

SUBJECT: PUBLIC AFFAIRS GUIDANCE (PAG) ON DOD'S CY2001 TOXIC RELEASE INVENTORY (TRI)

1. REFERENCES: A. THE EMERGENCY PLANNING COMMUNITY RIGHT-TO-KNOW ACT (EPCRA) OF 1986; B. POLLUTION PREVENTION ACT (PPA) OF 1990; C. EXECUTIVE ORDER 13148--GREENING THE GOVERNMENT THROUGH LEADERSHIP IN ENVIRONMENTAL MANAGEMENT, 21 APR 2000. REF'S A AND B REQUIRE THE EPA TO ISSUE AN ANNUAL REPORT ON CHEMICAL RELEASES TO THE ENVIRONMENT. REF A HAS TWO MANDATES; TO PROMOTE PLANNING FOR CHEMICAL EMERGENCIES AND TO INFORM THE PUBLIC ABOUT TOXIC AND HAZARDOUS CHEMICALS IN THEIR COMMUNITIES. REF C REQUIRED FEDERAL AGENCIES TO REPORT RELEASES AND OFF-SITE TRANSFERS OF TOXIC CHEMICALS.

2. BACKGROUND: DOD STARTED REPORTING RELEASES AND OFF-SITE TRANSFERS OF TOXIC CHEMICALS FROM GOVERNMENT INSTALLATIONS IN 1994. IN JUNE 2003, EPA WILL ISSUE THE CY 2001 TRI REPORT WITH DATA SHOWING A 28% INCREASE IN DOD RELEASES AND OFF-SITE TRANSFERS FROM CY2000 LEVELS. THIS INCREASE IS LARGELY DUE TO THREE CHANGES IN TRI REPORTING: 1. EPA NOW CLASSIFIES LEAD AND LEAD COMPOUNDS AS PERSISTENT BIOACCUMULATIVE TOXIC (PBT) CHEMICALS, WHICH SIGNIFICANTLY LOWERED THE REPORTING THRESHOLD FOR LEAD. 2. DOD TIGHTENED REPORTING REQUIREMENTS FOR COINCIDENTALLY MANUFACTURED CHEMICALS. AND 3. DOD INSTALLATIONS BEGAN REPORTING TRI RELEASES FROM TRAINING RANGE ACTIVITIES AS THE EPA REDUCED THE THRESHOLD FOR REPORTING THE ANNUAL USE OF LEAD AND LEAD COMPOUNDS FROM 25,000 LBS. TO 100 LBS. (PARA) AS A RESULT OF JUST THE TRAINING RANGE ACTIVITIES, 31 DOD FACILITIES SUBMITTED TRI REPORTS FOR THE FIRST TIME IN FY 2001. WHILE THE EPA'S LOWER REPORTING THRESHOLD FOR LEAD AND LEAD COMPOUNDS REQUIRES MANY MILITARY SMALL ARMS RANGES TO FILE TRI REPORTS FOR THE FIRST TIME, IT DOES NOT NECESSARILY REFLECT AN ACTUAL INCREASE IN DOD'S USE OF LEAD. (PARA) DOD ALSO CHANGED ITS REPORTING REQUIREMENT FOR COINCIDENTALLY MANUFACTURED CHEMICALS. FOR EXAMPLE, WHEN SOME COAL IS BURNED FOR POWER GENERATION IT RELEASES CHLORINE THAT COMBINES WITH WATER VAPOR TO PRODUCE HYDROCHLORIC ACID. THE CY 2001 DOD TRI DATA INCLUDES INCREASED REPORTING OF COINCIDENTALLY MANUFACTURED CHEMICALS SUCH AS HYDROCHLORIC ACID AEROSOLS.

3. PUBLIC AFFAIRS APPROACH IS ACTIVE.

4. THE FOLLOWING STATEMENT WILL BE RELEASED BY OASD(PA) ON 30 JUNE:  
(QUOTE) THE DEPARTMENT OF DEFENSE TOXIC RELEASE INVENTORY (TRI) FOR CALENDAR YEAR (CY) 2001 CONTAINS NEW INFORMATION ON CHEMICAL RELEASES AT DOD INSTALLATIONS AND AS A RESULT OF THIS NEW INFORMATION, SHOWS A 28 PERCENT INCREASE IN RELEASES AND OFF-SITE TRANSFERS OF TOXIC AND HAZARDOUS CHEMICALS COMPARED WITH LEVELS IN CY2000. (PARA) NEW REPORTING REQUIREMENTS THAT AFFECT DOD INCLUDE LOWERING REPORTING THRESHOLDS FOR LEAD AND LEAD COMPOUNDS, ADDING REPORTS ON COINCIDENTALLY MANUFACTURED CHEMICALS, AND THE ADDITION OF TRAINING RANGES AS REPORTING DOD FACILITIES. REPORTING THIS NEW DATA IS PART OF THE DEPARTMENT'S COMMITMENT TO INFORM COMMUNITIES ABOUT CHEMICALS USED AT DEFENSE INSTALLATIONS AND RANGES. DOD FACILITIES COMBINED REPRESENTED LESS THAN ONE-TENTH OF ONE PERCENT OF THE NATION'S TOTAL RELEASES OF 7.1 BILLION POUNDS IN CY2000. (PARA) THE CY 2001 TRI REPORT AND REPORTING REQUIREMENTS CAN BE FOUND AT EPA'S WEB SITE: WWW.EPA.GOV/TRI.  
(END QUOTE)

5. QS AND AS:

Q1: WHAT IS TOXIC RELEASE INVENTORY (TRI) REPORTING?

A1: TRI REPORTS CONTAIN INFORMATION ABOUT THE TYPES AND AMOUNTS OF TOXIC CHEMICALS THAT ARE RELEASED TO THE ENVIRONMENT FROM COMMERCIAL/INDUSTRIAL AND FEDERAL FACILITIES. THE EPA COMPILES INFORMATION SUBMITTED BY FACILITIES AND ISSUES THE TRI REPORT ANNUALLY. THE REPORT CONTAINS INFORMATION ON RELEASES OF NEARLY 680 CHEMICALS AND CHEMICAL CATEGORIES FROM

INDIVIDUAL FACILITIES. TRI ALSO REPORTS THE TYPE AND AMOUNTS OF TOXIC CHEMICALS TRANSFERRED TO WASTE MANAGEMENT FACILITIES. TRI REPORTS ARE REQUIRED BY THE 1986 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA) WHICH WAS ENACTED TO INFORM COMMUNITIES AND CITIZENS OF TOXIC AND HAZARDOUS CHEMICALS IN THEIR COMMUNITIES. SINCE 1988, EPA HAS COMPILED TRI DATA ANNUALLY AND MAKES IT AVAILABLE TO THE PUBLIC THROUGH TRI EXPLORER ([HTTP://WWW.EPA.GOV/TRIEXPLORER/CHEMICAL.HTM](http://www.epa.gov/triexplorer/chemical.htm)) AND ENVIROFACTS ([<HTTP://WWW.EPA.GOV/ENVIRO/>](http://www.epa.gov/enviro/)).

Q2: WHO MUST REPORT UNDER EPCRA?

A2: AN EXECUTIVE ORDER REQUIRES FEDERAL FACILITIES TO FOLLOW THE SAME TRI REPORTING REQUIREMENTS AS PRIVATE INDUSTRY. A FEDERAL FACILITY MUST REPORT IF IT HAS 10 OR MORE FULL-TIME EMPLOYEE EQUIVALENTS, AND MANUFACTURES OR PROCESSES MORE THAN 25,000 POUNDS, OR OTHERWISE USES MORE THAN 10,000 POUNDS, OF ANY LISTED CHEMICAL DURING THE CALENDAR YEAR. CHEMICALS LISTED AS PERSISTENT, BIO-ACCUMULATIVE, AND TOXIC (PBT) CHEMICALS ARE SUBJECT TO LOWER REPORTING THRESHOLDS (E.G. 100 POUNDS, 10 POUNDS, 0.1 GRAMS), DEPENDING ON THE CHEMICAL.

Q3: WHAT NEW REPORTING REQUIREMENTS TOOK EFFECT IN CY2001?

A3: THREE NEW REPORTING REQUIREMENTS WENT INTO EFFECT FOR DEPARTMENT OF DEFENSE (DOD) IN CY2001: 1. CLASSIFYING LEAD AND LEAD COMPOUNDS AS PERSISTENT BIO-ACCUMULATIVE TOXINS OR PBT CHEMICALS WITH MUCH LOWER REPORTING THRESHOLDS; 2. STRICTER DOD INTERPRETATION OF THE DEFINITION OF "COINCIDENTAL MANUFACTURE"; AND 3. INITIATING TRAINING RANGE ACTIVITY REPORTING. (PARA) STARTING IN REPORTING YEAR 2001, EPA DESIGNATED LEAD AND LEAD COMPOUNDS AS PBT CHEMICALS AND LOWERED THE TRI REPORTING THRESHOLD FOR LEAD AND LEAD COMPOUNDS FROM THE 25,000-POUND MANUFACTURING OR PROCESSING THRESHOLDS, AND THE 10,000-POUND OTHERWISE-USE THRESHOLD, TO 100 POUNDS FOR ALL ACTIVITIES (I.E. MANUFACTURING, PROCESSING AND OTHERWISE USE). (PARA) BEGINNING WITH THE 2001 REPORTING YEAR, DOD REQUIRES ITS FACILITIES TO CONSIDER THE CREATION OR "MANUFACTURE" OF ANY TOXIC CHEMICAL AS A BYPRODUCT OF OPERATIONS AS PART OF AN INSTALLATION'S 25,000-POUND REPORTING "MANUFACTURE" THRESHOLD DETERMINATION. FOR EXAMPLE, HYDROCHLORIC ACID AEROSOLS ARE PRODUCED IN POWER PLANT BOILERS DURING COAL COMBUSTION AS THE CHLORINE IN THE COAL MIXES WITH WATER VAPOR. HYDROCHLORIC ACID IS LISTED FOR TRI REPORTING BY EPA, AND THOUGH POWER PLANTS DO NOT USE IT TO CREATE ELECTRICITY, IT MUST NOW BE REPORTED AS "MANUFACTURED" BY THE FACILITY. (PARA) DOD FACILITIES REPORTED RELEASES FROM RANGES FOR THE FIRST TIME IN THEIR CY2001 TRI REPORTS. ACTIVITIES ON A MILITARY RANGE THAT ARE NOW SUBJECT TO TRI REPORTING INCLUDE MUNITIONS USE IN TRAINING AND DESTRUCTION OF MUNITIONS ON A RANGE. MANY INSTALLATIONS THAT HAD NOT BEEN REQUIRED TO FILE TRI REPORTS NOW MUST REPORT BECAUSE OF RANGE ACTIVITIES. SPECIFICALLY, 31 FACILITIES (E.G. NATIONAL GUARD BASES, RESERVE INSTALLATIONS) REPORTED FOR THE FIRST TIME FOR CY2001 BECAUSE OF RANGE-ONLY ACTIVITIES. THESE FACILITIES REPORTED 4,125,945 POUNDS OF ON-SITE RELEASES AND OFF-SITE TRANSFERS, APPROXIMATELY 29 PERCENT OF DOD'S REPORTED RELEASES.

Q4: WHY DID DOD WAIT UNTIL 2001 TO BEGIN REPORTING TRI FOR RANGES?

A4: DOD DEFERRED TRI REPORTING ON RANGE RELEASES UNTIL REPORTING GUIDANCE AND TOOLS WERE DEVELOPED. EVEN THOUGH IT IS UNCLEAR WHETHER TRAINING RANGES MEET THE 1986 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA) DEFINITION OF A FACILITY, THE DEPARTMENT BEGAN TRI REPORTING FOR RANGES AS A MATTER OF POLICY FOR 2001. MILITARY RANGE ACTIVITIES ARE UNIQUE COMPARED TO COMMERCIAL INDUSTRIAL PROCESSES REPORTED IN THE TRI. CHEMICAL RELEASES FROM COMMERCIAL INDUSTRIAL PROCESSES HAVE BEEN WELL-DEFINED, BUT RANGE ACTIVITIES HAD NOT BEEN PREVIOUSLY MODELED FOR RELEASES. UNIQUE RANGE ACTIVITIES INCLUDE TARGET PRACTICE, LIVE-FIRE EXERCISES, AERIAL BOMBING, OBSCURANT AND SMOKE TRAINING, BURNING OF UNUSED PROPELLANT, RANGE CLEARANCE AND SWEEP

OPERATIONS, AND EXPLOSIVE ORDNANCE DISPOSAL. DOD DEVELOPED AND IMPLEMENTED THE TRI DATA DELIVERY SYSTEM, WHICH USES EMISSIONS FACTORS AND MUNITIONS USE INFORMATION TO CALCULATE THE AMOUNT OF CHEMICALS RELEASED INTO THE AIR, WATER AND LAND. THE EPA IS ENCOURAGING OTHER FEDERAL AGENCIES TO USE THIS TOOL BECAUSE IT USES EPA EMISSION FACTORS, IS EASY TO USE AND PROVIDES CONSISTENCY.

Q5: WHAT TRI RELEASES DID DOD FACILITIES REPORT IN CY2001?

A5: FOR CY2001, DOD REPORTED RELEASES AND OFF-SITE TRANSFERS OF MORE THAN 13.9 MILLION POUNDS, A 28 PERCENT INCREASE FROM THE CY2000 TOTAL. THIS INCREASE IS PRIMARILY DUE TO THE NEW REPORTING REQUIREMENTS NOT NEW RELEASES. EIGHT OF THE TOP TEN CHEMICALS REPORTED IN CY2001 REFLECT CHANGES IN THE TRI REPORTING REQUIREMENTS OR THE NEW DOD INTERPRETATION OF TRI REPORTING REQUIREMENTS.

Q6: WHAT WERE THE MOST COMMON CHEMICALS DOD REPORTED?

A6: THE CY2001 TOP TEN CHEMICALS REPORTED AS ON-SITE RELEASES AND OFF-SITE TRANSFERS REPRESENTED 87 PERCENT OF THE TRI REPORTABLE RELEASES AND WERE AS FOLLOWS: NITRATE COMPOUNDS (4,153,979 POUNDS RELEASED OR TRANSFERRED); COPPER (2,861,412 POUNDS RELEASED OR TRANSFERRED); LEAD (991,156 POUNDS RELEASED OR TRANSFERRED); ALUMINUM FUMES AND DUST (948,188 POUNDS RELEASED OR TRANSFERRED); LEAD COMPOUNDS (924,717 POUNDS RELEASED OR TRANSFERRED); HYDROCHLORIC ACID, ACID AEROSOLS ONLY (854,003 POUNDS RELEASED OR TRANSFERRED); METHYL ETHYL KETONE (469,886 POUNDS RELEASED OR TRANSFERRED); DICHLOROMETHANE (384,588 POUNDS RELEASED OR TRANSFERRED); COPPER COMPOUNDS (207,014 POUNDS RELEASED OR TRANSFERRED); AND BARIUM (205,771 POUNDS RELEASED OR TRANSFERRED). (PARA) THE TRI CHEMICALS RELEASED OR TRANSFERRED OFFSITE IN THE LARGEST QUANTITY BY DOD DURING 2001 CAME FROM DOD'S VARIOUS MUNITIONS MANUFACTURING AND SEWAGE TREATMENT; DEMILITARIZATION AND RANGE OPERATIONS; COINCIDENTALLY MANUFACTURED PROCESSES; AND MAINTENANCE AND DEPOT OPERATIONS.

Q7: WHY DID RELEASES IN NITRATE COMPOUNDS INCREASE SO DRAMATICALLY? WHY ARE RELEASES OF NITRATE COMPOUNDS SO HIGH AT THE RADFORD ARMY AMMUNITION PLANT?

A7: NITRATE COMPOUND RELEASES AT THE RADFORD ARMY AMMUNITION PLANT INCREASED IN CY2001 DUE TO NEW COINCIDENTAL MANUFACTURING REPORTING REQUIREMENTS, PLANT PRODUCTION INCREASES, AND CHANGES IN THE MANUFACTURING PROCESS. ALL NITRATE COMPOUND RELEASES FROM THE RADFORD PLANT MEET THE REQUIREMENTS OF THE FACILITY'S CLEAN WATER ACT PERMIT AND RADFORD IS AGGRESSIVELY CHANGING ITS PROCESSES TO HELP REDUCE NITRATE RELEASES. AS A MATTER OF FACT, IN CY2002 NITRATE RELEASES DECREASED BY 2%.

Q8: WHY ARE RELEASES OF METALS SUCH AS LEAD, COPPER AND ALUMINUM SO HIGH?

A8: THE APPEARANCE OF LEAD AND LEAD COMPOUNDS IN THE TOP FIVE OF THE DOD TRI CY2001 REPORT IS A COMBINATION OF THREE NEW REPORTING FACTORS: 1. LOWER LEAD AND LEAD COMPOUNDS REPORTING THRESHOLDS; 2. "COINCIDENTAL MANUFACTURE" DURING FUEL COMBUSTION; AND 3. RANGE REPORTING. LEAD IS A LARGE PORTION OF TEST AND TRAINING RELEASES NOW REPORTABLE AS A RANGE RELEASE. LOWER PBT REPORTING THRESHOLDS FOR LEAD AND LEAD COMPOUNDS REQUIRE MORE DOD INSTALLATIONS TO FILE REPORTS. TRACE LEVELS OF LEAD AND LEAD COMPOUNDS IN COAL AND FUEL OIL ARE CONVERTED, OR COINCIDENTALLY MANUFACTURED, TO VARIOUS LEAD COMPOUNDS AS A RESULT OF COMBUSTION (E.G., LEAD OXIDES). (PARA) REPORTED COPPER, ALUMINUM (FUME OR DUST), COPPER COMPOUNDS, AND BARIUM TOTALS ALSO INCREASED AS A RESULT OF NEW RANGE REPORTING. BESIDES LEAD, REPORTABLE RANGE RELEASES INCLUDE INORGANIC CHEMICALS (MAINLY METALS) RELEASED TO THE AIR AND GROUND, AND COMBUSTION BYPRODUCTS RELEASED TO THE AIR.

Q9: IS PERCHLORATE REPORTABLE UNDER TRI?

A9: PERCHLORATE IS NOT LISTED AMONG THE 680 CHEMICALS AND CHEMICAL CATEGORIES REPORTABLE TO EPA UNDER TRI.

Q10: DOESN'T THIS TRI DATA SHOW THAT DOD IS THE NATION'S WORST POLLUTER?

A10: DOD FACILITIES ACCOUNTED FOR ONLY SLIGHTLY MORE THAN ONE-TENTH OF ONE PERCENT OF THE 7.1 BILLION POUNDS OF TOXIC RELEASES REPORTED THROUGHOUT THE UNITED STATES FOR CY2000. IN FACT, ONE COMMERCIAL (NON-DOD) FACILITY REPORTED FOR CY2000 RELEASES IN EXCESS OF 100 TIMES THAT OF DOD AS A WHOLE. IN CY2000, EACH OF THE TOP 100 INDIVIDUAL COMMERCIAL INDUSTRIAL FACILITIES IN THE TRI LIST RELEASED MORE THAN THE COMBINED DOD REPORTED RELEASES. IN THE RANKED LIST OF RELEASE TOTALS FROM INDIVIDUAL FACILITIES, THE FIRST DOD FACILITY TO APPEAR IS NUMBER 475 ON THAT LIST (RADFORD ARMY AMMUNITION PLANT).

Q11: ISN'T DOD THE BIGGEST POLLUTER IN THE FEDERAL GOVERNMENT?

A11: IN CY2000 DOD REPORTED RELEASING 7.9 MILLION POUNDS, OR ABOUT TEN PERCENT OF THE TOTAL FEDERAL RELEASES. DOD RANKS SECOND AMONG FEDERAL DEPARTMENTS IN THE AMOUNT OF TRI REPORTABLE RELEASES.

Q12: WHAT IS DOD DOING TO DECREASE ITS RELEASES?

A12: IN CY2000 DOD MET AND EXCEEDED THE TRI REDUCTION GOAL OF 50 PERCENT (SET BY EXECUTIVE ORDER 12856) WHEN IT ACHIEVED A 77 PERCENT REDUCTION, EXCLUDING REPORTING CHANGES (E.G. NITRATES, DEMILITARIZATION OPERATIONS), IN ITS TRI REPORTABLE RELEASES FROM THE ORIGINAL CY1994 BASELINE. EXECUTIVE ORDER 13148 SET TRI REDUCTION GOALS FOR RELEASES AND OFF SITE TRANSFERS OF 10 PERCENT ANNUALLY, OR 40 PERCENT OVERALL, BY THE END OF 2006 WITH CY2001 AS THE BASELINE YEAR. DOD IS CURRENTLY WORKING TO DEVELOP A STRATEGY TO ACHIEVE THE EXECUTIVE ORDER'S REDUCTION GOAL. THE DEPARTMENT IS EVALUATING OPERATIONS TO IDENTIFY POTENTIAL REDUCTIONS IN TRI-REPORTABLE RELEASES WHILE MAINTAINING CURRENT AND FUTURE TRAINING AND READINESS REQUIREMENTS.

Q13: WILL DOD INCLUDE RANGES IN THE CY2001 BASELINE FOR REDUCING RELEASES?

A13: DOD IS MAKING ADVANCES IN REDUCING THE USE OF TOXIC CHEMICALS IN NEW MUNITIONS DESIGN AND MANUFACTURING. IN APRIL 2002, DOD ISSUED THE MUNITIONS ACTION PLAN (MAP) TO MAXIMIZE SAFETY AND MINIMIZE ENVIRONMENTAL IMPACT THROUGHOUT THE ENTIRE MUNITIONS LIFECYCLE FROM ACQUISITION THROUGH USE AND DEMILITARIZATION. THE IMPACTS OF SUCH CHANGES WILL TAKE TIME TO HAVE A SIGNIFICANT IMPACT ON TRAINING RANGE TRI RELEASE TOTALS. THEREFORE, RANGE RELEASES WILL BE REPORTED, BUT DOD WILL NOT INCLUDE RANGE ACTIVITIES IN THE CY2001 REDUCTION GOAL BASELINE.

## 6. KEY MESSAGES:

6.1. THE INCREASE IN DOD'S TRI REPORTED RELEASES FOR CY2001 ARE PRIMARILY DUE TO NEW REPORTING PROCEDURES AND CHANGES TO REPORTING REQUIREMENTS, NOT NEW RELEASES.

6.2. DOD REDUCED ITS RELEASES BY 77% BETWEEN 1994 AND 2000 AND THE DEPARTMENT REMAINS COMMITTED TO FURTHER REDUCING CHEMICAL RELEASES BY IMPROVING TECHNOLOGIES, PROCEDURES, AND POLICIES.

6.3. THE REPORTING RULES HAVE CHANGED AND DOD CONTINUES TO FULLY COMPLY WITH TRI REPORTING REQUIREMENTS.

6.4. DOD'S EPCRA/TRI REPORTING INCLUDES REGULATED OR PERMITTED RELEASES.

6.5. DOD IS NOT THE NATION'S LARGEST SOURCE OF TRI REPORTABLE RELEASES.

## 7. MISCELLANEOUS INFORMATION

7.1. MEDIA COVERAGE: INSTALLATIONS ARE ENCOURAGED TO PROVIDE MEDIA TOURS OF BASE FACILITIES TO HIGHLIGHT THE ENVIRONMENTAL CONCERN AND IMPROVEMENTS BEING ACCOMPLISHED AT DOD INSTALLATIONS.

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