



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor

Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

January 11, 2008

Mr. Craig Wilkinson  
Titanium Metals Corporation  
P.O. 2126  
Henderson, NV 89015

RE: TIMET Management of Investigation Derived Waste (IDW)

Dear Mr. Wilkinson:

The Nevada Division of Environmental Protection (NDEP) has reviewed documentation provided by TIMET/Broadbent & Associates regarding the management of IDW at the TIMET/Henderson Nevada Facility. In that documentation, TIMET asserts that purge water generated from quarterly sampling events, containing tetrachloroethylene (PCE) and trichloroethylene (TCE), is not required to be managed as hazardous waste. TIMET states that this assertion is based on USEPA's contained-in policy relating to contaminated environmental media. TIMET further asserts that a source and use for those solvents cannot be definitively identified, and therefore, the contaminated media is not required to be characterized as a "listed" hazardous waste. This is of particular concern because of planned future aquifer tests at the Henderson facility.

This letter provides: NDEP's review of the documentation and a determination that the purge water is contaminated with a listed hazardous waste; a general description of the RCRA contained-in policy as described by EPA; and a range of options for TIMET to manage the generated purge water.

## **NDEP Review of Documentation**

NDEP has reviewed documents relating to historical uses and management practices associated with TCE at the TIMET facility (See Attachment A). This information outlines a pattern of TCE usage as a cleaning/degreasing solvent (which is a RCRA "listed" activity) and disposal practices that have clearly contributed to contamination at the site. Data obtained from groundwater monitoring wells indicates a plume of TCE contamination leading directly upgradient to a source on the TIMET facility where historical TCE usage occurred. Furthermore, no TCE contamination is identified in monitoring wells directly upgradient of the TIMET facility. It is NDEP's position that the analytical data derived from TIMET's groundwater monitoring program data is



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representative of actual conditions in the environment on a geographic basis. Furthermore, it is NDEP's position that TCE contamination occurred within the TIMET facility and that the environmental media in question is contaminated with a "listed" hazardous waste.

During a recent RCRA Compliance Evaluation Inspection, TIMET discussed sampling results revealing non-detect levels of TCE. Furthermore, it should be noted that listed wastes are source-dependent. The lack of a detectable constituent does not necessarily cause a solid waste to not be listed. Based on historical groundwater data, NDEP asserts that the solid waste originates from a known area of contamination and is a listed hazardous waste as currently managed. Consequently, it remains a listed hazardous waste until a contained-in determination can be made.

### **General Description of Contained-In Policy**

TIMET may formally petition NDEP for a "contained-in determination" in order to drop the requirement to manage the waste stream as a listed hazardous waste. USEPA's contained-in policy states that for media contaminated with listed wastes, "contained-in determinations" must be made on a case-by-case basis by USEPA or a RCRA-authorized state regulatory agency [FAXBACK 11393- Lowrance to Zelikson, 1989]. USEPA has not issued guidance establish concentration levels for "contained-in determinations." Decisions that media do not or no longer contain listed hazardous waste are typically made on a case-by-case basis considering the risks posed by the contaminated media. USEPA has advised that "contained-in determinations" be made using "conservative, health-based levels derived assuming direct exposure pathways."

Please be advised that receiving a contained-in determination for a particular waste stream is not an automatic process, and a formal, written request must be presented to NDEP. It should also be noted that USEPA views mixing of higher concentration contaminated media through the addition of less contaminated environmental media as a pretreatment measure to facilitate the treatment process as allowable provided that the intended purpose is not to "merely dilute the hazardous constituents into a larger volume of waste and/or release excessive amounts of hazardous constituents to the air." [USEPA/530/R-02/003]

### **Options for Management of Purge Water**

This section provides a description of some potential options for managing the purge water generated from the wells. "As-generated" purge water in the sections below refers to purge water from each individual well prior to mixing or storage with purge water generated from other wells.

#### A) Solid/Hazardous Waste Management Options

Solid and hazardous waste management options for IDW include but are not limited to the following:

- Mixtures of domestic sewage and other wastes that pass through a sewer system to a publicly owned treatment works (POTW) are excluded from the definition of solid waste (40CFR261.4(a)(1)(ii)); however, wastewater upgradient and prior to the mixing with domestic sewage is subject to all applicable solid and hazardous waste regulations. Wastewater discharges to the sewer system may require permission from the POTW authority.
- Industrial wastewater discharges that are point source discharges subject to regulation under Section 402 of the Clean Water Act are excluded from the definition of solid waste (40CFR261.4(a)(2)); however, wastewater from a NPDES discharge or outfall point is subject to all applicable solid and hazardous waste regulations prior to entering the waters of the United States.
- Treated in an on-site wastewater treatment unit as defined in (40CFR260.10);
- On-site treatment in 90-day accumulation units, recycling, treatment in totally enclosed treatment facilities, etc;
- Transported off-site under a hazardous waste manifest; or
- Evaluated further under options B or C below to obtain a “contained-in” determination” from NDEP that the material “no-longer contains” hazardous waste.

#### B) Non-hazardous Waste Management Options

If as-generated purge water contains contamination at levels below the RCRA Land Disposal Restrictions Universal Treatment Standards at 40 CFR 268.48 (54 ug/l for TCE and 56 ug/l for PCE) and at levels above Maximum Contaminant Levels (5 ug/l for TCE and PCE) listed at 40 CFR Part 141 (or where MCLs are not available, EPA Region 9 tap water Preliminary Remediation Goals [PRGs]), TIMET may petition NDEP to make a “contained-in” determination that the material “no-longer contains” a hazardous waste.

TIMET should submit an investigation derived waste management plan as part of the corrective action work plan for approval. NDEP will consider the following additional options, in addition to those management options listed in Section A above, for managing this waste stream:

- Treatment and discharge under a State long-term groundwater (UIC) or land disposal permit or temporary permit;
- Transported off-site to a NPDES permitted facility.

The petition contained in the work plan should include/consider the following elements:

- Proposed Investigation Derived Waste management plan;

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- Media properties
- Waste constituent properties including solubility, mobility, toxicity, and interactive effects of the constituents present that may affect those properties;
- Exposure potential and subsurface properties
- Climatic conditions
- Risk to human health and the environment
- Other site- or waste-specific properties or conditions that may affect whether residual concentrations will pose a threat to human health and the environment.

C) As a non-waste

If as-generated purge water contains contamination below the higher of MCLs or EPA Region 9 tap water PRGs, TIMET may petition NDEP directly for a contained-in determination and no approved management plan is required from the NDEP.

The above-mentioned options are suggested management options only and do not represent a recommendation on the part of NDEP. Consideration of other management options should not be precluded.

Please feel free to contact me at (702) 486-2850 ext. 227 or Brian Rakvica at (702) 486-2850 ext. 247 if you have questions or comments with regard to this regulatory interpretation.

Sincerely,



Michael R. Richardson  
Nevada Division of Environmental Protection  
Bureau of Waste Management  
Supervisor/Compliance and Enforcement Branch

cc: Jim Najima, NDEP, BCA, Carson City  
Eric Noack, NDEP, BWM, Carson City  
Greg Lovato, NDEP, BCA, Carson City  
Brian Rakvica, NDEP, BCA, Las Vegas  
Todd Croft, NDEP, BCA, Las Vegas  
Evan Chambers, NDEP, BWM, Carson City  
William Frey, AG's Office, Carson City  
Barry Conaty, Akin, Gump, Strauss, Hauer & Feld, L.L.P., 1333 New Hampshire Avenue, N.W.,  
Washington, D.C. 20036  
Brenda Pohlmann, City of Henderson, PO Box 95050, Henderson, NV 89009  
Mitch Kaplan, U.S. Environmental Protection Agency, Region 9, mail code: WST-5,  
75 Hawthorne Street, San Francisco, CA 94105-3901  
Rob Mrowka, Clark County Comprehensive Planning, PO Box 551741, Las Vegas, NV, 89155-  
1741

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Ranajit Sahu, BRC, 311 North Story Place, Alhambra, CA 91801  
Rick Kellogg, BRC, 875 West Warm Springs, Henderson, NV 89015  
Kirk Stowers, Broadbent & Associates, 8 West Pacific Avenue, Henderson, Nevada 89015  
George Crouse, Syngenta Crop Protection, Inc., 410 Swing Road, Greensboro, NC 27409  
Nicholas Pogoncheff, PES Environmental, Inc., 1682 Novato Blvd., Suite 100, Novato, CA  
94947-7021  
Susan Crowley, Tronox, PO Box 55, Henderson, Nevada 89009  
Keith Bailey, Environmental Answers, 3329 Persimmon Creek Drive, Edmond, OK 73013  
Sally Bilodeau, ENSR, 1220 Avenida Acaso, Camarillo, CA 93012-8727  
Lee Erickson, Stauffer Management Company, P.O. Box 18890, Golden, Co 80402  
Michael Bellotti, Olin Corporation, 3855 North Ocoee Street, Suite 200, Cleveland, TN 37312  
Curt Richards, Olin Corporation, 3855 North Ocoee Street, Suite 200, Cleveland, TN 37312  
Paul Sundberg, Montrose Chemical Corporation, 3846 Estate Drive, Stockton, California  
95209  
Joe Kelly, Montrose Chemical Corporation of CA, 600 Ericksen Avenue NE, Suite 380,  
Bainbridge Island, WA 98110  
Jon Erskine, Northgate Environmental Management, Inc., 300 Frank H. Ogawa Plaza, Suite 510,  
Oakland, CA  
94612  
Deni Chambers, Northgate Environmental Management, Inc., 300 Frank H. Ogawa Plaza, Suite  
510, Oakland, CA 94612  
Robert Infelise, Cox Castle Nicholson, 555 California Street, 10<sup>th</sup> Floor, San Francisco, CA  
94104-1513  
Michael Ford, Bryan Cave, One Renaissance Square, Two North Central Avenue, Suite 2200,  
Phoenix, AZ 85004

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Titanium Metals Corporation  
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**Attachment A- Referenced Correspondence**

1. Mark Small, PhD./TIMET to Phillip Bobel/U.S. EPA Region 9, May 2, 1984
2. Thomas Fronnapfel/NDEP -BWM to Mark Small/TIMET- June 29, 1984
3. Mark Small PhD./TIMET to Thomas Fronnapfel- July 5, 1984
4. Mark Small PhD./TIMET to Thomas Fronnapfel- July 24, 1984
5. Mark Small PhD./TIMET to Thomas Fronnapfel- August 28, 1984