



Enforcement Alert

Volume 3, Number 3

Office of Regulatory Enforcement

March 2000

Facilities May Have Annual Toxics Release Inventory Reporting Requirements for Nitrate Compounds

Under the Emergency Planning and Community Right-To-Know Act (EPCRA), Section 313, certain facilities manufacturing, processing or using various toxic chemicals must sub-

mit reports to the U.S. Environmental Protection Agency (EPA) and a State-designated agency.

In addition to reporting on their releases of toxic chemicals into the air, water, and land, facilities are required

reporting chemicals such as ammonia, sodium nitrite and nitric acid, may also have reporting obligations for nitrate compounds.

EPA has made clear through TRI reporting instructions and guidance

About Enforcement Alert

"Enforcement Alert" is published periodically by the Office of Regulatory Enforcement to inform and educate the public and regulated community of important environmental enforcement issues, recent trends and significant enforcement actions.

This information should help the regulated community anticipate and prevent violations of federal environmental law that could otherwise lead to enforcement action. Reproduction and wide dissemination of this newsletter is encouraged.

See Page 3 for useful compliance assistance resources.

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Water Dissociable Nitrate Compounds, When Manufactured as a Result of Wastewater Treatment or Other Processes, Are Reportable under TRI

to report on off-site transfers (including transfer of wastes for treatment or disposal at a separate facility).

EPA compiles data contained in facilities' reports in an on-line, publicly accessible, national computerized database known as the Toxics Release Inventory (TRI). These chemical right-to-know reports help communicate potential risks to the public and the effects of those risks on public health and safety, and the environment. By communicating these potential chemical risks to the public, the EPA provides citizens with an opportunity to become active in emergency planning and prevention activities occurring within their community.

Reports must be submitted on or before July 1 each year and must cover activities that occurred at the facility during the previous year.

In particular, reporting requirements also apply to facilities that generate **water dissociable nitrate compounds** as by-products during wastewater treatment processes. Data from the TRI suggests that many facilities re-

documents that nitrate compounds generated as by-products must be reported when these compounds are in excess of reporting thresholds. Companies that fail to fully report nitrate compounds risk enforcement actions and penalties of up to \$27,500 per day under EPCRA Section 325.

Reporting Nitrates Provides Additional Data on Potential Risks to Communities, Environment

In 1997, the TRI indicated that 148 million pounds of nitrate compounds were released to water. Studies have found that excess exposure to nitrates causes serious illness and/or death. For example, infants and children are especially sensitive to elevated nitrate levels, which cause methemoglobinemia or "blue baby syndrome." Long term exposure to nitrates has been linked to diuresis, increased starchy deposits and hemorrhaging of the spleen, depression

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of the cardiovascular and central nervous systems, stupor, convulsions, and respiratory depression. Excess nitrate levels also cause environmental damage such as nitrification of streams, lakes, and rivers, and ultimately, eutrophication and algae blooms, which lead to fish kills from oxygen deprivation.

Who Must Report to the TRI?

A facility must report to the Toxic Release Inventory if it meets all three of the following criteria:

1 The facility is classified in Standard Industrial Classification (SIC) codes:

- 10 (Metal Mining, except 1011, 1081, & 1094);
- 12 (Coal Mining except 1241);
- 20-39 (Manufacturers);
- 4911, 4931, & 4939 (Electric Utilities, limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce);
- 4953 (Treatment, Storage, & Disposal Facilities, limited to facilities regulated under RCRA Subtitle C);
- 7389 (Solvent Recovery Services, limited to facilities primarily engaged in solvent recovery service on a contract or fee basis);
- 5169 (Chemical Distributors); and
- 5171 (Petroleum Bulk Terminals).

2 The facility has 10 or more full time employees (or the equivalent 20,000 employment hours per year).

3 The facility manufactures (including imports), processes, or otherwise uses any TRI-listed chemical above applicable threshold quantities. Generally, threshold quantities are 25,000 pounds for manufacturing and processing activities, and 10,000 pounds for otherwise use activities. All thresholds are determined per chemical over the calendar year.

Whenever the above criteria are satisfied, a report must be filed regardless of whether a facility releases any amount of the listed chemical into any environmental medium.

TRI Reporting Requirements for Water Dissociable Nitrate Compounds

If a facility is manufacturing or processing nitrate compounds in quantities exceeding 25,000 pounds, or is using nitrate compounds in quantities exceeding 10,000 pounds, the owner or operator of that facility must file an EPA Form R (Toxic Chemical Release Reporting Form) or EPA Form A (an alternative to the Form R for qualifying facilities) for each year the reporting criteria are satisfied.

All water dissociable nitrate chemicals have been reportable as a “category” since 1995 (reports due July 1, 1996). However, ammonium nitrate (solution) has been reportable as an individually listed chemical since 1987 (reports due July 1, 1988). As of Jan. 1, 1995, ammonium nitrate was no longer reportable as an individual chemical but became reportable as part of the water dissociable nitrate compound category. EPA guidance document *The Toxic Release Inventory. List of Toxic Chemicals Within the Water Dissociable Nitrate Compounds Category and Guidance for Reporting*, published June 1999, includes a list of some of the CAS

numbers and chemical names of individual chemicals included in the water dissociable nitrate compounds category.

‘Coincidentally Manufactured’ Chemicals Must be Reported

The term “manufacture” includes **coincidental production** of a toxic chemical such as nitrate (e.g., as a by-product) when chemicals (such as ammonia, sodium nitrite, nitric acid and other nitrogenous chemicals) are manufactured, processed, treated or otherwise used. Listed chemicals such as ammonium, sodium nitrite and nitrate compounds may be **coincidentally manufactured** as a result of wastewater treatment or other treatment processes.

As explained in EPA’s nitrate guidance document, “The partial or com-

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Take Note:

“The partial or complete neutralization of nitric acid results in the formation of nitrate compounds, which are reported as chemicals within the nitrate compounds category if their manufacture, process or otherwise use thresholds are exceeded.” — EPA guidance document: *Toxic Release Inventory. List of Toxic Chemicals Within the Water Dissociable Nitrate Compounds Category and Guidance for Reporting (June 1999)*.

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plete neutralization of nitric acid results in the formation of nitrate compounds, which are reported as chemicals within the nitrate compounds category if their manufacture, process or otherwise use thresholds are exceeded.”

Based on EPA's calculations, a facility neutralizing greater than 18,530 pounds of nitric acid per year at a pH greater than or equal to six with sodium hydroxide, has coincidentally manufactured more than 25,000 pounds per year of water dissociable nitrate compounds and, therefore, would be required to file an EPA Form R or EPA Form A (if applicable) for each year beginning with 1995 that the facility meets all the criteria described above so long as no TRI reporting exemptions apply. Likewise, biological oxidation of plant and animal materials, ammonia, urea, nitrogenous compounds, and nitrite will also coincidentally manufacture water dissociable nitrate compounds.

Facilities should refer to EPA's nitrate guidance document for technical assistance in determining whether their facility has TRI reporting obligations for nitrate compounds, including nitrate compounds generated as by-products during wastewater treatment (see <http://www.epa.gov/opptintr/tri/nitrate.pdf>).

Where to Submit TRI Reporting Forms

Facilities with TRI reporting obligations may submit reports using the 1998 *Toxic Chemical Release Inventory Reporting Forms and Instructions* for reporting years 1995-1998. EPA prefers that reports be submitted using the Automated TRI Reporting Software 1998 (ATRS98), which is available on the Internet at <http://www.epa.gov/opptintr/atrs/>. The Form R, Form A or the TRI diskette, along with a cover

Coincidental Manufacturing

“Coincidental manufacturing must not be overlooked . . . For example, the treatment of nitric acid may result in the coincidental manufacturing of a reportable chemical (nitrate compounds).” —*Appendix C: Common Errors in Completing Form R Reports, Toxic Chemical Release Inventory Reporting Forms and Instructions*, February 1999 (Publication can be found at <http://www.epa.gov/opptintr/tri/ry98pkg.pdf>)

letter and an original certification signature, should be sent to the:

- State in which the facility is located at the address listed in the Form R and Form A instructions, and
- EPCRA Reporting Center, Attention: TRI Nitrate Coordinator, P.O. Box 3348, Merrifield, VA 22116-3348.

Please note that the mere filing of a required EPA Form R does not resolve a facility's potential penalty liability for having filed a Form R late. A facility should consult EPA's self-disclosure policies for information related to such filings.

EPA's Audit Policy and Small Business Policy

EPA has adopted policies designed to encourage greater compliance with environmental laws and regulations. Two such policies, “Incentives for Self-Policing, Discovery, Disclosure, Correction and Prevention of Violations” (Audit Policy), and “Policy on Compliance Incentives for Small Businesses” (Small Business Policy), provide incentives to conduct environmental audits by substantially reducing or eliminating penalties for entities that voluntarily discover, disclose, and expeditiously correct violations of environmental law. For more information, see <http://www.epa.gov/oeca/auditpol.html> and <http://www.epa.gov/oeca/smbusi.html>, respectively.

Facilities desiring to self disclose

TRI nitrate-related violations under EPA's Audit Policy, should contact **Thomas C. Marvin, Office of Regulatory Enforcement, Toxics and Pesticides Enforcement Division, by writing to him at 1200 Pennsylvania Avenue, NW, Washington, D.C., 20465, or calling (202) 564-4169, or Email: marvin.thomas@epa.gov.**

Useful Compliance Assistance Resources

Office of Regulatory Enforcement:
<http://www.epa.gov/oeca/ore/>

Toxic & Pesticides Enforcement Division:
<http://www.epa.gov/oeca/ore/tped/>

EPA's TRI Homepage:
<http://www.epa.gov/opptintr/tri/>

TRI Reporting Forms and Instructions:
<http://www.epa.gov/opptintr/tri/report.htm>

Guidance Documents, Including Nitrate Compounds:
<http://www.epa.gov/opptintr/tri/guidance.htm>

Other TRI Policy Documents, Regulations, and Statutes:
<http://www.epa.gov/opptintr/tri/trirules.htm>

EPA Compliance Assistance Centers:
<http://www.epa.gov/oeca/mfcac.html>

EPA's Small Business Gateway:
<http://www.epa.gov/smallbusiness/>



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