



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV

Walnut Creek Field Office  
1450 Maria Lane, Suite 300  
Walnut Creek, California 94596-5368

December 5, 1997

Edgar D. Bailey CHP  
Chief  
Radiologic Health Branch  
Department of Health Services  
Post Office Box 942732, MS178  
Sacramento, California 94234-7320

SUBJECT: STATE AGREEMENTS PROGRAM INFORMATION (SP-97-080) -  
NRC'S FORMERLY TERMINATED LICENSE REVIEW PROGRAM

Dear Mr. Bailey:

Pursuant to your November 25, 1997, request to Mr. Jack Hornor for information on previously terminated licenses that will be transferred to the State of California for further follow-up, we are sending you Enclosures 1 and 2.

Enclosure 1 is a summary of previously terminated licenses to be transferred to you in accordance with the November 14, 1997, letter to you from the NRC's Office of State Programs, SP-97-080, "Formerly Licensed Sites and Jurisdiction for Remaining Residual Materials." Enclosure 1 lists license files that have been closed by the NRC and those (60) that require further review prior to closure.

Enclosure 2 is a detailed summary of five sites located in the State of California where residual radioactive contamination was found to exceed the guidelines contained in Policy and Guidance Directive FC 83-23, titled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated August 1987. It should be noted that only the San Ramon, California Aerojet site has been decontaminated.

The NRC has been conducting terminated license follow-up reviews and inspections using NRC Temporary Instruction 2800/026. A detailed listing of information gathered on all files under review by this office is maintained in a database using Microsoft's Access Version 2.0. We will be happy to share the database with you.

Edgar D. Bailey

-2-

December 5, 1997

Please contact Mr. H. Dean Chaney (510/975-0229) of this office to arrange for the orderly transfer of the necessary files to your office for your follow-up actions.

Sincerely,

A handwritten signature in cursive script that reads "Frank A. Wenslawski". The signature is written in black ink and is positioned above the typed name and title.

Frank A. Wenslawski  
Chief, Materials Branch

Enclosures:

1. Listing of ORNL Terminated Licenses Located in California
2. Listing of Contaminated Sites located in California

Edgar D. Bailey

-3-

December 5, 1997

bcc w/enclosures:

- RScarano, RIV, DNMS
- DSollenberger, OSP (OWFN 3H20)
- RBangart, OSP (OWFN 3H20)
- JHonor, WCFO
- JBuckley, NMSS/DWM/LLWD (TWFN 7F27)
- JHickey, NMSS/DWM/LLWD (TWFN 7F27)

bcc w/o enclosures:

- CLCain
- LLHowell
- HDChaney

DOCUMENT NAME: G:\HDC\BAILEY.LTR

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

|          |           |              |            |  |  |  |  |  |  |
|----------|-----------|--------------|------------|--|--|--|--|--|--|
| DNMS:MB  | <i>ED</i> | C:DNMS:MB    | <i>E</i>   |  |  |  |  |  |  |
| HDChaney |           | FAWenslawski | <i>Jaw</i> |  |  |  |  |  |  |
| 12/5/97  |           | 12/5/97      |            |  |  |  |  |  |  |

OFFICIAL RECORD COPY

# FORMERLY TERMINATED SITE FILES BEING TRANSFERRED TO CALIFORNIA

**Total Number of ORNL Files Associated with California: 133**

Total Number of California Files Remaining Open = 60      Of which 39 are sealed source licenses

Number of sites found contaminated (\*): 5

(Listing by Status/Score/Alphabet)

| STATUS | SCORE | SEALED SOURCE | OPERATION:   | File Available |
|--------|-------|---------------|--------------|----------------|
| Open   | 7568  | No            | Source Manuf | Yes            |

**Isotopes Specialities Co.\***

**CITY:** Burbank

**LICENSE:** 04-00580-07

**DOCKET:** none

**CLOSURE COMMENTS:** ORNL review closed in 5/24/07 NRC memo. Site is contaminated & awaiting characterization. See Enclosure 2 for details.

**ORNL COMMENTS:** ORNL's concerns were that there was not suitable information available on the degree of cleanup accomplished, survey reports, etc., to be assured that the subject site met current decommissioning criteria, or that a final AEC/NRC inspection had been performed at the sites prior to license termination. They were also concerned that there may have been onsite burial/disposal of radioactive material or abandonment of manufacturing equipment/material in place.

|      |      |    |                    |     |
|------|------|----|--------------------|-----|
| Open | 1493 | No | Rad Waste Disposal | Yes |
|------|------|----|--------------------|-----|

**Isotopes Specialities Co.\***

**CITY:** Burbank

**LICENSE:** 04-00580-03

**DOCKET:** none

**CLOSURE COMMENTS:** ORNL review closed in 5/24/07 NRC memo. Site is contaminated & awaiting characterization. See Enclosure 2 for details.

**ORNL COMMENTS:** ORNL's concerns were that there was not suitable information available on the degree of cleanup accomplished, survey reports, etc., to be assured that the subject sites met current decommissioning criteria, or that a final AEC/NRC inspection had been performed at the site prior to license termination. They were also concerned that there may have been onsite burial/disposal of radioactive material or abandonment of manufacturing equipment/material in place.

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>        | <b>File Available</b> |
|--|--------------|----------------------|--------------------------|-----------------------|
| Open   | 518          | No                   | U-Thor Ore Process       | Yes                   |
| <b>Radio Chem Corp &amp; METCO Corp.*</b>  |              |                      | <b>CITY:</b> Los Angeles |                       |
| LICENSE: R-00204   |              | DOCKET: 40-01128     |                          |                       |
| CLOSURE COMMENTS: ORNL review closed in 5/24/96 NRC memo. Site is awaiting characterization. See Enclosure 2 for details.                            |              |                      |                          |                       |
| ORNL COMMENTS: ORNL was concerned that there may have been onsite disposal of mill tailings or onsite abandonment of contaminated milling equipment. |              |                      |                          |                       |

---

|  |     |                  |                          |     |
|--|-----|------------------|--------------------------|-----|
| Open   | 313 | No               | U Ore processing         | Yes |
| <b>Verdi Development Co.*</b>  |     |                  | <b>CITY:</b> Los Angeles |     |
| LICENSE: R-00183   |     | DOCKET: 40-01962 |                          |     |
| CLOSURE COMMENTS: ORNL review closed in 5/24/96 NRC memo. Site is awaiting characterization. See Enclosure 2 for details.                            |     |                  |                          |     |
| ORNL COMMENTS: ORNL was concerned that there may have been onsite disposal of mill tailings or onsite abandonment of contaminated milling equipment. |     |                  |                          |     |

---

|   |     |                  |                         |     |
|---|-----|------------------|-------------------------|-----|
| Open  | 266 | Yes              | HE Reactor Fuel Storage | Yes |
| <b>General Atomics/General Dynamics</b>   |     |                  | <b>CITY:</b> San Diego  |     |
| LICENSE: SNM-00911  |     | DOCKET: 70-00962 |                         |     |
| CLOSURE COMMENTS:   |     |                  |                         |     |
| ORNL COMMENTS: License was for the storage of highly enriched KUKLA reactor fuel (70k gms). License expired 6/67. |     |                  |                         |     |

---

|  |     |                  |                          |     |
|--|-----|------------------|--------------------------|-----|
| Open   | 200 | No               | Resch Rx/liq fuel        | Yes |
| <b>U of C - Los Angeles</b>  |     |                  | <b>CITY:</b> Los Angeles |     |
| LICENSE: SNM-00693   |     | DOCKET: 70-00747 |                          |     |
| CLOSURE COMMENTS:  |     |                  |                          |     |
| ORNL COMMENTS: Lic was for the operation of a liquid fueled subcritical facility (92 elements). Uranyl Sulfate (4.3kg) in leaded poly containers were sent to Nuclear Engineering Co. Pleasanton, CA. No closeout survey or final NRC insp conducted. Lic was terminated 4/68. |     |                  |                          |     |

---

| <b>STATUS</b>   | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>         | <b>File Available</b> |
|---|--------------|----------------------|---------------------------|-----------------------|
| <b>Open</b>   | 150          | No                   | Rad Waste Process/Storage | Yes                   |
| <b>Nuclear Engineering Co.,Inc.</b>   |              |                      | <b>CITY:</b> Walnut Creek |                       |
| LICENSE: SNM-00143  |              | DOCKET: 70-00118     |                           |                       |
| <b>CLOSURE COMMENTS:</b>  |              |                      |                           |                       |
| <b>ORNL COMMENTS:</b> Lic was for the receipt of, storage of, and transportation of radioactive waste. Bldg's used may be contaminated. No closeout survey or final NRC insp conducted. New Jersey site to be researched with this item. Possible sea burial. Lic expired 9/59  |              |                      |                           |                       |
| <b>Open</b>   | 139          | No                   | Mag-Thor storage/mach     | Yes                   |
| <b>Lockheed Aircraft Corp.</b>  |              |                      | <b>CITY:</b> Palo Alto    |                       |
| LICENSE: C-03754  |              | DOCKET: 40-01141     |                           |                       |
| <b>CLOSURE COMMENTS:</b>  |              |                      |                           |                       |
| <b>ORNL COMMENTS:</b> Lic was for Mag-Th alloy (4%, 6000 lbs) at several sites. No closeout surveys or final NRC inspections conducted. Sunnyvale, CA was listed as where scraps were returned to. Other sites were a storage area in a Butler Building at 1066 Linda Vista, Mountain View, CA. Licensee requested that this and another lic (C-04378) be combined into one. Lic expired 10/61. |              |                      |                           |                       |
| <b>Open</b>   | 117          | No                   | DU ceramic glazing        | Yes                   |
| <b>Texture Lamps Corp.</b>  |              |                      | <b>CITY:</b> Compton      |                       |
| LICENSE: C-04545  |              | DOCKET: 40-03647     |                           |                       |
| <b>CLOSURE COMMENTS:</b>  |              |                      |                           |                       |
| <b>ORNL COMMENTS:</b> Lic was for ceramic glazing (DU 1.2k lbs). 2.5 lbs of scrap was dumped into a sump pit at rear of building at 13945 South McKinley, LA. Approx 40 lbs of source material was transferred to US Nuclear Corp for disposal. Company moved from South Central to McKinley one month after license issue. No closeout survey or final NRC insp conducted. Lic expired 1/60.   |              |                      |                           |                       |

| STATUS | SCORE | SEALED SOURCE | OPERATION:      | File Available |
|--------|-------|---------------|-----------------|----------------|
| Open   | 102   | No            | DU Shield Manuf | Yes            |

**US Nuclear Corp.**

**CITY:** Burbank

**LICENSE:** SUB-00310

**DOCKET:** 40-04573

**CLOSURE COMMENTS:** Closed in 10/22/93 memo. Reopened 7/29/97 for review of alternate use sites in Burbank, CA.

**ORNL COMMENTS:** License was for manufacture of DU source shields. Site was verified to be contaminated. Other facilities at: Armstrong Metal Co.; 7261 Lankershim Blvd, N. Hollywood, 91605; and Keim Precision Mirror at 1346 East Colorado, Glendale, CA 91205. License is not available, but SUB-00310 and SNM-01002 are. Site under went significant characterization and remediation under state and NRC oversight. Both state and all NRC license terminated in 1976 following remediation and final survey.

|      |     |    |                        |     |
|------|-----|----|------------------------|-----|
| Open | 100 | No | Fuel Cladding Research | Yes |
|------|-----|----|------------------------|-----|

**General Dynamics/General Atomics**

**CITY:** San Diego

**LICENSE:** 04-01611-05

**DOCKET:** none

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** License was for the radiochemical study of fuel cladding erosion. Many isotope used by chemistry laboratory, but work consisted mostly of evaluating irradiated foils. No closeout survey or final NRC inspections were conducted. Lic expired 8/59.

|      |    |    |                 |     |
|------|----|----|-----------------|-----|
| Open | 94 | No | Mag-Thor Manuf* | Yes |
|------|----|----|-----------------|-----|

**Straza Industries/National Plating**

**CITY:** El Cajon

**LICENSE:** STB-00496

**DOCKET:** 40-01953

**CLOSURE COMMENTS:** Close out in 1/98 memo

**ORNL COMMENTS:** Lic was for chemical milling of Mag-Th products. ORNL expected contamination and disposal to sump. No closeout survey of final NRC insp conducted. Lic expired 11/61.

|      |    |    |                |     |
|------|----|----|----------------|-----|
| Open | 71 | No | Mag-Thor Manuf | Yes |
|------|----|----|----------------|-----|

**Stainless Polishing Corp.**

**CITY:** Oakland

**LICENSE:** C-03998

**DOCKET:** 40-02332

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for Mag-Th missile skin grinding (4%, 100 lbs); up to 50k alloy. Originally a small quantity of alloy was used. Contamination was found on surfaces of the facility in 8/58. No material disposition given. No closeout survey or final NRC insp conducted. Lic expired 3/59

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>      | <b>File Available</b> |
|--|--------------|----------------------|------------------------|-----------------------|
| <b>Open</b>  | 62           | No                   | Mag-Thor Manuf         | Yes                   |
| <b>Marcel Instruments Inc.</b>   |              |                      | <b>CITY: Monrovia</b>  |                       |
| LICENSE: C-05350   |              | DOCKET: 40-05767     |                        |                       |
| CLOSURE COMMENTS:  |              |                      |                        |                       |
| ORNL COMMENTS: Lic was for machining Mag-Th alloys (4%, 2k lbs). 50k lbs on site. No closeout survey or final NRC insp conducted. Lic expired 11/61.   |              |                      |                        |                       |
| <b>Open</b>  | 57           | No                   | Agri chemical research | Yes                   |
| <b>Shell Oil Co./Shell Development Co.</b>   |              |                      | <b>CITY: Salida</b>    |                       |
| LICENSE: 04-01516-02   |              | DOCKET: 30-90003     |                        |                       |
| CLOSURE COMMENTS:  |              |                      |                        |                       |
| ORNL COMMENTS: License was for small plot testing of agricultural chemicals (C-14 and H-3 plus many other short 1/2-lived isotopes). Waste was either pickup by Nuc Eng of Pleasanton, CA or disposed of in sewer. Lic indicated that it was going to be transferred to a CA Agreement State license (no number given) per licensee letter of 4/64. No closeout survey or final NRC insp conducted. Lic expired 11/63.                       |              |                      |                        |                       |
| <b>Open</b>  | 55           | No                   | Mag-Thor scrap yard    | Yes                   |
| <b>CAL-State Metals</b>  |              |                      | <b>CITY: Gardena</b>   |                       |
| LICENSE: STC-00098   |              | DOCKET: 40-06322     |                        |                       |
| CLOSURE COMMENTS: Closed in 5/24/96 memo. Houston site review needs to be done.  |              |                      |                        |                       |
| ORNL COMMENTS: Thorium-mag alloy 10,000 lbs (Th 4%). Resale and resmelting of Th-Mag alloy. Storage yard with Th @ 2% found. No closeout or final NRC insp conducted. Lic expired 2/62. Two sites in Calif. and one in Texas.  |              |                      |                        |                       |
| <b>Open</b>  | 51           | No                   | DU/U Proj testing      | Yes                   |
| <b>Rheem Manufacturing Co.</b>   |              |                      | <b>CITY: Downey</b>    |                       |
| LICENSE: C-03931   |              | DOCKET: 40-01804     |                        |                       |
| CLOSURE COMMENTS:  |              |                      |                        |                       |
| ORNL COMMENTS: Lic was for the development and testing of DU projectiles for the military. Test conducted at a remote site at the Marine Corp base at Camp Pendleton, CA. Possible outdoor contamination and disposal. Test area was surveyed and decontaminated to the best of the licensee's ability. Waste were most likely stored at the Downey, CA site. Work was accomplished under Gov Contract no. AF 08(616)-73. Lic expired 12/58. |              |                      |                        |                       |

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>          | <b>File Available</b> |
|--|--------------|----------------------|----------------------------|-----------------------|
| Open   | 46           | No                   | Mag-Thor Manuf             | Yes                   |
| <b>Monogram Precision Indust Inc</b>   |              |                      | <b>CITY:</b> North Hollywo |                       |
| LICENSE: C-04694   |              | DOCKET: 40-04205     |                            |                       |
| <b>CLOSURE COMMENTS:</b>   |              |                      |                            |                       |
| ORNL COMMENTS: Lic was for Mag-Th alloy manuf (4%) 30k lbs alloy/2.4k lbs thorium. No closeout survey or final NRC insp conducted. Lic expired 4/60. |              |                      |                            |                       |

---

|  |    |                  |                        |     |
|--|----|------------------|------------------------|-----|
| Open   | 42 | No               | DU airplane Parts      | Yes |
| <b>General Dynamics/Convair</b>  |    |                  | <b>CITY:</b> San Diego |     |
| LICENSE: SUB-00367   |    | DOCKET: 40-05236 |                        |     |
| <b>CLOSURE COMMENTS:</b>   |    |                  |                        |     |
| ORNL COMMENTS: Depleted uranium counterweights (30,000 lbs). Installation of parts onto aircraft only. No closeout survey or final NRC inspection conducted. License expired 7/64. |    |                  |                        |     |

---

|  |    |                  |                           |     |
|--|----|------------------|---------------------------|-----|
| Open   | 41 | No               | ranium (enriched) Researc | Yes |
| <b>Hughes Aircraft Compnay.</b>  |    |                  | <b>CITY:</b> Culver City  |     |
| LICENSE: SNM-00595   |    | DOCKET: 70-00780 |                           |     |
| <b>CLOSURE COMMENTS:</b>   |    |                  |                           |     |
| ORNL COMMENTS: The license was for enriched uranium and plutonium byproduct materials used in reseach at Sandia Labs, New Mexico in 1962; 7 kg if U-238; 7 kg of enriched U; to be used in irradiation experiments at Sandia Labs. ORNL was concerned about disposition of some of the SNM material. See file. |    |                  |                           |     |

---

|  |    |                  |                       |     |
|--|----|------------------|-----------------------|-----|
| Open   | 40 | No               | Thor optics manuf     | Yes |
| <b>Hayward Scientific Glass Corp.</b>  |    |                  | <b>CITY:</b> Whittier |     |
| LICENSE: C-03895   |    | DOCKET: 40-01890 |                       |     |
| <b>CLOSURE COMMENTS:</b>   |    |                  |                       |     |
| ORNL COMMENTS: Lic was for Th oxide for manufacture of thoriated glass (4000 lbs). No closeout survey or final NRC insp conducted. Lic expired 2/59. |    |                  |                       |     |

---

| <b>STATUS</b> | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b> | <b>File Available</b> |
|---------------|--------------|----------------------|-------------------|-----------------------|
|---------------|--------------|----------------------|-------------------|-----------------------|

|             |    |    |                |     |
|-------------|----|----|----------------|-----|
| <b>Open</b> | 37 | No | Mag-Thor Manuf | Yes |
|-------------|----|----|----------------|-----|

**Ladish Company**

**CITY:** Los Angeles

**LICENSE:** STB-00270

**DOCKET:** 40-01626

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for Mag-Th (4%, 20k lbs, unlimited amount) for fabrication (forging, grinding, sawing, etc) aircraft/missle components. No closeout or final NRC insepection was conducted. Lic expired 6/64.

---

|             |    |     |               |    |
|-------------|----|-----|---------------|----|
| <b>Open</b> | 37 | Yes | Sealed source | No |
|-------------|----|-----|---------------|----|

**McCullough Tool Compnay**

**CITY:** Los Angeles

**LICENSE:** 04-00672-06

**DOCKET:** none

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Po-210, Cs-137, Co-60, Sr-90, Am-241

---

|             |    |     |                  |     |
|-------------|----|-----|------------------|-----|
| <b>Open</b> | 31 | Yes | New Reactor Fuel | Yes |
|-------------|----|-----|------------------|-----|

**Lockheed Aircraft Corp.**

**CITY:** Redlands

**LICENSE:** SNM-01089

**DOCKET:** 70-01136

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for 5k gms of U-235 in zircaloy fuel elements for non-destructive testing. Lic expired 9/72.

---

|             |    |    |                              |     |
|-------------|----|----|------------------------------|-----|
| <b>Open</b> | 28 | No | Chemical synthesis of matl's | Yes |
|-------------|----|----|------------------------------|-----|

**Bio-Rad laboratories**

**CITY:** Berkeley

**LICENSE:** 04-02112-01

**DOCKET:** none

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for the use of H-3(700 Ci) and C-14 (mCi) in the synthesis of styrene. Material was disposed of onsite if less than 1 mCi. No closeout survey or final NRC insp conducted. Lic expired 2/59.

---

| STATUS   | SCORE | SEALED SOURCE    | OPERATION:               | File Available |
|--|-------|------------------|--------------------------|----------------|
| Open   | 20    | No               | Source Manuf/Neutron     | Yes            |
| <b>Solid State Radiations Inc.</b>   |       |                  | <b>CITY:</b> Los Angeles |                |
| LICENSE: SNM-00386   |       | DOCKET: 70-00426 |                          |                |
| CLOSURE COMMENTS:  |       |                  |                          |                |
| ORNL COMMENTS: Lic was for development and testing of neutron detectors using U-235 coatings. No material disposition given. No closeout survey or final NRC insp conducted. Lic expired 8/65. |       |                  |                          |                |

---

|   |    |                  |                      |     |
|---|----|------------------|----------------------|-----|
| Open  | 19 | No               | Mag-Thor Manuf       | Yes |
| <b>Magesium Alloy Products Co.</b>  |    |                  | <b>CITY:</b> Compton |     |
| LICENSE: STB-00124  |    | DOCKET: 40-00047 |                      |     |
| CLOSURE COMMENTS:   |    |                  |                      |     |
| ORNL COMMENTS: Lic was for Mag-Th alloy cast and machining (4-40%, 1200 lbs). Source material was buried on site 300 yds from foundry (see insp rpt 12/58). State of CA surveyed site 3/59, but no records available on scope and results of survey. High possibility of site contamination. No closeout survey or final NRC insp conducted. Lic expired 2/64 |    |                  |                      |     |

---

|  |    |                  |                          |     |
|--|----|------------------|--------------------------|-----|
| Open   | 18 | No               | Mag-Thor Manuf           | Yes |
| <b>Pride Machine Products Co.</b>  |    |                  | <b>CITY:</b> Culver City |     |
| LICENSE: C-04101   |    | DOCKET: 40-02722 |                          |     |
| CLOSURE COMMENTS:  |    |                  |                          |     |
| ORNL COMMENTS: Lic was for machining and welding of Mag-Th alloys (4%, 2k lbs); 50k lbs alloy. No closeout survey or final NRC insp conducted. Lic expired 5/59. |    |                  |                          |     |

---

|   |    |                  |                         |     |
|---|----|------------------|-------------------------|-----|
| Open  | 16 | No               | Mag-Thor Manuf          | Yes |
| <b>Reimer/Reisner Metals/Forge Inc.</b>   |    |                  | <b>CITY:</b> South Gate |     |
| LICENSE: STB-00015  |    | DOCKET: 40-05910 |                         |     |
| CLOSURE COMMENTS:   |    |                  |                         |     |
| ORNL COMMENTS: Lic was for the forging and machining of Mag-Th alloys (3-4%, 2.5k lbs); 60k lbs alloy. Surveys by US Nuclear Corp were conducted in 1962, and facility found clean. No certification of material disposition or final NRC inspection conducted. Lic expired 8/65. |    |                  |                         |     |

| <b>STATUS</b> | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b> | <b>File Available</b> |
|---------------|--------------|----------------------|-------------------|-----------------------|
| Open          | 14           | No                   | DU/U/Th Casting   | Yes                   |

**Temescal Metallurgical Corp**

**CITY:** Berkeley

**LICENSE:** STB-00411

**DOCKET:** 40-04071

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for the casting of uranium plates. Waste was handled by Nuclear Engineering Company of Pleasanton, CA (see related file). Most work accomplished in vacuum chamber. No material disposition given. No closeout survey or final NRC insp conducted. Lic expired 8/64.

|      |    |    |                          |     |
|------|----|----|--------------------------|-----|
| Open | 13 | No | DU parts Storage/Install | Yes |
|------|----|----|--------------------------|-----|

**Douglas Aircraft Co Inc.**

**CITY:** Santa Monica

**LICENSE:** SUB-00590

**DOCKET:** 40-06784

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Depleted uranium parts (counter weights) storage (4000 lbs). Received from National Lead Company. Also held lic 04-00424-06, for research work which was issued in 3/62. No closeout survey or final NRC inspection conducted. Lic expired 4/65

|      |    |    |                |     |
|------|----|----|----------------|-----|
| Open | 13 | No | Mag-Thor Manuf | Yes |
|------|----|----|----------------|-----|

**R.H. Osbrink Manufacturing Co.**

**CITY:** Los Angeles

**LICENSE:** C-05062

**DOCKET:** 40-02325

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for the manuf of Mag-Th aircraft parts (3%). Dumping material in public dump was authorized (not to exceed 25 lbs per year). Material was transferred 4/61. No closeout survey or final NRC insp conducted. Lic expired 3/61

|      |    |    |                       |     |
|------|----|----|-----------------------|-----|
| Open | 13 | No | Mag-Thor Chem milling | Yes |
|------|----|----|-----------------------|-----|

**Turco Products Inc**

**CITY:** Los Angeles

**LICENSE:** C-04244

**DOCKET:** 40-01236

**CLOSURE COMMENTS:** Close in next update 1/98

**ORNL COMMENTS:** Lic was for the chemical milling of Mag-Th and natural uranium aircraft parts and was a small research/developmental operation. No closeout survey or final NRC insp conducted. Licenses expired 1/62. During early 1960 while operating under license C-04244 the licensee moved operations in the Los Angeles area.

| STATUS  | SCORE | SEALED SOURCE    | OPERATION:               | File Available |
|---|-------|------------------|--------------------------|----------------|
| Open  | 12    | No               | Mag-Thor Manuf           | Yes            |
| <b>American Brake Shoe Co.</b>  |       |                  | <b>CITY: Pico Rivera</b> |                |
| LICENSE: C-04066  |       | DOCKET: 40-02599 |                          |                |
| CLOSURE COMMENTS: Closed in RV memo to NRC HQ (Encl 2), dated 10/22/93. However, closure has been temporarily suspended. Site should be turned over to State.   |       |                  |                          |                |
| ORNL COMMENTS: Lic was for the manuf of Mag-thor parts (4-40%, 900 lbs). State perform closeout survey approx. 16 years following lic termination. No final NRC insp conducted. NRC inspection was conducted approx 4 mos prior to lic expiration. Lic term 8/59. |       |                  |                          |                |

|   |    |                  |                        |     |
|---|----|------------------|------------------------|-----|
| Open  | 10 | No               | Mag-Thor Manuf         | Yes |
| <b>California Avi Tron Corp.</b>  |    |                  | <b>CITY: Inglewood</b> |     |
| LICENSE: C-04810  |    | DOCKET: 40-02593 |                        |     |
| CLOSURE COMMENTS:   |    |                  |                        |     |
| ORNL COMMENTS: Mag-Th alloy loose 2,000 lbs (Th 4%). Machining parts for Lockheed Missile. No closeout or final NRC inspection. License expired 7/61. |    |                  |                        |     |

|   |    |                  |                            |     |
|---|----|------------------|----------------------------|-----|
| Open  | 10 | No               | U-Thor Ore Processing Rsch | Yes |
| <b>Dow Chemical Co. Western Div</b>   |    |                  | <b>CITY: Pittsburg</b>     |     |
| LICENSE: SMB-00430  |    | DOCKET: 40-04318 |                            |     |
| CLOSURE COMMENTS:   |    |                  |                            |     |
| ORNL COMMENTS: Uranium and thorium ore (150#) processing research. Digesting and grinding. Liquid waste generation. Onsite disposal suspected. No closeout survey or final NRC insp conducted. Two site in Pittsburg/Walnut Creek area. License expired 9/64. |    |                  |                            |     |

|   |    |              |                        |    |
|---|----|--------------|------------------------|----|
| Open  | 10 | Yes          | Sealed source          | No |
| <b>Lockheed Aircraft Corp.</b>  |    |              | <b>CITY: Sunnyvale</b> |    |
| LICENSE: 04-01964-01  |    | DOCKET: none |                        |    |
| CLOSURE COMMENTS:   |    |              |                        |    |
| ORNL COMMENTS: Tritium and Americum-241 and other misc byproduct sources. |    |              |                        |    |

| <b>STATUS</b>   | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>      | <b>File Available</b> |
|---|--------------|----------------------|------------------------|-----------------------|
| <b>Open</b>   | 9            | No                   | Mag-Thor Manuf         | Yes                   |
| <b>Bruce Engineering Co.</b>  |              |                      | <b>CITY:</b> Gardena   |                       |
| LICENSE: STB-00487  |              | DOCKET: 40-06775     |                        |                       |
| CLOSURE COMMENTS:   |              |                      |                        |                       |
| ORNL COMMENTS: Mag-Th alloy 400 lbs (Th 4%). Machining of parts. No closeout survey or final NRC inspection conducted. Lic expired 4/65.  |              |                      |                        |                       |
| <b>Open</b>   | 9            | No                   | Mag-Thor Manuf         | Yes                   |
| <b>Convair (Astronautics)</b>   |              |                      | <b>CITY:</b> San Diego |                       |
| LICENSE: C-04421  |              | DOCKET: 40-03560     |                        |                       |
| CLOSURE COMMENTS:   |              |                      |                        |                       |
| ORNL COMMENTS: Mag-Th alloy 2000 lbs (Th 4%). Machining missile parts. No closeout inspection or final NRC inspection. License expired 11/59.   |              |                      |                        |                       |
| <b>Open</b>   | 9            | No                   | Radiochemical Research | Yes                   |
| <b>Los Angeles City</b>   |              |                      | <b>CITY:</b> Hollywood |                       |
| LICENSE: 04-00321-04  |              | DOCKET: none         |                        |                       |
| CLOSURE COMMENTS:   |              |                      |                        |                       |
| ORNL COMMENTS: Lic was for the use of Sr-90, I-131, mixed fission products in experiments to determine the removal of radioisotopes from water supplies. Discharge via sewer allowed. Higher level wastes were picked up by Isotopes Specialties. No closeout survey or final NRC insp conducted. Lic expired 5/60. |              |                      |                        |                       |
| <b>Open</b>   | 9            | No                   | Mag-Thor Manuf         | Yes                   |
| <b>Meridian Metalcraft Inc</b>  |              |                      | <b>CITY:</b> Whittier  |                       |
| LICENSE: C-04531  |              | DOCKET: 40-03790     |                        |                       |
| CLOSURE COMMENTS:   |              |                      |                        |                       |
| ORNL COMMENTS: Lic was for Mag-Th alloy parts manufacturing (4%, 800 lbs) 20k lbs alloy. No Closeout survey or final NRC insp conducted. Lic expired 1/60.  |              |                      |                        |                       |

| STATUS | SCORE | SEALED SOURCE | OPERATION:           | File Available |
|--------|-------|---------------|----------------------|----------------|
| Open   | 9     | No            | U-Thor Chem Analysis | Yes            |

**Truesdail Laboratories Inc.**

**CITY:** Los Angeles

**LICENSE:** SNM-00235

**DOCKET:** 70-00227

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for the laboratory analysis of uranium alloy samples. Very little contamination expected. Material returned to Atomics Internation. No closeout survey or final NRC insp conducted. Lic expired 9/64.

|      |   |     |               |    |
|------|---|-----|---------------|----|
| Open | 8 | Yes | Sealed source | No |
|------|---|-----|---------------|----|

**J W Birsner**

**CITY:** Bakersfield

**LICENSE:** 04-00354-01

**DOCKET:** none

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Cobalt-60 sealed source.

|      |   |    |                       |     |
|------|---|----|-----------------------|-----|
| Open | 8 | No | Mag-Thor Chem Milling | Yes |
|------|---|----|-----------------------|-----|

**National Plating and Processing Co.**

**CITY:** National City

**LICENSE:** C-03911

**DOCKET:** 40-01953

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Lic was for Mag-Th alloy machining (4%, 200 lbs) 5k lbs alloy. Most material was transferred to Marquardt Aircraft (C-03650). The company was acquired by CALIFORNIA AIRCRAFT PRODUCTS (part of STRAZA Industries, which held lic: C-5258; Doc: 40-1953 and Lic STB 00496; Doc: 40-1953; 790 Greenfield Dr; El Cajon, CA) in 12/57. No transfer of license for National Plating was made.. No closeout survey or final NRC insp conducted. Lic expired 12/58.

|      |   |     |                  |     |
|------|---|-----|------------------|-----|
| Open | 8 | Yes | Sealed source LN | Yes |
|------|---|-----|------------------|-----|

**Reactor Experiments, Inc.**

**CITY:** Belmont

**LICENSE:** SNM-00606

**DOCKET:** 70-00664

**CLOSURE COMMENTS:**

**ORNL COMMENTS:** Sources: Detector foils Pu-239 (20 gms)[Visiflux Neutron Howitzer] and U-235 foils (20 gms). No disposition of materials.

| <b>STATUS</b>   | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>        | <b>File Available</b> |
|---|--------------|----------------------|--------------------------|-----------------------|
| <b>Open</b>   | 7            | No                   | Mag-Thor Manuf           | Yes                   |
| <b>Kaiser Aircraft&amp;Elect. Div.</b>  |              |                      | <b>CITY: San Leandro</b> |                       |
| LICENSE: C-03908  |              | DOCKET: 40-01942     |                          |                       |
| CLOSURE COMMENTS:   |              |                      |                          |                       |
| ORNL COMMENTS: Lic was for Mag-Th (4%, 400 lbs) for manufacture of aircraft parts. Several other locations were covered on the license. Renewal request received 3/60. Lic expired 12/59.           |              |                      |                          |                       |
| <b>Open</b>   | 7            | No                   | U-Glazed Dinnerware      | Yes                   |
| <b>Pomona Tile Manufacturing Co.</b>  |              |                      | <b>CITY: Pomona</b>      |                       |
| LICENSE: C-04485  |              | DOCKET: 40-03610     |                          |                       |
| CLOSURE COMMENTS:   |              |                      |                          |                       |
| ORNL COMMENTS: Lic was for use of U-oxide for glazes in ceramic wall and floor tile manufacturing. Handling of loose and liquid materials expected. No closeout survey or final NRC insp conducted. |              |                      |                          |                       |
| <b>Open</b>   | 7            | No                   | Mag-Thor Manuf           | Yes                   |
| <b>Precision Metal Routing&amp;Forming</b>  |              |                      | <b>CITY: Compton</b>     |                       |
| LICENSE: C-04387  |              | DOCKET: 40-03489     |                          |                       |
| CLOSURE COMMENTS:   |              |                      |                          |                       |
| ORNL COMMENTS: Lic was for Mag-Th alloy manuf (4%, 1k lbs); 26k alloy. Rolling, pressing and sawing. No closeout survey or final NRC insp conducted. Lic expired 10/59.                             |              |                      |                          |                       |
| <b>Open</b>   | 6            | No                   | Mag-Thor Manuf           | Yes                   |
| <b>Central Tool &amp; Engineering Co.</b>   |              |                      | <b>CITY: Los Angeles</b> |                       |
| LICENSE: STB-00504  |              | DOCKET: 40-03802     |                          |                       |
| CLOSURE COMMENTS:   |              |                      |                          |                       |
| ORNL COMMENTS: Mag-Th alloy 400 lbs (Th 4%). Machining aircraft parts. No closeout or final NRC insp conducted. Lic expired 12/64   |              |                      |                          |                       |

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>       | <b>File Available</b> |
|--|--------------|----------------------|-------------------------|-----------------------|
| Open   | 6            | No                   | Mag-Thor Manuf          | Yes                   |
| <b>Standard Aircraft Co.</b>   |              |                      | <b>CITY: Long Beach</b> |                       |
| LICENSE: C-03994   |              | DOCKET: 40-02310     |                         |                       |
| <b>CLOSURE COMMENTS:</b>   |              |                      |                         |                       |
| ORNL COMMENTS: Lic was for Mag-Th aircraft skin manuf (?). Navy contract "Secret 415-4481." No material disposition given. No closeout survey or final NRC insp conducted. Lic expired 2/59. |              |                      |                         |                       |

---

|  |   |                  |                          |     |
|--|---|------------------|--------------------------|-----|
| Open   | 5 | No               | Mag-Thor Coating         | Yes |
| <b>Hughes Tool Company.</b>  |   |                  | <b>CITY: Culver City</b> |     |
| LICENSE: STB-00222   |   | DOCKET: 40-06144 |                          |     |
| <b>CLOSURE COMMENTS:</b>   |   |                  |                          |     |
| ORNL COMMENTS: Lic was for thorium oxide (100 lbs) use in experiments to develop rocket nozzle coatings. No closeout or final NRC inseption. Lic expired 4/64. |   |                  |                          |     |

---

|   |   |              |                   |    |
|---|---|--------------|-------------------|----|
| Open  | 5 | Yes          | Sealed source     | No |
| <b>Kaiser Steel Corporation</b>   |   |              | <b>CITY: Napa</b> |    |
| LICENSE: 04-02221-01  |   | DOCKET: none |                   |    |
| <b>CLOSURE COMMENTS:</b>  |   |              |                   |    |
| ORNL COMMENTS: Cesium-137, Cobalt-60 and Iridium-192. No expiration info. |   |              |                   |    |

---

|  |   |                  |                          |     |
|--|---|------------------|--------------------------|-----|
| Open   | 5 | No               | Mag-Thor Manuf           | Yes |
| <b>Modern Pattern &amp; Foundry Co Inc</b>   |   |                  | <b>CITY: Los Angeles</b> |     |
| LICENSE: C-04530   |   | DOCKET: 40-01911 |                          |     |
| <b>CLOSURE COMMENTS:</b>   |   |                  |                          |     |
| ORNL COMMENTS: Lic was for Mag-th missile parts manuf. (4%, 24 lbs). No closeout survey or final NRC insp conducted. Material sent to ON-Mark Coupling Co. and Aluminun Tape Milling Co 1959 note. Lic expired 4/60. |   |                  |                          |     |

---

| <b>STATUS</b>                          | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>       | <b>File Available</b> |
|--|--------------|----------------------|-------------------------|-----------------------|
| Open                                   | 5            | Yes                  | Sealed source           | No                    |
| <b>X-Ray Engineering Company</b>       |              |                      | <b>CITY: Burlingame</b> |                       |
| LICENSE: 04-00616-04                   |              | DOCKET: none         |                         |                       |
| CLOSURE COMMENTS:                      |              |                      |                         |                       |
| ORNL COMMENTS: Sources Co-60 and Sr-90 |              |                      |                         |                       |

---

|                                     |   |              |                        |    |
|-------------------------------------|---|--------------|------------------------|----|
| Open                                | 4 | Yes          | Sealed source          | No |
| <b>Lockheed Aircraft Corp.</b>      |   |              | <b>CITY: Sunnyvale</b> |    |
| LICENSE: 04-01964-06                |   | DOCKET: none |                        |    |
| CLOSURE COMMENTS:                   |   |              |                        |    |
| ORNL COMMENTS: Sources H-3 & Am-241 |   |              |                        |    |

---

|   |   |                  |                        |     |
|---|---|------------------|------------------------|-----|
| Open  | 4 | No               | Source Manuf           | Yes |
| <b>Lockheed Aircraft Corp.</b>  |   |                  | <b>CITY: Sunnyvale</b> |     |
| LICENSE: SNM-00104  |   | DOCKET: 70-00126 |                        |     |
| CLOSURE COMMENTS:   |   |                  |                        |     |
| ORNL COMMENTS: Sources: Pu-be; U-235 (15 gms). No material disposition given. Lic expired 8/65. |   |                  |                        |     |

---

|  |   |               |                             |     |
|--|---|---------------|-----------------------------|-----|
| Open   | 3 | Yes           | Thickness Guage Manuf       | Yes |
| <b>Le Fiell Manufacturing Co.</b>  |   |               | <b>CITY: SantaFe Spring</b> |     |
| LICENSE: 04-03365-03   |   | DOCKET: 00000 |                             |     |
| CLOSURE COMMENTS:  |   |               |                             |     |
| ORNL COMMENTS: A thirty day license was issued for the purpose of demonstrating an Am-241 (100 mCi)thickness guage at an Air Force convention in Wash D.C. during 9/10-14/63. No followup on terminated license. |   |               |                             |     |

---

| STATUS   | SCORE | SEALED SOURCE    | OPERATION:               | File Available |
|--|-------|------------------|--------------------------|----------------|
| Open   | 2     | Yes              | Sealed source LN         | Yes            |
| <b>American Electronic Inc.</b>  |       |                  | <b>CITY:</b> Culver City |                |
| LICENSE: SNM-00174   |       | DOCKET: 70-00180 |                          |                |
| CLOSURE COMMENTS: Closeout in 9/95 memo ---after Reed Curtis file reviewed for applicability.  |       |                  |                          |                |
| ORNL COMMENTS: Source: Sealed Pu-Be 200 gms.   |       |                  |                          |                |
| <hr/>  |       |                  |                          |                |
| Open   | 2     | Yes              | Sealed source            | Yes            |
| <b>California Research Corp.</b>   |       |                  | <b>CITY:</b> La Habra    |                |
| LICENSE: 04-00904-02   |       | DOCKET: none     |                          |                |
| CLOSURE COMMENTS:  |       |                  |                          |                |
| ORNL COMMENTS: Lic was for many sources use for oil field tracer research. No closeout survey or final NRC insp conducted. Lic expired 3/64.   |       |                  |                          |                |
| <hr/>  |       |                  |                          |                |
| Open   | 2     | Yes              | Sealed source            | No             |
| <b>X Weld Services Inc.</b>  |       |                  | <b>CITY:</b> Hayward     |                |
| LICENSE: 04-09544-01   |       | DOCKET: none     |                          |                |
| CLOSURE COMMENTS:  |       |                  |                          |                |
| ORNL COMMENTS: Source: Co-60 and Ir-192  |       |                  |                          |                |
| <hr/>  |       |                  |                          |                |
| Closed   | 11902 | No               | Fuel Resch/Manuf         | Yes            |
| <b>Aerojet General Corp.*</b>  |       |                  | <b>CITY:</b> San Ramon   |                |
| LICENSE: SNM-00031   |       | DOCKET: 70-00038 |                          |                |
| CLOSURE COMMENTS: ORNL review completed. Closed in 5/24/96 NRC memo. Three other licenses associated with this site. See Enclosure 2 for details.  |       |                  |                          |                |
| ORNL COMMENTS: Lic was for use of enriched Uranium (U-235) for production of fuel. Lic ran from 1956-1970. Licensee conducted extensive decontamination and surveying prior to release. Both NRC and State performed final surveys. Instrument detection capabilities are suspect. Several areas of contamination left at site. No external environmental survey conducted. Deposits in sewers possible. The licensee had several other source & spec mat'l licenses at the site including a state of CA lic: 0221-59. NRC Lic terminated 5/70 & State lic term: 1/70. |       |                  |                          |                |
| <hr/>  |       |                  |                          |                |

| <b>STATUS</b> | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b> | <b>File Available</b> |
|---------------|--------------|----------------------|-------------------|-----------------------|
|---------------|--------------|----------------------|-------------------|-----------------------|

|               |      |    |            |     |
|---------------|------|----|------------|-----|
| <b>Closed</b> | 3240 | No | Fuel Resch | Yes |
|---------------|------|----|------------|-----|

**General Atomics**

**CITY:** San Diego

**LICENSE:** SNM-00862

**DOCKET:** 70-00072

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** No ORNL review received. Sent request to PFG for copy.

---

|               |      |    |                     |     |
|---------------|------|----|---------------------|-----|
| <b>Closed</b> | 2594 | No | Fuel research Manuf | Yes |
|---------------|------|----|---------------------|-----|

**General Electric Co.**

**CITY:** San Jose

**LICENSE:** SNM-00054

**DOCKET:** 70-01007

**CLOSURE COMMENTS:** Closed in 8/8/95 memo.

**ORNL COMMENTS:** Uranium 235 loose (~40 lbs) for fuel manufacturing. Closeout surveys did not address outside areas/grounds. Reviewer suspects burial or outside contamination due to liquid waste disposals. They burned uranium dioxide onsite. All building were released by the NRC in 83, 84 & 85. They also did uranium hexafluoride conversion in Bldg J. Release criteria was 30 pCi/gm of U-235 for materials. 15k dpm/100cm<sup>2</sup> (Max); 5k dpm/100cm<sup>2</sup> (Avg); and 1k dpm/100cm<sup>2</sup> loose - all alpha activity. Surveys appear to be thorough. Are the standards OKAY? License was transferred to State of CA

---

|               |      |    |              |     |
|---------------|------|----|--------------|-----|
| <b>Closed</b> | 2520 | No | Source Manuf | Yes |
|---------------|------|----|--------------|-----|

**US Nuclear Corp.**

**CITY:** Burbank

**LICENSE:** SNM-01002

**DOCKET:** 70-01051

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** License was for the manuf of Pu-238 sealed source. Extensive contamination of the facility occurred and State/NRC forced remediation of the facility. ORNL is concerned about survey results and applicability to new criteria.

---

|               |      |    |                         |     |
|---------------|------|----|-------------------------|-----|
| <b>Closed</b> | 1619 | No | Isotope work/sealed src | Yes |
|---------------|------|----|-------------------------|-----|

**Western Radiation Lab**

**CITY:** Los Angeles

**LICENSE:** 04-02561-01

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 9/22/92 memo.

**ORNL COMMENTS:** This license was for use of various radioisotopes in source encapsulation and leak testing of sources. ORNL noted that no closeout survey or final NRC inspection were conducted. Co-60.

---

| STATUS | SCORE | SEALED SOURCE | OPERATION:              | File Available |
|--------|-------|---------------|-------------------------|----------------|
| Closed | 1175  | No            | Irradiation Experiments | Yes            |

**United Aircraft Corp.**

**CITY:** Livermore

**LICENSE:** 06-02543-02

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 1/18/96 memo.

**ORNL COMMENTS:** Lic was for a broad use of radioisotopes in evaluation of aircraft components associated with the Aircraft Reactor Development Program (CANEL). Lic was issued out of Chicago, IL office. This is one of several licenses held by Pratt & Whitney Aircraft Div of the United Aircraft Corp of Middletown, CN. No closeout or final NRC insp conducted. Lic was cancelled on 2/59.

|        |      |    |                      |     |
|--------|------|----|----------------------|-----|
| Closed | 1125 | No | Rad Waste Stor/Tnrsf | Yes |
|--------|------|----|----------------------|-----|

**California Salvage Co.**

**CITY:** Wilmington

**LICENSE:** 04-05479-01

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** This was a source, byproduct, and special nuclear materials licence for receipt and disposal of radioactive waste. Sea disposal was authorized. No closeout survey or final NRC inspection were conducted.

|        |      |    |                          |     |
|--------|------|----|--------------------------|-----|
| Closed | 1071 | No | ubcrit Rx&Large Pu-Be(ZQ | Yes |
|--------|------|----|--------------------------|-----|

**Northrop Corp.**

**CITY:** Hawthorne

**LICENSE:** SNM-00342

**DOCKET:** 70-00365

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** Lic was for both sealed and loose material (a 5 curies Pu-Be source (80 g Pu) and 5k grams of liquid EU (U-235 Sulfate @ 10%) used in the fabrication of a subcritical assembly and startup of the assy. Lic expired 11/68. Pu-Be sources was a Mound Lab M-709 type.

|        |     |    |              |     |
|--------|-----|----|--------------|-----|
| Closed | 779 | No | Source Manuf | Yes |
|--------|-----|----|--------------|-----|

**Rad Science Corp (Tison Nuc Div)**

**CITY:** Los Angeles

**LICENSE:** 04-06953-01

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** License was for use of Krypton 85 gas at American Electronics, Inc in Culver City, CA (9459 W. Jefferson Blvd.). A 100 mCi Co-60 source was also authorized. No closeout survey or final NRC insp conducted. See Tison Nuclear file for same site in Culver City, CA.

**STATUS                      SCORE                      SEALED SOURCE                      OPERATION:                      File Available**

---

**Closed                      749                      No                      Tracer Resch/Sealed Src(5)                      Yes**

**Shell Development Co.**

**CITY: Emeryville**

**LICENSE: 04-00205-02**

**DOCKET: none**

**CLOSURE COMMENTS:** Closed in 9/29/92 memo. Revisted in 1995.

**ORNL COMMENTS:** Lic was for use of curie amounts of Cesium 137, cobalt 60, carbon 14, and Tritium, for research on engine wear and chemical tracer studies. ORNL concerns were related to disposition of materials and a sealed source. License was to terminate 9/72. Encl 4 sealed source concerns were same sources as discussed in the 3/5/74 letter to the licensee.

---

**Closed                      741                      No                      Mag-Thor alloy manuf                      Yes**

**Marquardt Corp.**

**CITY: Van Nuys**

**LICENSE: STB-00494**

**DOCKET: 40-06663**

**CLOSURE COMMENTS:** Closed in 5/24/96 memo.

**ORNL COMMENTS:** Lic was for fabrication of Mag-thor missle parts (4%, 800 lbs) on hand amount was 20k at various periods.

---

**Closed                      529                      No                      Mag-Thor Manuf                      Yes**

**Douglas Aircraft Co Inc.**

**CITY: Santa Monica**

**LICENSE: 04-00424-06**

**DOCKET: none**

**CLOSURE COMMENTS:** Closed in 9/29/92 memo.

**ORNL COMMENTS:** Lic 04-00424-06 was for materials research. Also had lic C-03733 (Doc: 40-00883). Need ORNL expert review. No closeout survey or final NRC inspection were conducted.

---

**Closed                      500                      No                      HE Uranium Fuel Extrusion                      Yes**

**Torrence Extrusion Corp.**

**CITY: Banning**

**LICENSE: SNM-01034**

**DOCKET: 70-01065**

**CLOSURE COMMENTS:** Closed in 9/29/92 memo.

**ORNL COMMENTS:** License was for the extrusion of high enriched uranium alloy for SNAP reactor cores for Atomics International. License was issued in 9/67 and last material present was 2/69. ORNL was concerned about the lack of a closeout survey.

---

---

| <b>STATUS</b> | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b> | <b>File Available</b> |
|---------------|--------------|----------------------|-------------------|-----------------------|
|---------------|--------------|----------------------|-------------------|-----------------------|

---

|               |     |    |                          |     |
|---------------|-----|----|--------------------------|-----|
| <b>Closed</b> | 335 | No | uel Resch/Manuf - Thoriu | Yes |
|---------------|-----|----|--------------------------|-----|

**Atomics International/Rockwell**

**CITY:** Canoga Park

**LICENSE:** SMB-00372

**DOCKET:** 40-01048

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** Lic was for uranium and thorium fuel research and manuf. Other lic C-03527 was superceded by this lic.. This licensee was also know as North American Aviation. This ORNL review is for two areas: the Bldg 100 Susana Facility that housed the Advanced Epithermal Thorium reactor-AETR Fast Critical Experimental Laboratory-FCEL facility {CX-17 Rx Lic Doc: 50-147}) near Chatsworth, CA; and Bldg 001 at the Desoto Facility (Headquarters), Canoga, CA.

---

|               |     |    |          |     |
|---------------|-----|----|----------|-----|
| <b>Closed</b> | 240 | No | Research | Yes |
|---------------|-----|----|----------|-----|

**Stanford Research Institute (SRI)**

**CITY:** Menlo Park

**LICENSE:** 04-01043-10

**DOCKET:** 30-03606

**CLOSURE COMMENTS:** Closed in 8/8/95 memo. Associated with UC Berkeley, CA Files

**ORNL COMMENTS:** License was for work at Bldg 131 (two hot cells), Camp Parks (US Army Station) in Pleasanton, CA. ORNL did not think surveys were sufficient to ascertain spread of Sr-90 and Cs-137 contamination from the hot cells. Both the US Navy (NRDL) and the University of Berekely had licenses at Camp Parks for similar work.

---

|               |     |    |                           |     |
|---------------|-----|----|---------------------------|-----|
| <b>Closed</b> | 190 | No | ranium Ore Mining & Proce | Yes |
|---------------|-----|----|---------------------------|-----|

**Crown Uranium Co**

**CITY:** Taft

**LICENSE:** R-00224

**DOCKET:** 40-02795

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** P-3931 issued 5/59 for transfer of source material from mines in San Louis Obispo and Kern County. Lic R-00224 for rec and possess source mat'l was issued in 7/59. No Closeout survey or final NRC inspection conducted.

---

|               |     |    |                |     |
|---------------|-----|----|----------------|-----|
| <b>Closed</b> | 187 | No | Mag-Thor Manuf | Yes |
|---------------|-----|----|----------------|-----|

**H&S Metal Products Co.**

**CITY:** Los Angeles

**LICENSE:** C-04902

**DOCKET:** 40-2664

**CLOSURE COMMENTS:** Closed in 5/24/96 memo.

**ORNL COMMENTS:** Lic was for Mag-Th alloy (30-40%, 2000 lbs) casting (smelting and casting and machining). Stock feed storage was in the rear of Bldg at 4160 Whiteside St. No closeout survey or final NRC inspection. Lic expired 10/61.

---

| <b>STATUS</b> | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b> | <b>File Available</b> |
|---------------|--------------|----------------------|-------------------|-----------------------|
| <b>Closed</b> | 164          | No                   | Rad Waste Broker  | Yes                   |

**Reed Curtis Nuclear Indust Inc.**

**CITY:** Culver City

**LICENSE:** 04-00748-04

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** License was for waste collection and disposal. Another license 04-00748-03 (purpose unknown). Another license alleuded to in the file was 2-02667-1(purpose unknown). ORNL was concerned about lack of closeout suvey and no final NRC inspection. License was used at

---

|               |     |    |                           |     |
|---------------|-----|----|---------------------------|-----|
| <b>Closed</b> | 158 | No | g-Thor Smelting/Stor/Reco | Yes |
|---------------|-----|----|---------------------------|-----|

**HALACO Engineering, Co.**

**CITY:** Gardena

**LICENSE:** C-04761

**DOCKET:** 40-02367

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** Licensed for Mag-Th (Th 40%, 5000 lbs) storage and recovery of the thorium through re-smelting. ORNL noted that the Gardena Harbor Dump was used for disposal - NRC report on survey of dump 1958. Operations could have caused inside and outside contamination. Material was store outside without protection. NO closeout or final NRC insp conducted. This license expired 6/61, but was superceded by STB-00568 on 3/62. ORNL did not notice this point. Both will be carried since site ans sealed source lists carry both licenses.

---

|               |     |    |                          |     |
|---------------|-----|----|--------------------------|-----|
| <b>Closed</b> | 144 | No | ranium &Thorium fuel Rsc | Yes |
|---------------|-----|----|--------------------------|-----|

**General Electric Co.**

**CITY:** San Jose

**LICENSE:** SMB-00164

**DOCKET:** 40-01989

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** License was for the use of source material (U & Th) in the development of speciality reactor fuels. No closeout survey or final NRC inspection were conducted. Lic expired 4/64.

---

|               |     |    |                   |     |
|---------------|-----|----|-------------------|-----|
| <b>Closed</b> | 128 | No | Chemical Research | Yes |
|---------------|-----|----|-------------------|-----|

**Aerojet General Corp.**

**CITY:** Azusa

**LICENSE:** 04-00436-02

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 8/8/95 memo.

**ORNL COMMENTS:** Lic was for the research into changes occuring due to irradiation of various chemicals. Irradiations were done at Brookhaven labs. Lic indicates that waste were stored in a buried container that was supposedly removed by a waste disposal firm. Licensee held several other licenses according to the file: 04-00436-03, 04, 05, 06, 08. Ltr of 9/26/58 requested that lic -03 & -03 be terminated because certain operations were transferred to the Sacramento office license 04-02863-01. License 04-00436-03 & 04 were Terminated on 11/58. Lic -02 was allowed to expire by the licensee per 12/12/58 memo from licensee.

| STATUS | SCORE | SEALED SOURCE | OPERATION:     | File Available |
|--------|-------|---------------|----------------|----------------|
| Closed | 125   | No            | Mag-Thor Manuf | Yes            |

**Quality Aircraft Corp.**

**CITY:** Burbank

**LICENSE:** C-04463

**DOCKET:** 40-03641

**CLOSURE COMMENTS:** Closed in 5/24/96 memo.

**ORNL COMMENTS:** Lic was for manuf of Mag-Th components for missiles (Lockheed). Location of use is probably 229 W. Orange Grove. No closeout survey or final NRC insp conducted. Lic expired 12/59.

|        |     |    |                |     |
|--------|-----|----|----------------|-----|
| Closed | 124 | No | Mag-Thor Manuf | Yes |
|--------|-----|----|----------------|-----|

**Certified Spotwelding Corp.**

**CITY:** Burbank

**LICENSE:** C-04462

**DOCKET:** 40-03642

**CLOSURE COMMENTS:** Closed in 5/24/96 memo.

**ORNL COMMENTS:** Mag-Th alloy 12,000 lbs (Th 4%). Grinding of aircraft parts. No closeout survey or final NRC inspection. Lic expired 12/59.

|        |     |    |                  |     |
|--------|-----|----|------------------|-----|
| Closed | 120 | No | Uranium Smelting | Yes |
|--------|-----|----|------------------|-----|

**APEX Smelting Company**

**CITY:** Long Beach

**LICENSE:** SUB-00215

**DOCKET:** 40-06456

**CLOSURE COMMENTS:** Closed in 5/24/96 memo.

**ORNL COMMENTS:** This file was referred to us from Region III on 7/3/95. Two other sites are in Chicago, IL and Cleveland, OH. The license was for resmelting of uranium contaminated (<3%) aluminum alloy scrap/ingots from DOE facilities. ORNL was concerned that there could have been contamination of facilities and grounds. No closeout surveys or final NRC inspection were conducted. License expired 5/31/64.

|        |    |     |               |     |
|--------|----|-----|---------------|-----|
| Closed | 85 | Yes | Sealed source | Yes |
|--------|----|-----|---------------|-----|

**US Nuclear Corp.**

**CITY:** Burbank

**LICENSE:** 04-05241-08

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** License is not available, but SUB-00310 and SNM-01002 are. Site under went significant characterization and remediation under state and NRC oversight. Both state and all NRC license terminated in 1976 following remediation and final survey.

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>          | <b>File Available</b> |
|--|--------------|----------------------|----------------------------|-----------------------|
| <b>Closed</b>  | 78           | No                   | Fuel Resch/Manuf-Pu        | Yes                   |
| <b>Aerojet General Corp.</b>   |              |                      | <b>CITY: San Ramon</b>     |                       |
| LICENSE: SNM-00119   |              | DOCKET: 70-00138     |                            |                       |
| CLOSURE COMMENTS: ORNL review completed. Closed in 5/24/96 memo. Three other licenses associated with this site.   |              |                      |                            |                       |
| ORNL COMMENTS: Lic was for the use of Plutonium 239 in fission foil and experimental fuel development and production. 1970 State and NRC closeout suveys do not appear adequate to assess Pu contamination. Material was properly disposed of or transferred to other licenses. Aerojet held a State of CA lic 2010 and 0221-59. |              |                      |                            |                       |
| <b>Closed</b>  | 75           | Yes                  | Sealed Source              | Yes                   |
| <b>Aerojet General Corp.</b>   |              |                      | <b>CITY: San Ramon</b>     |                       |
| LICENSE: 04-00647-03   |              | DOCKET: none         |                            |                       |
| CLOSURE COMMENTS: Closed in 5/24/96 memo.  |              |                      |                            |                       |
| ORNL COMMENTS: One comment page from PFG indicates "Placement and retrieval from the sea floor" No ORNL review. More than likely they were SNAP generators turned over to the Navy.  |              |                      |                            |                       |
| <b>Closed</b>  | 72           | No                   | Mag-Thor Manuf             | Yes                   |
| <b>BMW Manufacturing Co Inc.</b>   |              |                      | <b>CITY: Torrance</b>      |                       |
| LICENSE: C-04241   |              | DOCKET: 40-03176     |                            |                       |
| CLOSURE COMMENTS: Closed in 5/24/96 memo.  |              |                      |                            |                       |
| ORNL COMMENTS: Lic was for Mag-Th parts manuf 2800 lbs (Th 4%). This license superceded by C-05207. Lic expired 8/59.  |              |                      |                            |                       |
| <b>Closed</b>  | 60           | No                   | Mag-Thor Manuf             | Yes                   |
| <b>Automation Industries Inc.</b>  |              |                      | <b>CITY: Manhattan Bea</b> |                       |
| LICENSE: STB-00511   |              | DOCKET: 40-06698     |                            |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.  |              |                      |                            |                       |
| ORNL COMMENTS: Mag-Th alloy manuf up to 5000 lbs (4%). Possible equipment & facility contamination. No closeout survey and no final NRC inspection. Lic expired 12/64.   |              |                      |                            |                       |

| <b>STATUS</b>   | <b>SCORE</b> | <b>SEALED SOURCE</b>    | <b>OPERATION:</b>        | <b>File Available</b> |
|---|--------------|-------------------------|--------------------------|-----------------------|
| <b>Closed</b>   | 54           | No                      | Mag-Thor Casting         | Yes                   |
| <b>Light Metals Research Lab Inc.</b>   |              |                         | <b>CITY:</b> Santa Clara |                       |
| <b>LICENSE:</b> C-05310   |              | <b>DOCKET:</b> 40-05574 |                          |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 1/18/96 memo.  |              |                         |                          |                       |
| <b>ORNL COMMENTS:</b> Lic was for Mag-Th alloy casting (4%, 2k lbs). Possible refractory gases exhausted to environment. No closeout or final NRC insp conducted. Lic expired 10/61.  |              |                         |                          |                       |
| <b>Closed</b>   | 48           | No                      | Mag-Thor Manuf           | Yes                   |
| <b>Teledyne Cast Products</b>   |              |                         | <b>CITY:</b> Pomona      |                       |
| <b>LICENSE:</b> SNM-01677   |              | <b>DOCKET:</b> 70-02317 |                          |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 5/2/94 memo.   |              |                         |                          |                       |
| <b>ORNL COMMENTS:</b> License was for the recycling of enriched uranium (1.5% U-235) contaminated aluminum products from the Union Carbide enrichment facility in Paducah, Ky. ORNL was concerned about the release criteria used in releasing the facility in 12/80. |              |                         |                          |                       |
| <b>Closed</b>   | 40           | No                      | Mag-Thor Manuf           | Yes                   |
| <b>Skyline Engineering Inc.</b>   |              |                         | <b>CITY:</b> El Segundo  |                       |
| <b>LICENSE:</b> C-04544   |              | <b>DOCKET:</b> 40-03841 |                          |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 2/19/97 memo.  |              |                         |                          |                       |
| <b>ORNL COMMENTS:</b> Lic was for Mag-Th parts manuf (4%, 2k lbs); 50k lbs alloy. Possible site contamination. No material disposition given. No closeout survey or final NRC insp conducted. Lic expired 2/60.   |              |                         |                          |                       |
| <b>Closed</b>   | 38           | No                      | Mag-Thor Manuf           | Yes                   |
| <b>Basic Tool Industries Inc.</b>   |              |                         | <b>CITY:</b> Gardena     |                       |
| <b>LICENSE:</b> STB-00074   |              | <b>DOCKET:</b> 40-02326 |                          |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 2/19/97 memo.  |              |                         |                          |                       |
| <b>ORNL COMMENTS:</b> Thorium or Th-232 loose 1000 lbs. No closeout survey or final NRC insp conducted. Lic expired 3/62.   |              |                         |                          |                       |

| <b>STATUS</b>   | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>        | <b>File Available</b> |
|---|--------------|----------------------|--------------------------|-----------------------|
| <b>Closed</b>   | 31           | Yes                  | Sealed source (ZCT)      | Yes                   |
| <b>U of C - Berkeley</b>  |              |                      | <b>CITY: Berkeley</b>    |                       |
| LICENSE: SNM-00213  |              | DOCKET: 70-00223     |                          |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.   |              |                      |                          |                       |
| ORNL COMMENTS: Sealed sources: Pu-239, U-235, and Pu-Be.  |              |                      |                          |                       |
| <hr/>   |              |                      |                          |                       |
| <b>Closed</b>   | 26           | Yes                  | New Reactor Fuel Storage | Yes                   |
| <b>General Electric Co.</b>   |              |                      | <b>CITY: San Jose</b>    |                       |
| LICENSE: SNM-00102  |              | DOCKET: 70-00111     |                          |                       |
| CLOSURE COMMENTS: Closed in 1/18/96 memo.   |              |                      |                          |                       |
| ORNL COMMENTS: Lic was for possession of 592 U-235 fuel disks for a pile type reactor located at the Vallecitos Laboratory. No material disposition given. Licensed expired 12/57   |              |                      |                          |                       |
| <hr/>   |              |                      |                          |                       |
| <b>Closed</b>   | 26           | Yes                  | Sealed Sources LN/U-235  | Yes                   |
| <b>General Electric Co.</b>   |              |                      | <b>CITY: San Jose</b>    |                       |
| LICENSE: SNM-00321  |              | DOCKET: 70-00352     |                          |                       |
| CLOSURE COMMENTS: Closed in 1/18/96 memo.   |              |                      |                          |                       |
| ORNL COMMENTS: Sealed Sources: Pu-Be (420 gms) and U-235 (58 gms). No material disposition given. Lic expired 12/65. License was for the possession and use of Pu-Be sources and U-235 fission chambers for GE reactors and at other reactor sites. |              |                      |                          |                       |
| <hr/>   |              |                      |                          |                       |
| <b>Closed</b>   | 24           | No                   | Mag-Thor Manuf           | Yes                   |
| <b>South Gate Aluminum &amp; Magnesium</b>  |              |                      | <b>CITY: South Gate</b>  |                       |
| LICENSE: C-05377  |              | DOCKET: 40-02041     |                          |                       |
| CLOSURE COMMENTS: Closed in 10/22/93 memo.  |              |                      |                          |                       |
| ORNL COMMENTS: Licensee had two licenses (C-04079 and C-3608) the latter they let expire on 12/57 with on work perform under it. No closeout survey of final NRC insp conducted.  |              |                      |                          |                       |
| <hr/>   |              |                      |                          |                       |

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>      | <b>File Available</b> |
|--|--------------|----------------------|------------------------|-----------------------|
| <b>Closed</b>  | 21           | Yes                  | Sealed source          | Yes                   |
| <b>US Nuclear Corp.</b>  |              |                      | <b>CITY: Burbank</b>   |                       |
| LICENSE: SNM-00483   |              | DOCKET: 70-00482     |                        |                       |
| CLOSURE COMMENTS: Closed in 10/22/93 memo.   |              |                      |                        |                       |
| ORNL COMMENTS: License is not available, but SUB-00310 and SNM-01002 are. Site under went significant characterization and remediation under state and NRC oversight. Both state and all NRC license terminated in 1976 following remediation and final survey.  |              |                      |                        |                       |
| <b>Closed</b>  | 18           | Yes                  | Sealed source LN (YFN) | Yes                   |
| <b>Marquardt Corp.</b>   |              |                      | <b>CITY: Van Nuys</b>  |                       |
| LICENSE: SNM-00425   |              | DOCKET: 70-00471     |                        |                       |
| CLOSURE COMMENTS: Closed in 5/24/96 memo.  |              |                      |                        |                       |
| ORNL COMMENTS: Source: Pu-Be (160 gms)   |              |                      |                        |                       |
| <b>Closed</b>  | 17           | No                   | Neutron Source(ZTP)    | Yes                   |
| <b>San Diego State College.</b>  |              |                      | <b>CITY: San Diego</b> |                       |
| LICENSE: SNM-00162   |              | DOCKET: 70-00185     |                        |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.  |              |                      |                        |                       |
| ORNL COMMENTS: Lic was for loose U-233 & 235 and sealed 145 gram Pu-Be source. No closeout survey or final NRC insp conducted. Lic expired 6/65.   |              |                      |                        |                       |
| <b>Closed</b>  | 17           | No                   | Mil Rad Prot Rsch      | Yes                   |
| <b>U of C - Berkeley</b>   |              |                      | <b>CITY: Berkeley</b>  |                       |
| LICENSE: SNM-01471   |              | DOCKET: 70-01623     |                        |                       |
| CLOSURE COMMENTS: Closed in 8/8/95 memo. Hilgard Hall on the UC Campus is under a State of CA license. The Camp Parks site is associated with the SRI files which have also been closed.   |              |                      |                        |                       |
| ORNL COMMENTS: License was for research on soil uptake of radionuclides, included Pu 241. UC also held NRC SNM-973 ZCT(Doc: 70-01017). An Army permit (P-04-06-01) was terminated in 10/80. NRC licensed work occurred during a period of thirteen years. ORNL was concerned about lack of detailed outside surveys. Original score was 32 |              |                      |                        |                       |

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>           | <b>File Available</b> |
|--|--------------|----------------------|-----------------------------|-----------------------|
| <b>Closed</b>  | 15           | Yes                  | Sealed source LN            | Yes                   |
| <b>Aerospace Corporation</b>   |              |                      | <b>CITY:</b> El Segundo     |                       |
| LICENSE: SNM-00523   |              | DOCKET: 70-00523     |                             |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.  |              |                      |                             |                       |
| ORNL COMMENTS: Source: Pu-Be (96 gms). Neutron howitzer. Lic expired 8/64.   |              |                      |                             |                       |
| <hr/>  |              |                      |                             |                       |
| <b>Closed</b>  | 14           | Yes                  | Sealed source LN            | Yes                   |
| <b>California State Polytechnic Col</b>  |              |                      | <b>CITY:</b> San Luis Obisp |                       |
| LICENSE: SNM-00514   |              | DOCKET: 70-00560     |                             |                       |
| CLOSURE COMMENTS: Closed in 1/18/96 memo.  |              |                      |                             |                       |
| ORNL COMMENTS: Sources: Pu-Be (80 gms) and U-235 fission counter. Lic expired 8/64   |              |                      |                             |                       |
| <hr/>  |              |                      |                             |                       |
| <b>Closed</b>  | 14           | Yes                  | Sealed source LN (ZQW)      | Yes                   |
| <b>Occidental College</b>  |              |                      | <b>CITY:</b> Los Angeles    |                       |
| LICENSE: SNM-00177   |              | DOCKET: 70-00193     |                             |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.  |              |                      |                             |                       |
| ORNL COMMENTS: Source: Pu-Be (80 gms). Lic expired 6/65.   |              |                      |                             |                       |
| <hr/>  |              |                      |                             |                       |
| <b>Closed</b>  | 14           | Yes                  | Sealed source LN (ZRP)      | Yes                   |
| <b>Pacific Union College.</b>  |              |                      | <b>CITY:</b> Angwin         |                       |
| LICENSE: SNM-00283   |              | DOCKET: 70-00298     |                             |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.  |              |                      |                             |                       |
| ORNL COMMENTS: Source: Pu-Be (80 gms). Sources are associated with a Nuclear-Chicago NH3 Neutron Howitzer. Lic expired 5/64. |              |                      |                             |                       |
| <hr/>  |              |                      |                             |                       |
| <b>Closed</b>  | 14           | Yes                  | Sealed source LN (ZLQ)      | Yes                   |
| <b>Valley College</b>  |              |                      | <b>CITY:</b> Van Nuys       |                       |
| LICENSE: SNM-00540   |              | DOCKET: 70-00590     |                             |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.  |              |                      |                             |                       |
| ORNL COMMENTS: Source: Pu-Be (80 gms).   |              |                      |                             |                       |
| <hr/>  |              |                      |                             |                       |

| STATUS | SCORE | SEALED SOURCE | OPERATION: | File Available |
|--------|-------|---------------|------------|----------------|
|--------|-------|---------------|------------|----------------|

|        |    |    |                        |     |
|--------|----|----|------------------------|-----|
| Closed | 13 | No | Rad Waste Storage/Proc | Yes |
|--------|----|----|------------------------|-----|

**IT Corporation**

**CITY:** Wilmington

**LICENSE:** 04-05479-02

**DOCKET:** 30-15102

**CLOSURE COMMENTS:** Closed in 9/29/92 memo.

**ORNL COMMENTS:** No ORNL review found. Will contact Goldberg to get one. This is a recent license. There may be a duplicate license issued for the licensee.

|        |    |     |               |     |
|--------|----|-----|---------------|-----|
| Closed | 12 | Yes | Sealed source | Yes |
|--------|----|-----|---------------|-----|

**Pacific Union College.**

**CITY:** Angwin

**LICENSE:** 04-07182-01

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** Co-60 source

|        |    |    |                  |     |
|--------|----|----|------------------|-----|
| Closed | 11 | No | Fuel Resch/Manuf | Yes |
|--------|----|----|------------------|-----|

**General Atomics**

**CITY:** San Diego

**LICENSE:** SMB-00415

**DOCKET:** 40-01413

**CLOSURE COMMENTS:** Closed in 10/22/93 memo.

**ORNL COMMENTS:** Lic issued 1956 for Uranium and Thorium in fuel research. Susperceded lic C-03588 om 1961. No information in file on fate of lic SMB-00415. This file in in the OPEN drawer with the GD file 04-01611.

|        |    |    |                |     |
|--------|----|----|----------------|-----|
| Closed | 10 | No | Fuel HEU Manuf | Yes |
|--------|----|----|----------------|-----|

**American Radiator&Std Sanitary Co.**

**CITY:** Mountain View

**LICENSE:** SNM-00115

**DOCKET:** 70-00140

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** Fabricators of fuel elements; U-235 (90% EU) & Pu-Be sealed sources; 500 (6) gms U-235 & 120 gms U-233(not used) in loose form. According to NRC Insp Rpt of 10/28/64 waste burial is suspect. Possible liquid waste disposal via sanitary sewer. Closeout survey by State and AEC confirmed site contamination. Cleanup undertaken. Results are suspect due to time frame of surveys. There was a reactor onsite per 5/18/65 report (R-82). All material was properly transferred from site. Need to get State survey results. License Terminated 6/2/65.

| <b>STATUS</b>   | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b>         | <b>File Available</b> |
|---|--------------|----------------------|---------------------------|-----------------------|
| <b>Closed</b>   | 10           | Yes                  | Sealed source             | Yes                   |
| <b>Culver City Hospital, Inc</b>  |              |                      | <b>CITY:</b> Culver City  |                       |
| LICENSE: 04-03697-02  |              | DOCKET: none         |                           |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.   |              |                      |                           |                       |
| ORNL COMMENTS: Sealed source licensee. Cobalt-60  |              |                      |                           |                       |
| <hr/>   |              |                      |                           |                       |
| <b>Closed</b>   | 10           | Yes                  | Sealed source LN (ZJS)    | Yes                   |
| <b>Immaculate Heart College</b>   |              |                      | <b>CITY:</b> Los Angeles  |                       |
| LICENSE: SNM-00519  |              | DOCKET: 70-00565     |                           |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.   |              |                      |                           |                       |
| ORNL COMMENTS: Source: Pu-Be (32 gms). Lic expired 8/64.  |              |                      |                           |                       |
| <hr/>   |              |                      |                           |                       |
| <b>Closed</b>   | 10           | No                   | Mag-Thor Manuf            | Yes                   |
| <b>Sequoia Metalcraft Co.,Inc.</b>  |              |                      | <b>CITY:</b> San Carlos   |                       |
| LICENSE: C-03330  |              | DOCKET: 40-01749     |                           |                       |
| CLOSURE COMMENTS: Closed in 1/18/96 memo.   |              |                      |                           |                       |
| ORNL COMMENTS: License was for use of thorium for high temperature alloying (5k lbs of thorium pellets). Possible building contamination. No closeout survey or final NRC insp conducted. |              |                      |                           |                       |
| <hr/>   |              |                      |                           |                       |
| <b>Closed</b>   | 9            | Yes                  | Sealed source             | Yes                   |
| <b>Automation Industries Inc.</b>   |              |                      | <b>CITY:</b> El Segundo   |                       |
| LICENSE: 04-10858-01  |              | DOCKET: none         |                           |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo  |              |                      |                           |                       |
| ORNL COMMENTS: No Information on this license but licensee held an STB-00511 lic which was issued in 12/61 and terminated on 12/64.   |              |                      |                           |                       |
| <hr/>   |              |                      |                           |                       |
| <b>Closed</b>   | 9            | No                   | g-Thor Smelting/Thor Reco | Yes                   |
| <b>HALACO Engineering, Co.</b>  |              |                      | <b>CITY:</b> Gardena      |                       |
| LICENSE: STB-00568  |              | DOCKET: 40-02367     |                           |                       |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.   |              |                      |                           |                       |
| ORNL COMMENTS: License was for smelting of mag-thor scrap and storage of thorium (40%). See lic C-04761 which preceded this license, but ORNL did not recognize this.                     |              |                      |                           |                       |
| <hr/>   |              |                      |                           |                       |

| STATUS | SCORE | SEALED SOURCE | OPERATION:           | File Available |
|--------|-------|---------------|----------------------|----------------|
| Closed | 9     | No            | Mag-Thor Distributor | Yes            |

**Pacific Graphite Co Inc**

**CITY:** Los Angeles

**LICENSE:** D-00683

**DOCKET:** 40-04478

**CLOSURE COMMENTS:** Closed in 5/24/96 memo.

**ORNL COMMENTS:** License was for the resale of Mag-Th alloy ingots (2.5 lbs). Ingots were received in 30 or 55 gallon metal drums (200 to 500 lbs loaded). No machining or working on material evident. Possible repackaging of ingots. Licensed authorized 40% Th not exceeding 5k lbs. No closeout survey or final NRC insp conducted. Lic expired 6/60. Two locations in CA

|        |   |    |                |     |
|--------|---|----|----------------|-----|
| Closed | 9 | No | Mag-Thor Manuf | Yes |
|--------|---|----|----------------|-----|

**The Hufford Corporation**

**CITY:** El Segundo

**LICENSE:** C-04138

**DOCKET:** 40-02774

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** Lic for Mag-Th alloy (4%) in the spin forging alloys into inverted cones. Some contamination identified previously at site. Survey conducted by US Nuclear 1960, wrong contamination units used (cpm). No closeout or final NRC inspection conducted. Lic expired 6/59.

|        |   |    |                   |     |
|--------|---|----|-------------------|-----|
| Closed | 8 | No | Thor Use Research | Yes |
|--------|---|----|-------------------|-----|

**Aerojet General Corp.**

**CITY:** Sacramento

**LICENSE:** C-04481

**DOCKET:** none

**CLOSURE COMMENTS:** ORNL review completed. Closed in 1/18/96 memo. Three other licenses associated with this site.

**ORNL COMMENTS:** No information available.....No expert review or docket file was forwarded. This license was initially identified in the 3/8/93 and then again in the 8/11/93 memorandums from NMSS.

|        |   |    |                   |     |
|--------|---|----|-------------------|-----|
| Closed | 8 | No | Mag-Thor research | Yes |
|--------|---|----|-------------------|-----|

**North American Aviation Inc.**

**CITY:** Canoga Park

**LICENSE:** C-04274

**DOCKET:** 40-03292

**CLOSURE COMMENTS:** Closed in 5/24/96 memo.

**ORNL COMMENTS:** Lic was for Mag-Th material evaluation studies at Rocketdyne (4%, <15 lbs); 1150 lbs alloy. No closeout survey or final NRC insp conducted. Lic expired 3/61

| <b>STATUS</b> | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b> | <b>File Available</b> |
|---------------|--------------|----------------------|-------------------|-----------------------|
|---------------|--------------|----------------------|-------------------|-----------------------|

|               |   |     |               |     |
|---------------|---|-----|---------------|-----|
| <b>Closed</b> | 8 | Yes | Sealed source | Yes |
|---------------|---|-----|---------------|-----|

**Richardson X-Ray Service.**

**CITY:** Alhambra

**LICENSE:** 04-059-01/02

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 1/18/96 memo.

**ORNL COMMENTS:** Sources: Co-60, Cs-137 & IR-192. No disposition of materials given. Lic expired 3/57.

---

|               |   |    |                  |     |
|---------------|---|----|------------------|-----|
| <b>Closed</b> | 7 | No | Fuel Resch/Manuf | Yes |
|---------------|---|----|------------------|-----|

**Aerojet General Corp.**

**CITY:** San Ramon

**LICENSE:** SMB-00563

**DOCKET:** 40-02813

**CLOSURE COMMENTS:** ORNL review completed. Closed in 5/24/96 memo. Three other licenses associated with this site.

**ORNL COMMENTS:** Lic was for use of source material in the R&D of reactor cores. No closeout survey or final NRC insp conducted. State surveyed site 16 years post termination of NRC lic. No contamination found, but no information on survey methodologies or equipment or data. Lic term 5/65.

---

|               |   |    |                |     |
|---------------|---|----|----------------|-----|
| <b>Closed</b> | 7 | No | Mag-Thor Manuf | Yes |
|---------------|---|----|----------------|-----|

**S&M Corporation**

**CITY:** San Leandro

**LICENSE:** C-04907

**DOCKET:** 40-04918

**CLOSURE COMMENTS:** Closed in 1/18/96 memo.

**ORNL COMMENTS:** Lic was for Mag-Th alloy (4%, 10k lbs) parts manuf (machining and grinding). Issued 11/59. No material disposition given. No closeout survey or final NRC insp conducted. Lic expired 11/60.

---

|               |   |     |                        |     |
|---------------|---|-----|------------------------|-----|
| <b>Closed</b> | 7 | Yes | Sealed source LN (ZTP) | Yes |
|---------------|---|-----|------------------------|-----|

**San Diego State College.**

**CITY:** San Diego

**LICENSE:** SNM-00191

**DOCKET:** 70-00210

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** Sources: Pu-Be (16 gms) and Pu-239 pellets (.00001 gms). Material disposition not accurate. Lic expired 6/65

---

| <b>STATUS</b>  | <b>SCORE</b> | <b>SEALED SOURCE</b>    | <b>OPERATION:</b>       | <b>File Available</b> |
|--|--------------|-------------------------|-------------------------|-----------------------|
| <b>Closed</b>  | 6            | No                      | Mag-Thor Manuf          | Yes                   |
| <b>Norair</b>  |              |                         | <b>CITY:</b> Hawthorne  |                       |
| <b>LICENSE:</b> C-04567  |              | <b>DOCKET:</b> 40-01140 |                         |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 2/19/97 memo.   |              |                         |                         |                       |
| <b>ORNL COMMENTS:</b> Lic was for fabrication of Mag-Th aircraft parts (4%, 640 lbs); 16k alloy. NORAIR came about in 11/60. Lic expire 12/61. |              |                         |                         |                       |
| <b>Closed</b>  | 4            | No                      | Reactor Fuel Research   | Yes                   |
| <b>General Electric Co.</b>  |              |                         | <b>CITY:</b> Pleasanton |                       |
| <b>LICENSE:</b> SNM-00105  |              | <b>DOCKET:</b> 70-00130 |                         |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 1/18/96 memo.   |              |                         |                         |                       |
| <b>ORNL COMMENTS:</b> Sources: 360 gms of U-235 and .001 gm of Pu-239. Material disposition not accurate. Lic expired 9/65.                    |              |                         |                         |                       |
| <b>Closed</b>  | 4            | Yes                     | Sealed source           | Yes                   |
| <b>Richardson X-Ray Service.</b>   |              |                         | <b>CITY:</b> Alhambra   |                       |
| <b>LICENSE:</b> 04-00059-02  |              | <b>DOCKET:</b> none     |                         |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 1/18/96 memo.   |              |                         |                         |                       |
| <b>ORNL COMMENTS:</b> Sources: Ir-192, Co-60 & Cs-137. Lic estimated to have expired post 1/57.  |              |                         |                         |                       |
| <b>Closed</b>  | 3            | Yes                     | Subcritical Rx (ZCP)    | Yes                   |
| <b>CA Institute Of Technology</b>  |              |                         | <b>CITY:</b> Pasadena   |                       |
| <b>LICENSE:</b> SUD-00316  |              | <b>DOCKET:</b> 40-06530 |                         |                       |
| <b>CLOSURE COMMENTS:</b> Closed in 2/19/97 memo.   |              |                         |                         |                       |
| <b>ORNL COMMENTS:</b> Lic was for 5.5k lbs nat/norm U for use in subcritical assy. No disposition of material given. Lic expired 6/64.         |              |                         |                         |                       |

| STATUS   | SCORE | SEALED SOURCE    | OPERATION:                   | File Available |
|--|-------|------------------|------------------------------|----------------|
| Closed   | 3     | Yes              | Subcritical Rx               | Yes            |
| <b>California State Polytechnic Col</b>  |       |                  | <b>CITY: San Luis Obisip</b> |                |
| LICENSE: SUD-00378   |       | DOCKET: 40-06568 |                              |                |
| CLOSURE COMMENTS: Closed in 1/18/96 memo.  |       |                  |                              |                |
| ORNL COMMENTS: Lic was for 5.5k lbs nat/norm U for use in subcritical Assembly. No disposition of materials given. Lic expired 8/64. |       |                  |                              |                |

---

|   |   |                  |                        |     |
|---|---|------------------|------------------------|-----|
| Closed  | 3 | Yes              | Subcritical Rx (YSK)   | Yes |
| <b>La Sierra College</b>  |   |                  | <b>CITY: Arlington</b> |     |
| LICENSE: SUD-00572  |   | DOCKET: 40-05917 |                        |     |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.   |   |                  |                        |     |
| ORNL COMMENTS: Lic was for 5.5k lbs nat/norm Uranium slugs canned for use in a Nuclear Chicago subcritical research reactor. No Pu-Be sources were authorized. Lic expired 3/65. This institution also possessed 80 grams of Pu in a Pu-Be neutorn source under SNM-00409' Doc: 70-00455. |   |                  |                        |     |

---

|   |   |                  |                     |     |
|---|---|------------------|---------------------|-----|
| Closed  | 3 | Yes              | Subcritical Rx      | Yes |
| <b>Pacific Union College.</b>   |   |                  | <b>CITY: Angwin</b> |     |
| LICENSE: SUD-00289  |   | DOCKET: 40-06512 |                     |     |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.   |   |                  |                     |     |
| ORNL COMMENTS: Lic was for 5.5k lbs nat/norm Uranium slugs canned for use in subcritical research reactor obtained from AEC Savannah River Operations (now DOE). No material disposition given. Lic expired 5/64. |   |                  |                     |     |

---

|  |   |                  |                        |     |
|--|---|------------------|------------------------|-----|
| Closed   | 3 | Yes              | Subcritical Rx (ZTP)   | Yes |
| <b>San Diego State College.</b>  |   |                  | <b>CITY: San Diego</b> |     |
| LICENSE: SUD-00341   |   | DOCKET: 40-02085 |                        |     |
| CLOSURE COMMENTS: Closed in 2/19/97 memo.  |   |                  |                        |     |
| ORNL COMMENTS: Lic was for 5.5k lbs nat/norm Uranium slugs canned for use in subcritical research reactor. Lic expired 7/64. |   |                  |                        |     |

---

| <b>STATUS</b> | <b>SCORE</b> | <b>SEALED SOURCE</b> | <b>OPERATION:</b> | <b>File Available</b> |
|---------------|--------------|----------------------|-------------------|-----------------------|
|---------------|--------------|----------------------|-------------------|-----------------------|

---

|               |   |     |                |     |
|---------------|---|-----|----------------|-----|
| <b>Closed</b> | 3 | Yes | Subcritical Rx | Yes |
|---------------|---|-----|----------------|-----|

**U of C - Berkeley**

**CITY:** Berkeley

**LICENSE:** SUD-00360

**DOCKET:** 40-02812

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** Lic was for 5.5k lbs nat/norm Uranium slugs canned for use in subcritical research reactor. Lic expired 7/64.

---

|               |   |     |               |     |
|---------------|---|-----|---------------|-----|
| <b>Closed</b> | 2 | Yes | Sealed Source | Yes |
|---------------|---|-----|---------------|-----|

**Aerospace Corporation**

**CITY:** El Segundo

**LICENSE:** 04-07326-02

**DOCKET:** none

**CLOSURE COMMENTS:** Closed in 2/19/97 memo.

**ORNL COMMENTS:** \*This license appears in both the sealed source category (score 14) and as an Encl 2 license (score <300, {15}). This license was for sealed sources AM-241 (.01 ci) and Th-228 (<.001 Ci). No information is available other than they had Americum-241 and Thorium-228 sources. Sources last used in Florida. Lic expired 8/80. This license was also included in the RII list with a score of 2. Sources were returned to the California facility and would be covered under the existing CA license.

---

# ORNL TERMINATED LICENSES

## CONTAMINATED SITE STATUS

| SCORE | LICENSEE'S NAME              | LICENSE # | DOCKET # | ADDRESS               | CITY      | STATE/ZIP |
|-------|------------------------------|-----------|----------|-----------------------|-----------|-----------|
| 11902 | <b>Aerojet General Corp.</b> | SNM-00031 | 70-00038 | 3300 Crow Canyon Road | San Ramon | CA 94583  |

**Address Change:**

Owner: (1) Trident Corporation (Todd Mentor); 480 Market Place; San Ramon, CA 94583; (2) San Ramon Valley Unified School District (J. Morrison); 3280 E. Crow Canyon Rd; San Ramon, CA 94583; (3) ONB Associates (Michael Nelson); 8 Red Cedar Ct; Danville, CA 94506; Previous owner: Aerojet/GenCorp (Jose N. Uranga); 1940 Alabama Ave; P.O. Box 3530; Rancho Cordova, CA 95741-3530

**OPERATION:** Fuel Resch/Manuf

**CLOSURE COMMENT** ORNL review completed. Site was remediated and review was closed in 5/24/96 memo. Three other Aerojet Corp. licenses associated with this site. No further actions required.

**ORNL COMMENTS** License was for use of enriched Uranium (U-235) for production of fuel. Lic ran from 1956-1970. Licensee conducted extensive decontamination and surveying prior to release. Both NRC and State performed final surveys. Instrument detection capabilities are suspect. Several areas of contamination left at site. No external environmental survey conducted. Deposits in sewers possible. The licensee had several other source & spec mat'l licenses at the site including a state of CA lic: 0221-59. NRC Lic terminated 5/70 & State lic term: 1/70.

**REVIEWER COMMENT** Three other licenses issued to Aerojet San Ramon, CA are covered under this review: SMB-00563, SNM-00119 (Special Nuc mat'l and source material fuel research) and 04-00647-03 (sealed source license).

Both 3300 Crow Canyon Road and 3355 Fostoria Way service the same facility. Most of the original buildings at the site are intact and original floor surfaces were exposed. The site was subdivided since license termination. One portion of the site is being used as an aircraft engine repair shop and storage facility. Another portion (Plutonium fuel rod storage and shipping area) is being used as administrative office for a school district service center. Another portion has had all buildings razed and is a mini-mall. The site was visited on September 3, 1993 by inspectors/health physicists from the NRC (RIV/WCFO) and State of California. cursory radiological surveys identified several areas of fixed alpha and beta-gamma contamination above current NRC release criteria in one of the former work areas. No contamination was identified in the area occupied by the school district offices. On February 3, 1994, an NRC report discussing the contamination found on the site was issued to GenCorp-Aerojet (Sacramento, CA). See NRC Inspection Report No. 70-00038/93-01 for initial survey results and findings. Aerojet assumed responsibility for cleanup of the site and contracted with Environmental Dimensions, Inc. (Albuquerque, New Mexico) to have the site cleaned up. EDI completed the characterization survey around November 1994. Cesium-137 and enriched uranium (loose and fixed) were the primary contaminants found. Contaminated concrete flooring, drains, outside sewers drains, and subfloor equipment were identified. Remediation and removal of waste was conducted during June 19 through July 10, 1995. A total of 480 cubic feet of low level radioactive waste was generated during the remediation. Both the State of California and the NRC assisted in site oversight and review of cleanup reports. EDI submitted a final survey of the site on December 13, 1995. The State of California performed a final confirmation survey of the site in December 1995. After confirmation that the site was clean from the State, a letter was sent on December 29, 1995 to GenCorp-Aerojet (Jose Uranga) informing them that the site was suitability remediated and no further action was required. Complete documentation is included in the docket file for license SNM-00031 (Docket: 70-00038) and the other licenses (04-00647-03; SMB-00563; and SMB-00563) associated with this case are referenced the documentation in the SNM-0031 file. All remediation reports from EDI and correspondence with Aerojet are contained in Box 1 of 2 shipped to NRC HQ

| SCORE | LICENSEE'S NAME          | LICENSE #   | DOCKET # | ADDRESS              | CITY    | STATE/ZIP |
|-------|--------------------------|-------------|----------|----------------------|---------|-----------|
| 7568  | Isotopes Specialties Co. | 04-00580-07 | none     | 170 West Providencia | Burbank | CA 91502  |

**Address Change:**

Joseph A. Thomson, 1831 Foothill Drive, Glendale, CA 91201 (818) 241-9057, site occupant: Walt Brandler (909) 599-9233

**OPERATION:** Source Manuf

**CLOSURE COMMENT** ORNL review closed in 5/24/96 memo. Site is contaminated and awaiting characterization.

**ORNL COMMENTS** ORNL's concerns were that there was not suitable information available on the degree of cleanup accomplished, survey reports, etc., to be assured that the subject sites met current decommissioning criteria, or that a final AEC/NRC inspection had been performed at the site prior to license termination. They were also concerned that there may have been onsite burial/disposal of radioactive material or abandonment of manufacturing equipment/material in place.

**REVIEWER COMMENT** This is one of two former Isotopes Specialties Co. sites in the Burbank, CA area being investigated. This site (170 W. Providencia Street) used radioactive materials under several AEC licenses that dated back to the 1950's. Licenses were for radioactive waste collection and storage, waste consolidation for ocean dumping, radioactive source manufacture, and a commercial radiochemical laboratory. Kilocurie quantities of various long lived radioisotopes were authorized, in both loose and sealed form. Current Status: The original facility was found to be pretty much intact and was being renovated by a former tenant. The current owner stated that he had owned the property since the mid 1960's and had been aware that some company had used radioactive materials at the site before his ownership, but understood that all radioactive materials had been removed. Mr. Thomson indicated that the buildings on the site had only been slightly modified since his ownership, mostly interior walls for offices. Some small outside buildings had been added. The site was visited on February 23, 1996 by an NRC Region IV/WCFO inspector and a State of California inspector and cursory radiological surveys of the site were performed. These surveys indicate that several areas inside of site buildings and outside areas were contaminated above NRC residual release criteria. State of California solid sample analysis determined the primary isotopes of concern were thorium 230/232 and cesium-137. General area gamma radiation exposure rate measurement indicate that source material may have been buried on site. NRC Inspection Report No. 30-90006/96-01 was issued on April 8, 1996.

Mr. Thomson had filed a claim against the NRC due to lack of NRC followup on the property since the initial survey. Site Linda Lessler of OGC (301) 415-1612 is handling the case. Mr. Joe Takahashi (UCLA RSO) has been retained by Mr. Thomson's law firm (Loed&Loeb of Los Angeles - 213/688-3400) to review the initial survey findings. FOIA received by State of CA and NRC (Goldberg). Site is awaiting characterization. A letter to the State of California dated April 8, 1996, transferred responsibility for this site to the State.

| SCORE | LICENSEE'S NAME       | LICENSE # | DOCKET # | ADDRESS           | CITY        | STATE/ZIP |
|-------|-----------------------|-----------|----------|-------------------|-------------|-----------|
| 313   | Verdi Development Co. | R-00183   | 40-01962 | 2623 Hyperion Ave | Los Angeles | CA 90027  |

**Address Change:**

Mill is loated on Gold Queen Rd., Mojave, CA 93501

**OPERATION:** U Ore processing

**CLOSURE COMMENT** ORNL review closed in 5/24/96 memo. Site is contaminated and awaiting characterization.

**ORNL COMMENTS** ORNL was concerned that there may have been onsite disposal of mill tailings or onsite abandonment of contaminated milling equipment.

**REVIEWER COMMENT**

On July 2, 1954, the Verdi Development Company (VDC) applied to the then AEC for a license authorizing them to stockpile, transfer, deliver, export or receive uranium or thorium source material. VDC's letterhead stated they were a uranium and gold mining business and that they had an AEC license (P-1394) previous to the aforementioned application. On July 12, 1954, the AEC issued License No. P-1848 (Docket: Unknown) to VDC for the transfer, delivery, possession, and title to raw source material from their claims. VDC filed an application around July 1956, for authorization to process uranium/source material ore. On August 21, 1956, the AEC issued License No. R-00183 (Docket: 40-01962) to VDC for the possession and processing of raw materials. This license was to expire on September 1, 1957. An August 5, 1981, internal NRC memorandum (R.E. Cunningham to D. A. Nussbaumer) forwards a partial report from the State of California concerning a State review of some formerly licensed sites. The State of California report from D. Honey to D. A. Nussbaumer (NRC), dated July 24, 1981, discusses the State's 1978 review of a mill located in Mojave, California, and noted that small quantities of ore and some evidence of low order extractive work was observed. The report concluded there was no evidence of contamination in excess of California residual radioactivity limits in effect at that time. It is not known from the California report if the mill referenced was the Verdi Mill. Current Status: A search of the Los Angeles, California phone directories and business records failed to produce information on Verdi Development Company and their former addresses. A search of the files at the California State Division of Mineral Resources in Los Angeles, California, failed to identify the company as being currently in operation. However, a 1962 report on the mining, geology, and minerals of Kern County, California, produced information on the Verdi Development Company and the uranium mines it was working. The mill site is currently vacant and in a very bad state of deterioration. The crushing mill, tailings pond, and scattered process equipment were still discernable. A building (with several smaller sheds), approximately 50 meters to the east of the mill proper, appeared to have been a former private residence. Laboratory equipment, building fixtures, processing tanks, barrels of solidified material, garbage, and general debris were scattered throughout the mill property. The mine is dormant and all structures have been removed except for two cement support structures and a cement pad. Approximately 1 acre of land contains mounds of stockpiled ore. The stockpiling of the uranium ore was referenced in the July 1954 VDC license application. On March 2, 1996, the Verdi Mill site and nearby mine were visited by an NRC Region IV/WCFO inspector and cursory radiological surveys were performed. Surveys indicated possible tailings deposits about the mill and stockpiled uranium ore at the mine site. General area gamma radiation exposure levels were above current NRC release limits for open lands. On May 3, 1996, NRC Inspection Report No. 40-01962/96-01 was issued. A letter to the State of California dated May 3, 1996, transferred responsibility for this site to the State.