these violations shows careless disregard by the licensee for the Utah Radiation Control Rules.

Whereas the Bureau has determined that radioactive materials in the possession of the licensee were not secure and therefore accessible to members of the general public including the new occupants of 3853 North Sherwood Drive, Provo, Utah, Karl and Carol Gates, and their neighbors; and

That on October 31, 1989, several neighbors without being informed that they were working around radioactive materials, assisted the licensee in moving his belongings from 3853 North Sherwood Drive, Provo, Utah. These neighbors handled unsecured licensable quantities of radioactive materials in excess of Bureau limits for the decontamination of facilities and equipment prior to release for uncontrolled use; and

That contaminated items were removed from the licensee's previous home located at 3853 North Sherwood Drive and taken to the licensee's new home located at 652 South 850 East, Orem, Utah; and

That contaminated items mixed with trash were removed from the garage of the home located at 3853 North Sherwood Drive and deposited upon a site near 368 Draper Lane, Orem, Utah, in a dump truck, owned by Greg Sumner, which was found to be contaminated; and

That contaminated laboratory equipment and items, as well as radioactive materials were found by the Bureau to be stored by the licensee at the Lindon facility.

**II.**

Therefore, pursuant to R447-14-15(3) of the Utah Radiation Control Rules adopted by the Utah Department of Health, under authority of 26-1-27 through 29 of the Utah Code Annotated (1953, as amended), IT IS HEREBY ORDERED THAT JOHN P. LARSEN MITIGATE OR CAUSE THE MITIGATION OF THESE CONDITIONS BY:

1. Removing all radioactive materials and/or contaminated items which are not physically attached to a building or other property at the locations identified below and secure them in locked storage at the Lindon facility, within 7 days after the issuance of this Order;
  - a. The Gates home located at 3853 North Sherwood Drive, Provo, Utah;
  - b. The property owned or controlled by Greg Sumner and located at approximately 368 Draper Lane, Orem, Utah;
  - c. The home owned or occupied by the licensee, and located at 652 South 850 East, Orem, Utah.
  - d. Radioactive materials in the back of the GMC white pickup truck, Utah license number NB 8648, located at the Lindon facility.



Authorization for removal of all radioactive materials and/or contaminated items will be contingent upon notification of the Bureau of the time at which the licensee expects to remove the radioactive material and contaminated items so that a Bureau representative may be present to observe and verify the removal of all items.

2. Submitting a written plan within two weeks (14 days) after the issuance of this Order, for Bureau approval for the remediation of the radioactive contamination and proper disposal of all radioactive materials at the following locations:

- a. The Gates home located at 3853 North Sherwood Drive, Provo, Utah.
- b. The contaminated 1967 Chevrolet dump truck I.D. number HT6836P109079, owned by Greg Sumner.
- c. The contaminated vehicles at the Lindon facility. The white Ford flatbed truck, I.D. number C61EVU48688, and white GMC pickup truck, Utah license number NB 8648.

The said written plan is to include the following:

- a. Procedures for decontamination of all contaminated items or transfer of such items to another specific licensee authorized to possess the licensed material.
    - (1) Levels of radioactive material contamination on surfaces to be released for unrestricted use shall be proposed by the licensee.
    - (2) Include those items mentioned above in Item 1, Section VI. of this Order, and all contaminated items at the Lindon facility.
  - b. Procedures for transfer of all radioactive material to a specific licensee authorized to possess the licensed material.
  - c. Procedures for packaging and/or repackaging of all radioactive waste for shipment to a specific licensee authorized to possess the licensed material. Include considerations for compliance with U.S. Department of Transportation regulations.
  - d. Indicate a specific date that all decontamination of vehicles, facilities and equipment, disposal and/or transfer of contaminated items or radioactive materials will be completed.
3. Upon Bureau approval of the licensee's written plan for remediation, the licensee will carry out the written plan for remediation in the presence and under the supervision of a Bureau representative.

You are advised that failure to comply with this ORDER or violation of Health Department laws or rules may subject you, pursuant to Utah Code Annotated (1963, as amended) Section 26-23-6, to civil penalties of \$5,000 for each day of violation or, in a criminal proceeding, a class B



misdeemeanor. As provided in Utah Code Annotated (1953, as amended) Section 63-46b-12 this Notice of Violation and Order become final unless you request a hearing within 30 days of receipt of this Notice of Violation and Order. A request for a hearing should be addressed to:

Larry F. Anderson, Director  
Bureau of Radiation Control  
Post Office Box 16640  
Salt Lake City, Utah 84116-0690

A REQUEST FOR A HEARING SHALL NOT STAY THE REQUIREMENTS OF THIS ORDER TO COMPLY WITH THE PROVISIONS OF UTAH LAW, REGULATIONS OR RULES.

Dated this 22<sup>nd</sup> day of December, 1989.

UTAH DEPARTMENT OF HEALTH

*J. M. Dandoy, M.D., M.P.H.* ACT. for

Suzanne Dandoy, M.D., M.P.H.  
Executive Director