Appendix Y:
Toxics Release Inventory

The Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313, more commonly known as the Toxics Release Inventory (TRI), provides information to citizens and communities about chemical hazards in the areas where they live and work. As toxic chemicals enter into the environment at a Department of Defense (DoD) installation or are transferred offsite for further waste management, the facility collects and reports this information annually to the U.S. Environmental Protection Agency (EPA). To ensure openness and transparency with the public, DoD's reported information is maintained in EPA's publicly accessible toxic chemical database, known as TRI Explorer, which is available at *www.epa.gov/triexplorer*.

Applicable Requirements and Current Management Practices

DoD complies with EPCRA, including the TRI reporting requirements pursuant to Executive Order (E.O.) 13423, entitled Strengthening Federal Environmental, Energy, and Transportation Management. The Order requires each federal facility to continue implementing EPCRA, including TRI reporting, as clarified in the Instructions for Implementing E.O. 13423. E.O. 13423 revoked E.O. 13148 entitled, Greening the Government through Leadership in Environmental Management. In response to E.O. 13423, DoD continues to implement policies and programs to reduce toxic chemicals while maintaining mission capability.

In 2006, the Department's EPCRA/TRI Working Group, composed of DoD subject matter experts, finalized a policy entitled Consolidated Emergency Planning and Community Right-to-Know Act (EPCRA) Policy for DoD Installations, Munitions Activities, and Operational Ranges (hereafter referred to as DoD's Consolidated EPCRA Policy). This policy explains how E.O. policies, goals, and requirements apply to DoD installations, superseding all previous DoD EPCRA and TRI policies issued by the Office of the Secretary of Defense.

In addition, DoD's Consolidated EPCRA Policy modifies the requirement for operational ranges, effective CY2007, which recognizes that ranges on contiguous property are reported with the rest of the installation. Operational range activities will continue to be tracked separately from the main installation activities. DoD does not include facility releases from military munitions, operational range activities, and conventional and chemical military munitions demilitarization in reduction goals.

EPA and state authorities require facilities to report TRI toxic chemical reports, known as Form Rs, by July 1 of each year for activities that occurred during the previous calendar year. The TRI reporting period for this Defense Environmental Programs Annual Report to Congress is Calendar Year (CY) 2007.

Performance Evaluation Criteria

The primary purpose of TRI reporting is to establish an inventory of toxic chemical releases and inform the public about routine and accidental releases of toxic chemicals into the environment.

DoD installations that manufacture, process, or otherwise use a TRI chemical in quantities greater than the established threshold over the course of a calendar year, must report all releases and waste management activities on chemical inventory forms. TRI-reported chemicals may be released evenly over the course of the calendar year, intermittently, or in a single event. A facility may revise its TRI-reported data if new information becomes available, even if this occurs after the reporting deadline has passed. Enabling facilities to revise historical data encourages review and recalculation of original data submissions to improve accuracy.

EPA's original reportable TRI list included 300 toxic chemicals. EPA selected these chemicals based on the criterion that each chemical's toxicity caused serious chronic or acute human health risks or adverse environmental effects. TRI chemicals are removed or delisted through either EPA-initiated action or an independent petition process. Under Section 313(e) of EPCRA, any person may petition EPA to add or delete a chemical from the TRI chemical list based on certain criteria. EPA's TRI reporting program is constantly evolving through the addition and deletion of toxic chemicals, chemical categories, newly regulated facilities, and new data elements. EPA's current TRI toxic chemical list contains over 600 chemicals and 30 chemical categories.

As a result of EPA changes and DoD interpretations of the TRI reporting requirements, TRI data reported by facilities have changed over the past several years. The most significant changes include:

- Munitions Demilitarization
- Persistent Bioaccumulative Toxic Chemicals
- Range Reporting
- Deletion of Methyl Ethyl Ketone (MEK).

Performance Summary

DoD continues to report TRI releases and off-site transfers from its facilities. Through TRI reporting, DoD can identify:

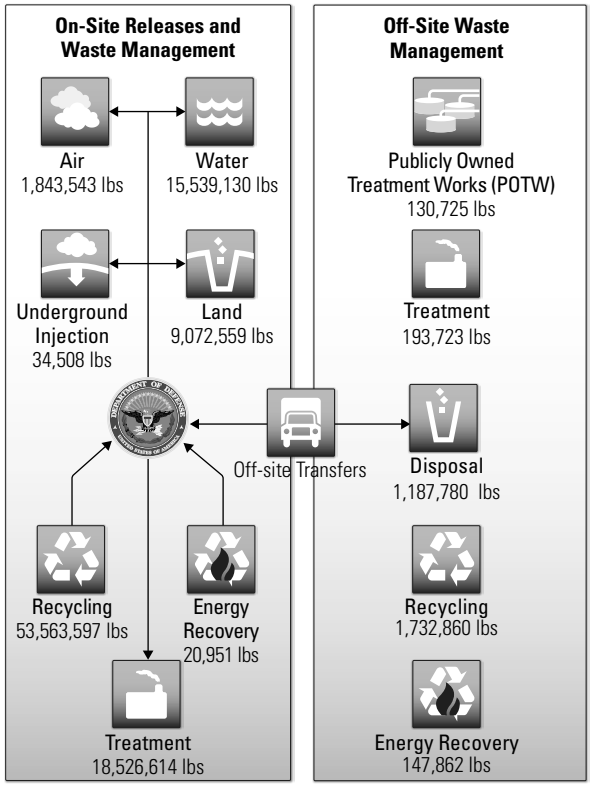
- Processes that produce releases and off-site transfers of TRI toxic chemicals
- Procedures or processes that require the use of TRI toxic chemicals
- Pollution prevention opportunities.

This analysis helps DoD develop strategies to reduce releases and off-site transfers of TRI toxic chemicals. By reducing the use of toxic chemicals, DoD minimizes its impacts on the environment, DoD personnel, their families, and surrounding communities.

Releases to land and water represent the majority of TRI releases in CY2007, as shown in Figure Y-1. TRI chemicals entering the land are primarily metals (e.g., copper, lead) from munitions used on training ranges or treated during open burning and open detonation (OB/OD). TRI chemicals entering the water are mainly from nitrate compounds released as a byproduct from wastewater treatment operations and propellant manufacturing operations. These types of releases have not been the traditional focus of installation pollution prevention programs.

DoD sent 1.7 million pounds of chemicals offsite to be recycled in CY2007, an 18 percent decrease since CY2006. DoD also reported 53.6 million pounds recycled onsite in CY2007, as shown in Figure Y-1. This resulted in a 5 percent increase from the previous reporting year. Both on- and off-site recycling is an essential process for DoD. Recycling effectively diverts chemicals from entering landfills, saves energy, and reduces costs.

Figure Y-1 CY2007 TRI Releases and Transfers, Including Ranges



The requirement to report range training activities in CY2001 resulted in many installations submitting TRI reports that previously were not required to report, including many National Guard bases and Reserve installations. In CY2001, 69 facilities reported 4.2 million pounds of range releases and off-site transfers. The revised range reporting guidance in DoD's Consolidated EPCRA Policy resulted in the addition of 48 new range facilities. In CY2007, a total of 139 facilities reported 7.6 million pounds of range releases and off-site transfers. This resulted in an 83 percent increase since CY2001. As shown in Figure Y-2, range releases accounted for 27 percent of the total DoD TRI releases and off-site transfers in CY2007.

Figure Y-3 illustrates DoD's total reportable quantities of toxic chemical releases and off-site transfers, including releases from operational ranges. DoD reported 28.0 million pounds of releases and off-site transfers in CY2007, an 8 percent decrease from the previous year. In CY2007, the largest increase of reportable quantities were from chemicals released to the land. This is typically associated with chemicals (e.g., copper, lead) released during operational range activities.

Figure Y-4 shows DoD's toxic chemical releases and off-site transfers since CY2001, not including operational ranges. DoD does not include facility releases from operational range activities as part of their reduction efforts. When excluding the chemical amounts reported from operational range activities, DoD's releases and off-site transfers totaled 20.4 million pounds in CY2007, a 2 percent decrease since CY2001.

Figure Y-2 CY2007 TRI Releases and Transfers from Ranges*

Component	Percent
Army	24%
Navy	4%
Marine Corps	57%
Air Force	43%
DoD Total	**27%**

*DLA does not have any range facilities

Figure Y-3 DoD TRI Reportable Quantities, including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	14,417,546	14,758,533	14,720,396	15,047,339	14,132,130	15,628,423	15,539,130	8%
On-site to Air	3,022,167	2,890,302	3,107,045	2,268,777	2,205,025	2,142,410	1,843,543	-39%
On-site Underground Injection	0	0	0	0	0	34,877	34,508	--
On-site Land	5,897,764	7,624,589	7,879,300	6,546,294	7,740,930	10,559,615	9,072,559	54%
Off-site to POTW	220,140	270,355	208,522	148,672	221,007	211,994	130,725	-41%
Off-site Treatment	474,080	580,222	556,324	389,928	681,889	689,221	193,723	-59%
Off-site Disposal	988,849	1,051,985	1,098,065	640,445	651,428	1,159,056	1,187,780	20%
Calculated Baseline	**25,020,547**	**27,175,986**	**27,569,652**	**25,041,456**	**25,632,409**	**30,425,596**	**28,001,968**	**12%**

Figure Y-4 DoD TRI Reportable Quantities, not including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	14,417,446	14,756,997	14,720,354	15,047,185	14,131,901	15,626,580	15,537,104	8%
On-site to Air	2,930,460	2,849,787	2,897,011	2,200,404	2,149,466	2,073,081	1,603,608	-44%
On-site Underground Injection	0	0	0	0	0	34,877	34,508	--
On-site Land	1,867,009	2,032,955	1,188,637	881,555	874,138	1,023,989	1,662,418	-11%
Off-site to POTW	220,140	270,355	208,522	148,672	111,007	211,994	130,725	-41%
Off-site Treatment	474,080	580,222	556,324	389,928	681,889	689,221	193,278	-59%
Off-site Disposal	945,848	1,050,771	1,098,039	640,284	569,423	1,048,824	1,171,159	24%
Calculated Baseline	**20,854,984**	**21,541,087**	**20,668,886**	**19,308,028**	**18,517,823**	**20,708,567**	**20,359,799**	**-2%**

Top Ten Chemicals Reported in CY2007

The top 10 DoD chemicals released in CY2007, as shown in Figure Y-5, were similar to the top 10 chemicals released in CY2001, with the exception of ethylene glycol and toluene, which replaced copper compounds and MEK. Releases of nitrate compounds and hydrochloric acid continue to remain on DoD's top 10 chemical list due to coincidental manufacturing processes. Nitrate compounds are coincidentally manufactured during the wastewater treatment process while hydrochloric acid is created as a byproduct of coal combustion. Figure Y-6 shows the top 10 DoD chemicals released in CY2001 and their releases over the past seven years. Compared to CY2001, nitrate compounds had a 13 percent increase and hydrochloric acid had a 61 percent decrease, as displayed in Figure Y-6.

Releases of heavy metals and metallic compounds, such as aluminum (fume or dust), copper, lead, and lead compounds remained on the list because of their use on operational ranges for training and deployment activities. Zinc (fume or dust) was also on the CY2007 top 10 DoD chemical list, primarily due to this chemical's use at the McAlester Army Ammunition Plant (AAP). Ethylene glycol remained on DoD's top 10 chemical list and releases and off-site transfers increased 73 percent since CY2006. Toluene was also listed although it had not been on the list since CY2004. Toluene had a reported 11 percent increase since the previous year.

Dichloromethane remains a frequently used chemical because it continues to be one of the main components released during aircraft and vehicle maintenance. Suitable alternatives, which are integral to operations, have yet to be developed for this chemical. As shown in Figure Y-6, dichloromethane was also a DoD top 10 chemical in CY2001. Compared to CY2001, dichloromethane releases decreased by 19 percent.

Figure Y-5 CY2007 Top 10 DoD TRI Chemicals, including Ranges

Chemical Name	Pounds Released or Transferred
Nitrate Compounds	15,970,190
Copper	4,450,604
Lead	2,070,228
Lead Compounds	1,676,646
Ethylene Glycol	586,115
Dichloromethane	314,490
Aluminum (Fume or Dust)	296,786
Zinc (Fume or Dust)	238,333
Toluene	218,734
Hydrochloric Acid*	215,633

* 1995 and after "Acid Aerosols" only

Figure Y-6 Change in CY2001 Top 10 DoD Chemicals, including Ranges (Pounds Released or Transferred)*

Chemical Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Nitrate Compounds	14,145,949	17,943,634	15,302,832	15,530,463	14,512,774	16,003,171	15,970,190	13%
Copper	2,834,102	3,275,746	4,154,942	3,349,513	3,821,405	5,759,548	4,450,604	57%
Lead Compounds	1,010,917	1,450,091	1,562,890	1,432,743	1,699,037	1,917,832	1,676,646	66%
Lead	976,690	1,143,554	1,340,277	1,033,084	1,141,699	2,101,936	2,070,228	112%
Aluminum (Fume or Dust)	948,188	639,844	438,460	325,005	382,249	325,231	296,786	-69%
Hydrochloric Acid*	854,013	648,271	738,877	453,569	342,039	370,873	336,130	-61%
Methyl Ethyl Ketone	469,204	530,798	418,684	Delisted	--	--	--	--
Zinc (Fume or Dust)	60,899	433,131	521,658	316,906	311,654	323,281	238,333	291%
Dichloromethane	386,483	391,782	437,515	322,197	479,107	422,350	314,490	-19%
Copper Compounds	206,242	627,995	224,494	166,867	232,643	160,821	136,536	-34%
Total	**21,892,687**	**27,084,846**	**25,140,629**	**22,930,347**	**22,922,606**	**27,385,043**	**25,489,943**	**16%**

* 1995 and after "Acid Aerosols" only

Top Ten Installations Reported in CY2007

In CY2007, DoD installations involved with the lifecycle of munitions (manufacturing, use, and demilitarization) were DoD's largest reporters of TRI releases and off-site transfers, as shown in Figure Y-7.

Of the CY2007 top 10 installations, Radford AAP is the largest contributor of DoD releases and reported a 6 percent increase since CY2001, as seen in Figure Y-8. Radford AAP has remained on the DoD's top 10 installation list since CY2001. Radford AAP's nitrate compounds are created when nitric acid is neutralized as a result of energetic manufacturing.

Anniston Army Depot had a 93 percent increase in releases since CY2001 and a reported 12 percent decrease in releases and off-site transfers since CY2006. Anniston Army Depot uses chlorinated solvents for surface preparation and degreasing, as part of the continued maintenance required on heavy tracked vehicles, such as M1 tanks.

Moody Air Force Base (AFB) Small Arms and Grand Bay Ranges, Marine Corps Base (MCB) Camp Lejeune Range, White Sands Missile Range, and Fort Benning Range reported releases and off-site transfers associated with operational range activities, including range training, live-fire, and clearance activities. Range releases generally consist of aluminum (fume or dust), copper, copper compounds, lead, and lead compounds.

MCB Camp Lejeune and Pearl Harbor Naval Complex releases can primarily be attributed to nitrate compounds, which are discharged from wastewater treatment operations. Over half of MCB Camp Lejeune's reported releases were from nitrate compounds in CY2007, while Pearl Harbor reported a 15 percent increase from the previous year.

New to DoD's top 10 installations list is McAlester AAP and Red River Army Depot. McAlester AAP reported a 34 percent increase in CY2007 as compared to CY2006. Forty-five percent of McAlester's CY2007 total releases come from zinc (fume or dust). McAlester AAP uses zinc (fume or dust) in munitions manufacturing. Zinc is sprayed onto bombs, as a heat resistant material that is intended to give firefighters more time to put out a fire before an explosion and creates the fume or dust, the reportable form of the chemical. Red River Army Depot had a 194 percent increase in CY2007 since the previous year. Sixty-three percent of Red River Army Depot's releases were from ethylene glycol, which is a result of the installation's continual wheeled and tracked vehicle maintenance operations. Ethylene glycol used at this installation is primarily sent offsite for disposal.

Figure Y-7 CY2007 Top 10 DoD TRI Installations, including Ranges

Installation Name	Pounds Released or Transferred
Radford AAP	13,919,076
Anniston Army Depot	546,475
Moody AFB Small Arms and Grand Bay Ranges	524,673
MCB Camp Lejeune Range	517,593
McAlester AAP	503,958
Red River Army Depot	470,597
White Sands Missile Range	465,248
MCB Camp Lejeune	432,333
Pearl Harbor Naval Complex	377,068
Fort Benning Range	339,667

Figure Y-8 Change in CY2001 Top 10 DoD Installations, including Ranges (Pounds Released and Transferred)

Installation Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Radford AAP	13,154,293	12,802,934	13,003,158	12,818,237	11,704,540	13,757,844	13,919,076	6%
Tinker AFB	479,956	293,605	314,686	110,287	126,941	109,490	139,489	-71%
Puget Sound Naval Shipyard*	479,773	139,465	158,307	278,741	377,515	203,751	154,638	-68%
Sierra Army Depot†	441,409	859	509	3,477	0	0	0	-100%
Fort Wainwright	440,103	166,503	168,547	148,814	121,821	81,110	89,721	-80%
NAB Little Creek	365,135	336,717	278,476	269,395	261,688	122,000	21	-100%
Pearl Harbor Naval Complex	359,220	460,229	371,644	294,092	517,958	329,226	377,068	5%
Schofield Barracks/ Wheeler Army Airfield‡	326,667	420,317	312,930	115,489	0	0	0	-100%
Nellis AFB Training Range	309,581	422,261	374,558	168,529	99,395	205,718	102,042	-67%
Twentynine Palms Range	293,501	261,452	48,813	97,089	622,052	353,074	148,573	-49%
Total	**16,649,638**	**15,304,342**	**15,031,628**	**14,304,150**	**13,831,910**	**15,162,213**	**14,930,627**	**-10%**

* As a result of regionalization efforts, Puget Sound Naval Shipyard began reporting as Naval Base Kitsap beginning in CY2004.
† Sierra Army Depot ceased ammunitions operations in CY2001, resulting in a reduction of releases.
‡ Schofield Barracks/Wheeler Army Airfield privatized their wastewater treatment operations in CY2004, resulting in a reduction of releases.

Army

In CY2007, the Army reported 22.0 million pounds of TRI releases and off-site transfers, as depicted in Figure Y-9. This resulted in an 8 percent decrease since the previous year. Of the CY2007 Army TRI releases and off-site transfers, range releases totaled 5.4 million pounds. When excluding the chemical amounts reported from operational range activities, the Army's releases and off-site transfers totaled 16.6 million pounds in CY2007, as shown in Figure Y-10. This resulted in a 4 percent increase since CY2001, but a 1 percent decrease from the previous reporting year.

Chemical releases into the water remained high in CY2007, primarily from Radford AAP's propellant manufacturing operations. As a result of the installation's processes, nitrate compounds are released into the water, making it the highest contributor of the Army's TRI releases in CY2007, as displayed in Figure Y-11. Since CY2001, this chemical has remained at the top of the Army's list, as displayed in Figure Y-12. Chemicals, such as copper, lead, and lead compounds are released to land primarily from ranges. These chemicals also remained on the Army's top 10 chemical list. These chemical releases are a result of continued operational training, depot activity, and ammunition production.

Radford AAP remained the top installation in CY2007, as shown in Figure Y-13. Releases from this facility remained stable, but increased by 6 percent since CY2001 due to continued propellant manufacturing operations. Overall, the Army's CY2007 top 10 installations list remained similar to the CY2006 except for the addition of Red River Army Depot and Fort Stewart.

Figure Y-9 Army TRI Reportable Quantities, including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	13,125,507	13,080,106	12,980,397	12,708,832	11,673,964	13,596,979	13,889,283	6%
On-site to Air	1,289,096	1,359,031	1,549,235	985,108	976,497	1,068,169	841,159	-35%
On-site Underground Injection	0	0	0	0	0	0	0	--
On-site Land	3,786,460	5,039,861	5,891,132	4,660,995	5,325,766	7,796,233	6,109,341	61%
Off-site to POTW	7,420	67,026	25,971	22,636	24,363	26,399	26,169	253%
Off-site Treatment	185,566	267,714	315,500	229,321	498,827	588,279	121,368	-35%
Off-site Disposal	438,124	746,166	718,296	261,622	257,454	793,608	972,359	122%
Calculated Baseline	**18,832,173**	**20,559,904**	**21,480,531**	**18,868,514**	**18,756,872**	**23,869,667**	**21,959,678**	**17%**

Figure Y-10 Army TRI Reportable Quantities, not including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	13,125,407	13,080,051	12,980,356	12,708,679	11,673,927	13,595,136	13,887,257	6%
On-site to Air	1,201,445	1,330,140	1,404,815	969,880	960,052	1,053,935	798,993	-34%
On-site Underground Injection	0	0	0	0	0	0	0	--
On-site Land	1,025,063	1,373,997	677,568	452,452	611,879	665,446	806,154	-21%
Off-site to POTW	7,420	67,026	25,971	22,636	24,363	26,399	26,169	253%
Off-site Treatment	185,566	267,714	315,500	229,321	498,827	588,279	120,923	-35%
Off-site Disposal	438,124	745,380	718,269	261,475	256,002	778,620	963,686	120%
Calculated Baseline	**15,983,025**	**16,864,308**	**16,122,479**	**14,644,443**	**14,025,051**	**16,707,814**	**16,603,181**	**4%**

Figure Y-11 CY2007 Top 10 Army Chemicals, including Ranges

Chemical Name	Pounds Released or Transferred
Nitrate Compounds	14,045,783
Copper	3,328,614
Lead	1,296,254
Lead Compounds	1,063,954
Ethylene Glycol	437,720
Dichloromethane	246,757
Zinc (Fume or Dust)	238,333
Hydrochloric Acid*	215,633
Trichloroethylene	118,903
Phosphorus (Yellow or White)	105,548

* 1995 and after "Acid Aerosols" only

As shown in Figure Y-14, Sierra Army Depot and Schofield Barracks/Wheeler Army Airfield have reported no releases since CY2005. In 2001, Sierra Army Depot ceased its mission to renovate and demilitarize ammunitions using the OB/OD process. As a result, the ammunitions warehouse at Sierra Army Deport closed. In CY2004, the wastewater treatment plant at Schofield Barracks/Wheeler Army Airfield was privatized. This resulted in a reduction of nitrate compounds releases.

Figure Y-12 Change in CY2001 Top 10 Army Chemicals, including Ranges (Pounds Released or Transferred)

Chemical Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Nitrate Compounds	13,489,464	13,608,399	13,348,601	13,074,774	11,899,699	13,706,409	14,045,783	4%
Copper	1,722,224	2,018,669	3,366,557	2,526,771	2,803,934	4,431,844	3,328,614	93%
Lead	679,642	974,465	1,145,886	862,086	925,885	1,873,110	1,296,254	91%
Aluminum (Fume or Dust)	665,824	633,764	161,087	97,170	104,485	125,038	19,679	-97%
Hydrochloric Acid*	634,263	426,860	490,432	226,661	157,735	217,529	215,633	-66%
Lead Compounds	577,222	826,077	1,001,005	953,286	1,011,127	1,130,192	1,063,954	84%
Methyl Ethyl Ketone	175,734	255,037	191,126	Delisted	--	--	--	--
Copper Compounds	155,878	577,085	155,658	87,985	149,535	73,278	83,058	-47%
Nitroglycerin	156,305	155,969	193,003	116,551	92,151	636,870	86,536	-45%
Dichloromethane	122,015	152,265	178,612	94,668	297,753	262,581	246,757	102%

* 1995 and after "Acid Aerosols" only

Figure Y-13 CY2007 Top 10 Army Installations, including Ranges

Installation Name	Pounds Released or Transferred
Radford AAP	13,919,076
Anniston Army Depot	546,475
McAlester AAP	503,958
Red River Army Depot	470,597
White Sands Missile Range	465,248
Fort Benning Range	339,667
Fort Stewart	339,302
Fort Sill	335,276
Fort Bragg Range	329,769
Army Maneuver Support Center Ranges	279,787

Figure Y-14 Change in CY2001 Top 10 Army Installations, including Ranges (Pounds Released or Transferred)

Installation Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Radford AAP	13,154,293	12,802,934	13,003,158	12,818,237	11,704,540	13,757,844	13,919,076	6%
Sierra Army Depot	441,409	859	509	3,477	0	0	0	-100%
Fort Wainwright	440,103	166,503	168,547	148,814	121,821	81,110	89,721	-80%
Schofield Barracks/ Wheeler Army Airfield	326,667	420,317	312,930	115,489	0	0	0	-100%
Anniston Army Depot	283,462	719,241	557,770	365,832	694,698	624,530	546,475	93%
Fort Hood Range	263,902	263,902	522,621	97,163	219,942	144,774	213,488	-19%
Fort Benning Range	251,363	157,270	303,210	77,256	371,939	410,604	339,667	35%
Fort Bragg Range	245,215	403,638	385,454	429,653	459,717	555,636	329,769	35%
Holston AAP	235,302	269,214	254,538	107,588	139,956	86,757	84,313	-64%
Red River Army Depot	216,679	147,981	172,347	143,728	160,410	159,946	470,597	117%

Navy

In CY2007, Navy facilities reported 1.7 million pounds of releases and off-site transfers, a 34 percent decrease since CY2001, as shown in Figure Y-15. During CY2007, range releases comprised 4 percent of the Navy's total reportable releases, compared to 12 percent in CY2006. When excluding the Navy's total range releases, the Navy's TRI releases and off-site transfers totaled 1.6 million pounds. As displayed in Figure Y-16, this was a 36 percent reduction since CY2001 and a 3 percent increase since CY2006.

In CY2007, the Navy had 75 reporting facilities (including ranges), compared to 40 reporting facilities in CY2006. The revised range reporting approach discussed in DoD's EPCRA Consolidated Policy resulted in the reporting of seven new range facilities in CY2007.

Figure Y-17 lists the Navy's top 10 chemicals in CY2007. Nitrate compounds were released the most due to wastewater treatment operations. This chemical has remained the highest releaser on the top 10 chemical list since CY2001. As shown in Figure Y-18, nitrate compounds releases and off-site transfers in CY2007 decreased 13 percent since CY2001 and decreased 8 percent since CY2006.

Figure Y-15 Navy TRI Reportable Quantities, including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	891,271	882,194	899,992	966,038	1,104,761	697,985	712,706	-20%
On-site to Air	695,862	752,716	711,667	619,995	602,539	420,595	247,898	-64%
On-site Underground Injection	0	0	0	0	0	0	0	--
On-site Land	363,280	270,468	527,574	384,370	391,563	234,031	435,112	20%
Off-site to POTW	950	1,316	837	17,949	111,237	150,505	70,546	7325%
Off-site Treatment	184,477	133,229	63,775	88,949	103,241	41,688	59,708	-68%
Off-site Disposal	379,994	166,035	245,211	260,942	267,072	220,753	142,049	-63%
Calculated Baseline	**2,515,835**	**2,205,958**	**2,449,057**	**2,338,242**	**2,580,412**	**1,765,557**	**1,668,020**	**-34%**

Figure Y-16 Navy TRI Reportable Quantities, not including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	891,271	882,194	899,992	966,038	1,104,759	697,985	712,706	-20%
On-site to Air	695,859	748,001	649,146	569,732	569,106	402,857	247,881	-64%
On-site Underground Injection	0	0	0	0	0	0	0	--
On-site Land	349,859	257,395	283,319	195,048	139,097	47,388	381,502	9%
Off-site to POTW	950	1,316	837	17,949	1,237	150,505	70,546	7325%
Off-site Treatment	184,476	133,229	63,775	88,949	103,241	41,688	59,708	-68%
Off-site Disposal	379,994	165,763	245,211	260,928	260,917	212,453	134,559	-65%
Calculated Baseline	**2,502,410**	**2,187,898**	**2,142,281**	**2,098,643**	**2,178,356**	**1,552,876**	**1,606,903**	**-36%**

Figure Y-17 CY2007 Top 10 Navy Chemicals, including Ranges

Chemical Name	Pounds Released or Transferred
Nitrate Compounds	808,421
Aluminum (Fume or Dust)	207,655
Copper	183,154
N-Butyl Alcohol	97,041
Lead	86,009
Xylene (Mixed Isomers)	64,901
Copper Compounds	53,478
Ethylene Glycol	35,694
1,2,4-Trimethylbenzene	18,380
Sodium Dimethyldithiocarbamate	17,019

Figure Y-19 depicts the CY2007 top 10 Navy installations. Pearl Harbor Naval Complex was at the top of the list with a 5 percent increase since CY2001 and a 15 percent increase since CY2006. The remaining installations on the top 10 installation list were similar to the previous year except for the addition of Naval Air Station (NAS) Corpus Christi and the Naval Surface Warfare Center (NSWC) Crane Division. Both of these installations had significant increases from the previous year. While it has been included on previous top 10 Navy installations lists, Naval Amphibious Base (NAB) Little Creek reduced its release through the replacement of its coal-fired heating plant with a natural gas plant, therefore dropping it off the Navy's top 10 list. NAB Little Creek achieved significant reductions for the second reporting year in a row, significantly reducing its zinc (fume or dust) releases, as depicted in Figure Y-20.

Figure Y-18 Change in CY2001 Top 10 Navy Chemicals, including Ranges (Pound Released or Transferred)

Chemical Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Nitrate Compounds	924,292	1,035,877	935,734	1,037,643	1,248,784	879,898	808,421	-13%
Copper	415,190	146,113	227,078	140,137	113,956	59,370	183,154	-56%
Zinc (Fume or Dust)	365,135	336,599	278,363	269,286	261,582	122,000	0	-100%
Lead	126,425	25,690	59,711	44,031	39,916	86,455	86,009	-32%
N-Butyl Alcohol	111,743	169,139	127,093	110,750	152,358	112,951	97,041	-13%
Ethylene Glycol	67,452	27,550	17,594	75,723	69,260	27,462	35,694	-47%
Xylene (Mixed Isomers)	66,959	92,514	83,824	64,416	92,458	89,658	64,901	-3%
Ammonia	55,300	59,799	0	55,300	0	20,420	928	-98%
N-Methyl-2-Pyrrolidone	51,660	21,200	4,133	9,254	12,658	7,391	7,083	-86%
Copper Compounds	50,364	50,910	68,836	78,882	83,108	87,543	53,478	6%

Figure Y-19 CY2007 Top 10 Navy Installations, including Ranges

Installation Name	Pounds Released or Transferred
Pearl Harbor Naval Complex	377,068
NSWC Crane Division	155,130
PSNS & IMF–Bremerton Site & Naval Base Kitsap*	154,638
NAVSTA Mayport	122,091
COMNAVMARIANAS Guam	121,148
NAS Fallon, Bravo 17	104,787
NAS Corpus Christi	94,773
Norfolk Naval Shipyard	77,738
Ventura County Point Mugu	70,080
Kings Bay Naval Submarine Base	63,902

* As a result of regionalization efforts, Puget Sound Naval Shipyard began reporting as Naval Base Kitsap beginning in CY2004.

Figure Y-20 Change in CY2001 Top 10 Navy Installations, including Ranges (Pounds Released and Transferred)

Installation Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Puget Sound Naval Shipyard*	479,773	139,465	158,307	278,741	377,515	203,751	154,638	-68%
NAB Little Creek	365,135	336,717	278,476	269,395	261,688	122,000	21	-100%
Pearl Harbor Naval Complex	359,220	460,229	371,644	294,092	517,958	329,226	377,068	5%
NSWC Crane Division	264,937	156,409	366,710	224,092	151,797	6,184	155,130	-41%
NAS Jacksonville	152,795	188,561	248,753	204,528	279,145	51,991	53,300	-65%
NAS Corpus Christi	151,660	115,496	116,238	219,093	83,879	22,826	94,773	-38%
Norfolk Naval Shipyard	139,901	209,134	122,837	119,916	36,346	134,515	77,738	-44%
COMNAVMARIANAS Guam	125,000	124,731	71,635	83,376	105,364	76,156	121,148	-3%
NAVSTA Mayport	114,457	123,788	202,212	160,012	157,018	151,577	122,091	7%
NAWS China Lake	89,018	60,480	474	67,725	31,053	2,909	16,666	-81%

* As a result of regionalization efforts, Puget Sound Naval Shipyard began reporting as Naval Base Kitsap beginning in CY2004.

Marine Corps

The Marine Corps continues to implement pollution prevention measures, improve management practices, and advance technologies and materials to reduce the quantity of toxic and hazardous chemicals it releases into the environment, while continuing to support mission requirements and meet E.O. 13423 goals. From CY1994 through CY2000, the Marine Corps successfully achieved over a 90 percent reduction in toxic releases and off-site transfers. The TRI releases and off-site transfers in CY2007 are the lowest since CY2004, which decreased by 24 percent since CY2006.

In CY2007, Marine Corps facilities reported 2.5 million pounds of releases and off-site transfers, a 77 percent increase since CY2001, as shown in Figure Y-21. When excluding chemicals from operational range activities, the Marine Corps releases and off-site transfers totaled 1.1 million pounds in CY2007, a 41 percent increase since CY2001, as shown in Figure Y-22.

Releases to land and water remain the highest categories of TRI releases for the Marine Corps in CY2007. TRI releases to water are primarily from nitrate compounds, a chemical category that remains on the Marine Corps top 10 chemical list, as shown in Figure Y-23. TRI releases of nitrate compounds discharged into the water primarily come from wastewater treatment operations. Along with nitrate compounds, copper, lead, and lead compounds continue to be the top four TRI chemicals released and transferred offsite, representing 97 percent (totaling 2,418,135 pounds) of reporting Marine Corps installation totals. Unlike nitrate compounds, which are primarily reported by non-range facilities, copper, lead, and lead compounds releases result from range operations. In CY2007, releases from these four chemicals decreased by 22 percent since CY2006, as a result of changes in range operations, management, and recycling activities. Nitrate compounds, lead compounds, and lead were also on the CY2001 top 10 Marine Corps chemical list, as shown in Figure Y-24.

Figure Y-21 Marine Corps TRI Reportable Quantities, including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	338,784	652,454	740,369	1,222,170	1,085,463	1,173,959	823,565	143%
On-site to Air	132,920	133,359	181,456	144,964	106,324	95,213	89,046	-33%
On-site Underground Injection	0	0	0	0	0	34,877	34,508	--
On-site Land	885,236	1,244,632	708,330	847,149	1,586,864	1,882,519	1,550,842	75%
Off-site to POTW	48	0	0	0	0	0	0	-100%
Off-site Treatment	7,291	7,416	30,914	0	6,247	5,747	716	-90%
Off-site Disposal	46,376	9,273	11,011	1,046	75,857	84,682	2,125	-95%
Calculated Baseline	**1,410,655**	**2,047,134**	**1,672,080**	**2,215,330**	**2,860,755**	**3,276,997**	**2,500,802**	**77%**

Figure Y-22 Marine Corps TRI Reportable Quantities, not including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	338,784	652,454	740,369	1,222,170	1,085,463	1,173,959	823,565	143%
On-site to Air	130,546	128,309	179,143	143,009	102,111	76,564	80,767	-38%
On-site Underground Injection	0	0	0	0	0	34,877	34,508	--
On-site Land	294,022	4,832	5,225	8,935	2,368	100,686	147,424	-50%
Off-site to POTW	48	0	0	0	0	0	0	-100%
Off-site Treatment	7,291	7,416	30,914	0	6,247	5,747	716	-90%
Off-site Disposal	3,376	9,117	11,011	1,046	1,557	2,156	1,669	-51%
Calculated Baseline	**774,067**	**802,128**	**966,662**	**1,375,161**	**1,197,746**	**1,393,989**	**1,088,649**	**41%**

Figure Y-23 CY2007 Top 10 Marine Corps Chemicals, including Ranges

Chemical Name	Pounds Released or Transferred
Nitrate Compounds	1,017,430
Copper	761,234
Lead Compounds	537,294
Lead	102,177
Toluene	33,023
Xylene (Mixed Isomers)	16,573
Dichloromethane	12,342
Certain Glycol Ethers	10,448
Ethylene Glycol	9,728
Ethylbenzene	215

Figure Y-25 lists the CY2007 top 10 Marine Corps installations. In CY2007, MCB Camp Lejeune, MCB Camp Pendleton, and MCB Quantico and their associated ranges comprised 70 percent of total Marine Corps TRI releases and off-site transfers. However, the releases from these facilities were considerably less than the previous year. This reduction can be attributed to successful efforts to decrease nitrate releases from their non-range facilities. MCB Camp Lejeune reported a 20 percent decrease in nitrate compounds from the wastewater treatment process as a result of low nitrate loading. Similarly, at MCB Camp Pendleton, a new tertiary treatment plant with a low flow rate, resulted in a reported 20 percent decrease in nitrate compounds. A decrease in nitrate loading at the MCB Quantico's two sewage treatment plants resulted in a 42 percent reduction in reported nitrate compounds releases.

Additional TRI reductions from Marine Corps installations can be attributed to compounds that were reported in CY2006 (i.e., cumene, cyclohexane, methyl tert-butyl ether, n-hexane) but were not reported in CY2007 because activity thresholds were not exceeded. Some of these compounds are typically found in gasoline. In CY2007, installations such as Marine Corps Air Station (MCAS) Cherry Point and MCAS Yuma did not meet the processing threshold due to increased use of ethanol-blended fuel or changes in the specification of JP-5 fuel. At MCAS Cherry Point's main installation, nitrate compounds were not reported in CY2007, because the quantity fell below the threshold as a result of a successful implementation of a biological nutrient removal project. As shown in Figure Y-26, MCAS Cherry Point continued to see overall reductions over the past several years and since CY2001, reduced their overall TRI releases and off-site transfers by 16 percent.

The Marine Corps will continue to identify processes and activities where toxic releases can be reduced using pollution prevention efforts and implement targeted reduction efforts that support a commitment to environmental stewardship and meet the mission of the Marine Corps.

Figure Y-24 Change in CY2001 Top 10 Marine Corps Chemicals, including Ranges (Pound Released or Transferred)

Chemical Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Copper	452,758	826,495	314,313	433,950	686,577	1,023,153	761,234	68%
Lead Compounds	370,284	348,540	337,341	365,011	636,115	701,508	537,294	45%
Nitrate Compounds	338,793	654,266	742,095	1,230,239	1,087,207	1,309,112	1,017,430	200%
Lead	111,662	62,266	68,924	42,982	112,852	71,316	102,177	-8%
Hydrochloric Acid*	65,740	62,406	103,819	55,390	0	0	0	-100%
Methyl Ethyl Ketone	28,087	27,770	30,444	Delisted	--	--	--	--
Dichloromethane	19,741	20,395	14,370	20,018	16,770	12,802	12,342	-37%
Toluene	11,901	12,763	11,878	40,972	38,977	35,574	33,023	177%
Ethylene Glycol	7,506	6,772	30,292	71	506	131	9,728	30%
Xylene (Mixed Isomers)	3,792	2,819	1,000	3,940	20,783	15,020	16,573	337%

* 1995 and after "Acid Aerosols" only

Figure Y-25 CY2007 Top 10 Marine Corps Installations, including Ranges

Installation Name	Pounds Released or Transferred
MCB Camp Lejeune Range	517,593
MCB Camp Lejeune	432,333
MCB Camp Pendleton	339,095
MCB Camp Pendleton Range	189,774
MCB Quantico Range Complex	165,978
Twentynine Palms Range	148,573
Chocolate Mountain Aerial Gunnery Range	137,506
MCB Quantico	114,428
Parris Island Range	93,008
Parris Island Depot	88,187

Figure Y-26 Change in CY2001 Top 10 Marine Corps Installations (Pounds Released and Transferred)

Installation Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Twentynine Palms Range	293,501	261,452	48,813	97,089	622,052	353,074	148,573	-49%
MCB Camp Pendleton Range	237,607	188,052	138,740	150,165	302,750	251,183	189,774	-20%
MCB Camp Lejeune	212,219	225,179	230,068	719,992	504,922	537,250	432,333	104%
MCB Camp Pendleton	203,810	254,585	344,959	309,485	300,586	422,251	339,095	66%
MCB Quantico Range Complex	108,000	116,919	118,256	94,941	146,343	194,862	165,978	54%
MCB Camp Lejeune Range	84,398	175,760	195,382	332,892	306,153	419,548	517,593	513%
Parris Island Range	67,402	72,575	77,511	78,556	77,882	84,278	93,008	38%
MCAS Cherry Point	49,787	107,223	169,042	89,537	78,281	61,926	41,914	-16%
Puuloa Training Facility	48,200	6,200	10,673	10,480	3,270	16,581	13,471	-72%
Camp Billy Machen Gunnery Range/ Chocolate Mountains Aerial Gunnery Range	46,270	0	47,627	37,097	78,069	503,152	137,506	197%

Air Force

The Air Force continues to sustain, restore, and modernize its natural infrastructure to ensure operational capability while maximizing military value and optimizing economical, ecological, and community value. Through targeted pollution prevention, weapon system recapitalization, and technology investment, the Air Force has achieved a 62 percent reduction in TRI releases and off-site transfers since CY1994. As shown in Figure Y-27, the Air Force has reduced their TRI releases by 18 percent since CY2001, resulting in the elimination of 403,987 pounds of TRI toxic chemicals releases and off-site transfers. In addition, since CY2001, no releases were reported under the Underground Injection category.

Of the 1.9 million pounds of TRI toxic chemical releases and off-site transfers in CY2007, those from operational ranges totaled 0.8 million pounds. When excluding the chemical amounts reported from operational range activities, the Air Force's releases and off-site transfers totaled 1.1 million pounds in CY2007, a 34 percent reduction since CY2001, as shown in Figure Y-28.

In CY2007, there was a 77 percent increase in range-related TRI releases from the previous year due to escalated wartime mission requirements and training activities. As shown in Figure Y-29, lead was the top chemical released or transferred offsite and increased substantially from the previous year. Copper remained as a top chemical even though there was a reported 28 percent reduction since CY2006, as depicted in Figure Y-30. Copper continues to be used in training and other range-related activities.

Figure Y-31 depicts the CY2007 top 10 Air Force installations that reported the largest overall TRI releases and off-site transfers. Two new installations were added in CY2007: Moody AFB Small Arms and Grand Bay Ranges and Luke AFB Range. Eglin AFB's main installation was on the CY2007 top 10 installations list, opposed to the range, which was on the CY2006 list. Overall, the Air Force's CY2007 top 10 installations list was similar to the CY2001 list, as shown in Figure Y-32.

Figure Y-27 Air Force TRI Reportable Quantities, including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	76,596	143,779	99,607	150,299	267,942	159,501	113,576	48%
On-site to Air	903,420	640,405	659,105	514,921	517,098	557,398	663,612	-27%
On-site Underground Injection	0	0	0	0	0	0	0	--
On-site Land	862,788	1,917,706	752,263	653,780	436,736	646,832	977,264	13%
Off-site to POTW	211,722	220,171	181,712	108,087	85,407	35,090	34,010	-84%
Off-site Treatment	96,746	54,221	146,125	71,658	73,574	53,507	11,931	-88%
Off-site Disposal	124,355	277,749	123,548	116,835	51,045	60,013	71,248	-43%
Calculated Baseline	**2,275,627**	**3,254,031**	**1,962,360**	**1,615,580**	**1,431,802**	**1,512,341**	**1,871,640**	**-18%**

Figure Y-28 Air Force TRI Reportable Quantities, not including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	76,596	142,298	99,607	150,298	267,752	159,501	113,576	48%
On-site to Air	901,741	638,546	658,325	513,993	515,629	538,690	501,139	-44%
On-site Underground Injection	0	0	0	0	0	0	0	--
On-site Land	198,065	1,244,809	222,494	225,120	120,794	210,470	327,338	65%
Off-site to POTW	211,722	220,171	181,712	108,087	85,406	35,090	34,009	-84%
Off-site Treatment	96,746	54,221	146,125	71,658	73,574	53,507	11,931	-88%
Off-site Disposal	124,355	277,749	123,548	116,835	50,947	55,596	71,245	-43%
Calculated Baseline	**1,609,225**	**2,577,794**	**1,431,811**	**1,185,991**	**1,114,103**	**1,052,854**	**1,059,237**	**-34%**

Figure Y-29 CY2007 Top 10 Air Force Chemicals, including Ranges

Chemical Name	Pounds Released or Transferred
Lead	585,787
Copper	177,602
Hydrochloric Acid*	120,497
Ethylene Glycol	102,973
Barium Compounds	101,700
Nitrate Compounds	98,556
Toluene	82,378
Tetrachloroethylene	72,939
Aluminum (Fume or Dust)	69,451
Lead Compounds	65,086

* 1995 and after "Acid Aerosols" only

Even though wartime mission requirements at ranges have continued, overall releases have decreased. Additional reductions in these categories will be difficult due to their mission critical nature and the absence of suitable and safer substitutes.

Figure Y-30 Change in CY2001 Top 10 Air Force Chemicals, including Ranges (Pound Released or Transferred)

Chemical Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Copper	274,435	309,513	246,994	248,655	216,938	245,181	177,602	-35%
Aluminum (Fume or Dust)	271,464	0	0	12,335	0	12,223	69,451	-74%
Nitrate Compounds	249,563	302,297	276,402	187,807	277,084	107,752	98,556	-60%
Methyl Ethyl Ketone	221,491	211,474	196,010	Delisted	--	--	--	--
Dichloromethane	208,825	195,992	207,093	181,578	143,327	129,977	40,521	-81%
Barium	197,364	137,000	115,000	122,000	0	0	0	-100%
Hydrochloric Acid*	154,010	159,005	144,626	171,518	184,304	153,344	120,497	-22%
Certain Glycol Ethers	114,250	18,215	15,139	15,641	16,954	20,780	27,092	-76%
Ethylene Glycol	108,586	88,166	117,303	104,454	145,154	160,955	102,973	-5%
Phenol	95,780	48,131	53,312	35,123	36,462	32,846	18,050	-81%

* 1995 and after "Acid Aerosols" only

Figure Y-31 CY2007 Top 10 Air Force Installations, including Ranges

Installation Name	Pounds Released or Transferred
Moody AFB Small Arms and Grand Bay Ranges	524,673
Barry M. Goldwater Range/Luke AFB	160,710
Robins AFB	150,009
Eglin AFB	144,749
Tinker AFB	139,489
Eielson AFB	136,397
Wright-Patterson AFB	120,545
Nellis AFB Training Range	102,042
Hill AFB (Ogden ALC)	84,042
Arnold AFB	63,437

Figure Y-32 Change in CY2001 Top 10 Air Force Installations, including Ranges (Pounds Released and Transferred)

Installation Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Tinker AFB	479,956	293,605	314,686	110,287	126,941	109,490	139,489	-71%
Nellis AFB Training Range	309,581	422,261	374,558	168,529	99,395	205,718	102,042	-67%
Hill AFB (Ogden ALC)	260,588	336,373	332,612	272,605	243,118	177,518	84,042	-68%
Eielson AFB	226,152	213,902	155,080	164,612	0	162,596	136,397	-40%
Robins AFB	220,351	176,146	140,921	105,403	101,439	119,764	150,009	-32%
Barry M. Goldwater Range/Luke AFB	171,312	20,372	20,832	21,080	26,731	7,091	160,710	-6%
Air Force Plant No. 4	145,868	166,998	177,836	124,877	116,334	56,798	35,965	-75%
Eglin AFB Range	129,333	80,761	17,386	120,131	113,871	107,465	0	-100%
Wright-Patterson AFB	95,623	87,015	92,639	120,058	94,013	120,284	120,545	26%
Air Force Plant No. 6	65,481	47,360	50,977	56,119	168,105	68,390	53,043	-19%

DLA

The Defense Logistics Agency's (DLA's) TRI releases are primarily based on the recycling production levels from DoD's Ozone-Depleting Substance (ODS) Reserve located at the Defense Distribution Depot Richmond, Virginia. In 2001, the facility had lower than normal production becasue production ceased temporarily during a move to a modernized facility. The lower-than-normal production resulted in low TRI releases, as shown in Figure Y-33.

In CY2007, DLA's TRI releases remained low, with no reportable off-site transfers. Compared to CY2006, there was a 77 percent increase in DLA's TRI releases that resulted from a 162 percent increase in on-site recycling (i.e., ODS reclamation) since the previous year.

Figure Y-34 lists DLA's CY2007 top TRI chemicals. DLA released more dichlorodifluoromethane (CFC-12) than any other chemical in CY2007. Reclamation of this chemical has increased significantly since CY2001, as displayed in Figure Y-35. Overall, DLA's top chemicals have remained constant over the years and any future changes will continue to be impacted by recycling production requirements.

The modernized ODS facility in Richmond incorporates innovative technologies for ODS solvent and refrigerant reclamation to minimize releases. ODS reclamation is required for important DoD weapons systems; therefore, the Defense Reserve will continue to process ODSs. As shown in Figure Y-36, DSCR remains DLA's top installation. DSCR's CY2007 totals increased since CY2001, as shown in Figure Y-37, because of lower than normal production during CY2001.

Figure Y-33 DLA TRI Reportable Quantities, including Ranges (Pounds Released or Transferred)

Category	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
On-site to Water	0	0	0	0	0	0	0	--
On-site to Air	869	4,791	5,084	3,790	2,568	1,034	1,828	110%
On-site Underground Injection	0	0	0	0	0	0	0	--
On-site Land	0	0	0	0	0	0	0	--
Off-site to POTW	0	0	0	0	0	0	0	--
Off-site Treatment	0	0	0	0	0	0	0	--
Off-site Disposal	0	0	0	0	0	0	0	--
Calculated Baseline	**869**	**4,791**	**5,084**	**3,790**	**2,568**	**1,034**	**1,828**	**110%**

Figure Y-34 Top CY2007 DLA Chemicals

Chemical Name	Pounds Released or Transferred
Dichlorodifluoromethane (CFC-12)	1,076
Bromotrifluoromethane	381
Dichlorotetrafluoroethane	295
Bromochlorodifluoromethane	56
Trichlorofluoromethane	20
Polycyclic Aromatic Compounds	0
Benzo(g,h,i)perylene	0
Mercury	0

Figure Y-35 Change in CY2001 Top 10 DLA Chemicals (Pounds Released and Transferred)

Chemical Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Bromotrifluoromethane	471	1,867	3,156	691	976	335	381	-19%
Dichlorodifluoromethane (CFC-12)	220	1,562	726	613	382	163	1,076	389%
Bromochlorodifluoromethane	80	0	0	1,362	592	108	56	-30%
Dichlorotetrafluoroethane	55	1,362	1,202	991	511	408	295	436%
Trichlorofluoromethane	43	0	0	133	107	20	20	-53%

Figure Y-36 CY2007 Top DLA Installations

Installation Name	Pounds Released or Transferred
Defense Supply Center Richmond	1,828
Defense Distribution Depot of Susquehanna PA	0
National Stockpile Center New Haven Depot	0
National Stockpile Center Warren Depot	0

Figure Y-37 Change in CY2001 Top DLA Installation (Pounds Released and Transferred)

Installation Name	CY2001	CY2002	CY2003	CY2004	CY2005	CY2006	CY2007	CY2001-CY2007 % Change
Defense Supply Center Richmond	869	4,791	5,084	3,790	2,568	1,034	1,828	110%