

October 19, 2000

NOTE TO COMMISSIONER ASSISTANTS

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FROM: John W. Craig /RA/
Assistant for Operations, OEDO

SUBJECT: FINAL STAFF EVALUATION OF SITES IDENTIFIED IN THE USA TODAY
ARTICLE DATED SEPTEMBER 6, 2000

On October 2, 2000, the staff provided the Commission a list and an analysis of the sites from the USA Today article. The staff also responded to several questions from Commissioner Merrifield's office, and its reply was sent to the Commission TAs. At that time, the staff was resolving the status of the last few sites on the USA Today list, and its review was not final. The staff has now completed its review of the sites and is providing the attached the list and final summary of the 153 sites.

The staff is continuing its review of the approximately-577 sites listed on the "FUSRAP List" document (of sites considered for inclusion in the FUSRAP program) that DOE posted on its website. The sites in the USA Today list were almost all included on the DOE "FUSRAP List." In its review, the staff is coordinating with DOE and EPA to obtain any information that they have on the sites, as well as checking NRC records. The staff is concentrating on the sites on the "FUSRAP List" where DOE has identified NRC as the cognizant authority. The staff will provide information on its review of DOE's "FUSRAP List" once its analysis is complete.

Attachment: As stated

cc: W. Travers, EDO (w/o attachment)
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USA Today Review Summary

DWM staff has reviewed the sites listed in the 9/6/00 USA Today article on toxic exposure to workers. The list was examined to determine if the sites are included within the formerly licensed sites identified by ORNL, Listed as FUSRAP, an Active license Under NRC/Agreement States or other agencies such as EPA, DOE or UMTRAP. The following is the result:

- A. 36 out of 153 are listed as NRC cognizant (at least in part) in the DOE report (24%).
 1. 3 out of 36 sites are active NRC licensees:
 - a. **Mallinckrodt Chemical** St. Louis, MO (complex decommissioning site)
 - b. **U.S. Pipe and Foundry** Burlington, NJ
 - c. **General Atomics** La Jolla (San Diego) CA
 2. 3 out of 36 are currently terminated NRC licenses undergoing cleanup:
 - a. **Horizons, INC.** Cleveland, OH - SDMP site transferred to the state on 8/99 estimated completion in 2000.
 - b. **Nuclear Materials** Concord, MA-SDMP site transferred to the state on 3/97 active decommissioning
 - c. **Westinghouse Electric** Bloomfield, NJ completed decommissioning but waiting for NRC to perform confirmatory survey.
 2. The remaining 30 of these have terminated (expired, retired or transferred to state) licenses.
- B. 26 out of 153 sites are under FUSRAP. One of these is also an NRC active site under decommissioning (Mallinckrodt Chemical). An additional 3 out of 153 were under consideration for FUSRAP classification. This accounts for an additional 28 sites. (18%)
- C. 77 of the 153 sites are listed by DOE as eliminated from consideration (i.e. sites reviewed by DOE, but not FUSRAP or NRC). One of these is still under active NRC license (U.S. Pipe and Foundry), accounting for an additional 76 sites. (50%)
- D. 10 out of 153 has been identified by DOE as DOE, or EPA cognizant (7%).
- E. 2 sites appear to not have possessed radioactive materials (1%):
 1. **Phelps-Dodge Copper** in Bayway, NJ (per DOE)
 2. **Raytheon** in Allston, MA (per DOE and USA Today)

DWM staff has met with OPA and discussed these efforts as well as familiarized OPA with our decommissioning approach as discussed in SECY-0094.

USA Today Contaminated Sites Review

ST	City	Contractor/ Site	NRC Status	License #/ Docket #	Exp.	POC	Description	DOE Status
AL	Birmingham	Southern Research	Terminated	01-00423-03	1/31/68	State	Part 30 license	NRC
CA	Downey	North American Aviation	Terminated	C-04893	10/1/60	State/ DOE	Part 40 license. 100 lb Thonum for magnesium thorium alloy(<4%Th) for missiles.	Eliminated
CA	La Jolla	General Atomics	Active	SNM-696, 04-14395 C-3240 SNM-00862	10/31/93	State/ NRC	Part 70 license	NRC (CA.14)
CA	Pleasanton	General Electric Vallecitos Nuclear Center	Terminated	04-00839-09	8/31/60	State	DOE funding cleanup. Co-60 license	NRC (CA.13)
CA	Richmond	Stauffer Metals	Terminated	SUB-00593	5/31/65	State		NRC
CA	Riverside	Hunter Douglas/Brdgeport Brass	Terminated	C-03830	10/1/58	State	Uranium Machining	NRC
CA	Simi Valley/ Canoga park	Atomic international/Rockwell	Terminated	SMB-00372	11/30/64	State/ DOE	15,000 lbs Uranium and 700 lbs Thorium No survey/disposition	DOE
CA	Walnut Creek	Dow Chemical	Terminated	SMB-00430	9/30/64	State/ DOE	Part 40 license. 150lbs source material, for research on ore benefaction, recovery, purification of thonum and uranium compounds. Process includes chemical digestion and grnding.	Eliminated
CO	Denver	Shattuck Chemical	Terminated	SMB-00479	3/31/68	State/ EPA	Part 40 license	EPA
CT	Bridgeport	American Chain and Cable	License Not Found			DOE		Eliminated
CT	Bridgeport	Bridgeport Brass	Terminated	C-04011	3/31/59	NRC/ DOE	Part 40 license	Eliminated

CT	Canaan	Nelco Metals	License Not Found			DOE		Eliminated
CT	Putnam	Metals Selling	License Not Found			DOE		Eliminated
CT	Seymour	Bridgeport Brass	License Not Found		1993	Army COE	FUSRAP Site	FUSRAP
CT	Stamford	Dorr	Terminated	06-17272-01 SUB-00967	4/25/79	NRC	Part 30 license. Clean Region I Inspection.	NRC
CT	Waterbury	American Brass	License Not Found			DOE		Eliminated
DE	North Claymont	Allied Chemical and Dye	License Not Found			DOE		Eliminated
FL	Bartow	Armour Fertilizer Works	License Not Found			DOE		Eliminated
FL	Bartow	Int'l Minerals and Chemical	License Not Found			DOE		Eliminated
FL	Mulberry	Int'l Minerals and Chemical	Terminated	09-04463-01	2/27/62	NRC/ DOE	Part 30 license. C-14, P-32, S-35, Po-210, Sb-124, Co-60, Cd-115. Mat's transferred to 12-01762-02 and buried onsite. Used in Isotope lab studies.	Eliminated
FL	Nichols	Virginia-Carolina Chemical	License Not Found			DOE		Eliminated
FL	Ridgewood	W.R. Grace	License Not Found			DOE		Eliminated
FL	Tampa	U.S. Phosphoric Plant Uranium Recovery Unit	License Not Found			DOE		Eliminated
IA	Davenport	Bendix Aviation, Pioneer Division	License Not Found			DOE		Eliminated
IL	Blue Island	Vapofier	License Not Found			DOE		Eliminated
IL	Chicago	Museum of Science and Industries	Terminated	SNM-01032 12-05965-01	8/31/72 7/18/62	State/ DOE	Part 70 licensee. Sealed 0.033 mg Pu-239 source Sealed Sr-90 source in exhibit transferred to Argonne in 1962.	Eliminated

IL	Chicago	Podbeilniac	License Not Found			DOE		Eliminated
IL	Chicago	Quality Hardware and Machine	License Not Found			DOE		Eliminated
IL	Chicago	R. Krasberg and Sons Manufacturing	License Not Found			DOE		Eliminated
IL	East Moline	American Machine and Metals	License Not Found			DOE		Eliminated
IL	Granite City	Granite City Steel	License Not Found		1993	Army COE	FUSRAP site	FUSRAP
IL	Joliet	Blockson Chemical	Terminated	C-00991 & C-02608	8/1/52 1/1/58	DOE/State	Part 40 license. 1 lb source material	Eliminated
IL	Joliet	William E. Pratt Mfg.	License Not Found			DOE		Eliminated
IL	Madison	Dow Chemical	License Not Found			Army COE	FUSRAP site	FUSRAP
IL	Metropolis	Allied Chemical Plant	Terminated	SUB-00945	2/28/78	State	400,000 lbs U3O8. Prior to 1964, waste disposed as slurry to Ohio River. Later, customer delegated to take waste. No closeout survey. ONRL recommends reviewing 1976 alpha inspection report to current standards.	NRC
IL	N. Chicago	Fansteel Metallurgical	Terminated	12-03236-03 C-05047 SUB-00225	11/30/88 3/31/61 2/5/72	State	Part 30 and 40 license. (1) Removal and disposal by Adco services. (2) 10 lbs DU, (3) 7,000 lb DU in UO2 to insulate sintering furnaces. Disposed to Nuclear Eng of Morehead, KY.	NRC
IL	W. Chicago	Lindsay Light and Chem/ Lindsay Chemical	License Not Found	Docket 40-2061		EPA/State	Kerr McGee site transferred to Illinois	NRC/EPA/State
IN	Fort Wayne	Joslyn Mfg. and Supply	License Not Found			DOE		Eliminated

IN	Shelbyville	General Electric Plant	Terminated	13-15523-01 13-20028-01 SNM-00421	7/31/83 12/31/85 9/30/62		SNM license for sealed U235 source (494 gm), were to be returned to G.E. San Jose, but transfer not documented	NRC
MA	Allston	Raytheon	Licence Not Found			Unkwn	Per USA Today: "no evidence that radioactive materials were involved"	Not Listed
MA	Ashland	Fenwal	Terminated	070-01052 SNM-01000	10/31/68	State/ DOE/ NRC	Part 70, Uranium and U-235 for Determination of Explosive Characteristics, U-235 6.4 gram, Natural U 1.4154 lbs. No closeout inspection or survey. Waste products to be returned to National Lead. Clean Region I inspection.	Eliminated
MA	Attleboro	Metals and Controls	Terminated	20-01266-01 SMB-00216	1961 1973	State	Part 30 and 40 licenses. Region I inspection found insignificant contamination, site terminated, NRC actions complete	NRC
MA	Beverly	Metal Hydrides (Ventron)	Terminated	20-15916-01 STB-00180	1/10/79	State/ Army COE	2 nd license for loose natural Uranium(244 lbs) and nat Thorium or Th-232 (968 lbs) The Ventron site consists of several buildings once used in support of AEC uranium work in 1937.. On August 8, 1997 DOE determined that the site is clean and available for use without radiological restrictions.	FUSRAP
MA	Concord	Nuclear Materials	Ongoing SDMP	SMB-179 SUB-1452		State	Transferred to agreement state. Decommissioning ongoing	NRC (MA.09)
MA	Graniteville	C.B. Sargent & Sons	Terminated	STB-00926	2/8/72	State	up to 1500 lbs of loose Uranium and Thorium for Testing of Fabrication Equipment (extrusion and drying processes on slurry). No survey/inspection reports.	NRC
MA	Hudson	La Pointe Machine and Tool	License Not Found			DOE		Eliminated

MA	Indian Orchard	Chapman Valve Mfg. 203 Hampshire St	Terminated		1995	Army COE	FUSRAP Site Chapman Valve occupied the site until 1959. In 1948, Chapman Valve set aside a portion of one building at the site to engage in uranium work for Brookhaven National Laboratory. The uranium work ceased in 1948. In 1991, a ORNL survey by found uranium contamination on floors, walls, and overhead beams DOE completed its radiological cleanup of the site in September 1995, making Chapman Valve the 21st FUSRAP site completion.	FUSRAP
MA	Newton	NRC Equipment	Terminated	20-01465-01 thru -06	3/31/62 12/31/63 2/28/66 5/31/66	State	[National Research Corp in Cambridge, MA, per DOE]	NRC [DOE to send files] (MA.10)
MA	West Hanover	American Potash & Chemical	License Not Found			DOE		Eliminated
MA	Winchester	Winchester Engineering and Analytical Center	License Not Found			DOE		Eliminated
MA	Worcester	Heald Machine	License Not Found			DOE		Eliminated
MD	Curtis Bay/ Baltimore	W.R. Grace 550 Chemical Road	License Not Found			Army COE	FUSRAP Site. work for AEC done in one building (No. 23) at this 260-acre facility. The site currently supports commercial activity. Region I inspection found insignificant contamination, site terminated, NRC actions complete.	FUSRAP

MI	Adrian	Bridgeport Brass/ General Motors 1450 Beecher St	Terminated		1994	Army COE	FUSRAP Site. From 1954 until 1962, the site was used for extruding uranium metal to supply fuel for DOE nuclear reactors. In 1979, a DOE study revealed areas of uranium contamination above guidelines in subfloor drains, sumps and pipes DOE cleanup work was completed in July 1995. Approximately 3,500 cubic feet of contaminated materials were removed and shipped to a licensed disposal facility.	FUSRAP
MI	Adrian	Gerity-Michigan	License Not Found			DOE		Eliminated
MI	Battle Creek	Oliver	Terminated	C-03725	1958	NRC	Part 40 license	NRC
MI	Detroit	Carboloy (General Electric Company) 11177 East Eight Mile Road, Warren, Michigan	Terminated	SNM-00059	3/19/1958	NRC	G.E. was the original licensee, issued on November 20, 1956. Up to 18,000 lbs of uranium dioxide (4% enriched) are authorized in the license. The UO2 was purchased as pellets from Mallinckrodt Chemical Company for hot pressing into different fuel element shapes, which were then shipped as fuel elements to the G.E. Atomic Power Equipment Department in San Jose, CA for research and use in a BWR program in Vallecitos, CA. Material and equipment shipped to G.E. San Jose CA prior to license termination, and confirmed by a June 1982 NRC inspection. A later NRC inspection was conducted of the site on 2/3/1994, which found one area with residual radiation which was subsequently remediated and cleared	NRC
MI	Detroit	Revere Copper & Brass	License Not Found			DOE		Eliminated
MI	Detroit	Wolverine Tube Division	License Not Found			DOE		Eliminated

MI	Farmington	Star Cutter	License Not Found			DOE		Eliminated
MI	Flint	AC Spark Plug	Terminated	21004801-01 C-03801 C-04490	1963 1958 1961	NRC	Part 30 and 40 licenses	NRC
MI	Saginaw	Baker-Perkins	Terminated	21-03469-01	1958	NRC/ DOE	Part 30 license	Eliminated
MI	Saginaw	Mitts & Merrel	License Not Found			DOE		Eliminated
MO	Hazelwood	Commercial Discount of Chicago/Latty Ave (0.6 miles north of the St. Louis Airport)	Terminated	SMC-00907	2/19/70	DOE/ Army COE	250,000 lbs source material. The properties consist of (1) the Hazelwood Interim Storage Site (HISS), an 11.6 acre DOE-leased property at 9200 Latty Avenue used for interim storage of materials removed from vicinity properties, and (2) several vicinity properties on Latty Avenue. In FY 1988 removal actions were completed on portions of HISS and some of the vicinity properties. Additional vicinity properties were cleaned in 1995.	FUSRAP
MO	Hematite	United Nuclear	Terminated	24-12988-01	1973	NRC	Part 30 license	NRC
MO	Joplin	Roger Iron	License Not Found			DOE		Eliminated

MO	St. Louis	Malinckrodt Chemical North Broadway and Destrehan St	Active	STP-041		NRC/ John Buckley	Complex Decommissioning Site non-SDMP. Estimated to completed 2007. The site occupies about 45 acres. Portions of the site have been used by Mallinckrodt in support of the Manhattan Engineer District and the Atomic Energy Commission. DOE conducted remedial investigations in FY 1988 and groundwater monitoring from mid-FY 1988 to early FY1989 Wells created for this monitoring program are still in place. DOE cleaned up a portion of the site, known as the Plant 10 area, in the summer of 1995.	FUSRAP (MO.02)
MO	St. Louis	Medart [Manhattan Engineer District ?]	License Not Found			DOE		Eliminated
MO	St. Louis	St. Louis Airport Storage (SLAPS) site. Hazelwood and Berkeley	ongoing cleanup			Army COE	<p>FUSRAP site. A 21.7-acre tract adjacent to the Lambert-St. Louis International Airport. The Manhattan Engineer District acquired this site in 1946. Ownership transferred to the Lambert-St. Louis Airport Authority in 1969. The site is now controlled by the airport authority and the City of St. Louis.</p> <p>The site is on the EPA NPL.</p> <p>In the 1960s, contaminated material fell or blew off of the trucks during transport, contaminating many haul routes between sites. FUSRAP characterized the haul routes, including approximately 70 adjacent properties in 1988 and 1989. Seven of the contaminated vicinity properties were residential. These properties were cleaned up in early FY 1995.</p>	FUSRAP

NH	Concord	Richard D. Brew & Company, Inc. Vacuum Furnace Div. 90 Airport Road	Retired	SUB-00677 40-06927	4/30/63	State/ DOE	Up to 350 lbs of Natural uranium billets used in a cold walled vacuum furnace. Tested oxides returned to National Lead Co along with contaminated oil License valid for only 4 months. Clean Region I Inspection.	Eliminated
NJ	Bayway	Phelps Dodge Copper	License Not Found			Unkwn	Per DOE, no radiological work done, Silver smelting/casting only.	Not listed [Not nuclear work]
NJ	Bloomfield	Westinghouse Electric	Decommissioned but ORNL survey still pending	29-03822-01, -02, -03 R-00126 SMB-00353	5/31/73 12/17/71 2/23/83 5/1/55 2/18/83	NRC	Completed remediation but NRC has not completed its confirmatory survey. Decommissioning ongoing	NRC
NJ	Burlington	U.S. Pipe and Foundry	Active	29-07262-02	10/31/05	NRC/ DOE		Eliminated
NJ	Deepwater	Chambers Dye Works of DuPont(E.I. dePont de Nemours)	License Not Found			DOE	This 700-acre site is located in both Pennsville and Penns Grove Townships on the north shore of the Delaware River, near the Delaware Memorial Bridge and adjacent to the residential community of Deepwater. Manhattan Engineer District activities took place on the Pennsville portion of the property in a section known as the "Blue Products Area." The site is presently in use. In 1977, Oak Ridge National Laboratory performed a radiological survey at the Du Pont & Company site and established that contamination exists there. In 1983, DOE conducted another radiological survey in six separate areas of the plant to identify the extent of the radioactive contamination. To date, no remedial action has been performed. DOE maintains no presence at the site.	Eliminated

NJ	Jersey City	Kellex/Pierport (Vitro) New Jersey Route 440 and Kellogg Street	Terminated		1981	Army COE	FUSRAP Site. This site originally consisted of approximately 43 acres with more than 20 buildings. In 1951, the Vitro Corporation of America assumed all rights and obligations of Kellex. DOE completed cleanup of radioactive contamination in FY 1981. DOE maintains no presence at the site.	FUSRAP
NJ	Maywood	Maywood Chemical Works	Terminated	STC-00130	5/31/72	EPA, Army COE	FUSRAP Site (since 1984). The site comprises residential, municipal, and commercial properties in the Maywood, Lodi, and in Rochelle Park Township, Bergen County, N.J. It also includes a soil storage site on 12 acres of DOE-owned land located at 100 West Hunter Avenue in Maywood. Contamination at the site originated from the commercial processing of thorium ores in the 1950's. In 1959 the current owner, the Stepan Company, purchased the property. Since 1984, DOE has completed radiological cleanup of many vicinity properties; waste removed during these cleanups has been in interim storage on the DOE property, and is now being sent to an out-of-state licensed disposal facility. The site is listed on the EPA's NPL.	FUSRAP
NJ	Newark	Baker and Co, Baker and Williams	Terminated	29-08864-02 C-03387	10/31/65 7/31/62	NRC	DU, 29,500 lb source mat'l, 1.101 lb Nat U. Used for rolling, drawing and fabricating uranium experiments, preparing sample and experimental clad fuel elements and developing chemical purification procedures.	NRC
NJ	Wallington	Tube Reducing	Terminated	C-03851 C-05160	1959 1961	NRC/ DOE	Part 40 license	Eliminated

NJ	Wayne	Rare Earths/W.R. Grace 868 Black Oak Ridge Road	License Not Found			Army COE	FUSRAP Site since 1984. Contamination at the 6.4-acre site and on several vicinity properties originated from commercial thomum processing, which was begun in 1948 by Rare Earths, Inc. W. R. Grace and Company acquired the site in Nov 1956. Processing activities terminated in July 1971. From 1967 to 1984, Electro-Nucleonics, Inc., leased and occupied the site. DOE acquired the site in 1984 and has constructed an intern waste storage facility. The site is listed on EPA's NPL. The last of a total of 25 vicinity properties was remediated in 1993. In July 1995, a contract was awarded to remove the storage pile to an out-of-state licensed disposal facility.	FUSRAP
NJ	West Orange	Vitro	Terminated	C-29-01207-01 C-29-01207-02 C-04974 SMB-00028 SNM-00506 SUB-00028	1958 1971 1961 1970 1967	NRC	Plant was sold and material disposed Part 40 and 70 licenses. Region I inspection found insignificant contamination, site terminated, NRC actions complete.	NRC/EPA
NV	Henderson	Titanium Metals	Terminated	27-12264-01 27-12264-02	1972 1972	State	Part 30 license	NRC
NY	Akron	Carborundum Metals	Terminated	31-03318-01 C-04960	1960 1960	NRC	Part 30 and 40 Licenses. Cs-137 Density Gauge	NRC (NY.31)
NY	Bayside	Sylvania Electric; Sylvania Corning Nuclear	Terminated	C-03396	1956	State	Part 40 license licensed to work with Uranium Metal	NRC
NY	Brooklyn	American Machine and Foundry-NY City	License Not Found				Same as AMF Atomics, Brooklyn. Several sites in Brooklyn under this name Uranium slug manufacture.	Eliminated (NY.26)

NY	Brooklyn	AMF Atomics (American Machine and Foundry)	Expired	C-04855	9/30/61	State/ DOE	1300 lb of source mat'l used in fuel element research. No survey or inspection report listed. Materials disposed by decay-in-place, disposal to sewer, and transfer to licensed disposal facility	Eliminated
NY	Brooklyn	Wolff-Alport and Co.	License Not Found	NA	NA	EPA/ State	Apparently an unlicensed Thorium mill, monozite, EPA/State.	EPA
NY	Buffalo	American Car and Foundry/Buffalo Works	License Not Found				Per USA Today "apparently not involving radioactive materials"	Eliminated (NY.13)
NY	Buffalo	B & L Steel	License Not Found			Army COE	FUSRAP site	FUSRAP
NY	Buffalo	Buflovak	License Not Found			DOE		Eliminated
NY	Colonie	National Lead Industries/Colonie Site	License Not Found			Army COE	FUSRAP Site	FUSRAP
NY	Dunkirk	Allegheny-Ludlum Steel	License Not Found			DOE		Eliminated

NY	Hicksville	Sylvania Corning Plant/ Sylvania Electric Products Sylcor Division, Long Island	Terminated	SNM-00082 70-00097	1374.9kg of U-235 from 1/1/61 to 6/30/65	NRC	up to 850 kg loose U-235 in enriched uranium fuel element plate fabrications for domestic and int'l reactors. Processes included melting, shearing, punching, pressing, welding, heating, brazing, machining, power blending, sintering, milling, and chemical cleaning AEC compliance inspection report 10/15/65. Mat'l transferred to Bayside NY (5/25/58 - 11/30/67), and then to Towanda PA (12/5/65 - 1970) building decom'd by ATCOR, Inc in Jan 1967. Mats sent to Nuclear Fuel Services, West Valley NY Liquid effluents discharged to sump pits, tested clean in '79, soil contamination to 3000 - 25,000 x background Ur levels. Discharges to sewer as well. Equipment bought by National Lead and moved offsite in late 1966. Solid wastes shipped offsite for Ur recovery. Closeout survey and inspections on Jan 25 and Feb 21, 1967. Region I Inspection found contamination, site transferred to State of New York. NRC action complete.	NRC
NY	Ithaca	Ithaca Gun	License Not Found			DOE		FUSRAP TBD
NY	Lackawanna	Bethlehem Steel	Terminated	31-01691-01	1958	State/ DOE	Part 30 license	Eliminated
NY	Lockport	Simonds Saw and Steel	License Not Found			DOE		Eliminated
NY -	New York	Baker and Williams Warehouses	Terminated		1993	Army COE	FUSRAP site that has been remediated	FUSRAP
NY	New York	Radiation Applications	License Not Found			DOE		Eliminated
NY	Niagara Falls	Electro metallurgical	Terminated	31-01069-01	1958	State/ DOE	Parts 30 and 40 license	Eliminated

NY	Niagara Falls	Hooker Electromechanical	License Not Found					EPA/Litigation?
NY	Niagara Falls	Niagara Smelting Division, Stauffer Chemical	License Not Found				Per USA Today "Production of boron trichloride" i.e. chemical productions only	Eliminated (NY.52 @ Lewiston)
NY	Niagara Falls	Titanium Alloys manufacturing	Terminated	SMB-00211	6/62	State		NRC
NY	Port Richmond	Archer-Daniels-Midland, Staten Island Warehouse	License Not Found			DOE		Eliminated
NY	Rochester	Gleason Works	License Not Found			DOE		Eliminated
NY	Tonawanda	Haist Disposal Site/Ashland oil/Seaway Industrial Park	License Not Found			Army COE	FUSRAP Site	FUSRAP
NY	Tonawanda	Linde Air Products Division	Terminated	31-00308-1	1958	State/Army COE	Part 30 license	FUSRAP
NY	Watervliet	Allegheny-Ludlum St	Terminated	C -0371	5/1/58	State/DOE	1000 lbs nat. Ur for conversion of Ur billets into wire. Per licensee telegram, Mat'l transferred to Union Carbide	Eliminated
OH	Ashtabula	Reactive Metals, State Road and East 21 st St	Terminated	34-02958-01, 34-05386-01, 34-05386-02	8/31/59 4/30/63 4/8/1971	State/DOE	Part 30 licenses, Company no longer exists, absorbed in reorg of Malloory-Sharon Corp.	DOE
OH	Cincinnati	American Steel Foundaries	License Not Found			DOE		Eliminated
OH	Cincinnati	Cincinnati Milling Machine, 4701 Marburg Ave	Terminated	34-00153-01, -02	3/31/58 2/28/1973	State	irradiated cutting tool tips to study wear. Superseded by 34-00153-02. Inspection report dtd 12/31/57 indicates tool tips sent to ORNL for disposal. Metal chips buried on company property, used cutting fluid disposed to sewer.	NRC
OH	Cincinnati	John Van Range	License Not Found			DOE		Eliminated
OH	Cincinnati	Magnus Brass	License Not Found			EPA/State		EPA/State

OH	Cincinnati	Process Research	License Not Found			DOE		Eliminated
OH	Cincinnati	R.W. Leblond Machine Tool	License Not Found			Army COE/ DOE		FUSRAP considered
OH	Cleveland	Brush Beryllium	License Not Found			DOE		Eliminated
OH	Cleveland	Clevite 540 East 105th	Terminated	34-00653-03 SNM-00182	12/13/63 8/31/62	State	1)Part 30 license, irradiated crystal in compounds for freq and piezoelectric measurements Cert of Disposition Indicates mat'l disposed IAW Part 20 requirements 2) Part 70 license, waste disposed of by Nuc. Eng Corp, but not materials	NRC
OH	Cleveland	EI Du Pont de Nemours & Co, Grasselli Research Laboratory	Terminated	34-15781-01	1/30/84	State/ DOE	Part 30 license	Eliminated
OH	Cleveland	Harshaw Chemical, 2240 Prospect Ave	Terminated	34-06558-02	8/24/62	State	Plated and sealed sources for radiation studies and measurements on detectors, semiconductors and crystals (Am, Cm, Co, SR) No inspection report on file	NRC
OH	Cleveland	Horizons, Incorp. 2905 East 79 th St	Expired SDMP Site	C-3496	2/28/59 1/16/74 6/30/80	State/ NRC/ DOE	SDMP site transferred to the state 8/99 Undergoing Cleanup by DOE- Savannah River	NRC/ (DOE)
OH	Cleveland	McKinney Tool and Manufacturing	License Not Found			DOE		Eliminated
OH	Cleveland	Toco Induction Heating Division of the Ohio Crankshaft, 3800 Harvard Ave	Terminated	SUB-00896	1/27/69	State	Part 40 license	NRC
OH	Columbus	B&T Metals	License Not Found			Army COE		FUSRAP
OH	Columbus	Battelle Memorial Institute, Battelle Columbus Division	License Not Found			DOE		DOE- SCLDP

OH	Columbus	Battelle Columbus Laboratories	License Not Found			DOE		DOE-SCLDP
OH	Dayton	Monsanto	Terminated	34-00825-01 -03 thru -08, 34-07138-02, -03G, C-04182 (part 40)	7/31/58 9/19/61 7/27/61 5/31/59 1/31/60 8/20/62 3/31/62 2/12/74 2/11/71 7/31/59	State/ DOE	Part 30 and 40 licenses	Eliminated
OH	Fairfield	Associated Aircraft Tool and Manufacturing	Terminated		1995	Army COE	FUSRAP Site	FUSRAP
OH	Hamilton	Herring-Hall-Marvin Safe	License Not Found			Army COE		FUSRAP
OH	Norwood	Gruen Industries, Inc Time Hill, Cincinnati	Expired/ Terminated	34-01900-01	1/31/59	State/ DOE	Disposal by US Radium, No survey or inspection info available, cert of disposition available. H-3 used in illumination of dials. 6.5 Ci sealed H-3	Eliminated
OH	Oxford	Alba Craft Shop	License Not Found			Army COE		FUSRAP
OH	Painesville	Clifton Products	Terminated		1995	DOE, Army COE	FUSRAP Site	Eliminated
OH	Painesville	Diamond Magnesium	License Not Found			Army COE	FUSRAP Site	FUSRAP
OH	Toledo	Baker Bros.	Terminated		1996	Army COE	FUSRAP Site	FUSRAP
OH	Warren	Copperweld Steel Company	Expired/ Terminated	37-11172-01	7/31/69	State/ DOE	Part 30 license	Eliminated
PA	Aliquippa	Vulcan Crucible Tool and Steel; Aliquippa Forge	FUSRAP			Army COE		FUSRAP
PA	Birdsboro	Birdsboro Steel and Foundry and Machine Company	Terminated	37-02683-01	6/30/61	NRC/ DOE	Part 30 license, Spent sources to be returned to Picker S-Ray Corporation	Eliminated

PA	Cannonsburg	Vitro Rare Metals Company	Terminated	C-03820 C-03948 C-04625	10/01/58 1/30/59 3/31/60	NRC	Part 40 licenses. Region I inspection found insignificant contamination, site terminated, NRC actions complete	UMTRAP site
PA	Carnegie	Superior Steel	Terminated	C-03480	4/30/58	NRC/ DOE	45,000 lb loose thorium or th-232. No final inspection/survey report on file Region I inspection found contamination, site status pending.	Eliminated
PA	East Pittsburgh	Westinghouse Atomic Power Development Plant: (various locations)	Terminated	37-00497-12 37-00497-13 C-04389	8/31/63 8/8/75 10/31/61	NRC	1) Part 30, Cert. Of Disposition transferred materials transferred to Westinghouse Electric Co, Radiation and Nucleonics Laboratory, disposal through Nuclear Engineering Corp, Kearny, NJ 2) Part 30 R& D using source material 3) Part 40, 150 lbs source matter for R&D. Clean Region I inspection.	NRC
PA	Malvern (Exton)	Vanadium Corp of American (Foote Mineral) Rte 100 Exton	Terminated	SMB-00850	8/31/75	NRC/ EPA	Facility on Rte 209	EPA-NPL
PA	McKeesport	U.S. Steel, National Tube Div. Christy Park Works	Terminated	C-04469 C-05000	12/31/59 1/31/61	NRC/ DOE	1) Expired part 30 license, processed uranium bars. Second license issued by AEC in response to letter 2) expired part 40 license, processed uranium bars. Materials returned to National Lead Company with finished product and contaminated water in 55 gal drums.	Eliminated
PA	Philadelphia	Rohm & Haas 5000 Richmond Street	Terminated	37-01665-03 37-01665-01	9/30/78 4/30/64	NRC	Expired Part 30 licenses. 1) Disposal records dated 9/22/78 No survey or inspection report is listed for this site. Disposal info: Radiac Research Corp 2) Waste disposal by Radiological Service Co, Valley Stream, NY	NRC
PA	Pittsburgh	Heppenstall	License Not Found			DOE		Eliminated
PA	Reading	Carpenter Steel	License Not Found			DOE		Eliminated
PA	Springdale	C.H. Schnoor	Terminated		1994	Army COE	FUSRAP site	FUSRAP

PA	Washington	Jessop Steel Company	Terminated	37-17269-01 C-03485	12/7/81 4/30/58	NRC/ DOE	Part 30 license (1981 term) Part 40 license (1958 exp). Clean Region I inspection.	Eliminated
PA	Waynesboro	Landis Machine Tool	License Not Found			DOE		Eliminated
PA	West Chester	Aeroprojects, Incorporated 310 East Rosendale Ave	Terminated	37-824-01 C-03541 C-04325 SUB-00858	7/31/62 8/1/58 10/31/59 12/31/68	NRC/ DOE	1) Possible burial (4' deep) disposal of 1 mCi of Ni-63 in 300 ml Nickel acetate solution 2 -3) source material was extractant. 4) inspected 5/9/69, in compliance	Eliminated
RI	Cranston	C.I. Hayes, Incorporated 800 Wellington Ave.	Terminated	SUB-00738	9/30/69	State	Part 40 license, Cert. Of Disposition on file 9/14/1966. Uranium used in susceptibility tests, material returned to National Lead Company for disposal	NRC
TN	Erwin	W.R. Grace (Davidson Chemical Division)	Expired, Superceded by new license	R-00202 40-00946	6/30/61	State	No disposition info available, No survey or inspection report listed for this license. New license SMB-306. Also possessed 42 export licenses.	NRC
TX	Dallas	Sutton, Steele, and Steele	License Not Found			DOE		Eliminated
TX	Fort Worth	AMCOT	License Not Found			DOE/ Army COE		FUSRAP considered
TX	Pasadena	Mathieson Chemical Pilot Plant	License Not Found			DOE		Eliminated
TX	Texas City	Texas City Chemicals	License Not Found			DOE		Eliminated
VA	Richmond	Virginia-Carolina Chemical	License Not Found			DOE		Eliminated
WI	Milwaukee	Allis-Chalmers Manufacturing Company, Research Lab.	Terminated	48-02621-01	2/29/64	NRC	Part 30 license for pump shaft material disposed of to Radiological Services Co, Inc, Long Island City, NY as radioactive waste.	Eliminated (WI.01)