

FIRST IN TITANIUM

Henderson Plant

P.O. Box 2128, Henderson, NV 89015

(702) 564-2544

August 28, 1984

**RECEIVED**

AUG 29 1984

**ENVIRONMENTAL  
PROTECTION**

Thomas J. Fronapfel  
Environmental Engineer  
State of Nevada  
Capitol Complex  
201 South Fall Street  
Carson City, NV 89710

Dear Mr. Fronapfel:

In response to those concerns expressed by your department, TIMET has made arrangements with Western Oil Co. of 3854 Losee Rd., North Las Vegas, NV, to recycle our trichloroethane (TCE) contaminated waste oil. Western Oil has previously been recycling some of our other waste oils.

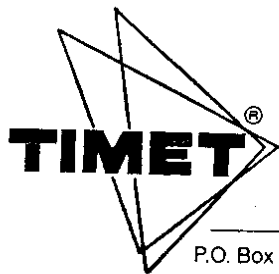
We produce an average of one 55-gallon drum of TCE contaminated waste oil a week. The maximum TCE level observed in that oil was 6.1 percent, or the equivalent of 3.4 gallons per week.

As we discussed on the phone, TIMET requests written approval of having Western Oil recycle our TCE contaminated waste oil.

Sincerely,

Mark Small, Ph.D.  
Supervisor of Environmental Quality

MS/jk



FIRST IN TITANIUM

P.O. Box 2128, Henderson, NV 89015

Henderson Plant

(702) 564-2544

May 2, 1984

*Received  
5/9/84  
from Karen Schmitt  
[Signature]*

Mr. Philip Bobel, Chief  
Toxics & Waste Programs Branch  
U.S. EPA Region IX  
215 Fremont Street  
San Francisco, CA 94105

Dear Mr. Bobel:

This letter and the accompanying affidavit and exhibit contain the information which we agreed to provide at our April 25 meeting with Assistant Regional Counsel Jan Taradash, Chief RCRA Programs Sections Laura Yoshii, and Environmental Protection Specialist Bobbie Kahan. In addition, this letter constitutes Timet's formal withdrawal of its Resource Conservation and Recovery Act (RCRA) Part A and Part B permit applications. Timet's Henderson, Nevada facility is excluded from RCRA under Section 3001(b)(3)(A)(ii) and 40 C.F.R. Section 261.4(b)(7), and Timet therefore is not required to obtain a RCRA permit. EPA has confirmed, through a letter from Jan Taradash to Timet counsel Jennifer Machlin, that "under the agency's November 19, 1980 interpretation of the Bevill Amendment (45 Fed. Reg. 76618), Timet's primary waste streams (solid wastes from the melt shop and sponge plant processes) are currently excluded from regulation under Subtitle C of RCRA . . . ."

EPA has raised with Timet the issue of whether, despite the Bevill Amendment exclusion, its practices concerning 1,1,1 trichloroethane, with regard to the J-2 landfill at the Henderson facility, might nonetheless subject it to Subtitle C of RCRA. As the accompanying affidavit and exhibits establish, Timet has never disposed of 1,1,1 trichloroethane in the J-2 landfill and does not do so now.

Exclusion from RCRA will in no way detract from Timet's efforts and concerns with regard to protection of the environment. Timet is continuing with its own groundwater monitoring program, which includes installation of additional wells to determine true flow rates and directions. Also the third and fourth quarter well sampling and analyses will be completed. As part of the Timet voluntary environmental protection program, Timet will submit the results of these analyses to Region IX and looks forward to considering Region IX's comments on Timet's groundwater monitoring plan.

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Sales Offices World Wide

Mr. Philip Bobel  
May 2, 1984  
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Even though Timet is excluded from RCRA, we feel that it is desirable to correct errors that were made in Timet's permit applications. I have examined in detail Timet's waste streams with respect to RCRA. In addition, I have had a number of discussions with the Nevada Division of Environmental Protection and the RCRA hot line, both of which have been extremely cooperative and helpful. Through this examination I have identified the following errors, which were discussed at the April 25 meeting with your personnel, in Timet's permit applications:

- Vanadium and the various forms of vanadium were erroneously classified as hazardous under § 261.33, with the Hazardous Waste Numbers of P119 and P120. Section 261.33 applies to "Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof." We never have used any commercial grades of vanadium (V) oxide, vanadium pentoxide or vanadic acid ammonium salt as described in §261.33(a)-(f). Therefore, we never should have classified vanadium, or any chemical specification of vanadium found in any of our waste, as hazardous.
- Chromium was erroneously classified as hazardous under §261.24, with the Hazardous Waste Number of D007. The chromium in our waste is and always has been exclusively trivalent chromium. Our waste is generated from an industrial process which uses trivalent chromium exclusively. Our waste is typically and frequently managed in non-oxidizing environments. Furthermore, our waste that contains chromium does not fail the test for the characteristic of EP toxicity for any other constituent. Thus, we fully meet all criteria for the exclusion in §261.4(b)(6)(i). Therefore, we should not have classified chromium found in any of our waste as hazardous.
- The CSD storage pile was erroneously classified as hazardous under § 261.22 (the characteristic of corrosivity) with the Hazardous Waste Number of D002. The storage pile is solid. The characteristic of corrosivity, § 261.22, pertains only to aqueous and liquid material. As discussed in the May 19, 1980 Federal Register, RCRA does not address the corrosivity of solid material. Therefore, we never should have classified the CSD storage pile as hazardous under the characteristic of corrosivity. Since it contains no other hazardous material, we never should have classified the CSD storage pile as hazardous at all.
- Smut was erroneously classified as hazardous under § 261.23 (the characteristic of reactivity) with the Hazardous Waste Number of D003. Smut is normally stable and does not readily

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- undergo violent change. Smut contains approximately 3 percent magnesium metal which, when mixed with water, will generate hydrogen gas and magnesium oxide. Hydrogen gas is flammable, not explosive, for purposes of the manner in which we treat, store, handle, or dispose of smut. Smut is handled, stored, treated and disposed of in such a manner that it exhibits none of the characteristics of reactivity set forth in § 261.23(a). Therefore, we never should have classified smut as hazardous.
- The only materials that our Part B permit application reported as disposed of in our J-2 landfill were smut and vanadium pentoxide. Since neither one of these is considered a hazardous material under RCRA, the J-2 landfill never should have been classified as a hazardous waste disposal site.
- The spent caustic pond was erroneously considered hazardous under the characteristic of corrosivity in § 261.22, with the Hazardous Waste Number of D002. The material in the caustic pond is aqueous, with a pH less than 12.5 and greater than 2.0. Therefore, we never should have classified the spent caustic pond as hazardous under § 261.22(a).
- The leach liquor ponds (LL3, LL4, LL5B, LL6A, LL6B, LL7A, LL7B, LL7C) and the other process waste ponds (OPW1, OPW2, OPW3, and OPW5) were erroneously considered hazardous under the characteristic of corrosivity in § 261.22, with the Hazardous Waste Number of D002. The material in these ponds is aqueous, with a pH less than 12.5 and greater than 2.0. Therefore, we never should have classified these ponds as hazardous under § 261.22(a).

Based on the above review I have determined, and the State of Nevada concurs, that Timet does not use, generate, store or dispose of any RCRA listed wastes. Only four holding ponds (two CSD ponds and Leach Liquor Ponds 1 and 2) meet the corrosivity characteristic. The contents of these holding ponds are subsequently sent through a neutralization system.

If you have any questions, please feel free to contact me.

Sincerely,



Mark Small, Ph.D.  
Supervisor of Environmental Quality

MS/jk

cc: Jan Taradash

AFFIDAVIT OF MARK SMALL

I, MARK SMALL, being first duly sworn, declare under penalty of perjury that I know from my own personal knowledge and could competently testify to the following:

1. From November 28, 1983 to the present, I have been employed by Timet in Henderson, Nevada, in the position of Supervisor of Environmental Quality. My duties include responsibility for all environmental concerns related to the Henderson plant.

2. I have a B.S. degree in Biochemistry from City College of New York (1974), and a Ph.D. in Environmental Chemistry from the University of Maryland (1979).

3. From 1979 to 1981 I was Associate Environmental Scientist at Midwest Research Institute in Kansas City, Missouri. From 1981 through 1983 I was Senior Staff Scientist at Woodward-Clyde Environmental Consultants, in San Francisco, California.

4. I have examined Timet's past and present disposal practices regarding the J-2 landfill. Nothing in these practices indicates that Timet disposes or has ever disposed of any free liquids containing 1,1,1 trichloroethane (TCE) or any other halogenated solvent in the J-2 landfill. Nor has Timet disposed of any other free liquids in that landfill. The J-2 landfill is used for disposal of general plant debris and rubble. If a drum containing liquids is defective in some way, the liquids are drained off and the drum flattened before placement in the J-2 landfill.

5. I have questioned present plant supervisory personnel who use or handle or supervise the use or handling of TCE, or have done so in the past, concerning their practices with regard to TCE. I interviewed approximately 35 supervisors, of who 27 have been employed at Timet's Henderson facility for over ten years.

6. I asked each of these supervisors whether he or she has ever disposed of or supervised the disposal of liquid TCE in sealed containers such as drums or cans at any location at the Henderson facility. Each of them informed me that he or she has never done so.

7. In particular, I asked each of these supervisors whether he or she had any recollection of asking former Timet Environmental Quality supervisor Don Baker, at any time, for instructions on disposing of drums containing liquid and labeled "Spent Solvent". Each of them informed me that he or she had no recollection of ever having done so.

8. I also asked each of these supervisors to describe the purpose for which they have used and are now using TCE and the manner in which they have handled and are now handling any residues. They informed me that TCE is used and always has been used only to clean equipment, and that most of the TCE evaporates during the cleaning process. They also informed me that any cleaning residues, consisting of grease or oil from the cleaned equipment, water, and small quantities of TCE, have been and are now handled in one of two ways, as set forth in paragraphs 9 and 10 below. I have myself observed that handling of cleaning residues at the Henderson facility is confined to these two practices.

9. Residues (oil, grease, and vestiges of TCE) from cleaning tools and equipment are collected in small containers and placed in oil drums or cans distributed at various "drop locations" in the plant. The cleaning residues constitute a small portion of the liquid in these drums or cans. Most of that liquid consists of oil and hydraulic fluid drained from plant machinery. The incidental amount of TCE mixed with these fluids continues to evaporate after placement in the drums or cans. The contents of the drums or cans are used as a dust suppressant on unpaved surfaces at the Henderson facility.

10. Residues from cleaning the hydraulic system of the melt shop press and any of the double melt hydraulic systems are collected in drums and pumped through an oil purification system. The residue is heated in a dehydrator. Any TCE is distilled off and lost to the atmosphere. The remaining oil is then filtered and reused.

11. I have reviewed all groundwater monitoring data pertaining to the J-2 landfill. These data reveal no evidence of TCE.

12. Timet's annual purchases of TCE for the years 1980-1983, as itemized in Exhibit 1 to this affidavit, ranged from 2916 gallons to 5687 gallons. To date, in 1984, Timet has purchased no TCE.

13. Timet's annual usage of TCE for the years of 1980-1983, as shown in Exhibit 1 to this affidavit, ranged from 2508 gallons to 5736 gallons. Through May 1, 1984, Timet has used 724 gallons of TCE.

14. Any references in Timet's Part A or Part B RCRA permit applications to disposal of TCE in the J-2 landfill were in error.

Executed this 2nd day of May, 1984, at Henderson, Nevada.



Mark Small

Sworn to and subscribed before  
me this 2nd day of May, 1984.



Notary Public, State of Nevada  
Clark County



EXHIBIT I

1,1,1 TRICHLOROETHANE PURCHASES AND USE  
BY TIMET 1980 THROUGH 1984

<u>YEAR</u>	<u>QUANTITY PURCHASED IN GALLONS</u>	<u>WITHDRAWN FROM STORES IN GALLONS</u>
1980	5867	4860
1981	4860	5736
1982	2961	3120
1983	2916	2508
1984*	-0-	724

\* January 1, 1984 through May 1, 1984



SPECIAL INST:  
PURCHASE CARD

STOCK NO. 629

SOLVENT, CLEANING

(See Vendor # & List wt.)

Transferred to New Card

ORDER POINT: 428 108	MINIMUM: 54	MAXIMUM: 648 972	LEAD TIME	DELIVER TO: FIELD STORAGE	ISSUE UNIT GA	STANDARD PACKAGE 54 GA DR (over)	CHARGE: 4902 100000x
VENDORS				TIMET 19-25 REV. 4/77	MIN. ORDER	F.O.B. POINT:	TERMS:
6450 JONES CHEMICAL CO. (TRICHLOROETHANE)						HENDERSON	NET 30
12299 VWR (12299) (#111 Trichloroethane)						"	"
							N-30 10

EN	DATE WANTED	P.O. NUMBER	P.O. DATE	QUANTITY	UNIT	UNIT PRICE	VIA	BUYER	ON HAND	DATE	APPROVED	RECEIPTS:	DATE:
1	5-16-79	85967	5-10-79	972	GA	3.56	VENDOR		108	5/3	sls	972	5/6
3	7-12-79	87825	7-10-79	540	GA	3.82	"	T	324	7/9	sls	486-54	7/27/79
3	9-14-79	89354	8-28-79	972	GA	3.82	"	T	273	8/24	sls	972	9/9
3	11-8-79	91403	10-30-79	972	GA	3.82	"	T	272	10/26	sls	540-432	10/31/79
3	1-25-80	94013	1-17-80	972	GA	3.92	"	T	10253	1/16	sls	486-486	1/17/80
1	4-8-80	96435	4-3-80	864	GA	3.87	"	T				810-	4/7
1	7-31-80	94610	6-19-80	835	GA	3.87	"	D:	266	9/9	CP	648-324	6/24-3/14
1	8-21-80	11835	8-20-80	972	GA	3.87	"	D:	215	8/9	sls	756-216	8/17/80
1	11-14-80	14450	11-13-80	972	GA	3.95	"	D:	269	11/13	CR	972	11/7
1	12-29-80	15877	12-22-80	972	GA	4.02	"	D:				972	1/20
1	3-9-81	18531	3-5-81	972	GA	4.17	"	T	311	3/5	sls	972	3/9
1	5-29-81	21678	5-26-81	972	GA	4.17	"	T	303	5/1	sls	972	5/28
1	8-5-81	23877	7-30-81	972	GA	3.75	"	D:	276	7/27	sls	972	8/5

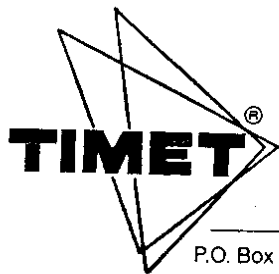
SPECIAL INST: SEE VENDOR # & LIST WT.

STOCK NO. 629

SOLVENT, CLEANING

ORDER POINT: 324	MINIMUM: 54	MAXIMUM: 972	LEAD TIME	DELIVER TO: FIELD STORAGE	ISSUE UNIT GA	STANDARD PACKAGE 54 GA DR (OVER)	CHARGE: 4902 100000x
VENDORS				TIMET 19-25 REV. 4/77	MIN. ORDER	F.O.B. POINT:	TERMS:
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EN	DATE WANTED	P.O. NUMBER	P.O. DATE	QUANTITY	UNIT	UNIT PRICE	VIA	BUYER	ON HAND	DATE	APPROVED	RECEIPTS:	DATE:
1	10-2-81	26037	9-28-81	972	GA	3.75	VENDOR		206	9/28	sls	972	9/29
1	12-1-81	28416	12-4-81	972	GA	3.75	VENDOR	T	258	12/1	sls	972	12/16
1	2-22-82	31016	2-17-82	972	GA	3.75	"	D:	319	2/17	sls	216-594-162	2/18/82
1	7-16-82	35443	7-16-82	972	GA	3.75	"	T		7/16	sls	972	7/19
1	9-22-82	37286	9-20-82	972	GA	3.75	"	T	223	9/16	RA	520-(250)702	9/10/82
1	3-18-83	41325	3-8-83	972	GA	3.75	"	T	167	3/24	sls	972	3/18
1	6-23-83	43561	6-15-83	972	GA	3.75	"	D:	319	5/14	sls	972	6/23
1	10-28-83	46427	10-19-83	972	GA	3.75	"	T	205	10/18	RA	486-586	10/21/83



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*Received  
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U.S. EPA Region IX  
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Sincerely,



Mark Small, Ph.D.  
Supervisor of Environmental Quality

MS/jk

cc: Jan Taradash

AFFIDAVIT OF MARK SMALL

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6. I asked each of these supervisors whether he or she has ever disposed of or supervised the disposal of liquid TCE in sealed containers such as drums or cans at any location at the Henderson facility. Each of them informed me that he or she has never done so.

7. In particular, I asked each of these supervisors whether he or she had any recollection of asking former Timet Environmental Quality supervisor Don Baker, at any time, for instructions on disposing of drums containing liquid and labeled "Spent Solvent". Each of them informed me that he or she had no recollection of ever having done so.

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11. I have reviewed all groundwater monitoring data pertaining to the J-2 landfill. These data reveal no evidence of TCE.

12. Timet's annual purchases of TCE for the years 1980-1983, as itemized in Exhibit 1 to this affidavit, ranged from 2916 gallons to 5687 gallons. To date, in 1984, Timet has purchased no TCE.

13. Timet's annual usage of TCE for the years of 1980-1983, as shown in Exhibit 1 to this affidavit, ranged from 2508 gallons to 5736 gallons. Through May 1, 1984, Timet has used 724 gallons of TCE.

14. Any references in Timet's Part A or Part B RCRA permit applications to disposal of TCE in the J-2 landfill were in error.

Executed this 2nd day of May, 1984, at Henderson, Nevada.



Mark Small

Sworn to and subscribed before me this 2nd day of May, 1984.



Notary Public, State of Nevada  
Clark County



EXHIBIT I

1,1,1 TRICHLOROETHANE PURCHASES AND USE  
BY TIMET 1980 THROUGH 1984

<u>YEAR</u>	<u>QUANTITY PURCHASED IN GALLONS</u>	<u>WITHDRAWN FROM STORES IN GALLONS</u>
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1983	2916	2508
1984*	-0-	724

\* January 1, 1984 through May 1, 1984



SPECIAL INST:  
PURCHASE CARD

STOCK NO. 629

SOLVENT, CLEANING

(See Vendor # & List wt.)

Transferred to New Card

ORDER POINT: 428 108	MINIMUM: 54	MAXIMUM: 648 972	LEAD TIME	DELIVER TO: FIELD STORAGE	ISSUE UNIT GA	STANDARD PACKAGE 54 GA DR (over)	CHARGE: 4902 100000x
VENDORS				TIMET 19-25 REV. 4/77	MIN. ORDER	F.O.B. POINT:	TERMS:
6450 JONES CHEMICAL CO. (TRICHLOROETHANE)						HENDERSON	NET 30
12299 VWR (12299) (#111 Trichloroethane)						"	"
							N-30 10

EN	DATE WANTED	P.O. NUMBER	P.O. DATE	QUANTITY	UNIT	UNIT PRICE	VIA	BUYER	ON HAND	DATE	APPROVED	RECEIPTS:	DATE:
1	5-16-79	85967	5-10-79	972	GA	3.56	VENDOR		108	5/3	sls	972	5/6
3	7-12-79	87825	7-10-79	540	GA	3.82	"	T	324	7/9	sls	486-54	7/27/79
3	9-14-79	89354	8-28-79	972	GA	3.82	"	T	273	8/24	sls	972	9/9
3	11-8-79	91403	10-30-79	972	GA	3.82	"	T	272	10/26	sls	540-432	10/31/79
3	1-25-80	94013	1-17-80	972	GA	3.92	"	T	10253	1/16	sls	486-486	1/17/80
1	4-8-80	96435	4-3-80	864	GA	3.87	"	T				810-	4/7
1	7-31-80	94610	6-19-80	835	GA	3.87	"	D:	266	9/9	CP	648-324	6/24-3/14
1	8-21-80	11835	8-20-80	972	GA	3.87	"	D:	215	8/9	sls	756-216	8/17/80
1	11-14-80	14450	11-13-80	972	GA	3.95	"	D:	269	11/13	CR	972	1/7
1	12-29-80	15877	12-22-80	972	GA	4.02	"	D:				972	1/20
1	3-9-81	18531	3-5-81	972	GA	4.17	"	T	311	3/5	sls	972	3/9
1	5-29-81	21678	5-26-81	972	GA	4.17	"	T	303	5/1	sls	972	5/28
1	8-5-81	23877	7-30-81	972	GA	3.75	"	D:	276	7/27	sls	972	8/5

SPECIAL INST: SEE VENDOR # & LIST WT.  
PURCHASE CARD

STOCK NO. 629

SOLVENT, CLEANING

ORDER POINT: 324	MINIMUM: 54	MAXIMUM: 972	LEAD TIME	DELIVER TO: FIELD STORAGE	ISSUE UNIT GA	STANDARD PACKAGE 54 GA DR (OVER)	CHARGE: 4902 100000x
VENDORS				TIMET 19-25 REV. 4/77	MIN. ORDER	F.O.B. POINT:	TERMS:
6450 JONES CHEMICAL CO (TRICHLOROETHANE)						HENDERSON	NET 30
12299 VWR (Van Waters + Rogers) (#111 TRICHLOROETHANE)						"	NET 10

EN	DATE WANTED	P.O. NUMBER	P.O. DATE	QUANTITY	UNIT	UNIT PRICE	VIA	BUYER	ON HAND	DATE	APPROVED	RECEIPTS:	DATE:
1	10-2-81	26037	9-28-81	972	GA	3.75	VENDOR		206	9/28	sls	972	9/29
1	12-1-81	28416	12-4-81	972	GA	3.75	VENDOR	T	258	12/1	sls	972	12/16
1	2-22-82	31016	2-17-82	972	GA	3.75	"	D:	319	2/17	sls	216-594-162	2/18/82
1	7-16-82	35443	7-16-82	972	GA	3.75	"	T		7/16	sls	972	7/19
1	9-22-82	37286	9-20-82	972	GA	3.75	"	T	223	9/16	RA	520-(250)702	9/10/82
1	3-18-83	41325	3-8-83	972	GA	3.75	"	T	167	3/24	sls	972	3/18
1	6-23-83	43561	6-15-83	972	GA	3.75	"	D:	319	5/19	sls	972	6/23
1	10-28-83	46427	10-19-83	972	GA	3.75	"	T	205	10/18	RA	486-586	10/21/83

June 28, 1984

Mark Small, Ph.D.  
Supervisor of Environmental Quality  
TIMET  
P.O. Box 2111  
Henderson, NV 89015

Dear Dr. Small:

The Division has reviewed your submittal to this office of April 18, 1984, and to Philip Sobel, U.S. EPA, Region IX, of 6/1/84.

With respect to your April 18, 1984 request for withdrawal of TIMET's RCRA Part A and Part B applications, the Division hereby grants the request, based on the exclusion from RCRA under the Bevill Amendment.

In reference to TIMET's use of 1,1,1-Trichloroethane (TCE) as a general degreasing agent, any waste TCE generated is subject to regulation under RCRA and under Nevada's hazardous waste regulations. Based on the information submitted in the aforementioned letters, it appears that TIMET may still be regulated as a small quantity generator, and, as such, must comply with the requirements specified in 40 CFR 261.5. Technically, evaporation of "vestiges" or incidental amounts of TCE is considered treatment under RCRA. As such, the Division suggests that the current practice employed for disposal of the waste TCE be changed if TIMET wishes to avoid being regulated as a treatment facility.

In reference to Item 9 of your affidavit to Philip Sobel of May 2, 1984, which states that "The contents of the drums or cans are used as a dust suppressant on unpaved surfaces at the Henderson facility", the Division hereby requests that TIMET cease this practice, and that the waste oils and hydraulic fluids be disposed or recycled appropriately. Discussions were held within the Division and it is felt that the ground and/or surface waters may be adversely affected if the current practice continues. The Division suggests that TIMET make use of magnesium chloride as a dust suppressant.

Should you have any questions regarding these matters, please contact me.

Sincerely,

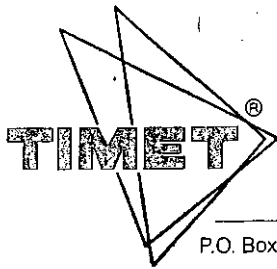


Thomas J. Fronapfel, P.E.  
Environmental Engineer  
Waste Management Section

TJF/sjl

cc: Gary Lance

Certified Mail # 1673783  
Return Receipt Requested



FIRST IN TITANIUM

P.O. Box 2128, Henderson, NV 89015

Henderson Plant

(702) 564-2544

July 5, 1984

RECEIVED  
JUL - 9 1984  
ENVIRONMENTAL  
PROTECTION

Thomas J. Fronapfel, P.E.  
Waste Management Section  
State of Nevada - DEP  
Capitol Complex  
201 South Fall Street  
Carson City, NV 89710

Dear Mr. Fronapfel:

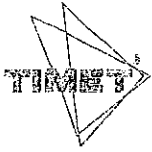
I would like to thank you for honoring our request for withdrawal of Timet's RCRA Part A and Part B application. The help and cooperation which we received from the Division during these difficult times was greatly appreciated.

With regard to your concerns about 1,1,1 Trichloroethane, I would like to assure you that TIMET has no desire to act in any manner that could adversely affect the environment. Furthermore, TIMET will take every reasonable step necessary to protect the environment from any real or potential impact associated with our operation.

It is our understanding that 40 CFR 260.5.c has an exclusion for hazardous waste that is beneficially used. The use of waste oil as a dust suppressant is a common practice throughout the country. One of the major competitors to our magnesium chloride sales is a product called Coherex which is waste oil that is sold as dust suppressant. As such, we believe that using waste oil contaminated with trace amounts of TCE as a dust suppressant meets the beneficial use requirements. We would like your interpretation of that point.

Even if our practice of disposing of TCE is excluded from RCRA, which we believe it is, we still have no desire to operate in any manner which would cause environmental harm. It appears from your letter that you strongly believe that our disposal of these waste oils will adversely impact the ground or surface waters. It is our policy as a company to take all reasonable steps necessary to alleviate all your concerns.

Although we respect your concerns about our disposal practices for Trichloroethane, we do not fully understand them. Is it the disposal of TCE-contaminated oil which you are requesting we stop using for dust control, or is it all waste oil and hydraulic fluids you are requesting we stop using for dust control?



Mr. Thomas J. Fronapfel  
July 5, 1984  
Page 2

I previously stated, the use of waste oils for dust control is a common practice. I personally worked on a number of EPA funded projects which were designed to determine the dust control efficiencies of waste oils. I can say this practice is actively supported and encouraged by the EPA.

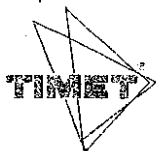
We also use our magnesium chloride solution as a dust suppressant. It, just like our oil, is a waste product which we have found a beneficial use for. We attempt to find a beneficial use for all our waste products. Since there is a significant market, and we have large enough quantity of magnesium chloride to make it practical to sell, we do so at the rate of several railroad cars per week. If we had a sufficient quantity of waste oil which we could sell, we would also market it. However, in the case of oil, the quantity is so small we just use it ourselves.

I would like to alleviate any concerns you may have that the Trichloroethane which we dispose of, somehow has a potential to enter the surface or groundwater. I can say, without any doubt in my mind, that no Trichloroethane disposed of by TIMET has any potential to enter either the surface or groundwater. I invite you, at your convenience, to come out and inspect our disposal practices. If you do, I am positive you will reach the same conclusion I have.

I would also like to make you aware of a number of facts that were discussed with Region IX in a meeting following their May 2 letter. The material safety data sheet for TCE lists evaporation as a means of disposal. TCE is a very volatile solvent with a high vapor pressure and a low boiling point (70°C). These drums are left opened, vented to the air, outdoors in the sun for periods of around 30 days before they are disposed of. At the time of disposal it is even questionable as to whether there are even measurable quantities of TCE present. We invite you to collect and to analyze a sample of the oil during your inspection.

The oil is poured on surface areas not directly, or indirectly, in contact with any surface water. It is poured on an area in which the groundwater is over 30 feet below the surface. It is never poured in sufficient quantities to puddle or permit seepage into the ground past the surface. We have never detected TCE in any groundwater monitoring wells located near the disposal areas. In my professional opinion, as a Ph.D. chemist, I can not imagine any fate, other than evaporation, for that volatile of a substance poured on the ground.

TIMET does recycle waste oils and hydraulic fluids where it is practical. We have a still in operation and we use it. If it was at all practical to recycle every last drop of oil we had, we would. There is some



A Division of *Titanium Metals Corporation of America*

Mr. Thomas J. Fronapfel  
July 5, 1984  
Page 3

material that cannot be recycled. That is what we collect and use as dust suppressant.

As a final point we can, under RCRA 261.3(a)(2)(iv)B, take all our TCE-contaminated waste oil and add it to our holding ponds, without those holding ponds being considered hazardous under RCRA. We believe that if we took this approach, which is considered an "appropriate treatment", we would have a potential to impact groundwater. TCE is denser than water. It would settle to the bottom of our ponds and since it is a organic solvent, it would probably seep through our liners and enter the groundwater.

I hope this letter alleviates your concerns about TCE. If not, please let us know what additional information is needed. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Mark Small".

Mark Small, Ph.D.  
Supervisor of Environmental Quality

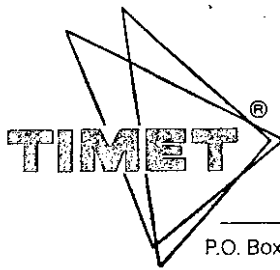
MS/jk

cc: F. W. Steinberg  
W. R. Bader  
J. M. Partridge  
S. E. Miller

RECEIVED

AUG 1 - 1984

ENVIRONMENTAL  
PROTECTION



FIRST IN TITANIUM

Henderson Plant

P.O. Box 2128, Henderson, NV 89015

(702) 564-2544

July 24, 1984

Thomas J. Fronapfel, P.E.  
State of Nevada  
Division of Environmental Protection  
Capitol Complex  
201 South Fall Street  
Carson City, NV 89710

Dear Mr. Fronapfel:

We have, as ordered by the Nevada Department of Environmental Protection, ceased to make beneficial use of our spent waste oils and hydraulic fluid as a dust suppressant. However, we are formally protesting that order. It is our firm belief that the order results in no environmental protection; causes the termination of an environmentally sound practice; and could result in some environmental impact where none existed before. Finally, we believe we have been ordered to incur an additional expense without any environmental benefit or precedent within this state or in the country.

We again ask you to reconsider your order, based on the information we have previously provided, plus what is contained in this letter.

Federal Regulations 40 CFR 261.6 exempts from regulations, hazardous wastes which are beneficially used. The RCRA Hotline interprets that TCE-contaminated oils used as a dust suppressant is a beneficial use and, furthermore, is a practice that is used throughout the country.

We have been disposing of TCE-contaminated oils in this manner for thirty years. There has never been any environmental impact. We have groundwater data which shows no TCE in any areas where we have used these oils as a dust suppressant. As I stated in my previous letter, we know of no way in which this practice could ever affect groundwater. Therefore, we do not understand your rationale on why you believe there would be any environmental impact on groundwater.

The above statement holds for any impact on air. Trichloroethane is not a precursor to ozone nor a carcinogen. The OSHA exposure limit for 8 hours to TCE is 360 ppm. When used as a dust suppressant it would be impossible to measure any TCE (less than 1 ppm) coming from



Thomas J. Fronapfel, P.E.

July 24, 1984

Page 2

the road surface. Trichloroethane is so volatile that we are not even sure if detectable limits are contained in our waste oil. We have collected and sent a sample of that oil to be analyzed for TCE. We will forward a copy of the results to you as soon as we receive them.

Your suggestion that beneficial use would be incineration of TCE and recovery of its BTU value is neither practical or environmentally sound. To do that we would be going from an environmentally sound approach to one that could cause potential environmental harm. First, TCE has little BTU value. One reason that it is used instead of kerosene to remove grease is that it's non-flammable. How, then, is recovering its BTU value considered legitimate recycling? Second, the material safety data sheet issued by VWR states that "Liquid and vapors of 1,1,1-trichloroethane can decompose to harmful and corrosive vapors when in contact with flame and other ignition sources". We protest that we have been ordered to stop an environmentally sound practice and are given the suggestion by your office of one that would have an environmental impact.

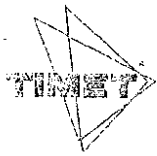
If your concern is about TCE vapors decomposing in the air during evaporation, then that concern is unfounded. As I previously stated, TCE is not a precursor to ozone. It will not decompose under ultraviolet light. It will decompose only under high temperature (i.e., flame or other ignition source).

We are looking at other methods of disposal. As I explained to you over the phone, TIMET does have a wastewater treatment facility. We believe ours is the largest privately owned and operated in this state. As such, we could dispose of our TCE-contaminated oils in our holding ponds. But, as discussed in my previous letter, this "appropriate" means of disposal could have serious environmental consequences.

We are examining the possibility of having the oil removed to an "appropriate" waste disposal facility, but this would require us to incur additional costs which we feel no one else in this state, or for that matter in the country, is being forced to do. Finally, we believe that burial of this oil, even after it is put in absorbent material is not an environmentally sound practice. The potential to contaminate groundwater would still exist.

As I stated, we have stopped disposing of oils as dust suppressants. I have enclosed a copy of the memo issued from my office stopping that practice. However we are formally requesting that that order be recinded. Do not force us to abandon an environmentally sound practice for one that could lead to environmental consequences.





A Division of Titanium Metals Corporation of America

Thomas J. Fronapfel, P.E.  
July 24, 1984  
Page 3

TIMET will act in whatever manner we are directed to by the Department of Environmental Protection. If these actions are environmentally unsound we will inform you of the reasons why and protest them to the fullest extent possible.

We have disposed of TCE for 30 years without any environmental impact. We would like to continue to dispose of TCE without impacting the environment. All we ask is that you permit us to do so.

Sincerely,

Mark Small, Ph.D.  
Supervisor of Environmental Quality

MS/jk



**TIMET**®

..... July 20, 1984 .....

DATE

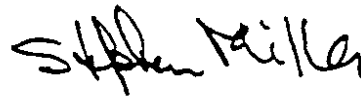
TO B. J. McNair

FROM S. Miller

SUBJECT Waste Oil Disposal

The Nevada State Division of Environmental Protection has ordered that TIMET cease disposing of its waste oil and hydraulic fluid that is contaminated with 1,1,1-trichloroethane, TCE, on the ground. The waste oil and hydraulic fluid is located north of J-2 in 55-gallon drums.

The Environmental Department will determine which drums, if any, are TCE contaminated. We will then dispose of those TCE drums. Until then, please do not remove or dispose any waste oil and hydraulic fluid drums from the J-2 North storage location.



Steve Miller

SEM/jk

cc: M. Small  
J. Partridge  
W. Yates  
G. Baker  
V. Ullrich  
G. Fleming