TABLE B.5.1.14–1.—*Livermore Site Chemical Material Projections by Alternative*

Hazardous Material	Approximate Maximum	No Action	Proposed Action	Reduced Operation	Units
1,1,1,2-Tetrafluoroethane (Refrigerant 134A)	1,600	515	550	475	lb
1,1,1-Trichloroethane	220	72	77	67	gal
Acetic acid	500	103	110	95	gal
Acetone	1,200	762	814	703	gal
Acetonitrile	200	80	85	74	gal
Acetylene	83,000	61,800	66,000	57,000	ft^3
Acoustical Tile Adhesive	200	57	61	52	gal
Actrel 4493L Cleaner	170	170	182	157	gal
Aero Melamine	3,500	3,277	3,500	3,023	lb
Adhesive, Concresive Part B	330	57	61	52	gal
Air, Compressed	85,000	70,040	74,800	64,600	ft^3
Aluminum hydroxide	1,600	546	583	504	gal
Aluminum oxide (Alumina)	6,000	1,617	1,727	1,492	lb
Aluminum	5,000	824	880	760	lb
Ammonia, anhydrous	2,800	1,185	1,265	1,093	ft^3
Ammonium hydroxide	3,600	206	220	190	lb
Ammonium nitrate	2,000	515	550	475	lb
Antifreeze, coolant	260	82	88	76	gal
AQUA POWER, Cleaner/Degreaser	150	57	61	52	gal
Argon, compressed	25,000,000	164,800	176,000	152,000	ft^3
Asbestos Free Roof Cement	165	57	61	52	gal
Asphalt Emulsion-seasonal product	1,100	57	61	52	gal
Barrett SN	300	237	253	219	gal
Belsperse 161, Dispersant	6,500	3,090	3,300	2,850	lb
Beryllium	1,600	1,030	1,100	950	lb
Beryllium oxide	500	361	385	333	lb
Black Magic SS	200	57	61	52	lb
Boron	2,600	515	550	475	lb
Bright Plating solution	130	57	61	52	gal
Brulin MP 1793	200	103	110	95	gal
BSP Captor Solution	170	57	61	52	gal
Brulin 1990 GD	110	57	61	52	gal
Brulin SD 1290	70	57	61	52	gal
Bulls Eye 1-2-3 Primer/Sealer	750	57	61	52	gal
Buffer, 5XTBE	850	57	61	52	gal
Butyl alcohol (n-Butanol)	510	57	61	52	gal
Calcium chloride	3,200	1,597	1,705	1,473	lb
Calcium sulfate	1,300	716	765	660	lb
Carbon, activated	76,000	13,133	14,025	12,113	lb
Carbon dioxide	176,000	127,720	136,400	117,800	ft^3
Carbon monoxide	4,000	1,339	1,430	1,235	ft^3
Carbon tetrachloride	110	0	0	0	gal

TABLE B.5.1.14–1.—*Livermore Site Chemical Material Projections by Alternative (continued)*

Hazardous Material	Approximate Maximum	No Action	Proposed Action	Reduced Operation	Units
Celite 535	2,000	979	1,045	903	lb
Cement, Kast-o-lite	1,300	515	550	475	lb
Cerium oxide	1,300	618	660	570	lb
ChemTreat BL-1253	1,200	646	690	596	gal
ChemTreat BL-1302	1,000	381	407	352	gal
ChemTreat BL-1543	700	57	61	52	gal
ChemTreat BL-1776	1,000	144	154	133	gal
ChemTreat BL-1821	700	57	61	52	gal
ChemTreat CL-1467	700	57	61	52	gal
ChemTreat CL-2111	800	309	330	285	gal
ChemTreat CT9001-Antifoulant	55	52	55	48	gal
Chlorine	1,000	200	220	190	lb
Chloroform	220	85	91	78	gal
Chrome or Chromium	4,700	1,545	1,650	1,425	lb
Chromium(III) chloride	12	4	4	4	lb
Citric acid, anhydrous	1,600	412	440	380	lb
Cobalt	16,500	14,420	15,400	13,300	lb
Concresive Adhesive, Part A/B	330	57	61	52	gal
Concrete, FIXALL	600	412	440	380	lb
Cutting Fluid, Cool Tool (I & II)	390	70	74	64	gal
Copper sulfate, crystals & solution	1,100	515	550	475	lb
Cutting fluid, Aluminum A-9	100	93	99	86	gal
Cyanuric acid	2,500	515	550	475	lb
Dascool 2227	500	57	61	52	gal
DDO-19, Lubricating oil	500	57	61	52	gal
Delvac Motor oil	300	57	61	52	gal
DESMODUR	110	57	61	52	gal
Detergent, ND 150	300	57	61	52	gal
Diesel	30,000	10,300	11,000	9,500	gal
Diesel Fuel additive	55	52	55	48	gal
Dimethyl sulfoxide	220	57	61	52	gal
4,4'-Diphenylmethane diisocyanate	1,000	515	550	475	lb
DowTherm SR-1 30 Heat Transfer Fluid	110	57	61	52	gal
ELNIC 100 C-5	250	57	61	52	gal
ELNIC 100 RP-1	60	56	60	52	gal
ELNIC 100 RP-2	150	113	121	105	gal
Epolene Wax, Polyethylene, oxidized	110	57	61	52	gal
Ethyl alcohol	2,000	1,545	1,650	1,425	gal
Ethylene, compressed	5,700	1,082	1,155	998	ft^3
Ethylene glycol	500	196	209	181	gal
Ethyl silicate	150	57	61	52	gal
Ferric chloride, Iron chloride(III)	1,400	515	550	475	lb
Ferric sulfate	3,500	721	770	665	lb
Fertilizer, Pro-Turf 25-3-10	11,000	5,665	6,050	5,225	gal
Formula 12-L, Corrosion Inhibitor	110	57	61	52	gal
Freon 11 (Trichlorofluoromethane)	10,000	5,150	5,500	4,750	lb

TABLE B.5.1.14–1.—*Livermore Site Chemical Material Projections by Alternative (continued)*

Hazardous Material	Approximate Maximum	No Action	Proposed Action	Reduced Operation	Units
Freon 12 (Dichlorodifluoromethane)	6,300	4,120	4,400	3,800	lb
Freon 14 (Tetrafluoromethane)	2,500	515	550	475	ft^3
Freon 22 (Chlorodifluoromethane)	9,000	5,150	5,500	4,750	lb
Freon 113 (1,1,2-Trichloro-1,2,2-trifluoroethane)	17,0000	10,815	11,550	9,975	lb
Gasoline	24,000	22,473	24,000	20,727	gal
Gator Aid Mastic Patch	400	57	61	52	gal
Glass Cleaner, variety	2,300	206	220	190	gal
Glycerine	110	57	61	52	gal
Hafnium oxide	4,700	4,401	4,700	4,059	lb
Halocarbon 23	400	206	220	190	ft^3
Halon 1301 (Bromotrifluoromethane)	2,000	1,648	1,760	1,520	lb
Helium	5,000,000	309,000	330,000	285,000	ft^3
Herbicide, Ronstar	2,000	721	770	665	lb
Herbicide, Roundup	220	41	44	38	gal
Herbicide, Surflan	100	41	44	38	gal
Hexane	250	165	176	152	gal
Hydrochloric acid	600	412	440	380	gal
Hydrogen chloride (gas only)	varies	varies	varies	varies	
Hydrofluoric acid	1,500	876	935	808	lb
Hydrogen, compressed	1,500,000	51,500	55,000	47,500	ft^3
Hydrogen peroxide<52%	42,000	9,298	9,930	8,576	gal
Isopropyl alcohol	650	567	605	523	gal
Insulating Oil, Inhibiting	1,800	1,115	1,191	1,028	gal
Joint Compound, All purpose	45,000	12,463	13,310	11,495	lb
Kerosene (Naphtha Petroleum)	500	209	223	192	gal
Kodak Fixer & Replenisher	650	258	275	238	gal
Kohl and Madden Printing Ink	950	438	468	404	lb
Krypton, compressed	1,600	1,133	1,210	1,045	ft^3
Lead Bricks or ingots	1,000,000	936,364	1,000,000	863,636	lb
Lithium Grease	110	57	61	52	gal
Lithium Hydride	4,000	3,745	4,000	3,455	lb
Lubricating Oil	500	309	330	285	gal
Macro Brite L-7	220	113	121	105	gal
Magnesium chloride	6,000	515	550	475	lb
Manganese	3,500	3,090	3,300	2,850	lb
Metex L-5B	220	57	61	52	gal
Methane	100,000	30,900	33,000	28,500	ft^3
Methyl alcohol	1,800	515	550	475	gal
Methylene chloride	2,000	57	61	52	gal
Methyl ethyl ketone	400	57	61	52	gal
Mineral dust, Aquaset	10,000	4,635	4,950	4,275	lb

TABLE B.5.1.14–1.—*Livermore Site Chemical Material Projections by Alternative (continued)*

Hazardous Material	Approximate Maximum	No Action	Proposed Action	Reduced Operation	Units
Mineral oil	2,000	57	61	52	gal
Mineral spirits	400	57	61	52	gal
Modified Bitumen adhesive	350	206	220	190	gal
Neodymium oxide	25,000	4,300	4,593	3,966	lb
Neon, compressed	750,000	283,250	302,500	261,250	ft^3
Nickel	1,500	515	550	475	lb
Nickel chloride	80	72	77	67	gal
Nickel sulfate	220	113	121	105	gal
Nitric acid	7,810	3,502	3,740	3,230	lb
Nitric oxide	5,700	309	330	285	lb
Nitrogen, compressed (Liquified, gaseous)	38,000,000	9,336,950	9,971,500	8,611,750	ft^3
Nitrous oxide	4,000	1,236	1,320	1,140	ft^3
Oakite (Liqui-det)	80	57	61	52	gal
Oil, Diala AX	2,200	1,082	1,155	998	gal
Oil, DTE-24	700	453	484	418	gal
Oil, DTE-25	450	366	391	337	gal
Oil DTE-26	2,000	412	440	380	gal
Oil, DTE, extra heavy	850	299	320	276	gal
Oil, DTE heavy	850	113	121	105	gal
Oil, DTE Medium	220	57	61	52	gal
Oil, Spindle	700	366	391	337	gal
Oil, Tellus, variety	275	57	61	52	gal
Oil, Vactra, variety	500	244	260	225	gal
Oil, Vacuum Pump fluid, variety	1,500	57	61	52	gal
Oil, Waste	2,500	1,030	1,100	950	gal
Oxalic acid	700	515	550	475	lb
Oxygen, compressed	870,000	77,250	82,500	71,250	ft^3
OzzyJuice SW3, Cleaner/Degreaser	300	57	61	52	gal
Paint (variety)	700,000	329,905	352,326	304,281	lb
Perchloroethylene (Tetrachloroethylene)	250	57	61	52	gal
Phosphoric acid	3,600	1,030	1,100	950	lb
Potassium chloride	3,500	682	729	629	lb
Potassium hydroxide	15,000	412	440	380	lb
Potassium Phosphate, Monobasic	10,000	2,060	2,200	1,900	lb
Potassium silicate	1,100	515	550	475	lb
Power Plus, Cleaner & Degreaser	110	57	61	52	gal
Printing Ink, variety	1,000	876	935	808	lb
Propane	45,000	1,030	1,100	950	gal
n-Propanol	80	57	61	52	gal
Refrigerant, 123 SUVA, (2,2-dichloro-1,1,1-trifluoroethane)	35,000	1,545	1,650	1,425	lb
Purechlor Sanitizer/Sodium hypochlorite/Bleach	3,600	927	990	855	gal
Refrigerant 406A	720	598	639	552	lb
Rough Rider Emulsion Degreaser	110	57	61	52	gal

TABLE B.5.1.14–1.—*Livermore Site Chemical Material Projections by Alternative (continued)*

Hazardous Material	Approximate Maximum	No Action	Proposed Action	Reduced Operation	Units
Rubinate fluid	110	57	61	52	gal
Sanding Sealer	200	93	99	86	gal
sec-Butanol	130	122	130	112	gal
Shur-Stik Wall Covering Adhesive	110	57	61	52	gal
Silane, compressed	2,100	206	220	190	ft^3
Silicon carbide	3,200	515	550	475	lb
Silicone Transformer Fluid/Dow	700	170	182	157	gal
Simple Green Degreaser	140	57	61	52	gal
Sodium bicarbonate	3,600	515	550	475	lb
Sodium cyanide	250	103	110	95	lb
Sodium chloride	3,200	824	880	760	lb
Sodium hydroxide	25,500	14,420	15,400	13,300	lb
Sodium hypochlorite (Bleach)	12,000	1,030	1,100	950	gal
Sodium nitrate	1,500	361	385	333	lb
Solvent AZ-EBR	165	57	61	52	gal
Solvent GR7	110	57	61	52	gal
Spill clean-up kit, Acids	1,600	515	550	475	lb
Spill clean-up kit, Caustic	1,000	515	550	475	lb
Spill clean-up kit, Solvent	710	515	550	475	lb
Sterigent cleaner	330	57	61	52	gal
Strontium phosphate	1,400	361	385	333	lb
Sulfur hexafluoride, compressed	25,000	10,300	11,000	9,500	ft^3
Sulfuric acid	11,000	4,635	4,950	4,275	lb
Super Dropout	1,590	870	930	803	lb
Suva MP39 (R401A)	800	618	660	570	lb
Suva MP66 (R401B)	180	169	180	155	gal
Tantalum	75,000	20,600	22,000	19,000	lb
Tantalum oxide blend	17,000	8,755	9,350	8,075	lb
Tartaric acid	1,500	412	440	380	lb
Thinner, Lacquer	3,000	515	550	475	gal
Toluene	480	309	330	285	gal
TPX	800	749	800	691	lb
Transmission fluid, Dexron II (ATF)	220	57	61	52	gal
Trichloroethylene	350	170	182	157	gal
Trim Clear	110	57	61	52	gal
Trim Sol, coolant	660	170	182	157	gal
Tungsten	2,500	515	550	475	lb
Ultra NZ, Floor Wax	varies	varies	varies	varies	
Voranol	110	57	61	52	gal
Wax, Floor	300	281	300	259	gal
Wollastonite	1,500	258	275	238	lb
Xenon, compressed	2,000	515	550	475	ft^3
ZEP Formula 50	110	57	61	52	gal
Zirconium carbonate	650	155	165	143	lb

TABLE B.5.1.14–1.—*Livermore Site Chemical Material Projections by Alternative (continued)*

Hazardous Material	Approximate Maximum	No Action	Proposed Action	Reduced Operation	Units
Estimated Totals					
Liquids	230,000	70,000	75,000	65,000	gal
Solids	2,400,000	1,400,000	1,500,000	1,300,000	lb
Gas	72,000,000	11,000,000	11,000,000	9,700,000	ft^3

Source: TtNUS 2003.
ft^3 = cubic feet, gal = gallons, lb = pounds.

TABLE B.5.1.14–2.—*Site 300 Chemical Material Projections by Alternative*

Hazardous Material	Approximate Maximum	No Action	Proposed Action	Reduced Operation	Units
2,2-Dinitropropanol in EDC	275	258	275	238	gal
Acetone	400	31	33	29	gal
Acetylene	10,000	7,725	8,250	7,125	ft^3
Activated Carbon	20,000	15,450	16,500	14,250	lb
Air	28,000	12,875	13,750	11,875	ft^3
Alcoa Atomized Powder	3,000	2,060	2,200	1,900	lb
Ammonium Perchlorate	760	712	760	656	lb
Argon	30,000	28,091	30,000	25,909	ft^3
Asphalt Emulsion	300	206	220	190	gal
Auto Transmission Fluid (including Dextron)	400	309	330	285	gal
BT-500	120	28	30	26	gal
Bacticide Solution	220	57	61	52	gal
n-Butyl Acetate	55	52	55	48	gal
Calla Soap	165	57	61	52	gal
Carbon Dioxide	44,000	5,150	5,500	4,750	ft^3
Cast Iron, Shot (Chips)	6,000	5,618	6,000	5,182	lb
Chlorine	2,250	1,545	1,650	1,425	lb
Cleaner, Degreaser, Big Orange	110	57	61	52	gal
Cleaner, Butcher's Hot Springs	55	52	55	48	gal
Cleaner, Degreaser, Clean-Way II	110	57	61	52	gal
Cleaner, Degreaser, Ozzy Juice SW-3	330	113	121	105	gal
Coating, Acrylic Terpolymer	244	93	99	86	gal
Coating, Polytherm, FP-576	220	57	61	52	gal
Coating, Polyurethane, Vulkem 350, Gray	60	56	60	52	gal
Coating, Polyurethane, Vulkem 351, Gray	110	57	61	52	gal
Coating, Roof, Acrylic	2,500	515	550	475	gal
Condensate wastewater	4,500	3,708	3,960	3,420	gal
Cyanuric Acid	500	52	55	48	lb
Diesel	12,000	10,300	11,000	9,500	gal
Dimethyl Sulfoxide	400	57	61	52	gal
Ethyl Acetate	100	31	33	29	gal
Ethyl Alcohol	56	52	56	48	gal
Ethylene Glycol	200	103	110	95	gal
FEFO SOL (in methylene chloride)	1,100	430	459	397	gal
Floor wax	165	113	121	105	gal