RECEIVED

SEP 1 7 2002

NYSDEC - REG. 9 FOIL REL UNREL

CONSTRUCTION MONITORING REPORT FOR BRP KOLENE TANK DECOMMISSIONING

RealCo/Dunkirk Acquisition Corporation Site Dunkirk, NY

September 10, 2002

0041-006-200

Prepared For:

RealCo, Inc. Lake View, New York

Prepared By:





CONSTRUCTION MONITORING REPORT for KOLENE TANK DECOMMISSIONING

RealCo/DAC Site Dunkirk, New York

Table of Contents

1.0	BACKGROUND	1					
2.0	SUMMARY OF KOLENE® TANK DATA	1					
3.0 3.1 3.2 3.3	TANK WASTE REMOVAL & DECOMMISSIONING WORK Environmental Contractor Project Oversight Summary of Decommissioning/Decontamination Activities	3					
4.0	PHOTO DOCUMENTATION	8					
5.0	PROJECT COSTS	9					
6.0	DECLARATIONS/LIMITATIONS9						
	LIST OF TABLES						
		Follows Pg.					
Table	E 1 Kolene Tank Summary	2					
Table	Summary of Hazardous Waste Shipments	7					
Table	Summary of Tank Waste Removal/Decommissioning Costs	9					
	LIST OF FIGURES						
		Follows Pg.					
Figur	re 1 Site Location Map	1					



1.0 BACKGROUND

This construction monitoring report has been prepared to summarize the work performed to complete decommissioning of the former Brigham Road Plant Kolene process tank located in Dunkirk Acquisition Corporation's (DAC, formerly AL Tech) Brigham Road Plant (BRP) pickling room. The work was performed during June, July and August 2002 in accordance with the Work Plan (May 8, 2002 revision) approved by the New York State Department of Environmental Conservation (NYSDEC).

The BRP Kolene® tank contained a molten mixture of alkaline sodium and potassium hydroxides and proprietary additives for the process of de-scaling (heat treating) stainless steel products at the pickling facility. The BRP Kolene tank was taken out of service in 1991. Based on the tank volume and the specific gravity of the original Kolene material, it was estimated in the Work Plan that the tank held approximately 75 tons of solidified residues. The solidified contents of the tank and residuals deposited on the adjacent floor and surrounding equipment were initially characterized in the Work Plan as a K062 listed hazardous waste. However, based on waste profiling performed by the Environmental Contractor for the project, the waste was reclassified and manifested as a D007 characteristic waste (chromium).

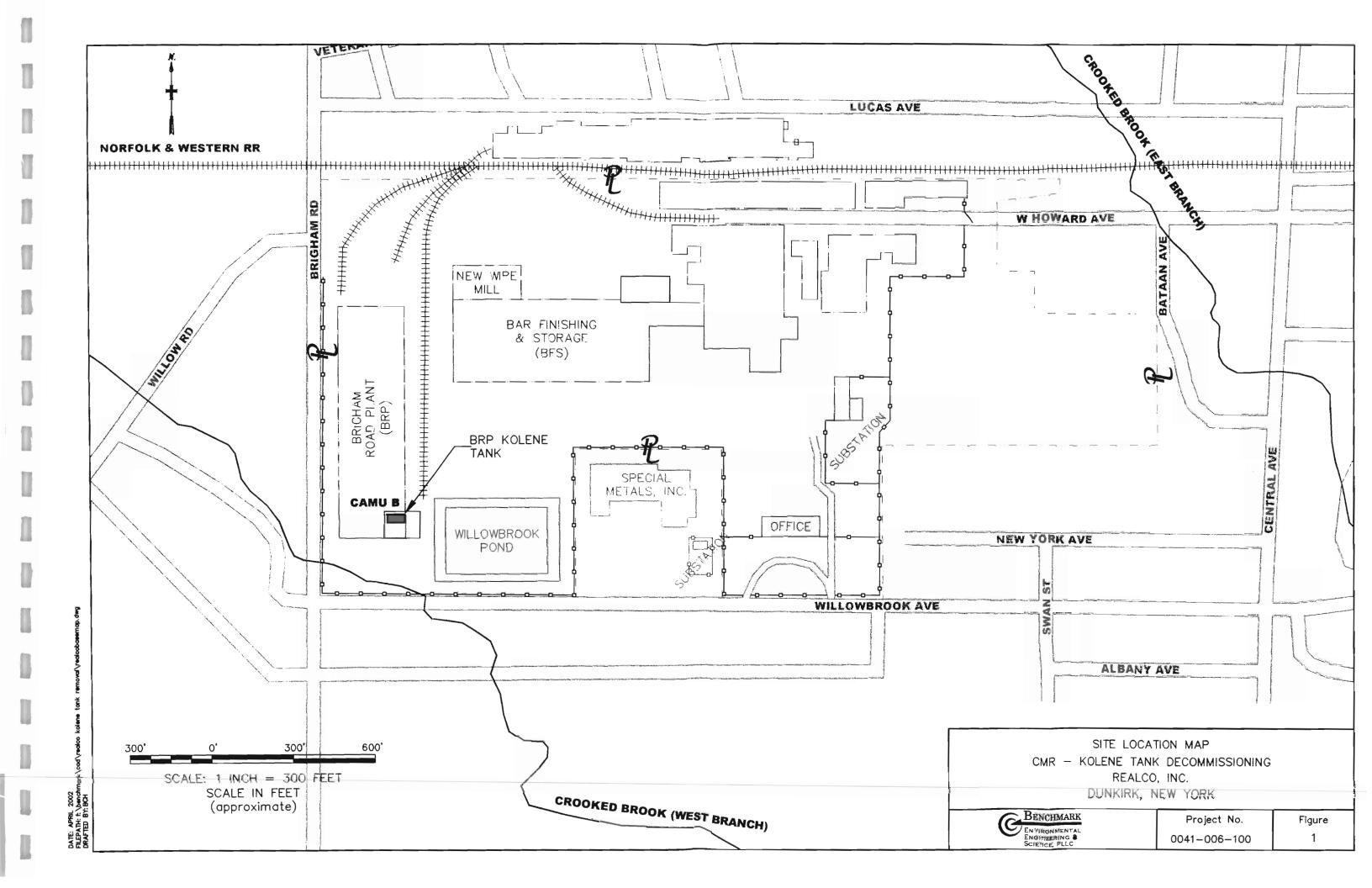
The tank was located within the confines of the DAC facility (the Site) located in the southwest portion of the City of Dunkirk in Chautauqua County, New York. A site location map illustrating the facility's location and property boundaries is presented on Figure 1.

2.0 SUMMARY OF KOLENE® TANK DATA

A detailed summary of the BRP Kolene Tank construction and layout was provided in the Work Plan based on plant drawings and information from the Kolene Corporation. Based on observations and information obtained during the decommissioning activities, the summary information has been updated to document the design and construction of the tank that was dismantled during the decontamination activities.

BENCHMARK

ENVIRONMENTAL
ENGINEERING 8



The Kolene® tank was a horizontally-positioned rectangular tank constructed of an inner and outer shell of carbon steel separated by insulation (insulating fire brick on the bottom and mineral wool blankets on the sides). The outer shell walls of the tank were fabricated from 10-gauge carbon steel, the outer steel floor of the tank was ¾-inch steel plate and the inner shell consisted of 1-inch thick carbon steel. Two thirds of the tank was open for dipping and heat treating of steel products, the remaining third was comprised of a series of steel baffled compartments that contained approximately eighteen heating tubes and three agitator tubes. The tank was located in a concrete, below-grade pit approximately 3.5 feet deep with approximately 4.5 feet of the tank rising above the main floor level at each location. The tank bottom was supported by a grid of steel I-beams welded to the ¾-inch bottom plate that rested directly on the pit's concrete floor.

Prior to initiating decommissioning activities, the Kolene® tank was observed to be completely full of solidified salt bath residuals. Residual Kolene® product was also observed to have been heavily deposited on the surrounding concrete floor, catwalk and floor pit cavities. Molten Kolene bath residuals spilled during product dragout or from tank overflows solidified within minutes of deposition outside the tank due to their melting point characteristics. Heavy residual waste deposition has occurred on adjacent steel structures (grating, exterior framework, etc.) and piping associated with the tank due to spillage from the processing and transfer of steel products. A steel skirt was positioned around the top perimeter of the tank to seal off the insulating cavity between the inner and outer tank shells. As the tank was dismantled, it was observed that this skirt was damaged in many areas and did not prevent the intrusion of Kolene salts into the interstitial cavity.

Table 1 summarizes the dimensions and materials of construction information for the BRP Kolene tank. This information was based on historical drawings obtained from AL Tech files, field measurements and discussions with the Kolene Corporation.

The actual weight of Kolene residuals (including debris deposited on the surrounding floor and pits and contaminated insulation materials) disposed of from the decommissioning

BENCHMARK

ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

process is presented in Section 3 and was significantly higher than the weight estimated in Table 1 below.

TABLE 1 KOLENE TANK DATA							
Item Description	Brigham Rd. Plant Tank	Notes					
Inner Steel Tank Dimensions	22' 6" L X 10' 8" W X 5' 4" H	From Kolene & ALTech Dwgs					
Outer Steel Tank Shell Dimensions	24' 8" L X 12' 6" W X 6' 5" H	From Kolene & ALTech Dwgs					
Estimated Kolene Residual Contents	143,360 lbs.	112 lbs/CF (per Kolene MSDS)					
Estimated Wt. of Inner Steel Tank Shell	34,018 lbs.	1-inch thick carbon steel plate					
Estimated Wt. of Outer Shell	10,707 lbs.	10 gauge carbon steel plate					
Estimated Wt. of Internal Steel Tank Components	7,722 lbs.	Includes baffles, reinforcing angles, bars, etc.					
Insulation Material Between Shells	Bottom- insulating brick Sides- Mineral wool	Wt. of Brick: Approx. 7,000 lbs Wt. of Blanket: Approx. 3,000 lbs.					

3.0 TANK WASTE REMOVAL & DECOMMISSIONING WORK

3.1 Environmental Contractor

Global Environmental Industrial (GEI) of Dunkirk, New York was selected by RealCo to perform the BRP Kolene Tank decommissioning work based on a competitive bid process and their previous experience with the decommissioning of two similar Kolene tanks at other locations and specialization in cleaning, decontamination and remediation projects involving hazardous substances and hazardous wastes.

BENCHMARK

ENVIRONMENTAL
ENGINEERING 8
SCIENCE, PLLC

3.2 PROJECT OVERSIGHT

RealCo and Benchmark Environmental Engineering personnel (as an authorized agent for RealCo) conducted oversight of tank decommissioning activities during all critical phases of the work. In general, Benchmark personnel were at the project site during the afternoon of each day that work was performed. Oversight activities included documenting work performed, maintaining a photo record of job progress, verifying and completing waste manifests, updating NYSDEC on the schedule and other day-to-day activities as needed. Benchmark also reviewed the final extent of residual materials cleanup after tank removal with NYSDEC prior to demobilization from the site.

3.3 SUMMARY OF DECOMMISSIONING/DECONTAMINATION ACTIVITIES

This section describes the activities and chronology of the work performed by RealCo and its environmental subcontractors for the removal and disposal of the tank contents (and residuals deposited on the surrounding floor), dismantling of the tank, decommissioning and proper disposal of impacted tank steel and ancillary tank piping and steel structures removal, final clean-up of the tank pit and adjacent areas and off-site disposal of the BRP Kolene® tank, residual contents and impacted ancillary structures.

June 21 through July 3, 2002

GEI mobilized an excavator, equipment and roll-off containers on June 21, 2002 in preparation for initiating decommissioning work the following week. GEI cordoned off work area to restrict access to the Pickle Room area. To assess the hardness of the solidified Kolene residuals, GEI scraped the top of the Kolene solids with the teeth of the excavator bucket. The weight of the bucket immediately collapsed the crust and it was discovered that below a two to three inch thick crust, there was a large

BENCHMARK

ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

0041-006-200 4

pool of liquefied Kolene material in the main open section of the tank. GEI found that the liquefied material was approximately 3 to 4 feet deep and encompassed the majority of the process section (open) of the tank. GEI discontinued further work and called Benchmark to discuss the conditions.

- GEI contacted the TSDF (Michigan Disposal, Inc.) to ascertain if addition of an absorbent would change the original waste profile for the Kolene residuals and prevent acceptance of the material at the disposal facility. The TSDF indicated that the addition of a clay absorbent, such as "speedidry" would not cause a problem and the mixed material could be shipped under the original profile.
- GEI prepared a supplemental cost estimate for RealCo to estimate of the additional costs associated with adding, mixing and disposing of the clay based absorbent. The total estimated cost to mix the material and absorb all free liquid was \$9,750. This cost assumed the addition of approximately 15 tons of clay absorbent and the disposal of this added weight at the original disposal cost of \$175 per ton.
- On June 26, 2002, GEI re-mobilized and began adding clay-based absorbent into the Kolene tank. Mixing was achieved with the bucket of the excavator and after additional of 2 ½ to 3 tons of absorbent, the majority of the liquefied Kolene residuals had been solidified to a consistency of a paste and all free liquids were absorbed. This material was transferred into two lined, 20 cubic yard roll-off containers. Upon completion of roll-off filling, GEI cleaned up adjacent floors and tarped roll-offs.



0041-006-200 5

- June 28, 2002 GEI coordinated and removed two full roll-off containers containing a total of 27.42 tons for shipment to Michigan Disposal, Inc. No other work was performed.
- July 1 through July 3 GEI used an acetylene cutting torch to remove sections of outer and inner tank walls on the west end and southwest side of tank. A backhoe equipped with a hydraulic hoe-ram attachment was then used by GEI to begin mechanically breaking apart the remaining solid Kolene residue. This material was relatively hard and progress was incremental. As the material was chipped and broken apart, it was pulled forward within the tank and stockpiled for transfer into roll-offs.
- On July 2, GEI notified Benchmark that Michigan Disposal was experiencing difficulty treating the two roll-off shipments of Kolene solids and absorbent material previously shipped off-site on June 28, 2002. Michigan Disposal indicated that they would not accept any further shipments of Kolene residuals due the additional stabilization and solidification that was required to meet land ban criteria. GEI immediately requested permission to contact and send samples of the Kolene to other potential permitted TSDFs in order to find an alternative disposal location.
- Work on the project was stopped on July 3, 2002 until a new Kolene disposal site was located and approved. RealCo agreed that further Kolene residuals transfer into roll-offs should be discontinued until a disposal solution was obtained.





July 26 through August 20, 2002

- Subsequent to stopping work on July 3, GEI worked with various hazardous waste brokers and TSDFs to identify an alternative disposal site for the Kolene residuals. On July 18, 2002 GEI submitted the results of their inquiries and identified Permafix of Michigan (with trans-shipment to Laidlaw in Canada for final disposal) as the most cost-effective alternative. Although the cost for transportation remained the same per ton, the cost of disposal doubled to \$350 per ton. With no other viable options available, RealCo and Benchmark agreed that GEI should resume work immediately using Permafix as the TSDF for the remaining Kolene residues.
- GEI proceeded during the last week in July and the first weeks in August to remove all remaining Kolene solids with the hoe-ram and excavator, while cutting away internal steel baffles, heating and mixer tubes. All steel cut-out and removed from the tank was cut into pieces no larger than 3 feet in any dimension for separate disposal as a D007 hazardous waste at CWM Chemical Services in Model City, New York. Eighty (80) cubic yards (37.3 tons) of contaminated steel debris was cut up, consolidated in four roll-off containers, shipped and disposed of in this manner. A copy of the hazardous waste manifests for this material are presented in Attachment 1. Table 2 summarizes the steel debris waste shipments.
- During this period, 122.72 additional tons of Kolene residuals were removed from the tank, concrete floors and floor pit adjacent to and below the tank. This included the insulating mineral wool and brick located within the annular space between the inner and outer tank walls and floors. All of the insulating material was heavily impacted by the



0041-006-200 7

TABLE 2 REALCO, INC. CONSTRUCTION MONITORING REPORT BRP KOLENE TANK DECOMMISSIONING PROJECT

SUMMARY OF WASTE SHIPMENTS

SHIPMENT NUMBER	MANIFEST NO.	DATE	WEIGHT (TONS)	DISPOSAL FACILITY
KOLENE RESIDUALS				
1	MI 8627190	6/28/2002	13.6	Michigan Disposal, Inc.
2	MI 8627191	6/28/2002	13.82	Michigan Disposal, Inc.
3	МІ 8627264	7/24/2002	17.81	Perma-Fix of Michigan, Inc. (1)
4	MI 8627267	7/30/2002	17.56	Perma-Fix of Michigan, Inc. (1)
5	MI 8627266	8/5/2002	18.1	Perma-Fix of Michigan, Inc. (1)
6	МІ 8627268	8/7/2002	17.8	Perma-Fix of Michigan, Inc. (1)
7	MI 8627300	8/12/2002	16.55	Perma-Fix of Michigan, Inc. (1)
8	МІ 8627301	8/14/2002	16.54	Perma-Fix of Michigan, Inc. (1)
9	MI 8627312	8/20/2002	18.36	Perma-Fix of Michigan, Inc. (1)
TOTAL W	EIGHT KOLENE	RESIDUALS:	150.14	-
STEEL TANK DEBRIS				
1	NYG 3217365	8/8/2002	13.03	CWM Chemical Services, Inc.
2	NYG 3217309	8/12/2002	8.7	CWM Chemical Services, Inc.
3	NYG 3217356	8/15/2002	8.55	CWM Chemical Services, Inc.
4	NYG 3217734	8/19/2002	7.02	CWM Chemical Services, Inc.
ТО	TAL WEIGHT ST	EEL DEBRIS:	37.3	

⁽¹⁾ Material was then trans-shipped to final disposal site in Ontario, Canada (Laidlaw Facility)

Kolene salts and consolidated with the Kolene residuals as hazardous waste. This material was shipped in seven (7) roll-off containers to Permafix of Michigan. A copy of all of the hazardous waste manifests for the Kolene residuals (including the first two shipments on June 28, 2002 to Michigan Disposal) are presented in Attachment 1. Table 2 summarizes the Kolene residuals waste shipments.

- After removal of all tank components and Kolene residuals from the tank pit and the adjacent floor surfaces, the concrete surfaces were manually scraped clean with shovels and swept to remove any loose material. The concrete tank pit floor was inspected and observed to be in relatively good condition with no signs of major deterioration. GEI also removed a sizable quantity of Kolene residuals and contaminated debris from the north side of the adjacent quench tank floor pit. Further cleanup of this pit would require the removal of the quench tank superstructure.
- A final inspection of the tank pit and surrounding area was conducted with the NYSDEC on August 16, 2002. GEI was completing final clean-up of the main floor and planning on removal of the final roll-off containers the following week. It was agreed that the decommissioning and clean-up of the Kolene tank and associated residuals had been accomplished in accordance with the approved Work Plan and no further action was required by RealCo.

4.0 PHOTO DOCUMENTATION

A chronological photo summary of the project was compiled by Benchmark and is presented in Attachment 2. Due to the lighting conditions in the former Pickle Room, adjustments to photo brightness were made to identify key features of interest on the project.

0041-006-200 8



5.0 Project Costs

A summary of the costs to perform the tank removal has been prepared and presented in Table 3. The total project cost is projected to be \$107,020. This total includes engineering oversight and preparation of the Construction Monitoring Report and assumes that the project is tax exempt under New York State tax regulations.

6.0 DECLARATIONS/LIMITATIONS

Benchmark personnel observed the clean-up activities associated with the BRP Kolene Tank Decommissioning Project according to generally accepted engineering practices. Based on the field observations made by Benchmark personnel, the clean-up activities performed at the Site complied with the NYSDEC approved Work Plan prepared for RealCo by Benchmark.

This construction monitoring report has been prepared for the exclusive use of RealCo. The contents of this report are limited to information available at the time of the construction activities and to data referenced herein, and assume all referenced historic information sources to be true and accurate. The findings herein may be relied upon only at the discretion of RealCo. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering & Science, PLLC.



0041-006-200 9

TABLE 3 REALCO, INC CONSTRUCTION MONITORING REPORT BRP KOLENE TANK DECOMMISSIONING PROJECT

SUMMARY OF TANK WASTE REMOVAL/DECOMMISSIONING COSTS

Item Description	Unit	Quantity	Ur	nit Price	Total Estimated		Comments
1.) Labor & Materials to Perform							
Kolene Waste and Tank Removal	LS	1	\$	18,700	\$	18,700	
2) Kolene Waste Transportation	Load	9	\$	1,225	\$	11,025	Includes Loads to MDI and Permafix
3a) Disposal of Kolene Solids (Mich. Disposal)	Tons	27.42	\$	175	\$	4,799	Total Weight of Kolene Residuals Disposed
3b) Disposal of Kolene Solids (Permafix)	Tons	122.72	\$	350	\$	42,952	is More Than Double Original Estimate
3c) Michigan Haz Waste Disposal Tax	Tons	27.42	\$	10	\$	274	
4.) Tank Steel Debris Transport	Load	4	\$	500	\$	2,000	
5.) Tank Steel Debris	CY	80	\$	130	\$	10,400	Total Volume is Double Initial Estimate
6a) Roll-Off Rental	Days	57	\$	10	\$	570	
6b) Roll-off Spot Cost	Each	2	\$	400	\$	800	
7.) Speedi-Dry	Pallet	8	\$	300	\$	2,400	8 Tons of Absorbent for Solidification
8.) Standby Time	HR	11	\$	55	\$	605	
8.) Hazardous Waste Analytical Profile	LS	1	\$	1,031	\$	1,031	
SUBTOTAL:					\$	95,556	
Engineering Oversight and Const. Monit. Rpt.	LS	1	\$	11,464	\$	11,464	Includes 15 days of partial/full day oversight
PROJECT TOTAL:					\$	107,020	

Notes:

- 1.) Total assumes that project will be tax exempt and \$6,759.71 tax invoiced by GEI is not applicable.
- 2.) Total assumes that Michigan Disposal charge of \$175/ton for Kolene Residuals will be applicable.

ATTACHMENT 1 WASTE MANIFESTS



KOLENE RESIDUALS MANIFESTS





GAN F. ON El....... NCY AL....... A MICHIGAN AT 1-800-282-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE

MI REPO 'O THE 1-800-424-8802 24 HOURS PER

A LS I

Printed/Typed Name

WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF **ENVIRONMENTAL QUALITY**

DO NOT WRITE IN THIS SPACE

REJ. PR. Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

Year

Month

Day

ATT. 🗌 DIS. Please print or type Form Approved. OMB No. 2050-0039 UNIFORM HAZARDOUS 1. Generator's US EPA ID No. Manifest 2. Page 1 Information in the shaded areas is not required by Federal WASTE MANIFEST N Y R O O O O 8 6 6 0 3 Generator's Name and Mailing Address State Manifest Document Number REALCO INC. MI 862719 P.O. BOX 9 State Generator's ID LAKEVIEW, NY 14085-0009 Generator's Phone (<u>716 510-6678</u> DUNKIRK, NY 14048 Transporter 1 Company Name 6. US EPA ID Number C. State Transporter's IDec 253 N Y D 0 9 7 6 4 4 8 0 1 D. Transporter's Phone (716) 873 TONAVANDA TANK TRANSPORT 7. Transporter 2 Company Name US EPA ID Number E. State Transporter's ID F. Transporter's Phone 9. Designated Facility Name and Site Address 10. US EPA ID Number G. State Facility's ID MICHIGAN DISPOSAL WASTE TREATMENT PLANT. 49350 N. I-94 SERVICE DRIVE H. Facility's Phone (734) | M I D O O O 7 2 4 8 3 1 BELLEVILLE, MI 48111 697-7830 12. Containers 13. 11. US DOT Description (including Proper Shipping Name, Hazard Class, and Total Unit ID NUMBER). No. Type No. Quantity Wt/Vol a. RQ VASTE Environmentally hazardous substances СМ X solid, n.o.s., (CHRONIUM) 0 0 1 0020 **200** 中国 中国中国中国中国 UN3077. PG III b. periodical tradition in N लाहा चेतांका होता विकासकार A C. ed a marker of worth been so alter their 第7、计48的00 AGRIC d. through the Pro o the individual states K. Handling Code 15. Special Handling Instructions and Additional Information **EMERGENCY CONTACT:** 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Date Printed/Typed Name Signature Month Day Year 01612181012 17. Transporter 1 Acknowledgement of Receipt of Materials TRANSPORTER Date Printed/Typed Name Gignature Month Day Year A TTEA 01 61 21 81 01 z 18. Transporter 2 Acknowledgement of Receipt of Materials Date Printed/Typed Name Signature Month Day Year 19. Discrepancy Indication Space F A C 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Signature



---- Y ALE...... SYSTE.... ... MICHIGAN A. 1-800-4-4-103 OR COLOR STATE AL DIT-373-100U AND THE NATIONAL

MUS EPOR' 1-800-424-8802 24 HOURS

A

Printed/Typed Name

WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

DO NOT WRITE IN THIS SPACE

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324 11151 or 224 12116 MCI

Date

Month Day

Sections 324.11151 or 324.12116 MCL. ATT. 🗌 DIS. \square REJ. □ PR. □ Form Approved. OMB No. 2050-0039 Please print or type. 1. Generator's US EPA ID No. UNIFORM HAZARDOUS Manifest 2. Page 1 Information in the shaded areas Document No. is not required by Federal WASTE MANIFEST of Y R O O O O O 8 6 6 0 Generator's Name and Mailing Address A. State Manifest Document Number MI 8627191 REALCO INC. P.O. BOX 9 LAKEVIEW, NY 14085-0009 Generator's Phone (718 510-6678 DUNKIRK, NY 14048 US EPA ID Number Transporter 1 Company Name C. State Transporter's ID AC - 253951 N Y D 0 9 7 6 4 4 8 0 1 D. Transporter's Phone (716) 873-9703 TONAVANDA TANK TRANSPORT Transporter 2 Company Name **US EPA ID Number** E, State Transporter's ID F. Transporter's Phone 9. Designated Facility Name and Site Address 10. US EPA ID Number G. State Facility's ID HICHIGAN DISPOSAL VASTE TREATHENT PLANT. 49350 N. I-94 SERVICE DRIVE H. Facility's Phone 697-7830 | M I D O O O 7 2 4 8 3 1 (734) BELLEVILLE, KI 48111 12. Containers 14. | I. Waste 11. US DOT Description (including Proper Shipping Name, Hazard Class, and Total Unit ID NUMBER). No. 202 No. Type Quantity D 0 0 7 RO VASTE Environmentally hazardous substances X C M solid, n.o.s., (CHROHIUM) 0020 0 1 UN3077, PG III b. E AL WALLDANING AND STATE THE PARTY C. MED S BUSINESS Charles dell'er all 28 **发生的种种的** er con a little at a fill of 13.9 P. 1.94 an all final topics J. Additional Descriptions for Materials Listed Above a.060202HHFT 15. Special Handling Instructions and Additional Information **EMERGENCY CONTACT:** 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Date Printed/Typed Name Signature Month Day 062802 17. Transporter 1 Acknowledgement of Receipt of Materials Date Printed/Typed Name Signature Month Day 'u WN1 C 101612181012 18. Transporter 2 Acknowledgement of Receipt of Materials Date Printed/Typed Name Signature Month Day 19. Discrepancy Indication Space 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in

Signature



WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF **ENVIRONMENTAL QUALITY**

DO NOT WRITE IN THIS SPACE DIS \square RF

_	 		
J.		PR.□	

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

	ENVIRONMENTAL QUA	ALITY ATT.	□ DIS. □	REJ. □	PR.□	Sections :	324.1115	51 or 324.12116 MCL.
Plea	ase print or type.					roved. OMB	No. 20	50-0039
A	UNIFORM HAZARDOUS	1. Generator's		Manifest Document No.	2. Page 1	is not		the shaded areas ired by Federal
	WASTE MANIFEST 3. Generator's Name and Mailing Address		0 0 8 6 6 0 3	27264	of 1	law.	iment	Number
	REALCO INC.	55				6272	Bright Parker	DELENSOR OF THE PARTY OF THE PA
	P.O. BOX 9	0000			B. State Ge			No. of the last of
	LAKEVIEV, NY 14085- 4. Generator's Phone (716 5	510-6678			"of string" I have a planting the second	RK, NY 1		est and the party
	5. Transporter 1 Company Name		6. US EPA ID Nu	ımber	C. State Tra			
	TONAWANDA TANK TRAN	SPORT	N Y D O 9 7 6	4 4 8 0 1	D. Transpor	ter's Phone	(71	6) 873-9703
	7. Transporter 2 Company Name	3	B. US EPA ID Nu	mber	E. State Tra	CALLET TORRESTLY		and the second
					F. Transpor	STATE OF THE PARTY	The state of the s	生化学 新
	 Designated Facility Name and Site Ad PERMA-FIX OF MICHIG 		10. US EPA ID Nu	mber	G. State Fac			Part Indian sold I the
	18550 ALLEN ROAD	HI, INC.				TOP ILES	CO. Take	
	BROWNSTOWN, HI 4819	2 1	MID0969	6 3 1 9 4	The pointy s			2-9250
	11. US DOT Description (including Proper			12. Conta		13.	14.	I. Waste
	HM ID NUM		aru Ciass, ariu	No.		otal antity	Unit Nt/Vol	No. thanks
	a. RO WASTE Environ	mentally has	zardous subst		E	37	74401	D U U 7
	X solid, n.o.s.,	_		001	CM	> (-	0	gwedine e mil Av.
G	9. UN3077, PG II	I			20,	00069	P	Senderin to 1914, 194, 6
Ε	D.							a chief topole, 54 or
N E R								manager value pare
Α								
T 0								The Landon with the State of th
R								rosamanife e 1 ta
	d.							has promising a tr
								complete services of the
	J. Additional Descriptions for Materials I. a. READ 0301	isted Ahove	erom e marini	r (englace) water	THE PART OF STREET	Carl Marie -	ile il	K. Handling Codes
		a alaya	MARKET TO TEST TO SEE		Plasen (Par In	The second	Girls Lo	8 • • • • • • • • • • • • • • • • • • •
	h.	THE PERMIT	d		1.74 E42 V G 1.10	Arm. for the		Ь
П	the first of the property of a state of the second	Aprile in consumeral s		et the state of		1100 190		C PO D SPICE
Ш	15. Special Handling Instructions and Add	itional Information	THE RESERVE OF THE PARTY OF THE	geleikali. 3. a et 1926 gan serr	and the air Total sole	NATIONAL PROPERTY.	18, 178	d distribute was
П								
Ш	EMERGENCY CONTACT: 71	6-856-	0599					
П	16. GENERATOR'S CERTIFICATION: I hereby dec	lare that the contents of	this consignment are fully a					
П	packed, marked, and labeled, and are in all re If I am a large quantity generator, I certify	that I have a program	in place to reduce the vo	lume and toxicity	of waste gen	erated to the	deare	e I have determined
Ш	to be economically practicable and that I present and future threat to human health	and the environment;	OR; if I am a small quan	tity generator, I I	sposal currenti nave made a g	y available t jood faith el	o me v fort to	which minimizes the minimize my waste
H	generation and select the best waste manag	ement method that is av	vailable to me and that I can	n afford.			Γ	Date
	Printed/Typed Name		Signature	14				Month Day Year
V	WILLIAM SELL AGENTIFOR	e Realco	St. l. Se	ll AGENT	FOR REA	LCO		0172141012
T R	17. Transporter 1 Acknowledgement of Re							Date
R A N S	Printed/Typed Name	V 0 1/	Signature	' //	1	A		Month Day Year
P	18. Transporter 2 Acknowledgement of Re	SMITH		ver &	Smit	<u> </u>		0/4400
O R T	Printed/Typed Name		Signature					Date Name
E R	1 miles 1 ypes realite		o.gnature				ı	Month Day Year
•••	19. Discrepancy Indication Space							
F								
A C	20 Facility Over an October Control	n of vocalist of his-	dana waak-st-la	h Abir 17				
Ļ	20. Facility Owner or Operator: Certificatio Item 19.	on or receipt of hazard	ious materials covered l	by this manifest	except as no	oted in	г	
T Y	Printed/Typed Name		Signature					Date Month Day Year
- 1								

PILLS 3E RE) TO 1 HIGAN CENTER AT 1-800-424-8802 24 HOURS PER DAY.



Printed/Typed Name

WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF

DO NOT WRITE IN THIS SPACE

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324 11151 or 324 12116 MCI

Month Day

	_	ENVIRONMENTAL QUALIT	Y ATT	г. 🗆	DIS. 🗆	RE	J. 🗆	PR.[Section	115 324, [1]	51 OF 324.12116 MCL.	
Ple	ase p	rint or type.							n Approved. O			
		OIAII OIIIVI TIAZAIIDOOS	1. Generator's			Десш	nifest	2. Pag		nation in ot requi	the shaded areas ired by Federal	
$\ $	_		YROO	0 0 8	6603		201	0.	law.			
П	3.	Generator's Name and Mailing Address REALCO INC.						11.1000 SECTION SECTIO	O C 2 7	TOTAL MENTAL STATE OF THE PARTY	Number 7	
		P.O. BOX 9						MI 8627267 B. State Generator's ID				
Ш		LAKEVIEW, NY 14085-000						LU	CAS AVE			
Ш		Generator's Phone (716 510- Transporter 1 Company Name	-6.6.78	6.	US EPA ID N	lumbar		DU C Stat	NKIRK, NY e Transporter	14049	10000	
	3.	TONAWANDA TANK TRANSPO	рт		0 9 7 6		R N 1	THE PARTY OF THE P	CONTRACTOR AND CONTRACTOR	Management All And Area	C25 3/3/03	
П	7	Transporter 2 Company Name	11.1	8.	US EPA ID N		0 0 1	F8.000/400 0004	e Transporter	THE RESERVE	o) 8/3-9/03	
Ш	 ′′	Transportor 2 company trains		I.	OULIAIDI	· · · · · · · · · · · · · · · · · · ·		STOCKED BOOK	sporter's Pho	CONTRACTOR OF THE PARTY OF THE		
\parallel	9.	Designated Facility Name and Site Address		10.	US EPA ID N	lumber		THE PARTY OF	e Facility's ID	AND DESCRIPTION OF THE PERSON		
H		PERMA-FIX OF MICHIGAN,							Commission and		garage and a constitution of the constitution	
		18550 ALLEN ROAD						THE RESIDENCE OF THE PARTY OF T	lity's Phone	Charles of the State of State of	edital rear XX a cost	
F -		BROWNSTOWN, HI 48192		HID	0 9 6 9	6 3	194	1	(734) 282	2-9250	
	.11.	. US DOT Description (including Proper Ship	ping Name, Ha	zard Clas	s, and		12. Conta	iners	13.	14.	I. Waste	
		HM ID NUMBER)				No.	Туре	Total Quantity	Unit Wt/Vol	No.	
Ш	a.	RQ WASTE Environmen	tally ha	zardo	us subs	tance	3S		EST		D 0 0 7	
П		X solid, n.o.s., (C	-				0 1	СМ	10	1	distribution and	
١		9 UN3077 PG III						\vdash	18	122		
G E N	b.									190	Property of the section	
Ε											BONES and to 17 in our	
R	c.	·				-				-	Pagaille morado I id na	
0	l.,										कारण व जासक राज्यात्र प्रकार को वर्णन राहणा	
R										-	Sanda a rosa FA ses	
П	d.						_			3 19 1	Politotaliza	
П										4	Control of the series of the s	
П										1000	E PROPERTY OF A	
П	J.	Additional Descriptions for Materials Listed REA60301	Above	Helifora							ic Handling Codes	
	-	. REAUUJUI. ERGF I	And the best of		C.			10 AT 17 2 A	2.55.1359	新加州	a T' see a see	
Ш	ь		SERVE STATE	AND I	d.			A STATE OF			Ь	
Ш					And the second						c at a second	
Н		Control of the second and second and second									d deficiency	
	15.	Special Handling Instructions and Additiona	ii information									
	.		202 /-	7//	ر ر سیسے	70						
	-	MERGENCY CONTACT: FIN P			510-66							
	16.	 GENERATOR'S CERTIFICATION: I hereby declare the packed, marked, and labeled, and are in all respects 	s in proper condit	tion for trans	sport by highwa	y accordi	ng to appli	cable inter	rnational and na	ational gov	vernment regulations.	
		If I am a large quantity generator, I certify that to be economically practicable and that I have	selected the pra	cticable me	ethod of treatm	ent, stora	age, or di	sposal cu	rrently available	e to me	which minimizes the	
		present and future threat to human health and generation and select the best waste management	the environment method that is	t; OR; if I a available to	am a small qua me and that I c	antity ger an afford	nerator, I	have mad	e a good faith	effort to	minimize my waste	
							-				Date	
IJ	_	Printed/Typed Name	AS AUTTHO	UZEO Si	ignature	/	TM	1 1	. .		Month Day Year	
<u> </u>		ATRICK T. MARTIN	RENT POR	INC)	Taru	u /,	, // 1	ari	- 1	4	77500	
T R	17.	Transporter 1 Acknowledgement of Receipt	of Materials								Date	
R A N		Brinted/Typed/Name		5	ignature	14	7	1	- 	1	Month Day Year	
S P	/	Transporter 2 Acknowledgement of Receipt	of Materials		1110	M,	M	ne,	\	4		
R	10.	Printed/Typed Name	Of Iviaterials	l s	ignature						Date	
RTER		, milest types traine		3	griatulo					ı	Month Day Year	
Ĥ	19	Discrepancy Indication Space										
F												
F A C												
Ļ	20.	Facility Owner or Operator: Certification of I	receipt of haza	rdous mat	terials covered	d by this	manifes	t except	as noted in			

Signature



ONSE

3 SYS MICH T 1-80 '06 OF 1F ST, 517-37 AND 1

LLS MULL - REPC..... O THE GAN F. CENTER AT 1-800-424-8802 24 HOURS PER DAY.

3 Form 8700-22 (Rev. 9/88)

WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

DO NOT WRITE IN THIS SPACE

REJ. □ PR.□

Required	under	auth	ority	of	Part	111	and
Part 121	of Act	451,	1994,	ās	ame	ende	d.

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

EQP 5110

ATT.	DI3 R	Form Ar	proved. OMB No. 2050-0039	
UNIFORM HAZARDOUS WASTE MANIFEST 1. Generator's US W Y R 0 0 0	EPA ID No. N. DOC. 0 8 6 6 0 3 2 2	Manifest 2. Page 1	Information in the shaded is not required by I law.	
3. Generator's Name and Mailing Address REALCO INC. P.O. BOX 9 LAKEVIEW, NY 14085-0009 4. Generator's Phone (710 510-6678 5. Transporter 1 Company Name 6. TONAWANDA TANK TRANSPORT N 7. Transporter 2 Company Name 8. 9. Designated Facility Name and Site Address PERMA-FIX OF HICHIGAN, INC. 18550 ALLEN ROAD	US EPA ID Number Y D 0 9 7 6 4 4 US EPA ID Number US EPA ID Number	B. State M LUCA: DUNK C. State T B 0 1 D. Transpor F. Transpor G. State F H. Facility	ransporter's ID orter's Phone acility's ID s Phone	8527 -9703
11. US DOT Description (including Proper Shipping Name, Hazard		12. Containers	13. 14. I. Waste	aller y la fact
a. RQ WASTE Environmentally haza X solid, n.o.s., (CHROMIUM)		es c M	Total Unit Willow No. William	7 as as
9. UN3077. PG III b.		50	The south	egitis iki 4d
C			and the same of the	表 3000 代数
d.			Table 1	is took salts
J. Additional Descriptions for Materials Listed Above a. REA60301	C.			lling Codes
b. 15. Special Handling Instructions and Additional Information	d.	Camine Comment of the	January Grand Torker Brown	A STATE OF THE STA
EMERGENCY CONTACT: JIN PARK (718	5) 510 -667	8		
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this packed, marked, and labeled, and are in all respects in proper condition if I am a large quantity generator, I certify that I have a program in to be economically practicable and that I have selected the practical present and future threat to human health and the environment; Of generation and select the best waste management method that is avail	s consignment are fully and ac or transport by highway accor place to reduce the volume ble method of treatment, sto t; if I am a small quantity g	curately described above l ding to applicable internat and toxicity of waste ge orage, or disposal curren generator, I have made a	ional and national government reg nerated to the degree I have de tly available to me which minin	ulations, termined nizes the ny waste
Printed/Typed Name PATRICK T. MARTIN AGENT FOR	Signature)	7 Martin	Month Da	500
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name PATA ICX T. MARTIN TOHU KCM	Signatue	2	Month Da	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name	Signature		Dat Month Da	
19. Discrepancy Indication Space				_1
20. Facility Owner or Operator: Certification of receipt of hazardor ltem 19. Printed/Typed Name	s materials covered by the	nis manifest except as	noted in Da' Month Da	
			WORL DO	.,

WASTE MANAGEMENT DIVISION



OF S

WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

DO NOT WRITE IN THIS SPACE DIC [

_		 	
	REJ.		PR.

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

		I. □ □ □ N	⊑J. □	Fn. L	Approved. OMI	B No. 2050 0029			
lea	UNIFORM NAZARDOOS		lanifest Imen No.	2. Page of	I Informa is not law.	ntion in the shaded areas required by Federal			
	3. Generator's Name and Mailing Address REALCO INC. P.O. BOX 9 LAKEVIEW, NY 14085-0009 4. Generator's Phone (716 510-6678			A. State Manifest Document Number MI 8627268 B. State Generator's ID LUCAS AVE. DUNKIRK, NY 14048					
	5. Transporter 1 Company Name TONAWANDA TANK TRANSPORT 7. Transporter 2 Company Name	6. US EPA ID Number N Y D 0 9 7 6 4 4 8. US EPA ID Number	801	D. Transp	DUNKIRK. NY 14048 C. State Transporter's ID#6 25 388# D. Transporter's Phone (716) 873-9703 E. State Transporter's ID				
	9. Designated Facility Name and Site Address PERMA-FIX OF MICHIGAN, INC. 18550 ALLEN ROAD BROWNSTOWN, MI 48192	10. US EPA ID Number		G. State I	porter's Phon Facility's ID y's Phone (734)				
	11. US DOT Description (including Proper Shipping Name, House House).		12. Conta	iners	13. Total Quantity	14. I. Waste Unit No. Wt/Vol			
	RQ WASTE Environmentally have solid, n.o.s., (CHROMIUM. 9. UN3077. PG III			С М (17 AM	T D 0 0 7			
G E N E R	b. .					विशेष्ट्रकाकाका कर के जिल्ला हर को क्षेत्रका करा के प्रकार महत्त्वका करा विशेष के स्थार			
A T O R	С.					arity prove seems.			
	d.					The second section of the second seco			
	J. Additional Descriptions for Materials Listed Above	Burker B. A. Standards		PUDE V SE	A MESS SOLL	K. Handling Codes a T			
			CHARLEST COLUMN	display of the		C1 - 2200B			
	15. Special Handling Instructions and Additional Information EMERGENCY CONTACT: TIN PARK (7)	16) 510-6678							
	16. GENERATOR'S CERTIFICATION: I hereby declare that the contents packed, marked, and labeled, and are in all respects in proper condiction of the seconomically practicable and that I have a prograte to be economically practicable and that I have selected the propresent and future threat to human health and the environment generation and select the best waste management method that is	of this consignment are fully and ac ition for transport by highway accor am in place to reduce the volume acticable method of treatment, st nt; OR; if I am a small quantity o	ding to appli and toxicity orage, or dis penerator, I I	cable internation of waste (ational and nati generated to the ently available	onal government regulations. ne degree I have determined to me which minimizes the			
Y	Printed/Typed Name PATRICK T. MANTIN ASSACCE INC.) 17. Transporter 1 Acknowledgement of Receipt of Materials	Signature	7.7.	Mart	<u>د</u>	Month Day Year			
TRANSPORTER	Printed/Typed Name Porsur Mar Blu	Signature /	Mel	k		Month Day Year			
ORTER	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name	Signature				Date Month Day Year			
	19. Discrepancy Indication Space								
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazaltem 19.		nis manifes	t except as	noted in	Date			
	Printed/Typed Name	Signature WASTE MANAGEMENT DIVISION				Month Day Year			



OF ST. ___ 817-3, ___ ANDTIONA_ONSE

WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF FNVIRONMENTAL QUALITY

DO NOT WRITE IN THIS SPACE

REJ. 🗌 PR. 🗆

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

	ENVIRONMENTAL GOVERN	A11.	. 🗀 різ. 🗀 п	EJ. [_]	PR.L			
ease p	UNIFORM HAZARDOUS	1. Generator's	US EPA ID No. N	/lanifest	2. Page	Approved. OM		the shaded areas
1			0086603		of			ired by Federal
3.	Generator's Name and Mailing Address		0 0 0 0 0 0 22	7,00		Manifest Doo	ument	Number
	REALCO INC.				M	8627	300	Magazi asi
	P.O. BOX 9 LAKEVIEV, NY 14085-000	19				Generator's I	D	
4.	Generator's Phone (716 510-	-6 <u>678</u>			DE	INKIRK NY	1404	Barrier British
5.	Transporter 1 Company Name		6. US EPA ID Numbe		C. State	Transporter's	IDAC	:253/3 (by
<u>_</u>	TONAVANDA TANK TRANSPO		N Y D O 9 7 6 4					6) 873-970
'-	Transporter 2 Company Name	1	8. US EPA ID Numbe	r	THE PROPERTY.	Transporter's	\$2000 P. C.	Length of the Su
9	Designated Facility Name and Site Address		10. US EPA ID Numbe	r	2000000 052000	Facility's ID	-0400000000000000000000000000000000000	Maria de la companya del companya de la companya de la companya del companya de la companya de l
0.	PERNA-FIX OF MICHIGAN,		oo zirrib rambo					
	18550 ALLEN ROAD				H. Facil	ity's Phone	N. 10 82	rate or the profit of the control of
	BROWNSTOWN, MI 48192	- 1	MID096963	3 1 9 4				
11	. US DOT Description (including Proper Shipp	pina Name. Haz		12. Cont	THE RESERVE AND ADDRESS OF	13.	14.	I. Waste
	HM ID NUMBER)).		No.	Туре	Total Quantity	Unit Wt/Vol	No.
a.	_ RQ WASTE Environmen	tally ha	zardous substan	ces				D 0 0 7
	X, solid, n.o.s., (C	_		0 0 1	CM	A 40 A		or enterior and the second
<u></u>	9, UN3077, PG III			, · · ·	-	0020	7	
b.								with with 45 BS (BT
				1				minnessen villag is to
c.					 			NUMBER OF STREET
								語音量を Model
								adores a conclusive
d.		_						80000 900 var 1.3 m
								marchineric de l'acceptante
L		unces sandit	serre d.				Page Libbs entres entres entres entres det	a T
15	. Special Handling Instructions and Additional					公共,从上的	ALC: THE	d consent of
$\overline{}$. GENERATOR'S CERTIFICATION: I hereby declare the packed, marked, and labeled, and are in all respects If I am a large quantity generator. I certify that I	at the contents of in proper condition have a program	this consignment are fully and accomposed for transport by highway accomposed to reduce the volume	curately desc ding to appli	cable inter	national and nati	onal gov	vernment regulations.
	to be economically practicable and that I have s present and future threat to human health and t	selected the pract	ticable method of treatment, sto	orage or di	sposal cur	rently available	to me	which minimizes the
	generation and select the best waste management	method that is av	vailable to me and that I can affor	rd.		good tallif t		
\vdash	Printed/Typed Name	S AUTHORS	Signature					Date Month Day Year
	PATRICK T. MARTIN A	Get for	va. Patuil	7.7	Nan	f.	ı	1 3 1 2 d Z
17	. Transporter 1 Acknowledgement of Receipt	of Materials			- em			Date
	Printed/Typed Name		Signature					Month Day Year
0	AVID ATTEA		- Hilland	(د) الإ	the	A		09/202
18	. Transporter 2 Acknowledgement of Receipt	of Materials	l o:					Date
	Printed/Typed Name		Signature				I	Month Day Year
19	. Discrepancy Indication Space							
20	. Facility Owner or Operator: Certification of re	eceipt of hazard	dous materials covered by th	is manifes	excent	as noted in		
	Item 19.				. shoopi o	noted iii	[Date
	Printed/Typed Name		Signature					Month Day Year
							r	

Failure to file may subject you to
criminal and/or civil penalties under
Sections 324.11151 or 324.12116 MCL

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended. WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF DO NOT WRITE IN THIS SPACE **ENVIRONMENTAL QUALITY** ATT. DIS. REJ. PR. \square Form Approved. OMB No. 2050-0039 Please print or type 1. Generator's US EPA ID No. Manifest Information in the shaded areas UNIFORM HAZARDOUS 2. Page 1 is not required by WASTE MANIFEST N Y R O O O O 8 6 6 0 3 law. 3. Generator's Name and Mailing Address A. State Manifest Document Number REALCO INC. MI 862730 P.O. BOX 9 B. State Generator's ID LUCAS AVE. LAKEVIEW, NY 14085-0009 Generator's Phone (<u>716 510-6678</u> DUNKIRK, NY C. State Transporter's ID AC 25 US EPA ID Number Transporter 1 Company Name 6. D. Transporter's Phone (716) 873 TONAVANDA TANK TRANSPORT NYD097644801 Transporter 2 Company Name 8. US EPA ID Number E. State Transporter's ID F. Transporter's Phone 9. Designated Facility Name and Site Address 10. US EPA ID Number G. State Facility's ID PERNA-FIX OF MICHIGAN, INC. 18550 ALLEN ROAD H. Facility's Phone BROWNSTOWN, NI 48192 | M I D O 9 6 9 6 3 1 9 4 (734) 282-9250 I. Waste 12. Containers 11. US DOT Description (including Proper Shipping Name, Hazard Class, and Total Unit No. ID NUMBER). Type No. Quantity Wt/Vo D 0 0 7 a. RQ VASTE Environmentally hazardous substances X CM solid, n.o.s., (CHRONIUM) 0 1 0020 UN3077. PG III b. E AME 3" R c. Street P 0 MARIE COLUMN d. Chemina and Anni J. Additional Descriptions for Materials I. REA60301 The Company of the State of the C G SY. b.

K. Handling Codes

15. Special Handling Instructions and Additional Information

NO.

CENTER

716)510-6678 JIN TARK **EMERGENCY CONTACT:**

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Date

			2010	
1	PATRICIL T. MARTN RESIDENCE.)	Signature / Martin	Month Day	Year
	17. Transporter 1 Acknowledgement of Receipt of Materials		Date	212
		Signeture	Month Day	Year
•	18. Transporter 2 Acknowledgement of Receipt of Materials	Dan Dillo	Date	2121
	Printed/Typed Name	Signature	Month Day	Year
	19. Discrepancy Indication Space			

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name Signature

WASTE MANAGEMENT DIVISION

9700 22 /Pay 0/991

Year

Date

Month Day



CENTER AT 1-800-424-8802 24 HOURS PER DAY.

WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY ATT.

DO NOT WRITE IN THIS SPACE

DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

se print or type.		For	n Approved. OMB	No. 2050-0039
UNIFORM HAZARDOUS 1		Manifest 2. Pag		ion in the shaded areas required by Federal
3. Generator's Name and Mailing Address REALCO INC. P.O. BOX 9 LAKEVIEV, NY 14085-000		B. Sta	186273 186273 18 Generator's ID	12
4. Generator's Phone (716 510 – 5. Transporter 1 Company Name	6. US EPA ID Numb	er C. Sta		DAC25388(44
7. Transporter 2 Company Name	RT N Y D 0 9 7 6 4 8. US EPA ID Numb	S1895 ELL CON-COS	nsporter's Phone te Transporter's	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.
			nsporter's Phone	of the Edward public programmer
9. Designated Facility Name and Site Address PERMA—FIX OF MICHIGAN. 18550 ALLEN ROAD	INC. US EPA ID Numb	H. Fac	le Facility's ID	efficiency in a stranger banch, year 1944
BROUNSTOUN, HI 48192 11. US DOT Description (including Proper Shipp		12. Containers	13.	14. I. Waste
HM ID NUMBER).	<u> </u>	No. Type	Total Quantity	Unit No.
RQ WASTE Environment , solid, n.o.s., (Cl 9, UN3077, PG III	tally hazardous substan HROMIUM)	0 0 1 C M	xx20	7 0007
				Barrier State of Stat
C				received in the con- central section of the central section
1.				Carles of Artistance of Artist
J. Additional Descriptions for Materials Listed.	bove 71	and special for the second	TO THE SALES	K. Handling Cod
b.	d. 11 and a second seco	ad the What I talk to at led at 170 cars of an early to an all the		b 6
15. Special Handling Instructions and Additional EMERGENCY CONTACT: J. J. 16. GENERATOR'S CERTIFICATION: I hereby declare the packed, marked, and labeled, and are in all respects If I am a large quantity generator, I certify that I to be economically practicable and that I have s present and future threat to human health and t generation and select the best waste management	Information Art (7/8) 5/0-66 at the contents of this consignment are fully and a in proper condition for transport by highway accordance a program in place to reduce the volume elected the practicable method of treatment, the environment; OR; if I am a small quantity	accurately described ab- ording to applicable inte- ne and toxicity of wast storage, or disposal co generator, I have ma	ernational and nation e generated to the arrently available t	onal government regulations a degree I have determined to me which minimizes the
Printed/Typed Name (A5	AUTHER ZEO Signature Jahrice	1. Ma	<u> </u>	Month Day Yea
PATRICK T. MACTIN AGAN 17. Transporter 1/Acknowledgement of Receipt of	T FOR REALED INC. TRAVILLE of Materials	1. 11ke	ln_	08200
Printed/Typed Name	Signature			Month Day Yea
DAVID ATTER 18. Transporter 2 Acknowledgement of Receipt of	of Materials		0.0	08200
Printed/Typed Name	Signature			Month Day Yea
19. Discrepancy Indication Space				
20. Facility Owner or Operator: Certification of rolltem 19.	eceipt of hazardous materials covered by	this manifest except	as noted in	Date
Printed/Typed Name	Signature			Month Day Yea

STEEL DEBRIS MANIFESTS



STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF SOLID & HAZARDOUS MATERIALS



Please type or print. Da/not staple

in case or emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

HAZARDOUS WASTE MANIFEST P.O. Box 12820, Albany, New York 12212

٧.	1
	100 A
.3	**
Zavanta.	- 18/a-t- 14

	WASTE MANIFEST	Generator's U		Manifest Do		2. Page	1 of Informatio is not requ				
			0 0 8 6 6 0 3	11/56	<u> (</u> (C	1					
4	3.Generator's Name and Mailing Address REALCO INC. P.O. BOX 9					^ NYG 3217365					
	I AKEVIEW NY 14085-0009					B. Generator's ID LUCAS AVE. DUNKIRK, NY 14048 C. State Transporter's ID					
	TONAWANDA TANK TRANS 7 Transporter 2 (Company Name)		N Y D D 9 7 6 8. US EPA ID Number	4 4 8 0	1484		ransporter's ID	⁽ (71)	6) 873	9703	
					, [F. Transpo	orter's Telephone ()			
	9. Designated Facility Name and Site A		10. US EPA ID Number			G. State I	Facility ID				
	CWM CHEMICAL SERVICES, 1550 BALMER ROAD P.O MODEL CITY NY 14107	BOX 200	TYD0498	3667	,	H. Facility	y Telephone ((716) 754	8231		
	11. US DOT Description (Including Prope	er Shipping Nan	ne, Hazard Class and ID h			ntainers	13. Total	14. Unit			
	oRQ Hazardous waste, s	olid, n.c).s.		Numbe	er Type	Quantity	Wt/Vol	EPA DOO	Waste No.	
	(CHROMIUM) 9, NA3077, PG III				0	СМ	96000	0	STATE		
GENERATOR	ь.			1	11	11			STATE		
ENER	c		-						EPA		
g									STATE		
	d.				1 1				EPA	,	
									STATE		
	J. Additional Descriptions for Materials I CV5021 MDC ERG# 17		c			К. Н а	andling Codes for	Wastes L	isted Abo	*	
	b	• ; :	d	+		_ b		ď			
	15. Special Handling Instructions and A EMERGENCY CONTACT:	dditional Inform	office 10 -16 18	<i>ş</i>							
	16. GENERATOR'S CERTIFICATION: 1, and are classified, packed, marked and national government regulations and state of 1 am a large quantity generator, I certifications.	labeled, and are ite laws and reg	in all respects in proper ulations.	condition for	transpo	ort by high	way according to	appliçable	internat	ional and	
	to be economically practicable and that present and future threat to human heal generation and select the best waste ma	I have selected t th and the envir	he practicable method of onment; OR if I am a sm	treatment, st all quantity g	orage, enerato	or disposa r, I have n	Il currently availab	le to me	which mi	nimizes the	
	Printed/Typed Name J/N 7	PAK	Signature	+1		D.	ϵ r	15 C	O°X	O Jeg	
ORTER	17. Transporter 1 Acknowledgement of Printed/Typed Name	Receipt of Mater	Signature	06	[] A	1	<u>/ : </u>	Mo.	1018	O'Z	
TRANSPORTER	18. Transporter 2 Acknowledgement of Printed/Typed Name	Receipt of Mater	Signature		-4,			Mo.	Day	Year	
_	19. Discrepancy Indication Space				ç~						
ΙŢ								٠.			
FACILITY	20. Facility Owner or Operator: Certific Printed/Typed Name	ation of receipt	of hazardous materials co	overed by this	manife	st except o	as noted in Item 1	9. Mo.	Day	Year	
-	, , , , , , , , , , , , , , , , , , ,						. 1			1 1	

STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF SOLID & HAZARDOUS MATERIALS



Please type or print. Do not staple

in case or emergency or spiri immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

HAZARDOUS WASTE MANIFEST P.O. Box 12820, Albany, New York 12212

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US-EF	A ID No.	Manifest D	oc. No.	2. Page	1 of			neavy bold line aderal Law.
	N Y R O O O	0 8 6 6 0 3	173	25	1				
3.Generator's Name and Mailing Address REALCO INC. P.O. BOX 9					B. Genera LU	cator's II	321 Ave.		
4. Generator's Telephone Number (5. Transporter 1 (Company Name)	6.	16 510-6678 US EPA ID Number		\dashv					25382
TONAWANDA TANK TRA 7 Transporter 2 (Company Name)		Y D 0 9 7 6 US EPA ID Number	4 4 8	0 1	D. Transporter's Telephone (716) 873-9703 E. State Transporter's ID				6) 873-9703
				!.			elephone ()	
Designated Facility Name and Site CWM CHEMICAL SERVICE	S, L.L.C.	US EPA ID Number			G. State				
MODEL CITY NY 14107		700498		7 9	H. Facility	Teleph	¹⁰⁰⁰⁰ (716	754	8231
11. US DOT Description (Including Pr			Number)		ontainers er Type	13. T Q	otal vantity	14. Unit Wt/Vol	I. Waste No.
oRQ Hazardous waste, (CHROMIUM) 9, NA3077, PG III	solid, n.o.:	5.		00	/ c M	15	500	P	DOO7, STATE
b.									EPA ,
c									EPA ,
d.									EPA
									STATE
J. Additional Descriptions for Materia CV5021 MDC ERG#	ls listed Above	c			K. H	andling	Codes for		sted Above
a					<u> </u>		_=		
b	•	d			ь			d	
15. Special Handling Instructions and EMERGENCY CONTACT:	Additional Informatio	10-6678							
16. GENERATOR'S CERTIFICATION: and are classified, packed, marked at national government regulations and If I am a large quantity generator, I at to be economically practicable and the present and future threat to human here generation and select the best waste.	nd labeled, and are in state laws and regulat ertify that I have a prog at I have selected the p ealth and the environn	all respects in proper- ions. gram in place to reduc practicable method of ment; OR if I am a smo	condition fo te the volum treatment, s all quantity s	r transport ne and to storage, generate	ort by high oxicity of w or disposa or, I have n	way ac aste ge	cording to a enerated to s atly available	pplicable the degree e to me v	e I have determined
Printed/Typed Name J/N	PARK	Signature	7		Park			グ ₈	1202
17. Transporter 1 Acknowledgement		Signature			/			Mo.	Day Year
Printed/Typed Name 18. Transporter 2 Acknowledgement	INSUE of Receipt of Materials	La		mf		_		2 8	1202
Printed/Typed Name	·	Signature						Mo.	Day Year
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Cert	ification of receipt of h		vered by thi	s manife	est except o	as note	d in Item 19		
Printed/Typed Name	**	Signature					1	Mo.	Day Year
* Asset it							I		1 1 1 1

STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF SOLID & HAZARDOUS MATERIALS



Please type or print. Do not staple

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

HAZARDOUS WASTE MANIFEST P.O. Box 12820, Albany, New York 12212

Hazambers Wasta Masked 4 mm

	UNIFORM HAZARDOUS 1. Generator's WASTE MANIFEST	US EPA ID No.	Manifest Do	oc. No.	2. Page			heavy bold line ederal Law.			
		0+0+0+8+6+6+0+3	1735	56	1		,				
	N Y R 0 0 0 0 8 6 6 0 3 / 735 6 3.Generator's Name and Mailing Address REALCO INC.					^ NYG 3217356					
	P.O. BOX 9 LAKEVIEW NY 14085-0009 4. Generator's Telephone Number (716 510-6678			8 Generator's ID LUCAS AVE.						
	Transporter 1 (Company Name)	6. US EPA ID Number			C. State	INKIRK, NY 1 Transporter's ID	135	395 N.Y.			
	TONAWANDA TANK TRANSPORT	N Y D O 9 7 6	4 4 8	0 1		orter's Telephone	(71	6) 873.9703			
	7 Transporter 2 (Company Name)	8. US EPA ID Number		. I		ransporter's ID orter's Telephone (
	Designated Facility Name and Site Address	10. US EPA ID Number			G. State I						
	CWM CHEMICAL SERVICES, L.L.C. 1550 BALMER ROAD P.O. BOX 20				H Facilit	/ Telephone (
	MODEL CITY NY 14107	N Y D O 4 9 8	3667	7 9	rt. rueini	(716	754.	8231			
	11. US DOT Description (Including Proper Shipping No	ime, Hazard Class and ID N	lumber)		ontainers er Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.			
	aRQ Hazardous waste, solid, n. (CHROMIUM)	o.s.				16000	_	EPA DOO7.			
	9, NA3077, PG III			00	/cm	10000		STATE			
5	u.			11				STATE			
	c				1 .	 		EPA ,			
					\perp			STATE			
	d.			1.1				STATE			
ı	L Additional Descriptions for Materials listed Above				KH	andling Codes for					
	CV5021 MDCiptions for Adjectials listed Above	, c			a	T	wasies Li	sted Above			
	b	d	<u> </u>		ь		d				
	EMERGENCY CONTACT:	mation -10 -6670	£								
ł	16. GENERATOR'S CERTIFICATION: I hereby declare and are classified, packed, marked and labeled, and a	that the contents of this con	nsignment a	re fully (and accura	tely described abo	ve by pro	per shipping name			
	national government regulations and state laws and re	gulations.				-	• •				
	If I am a large quantity generator, I certify that I have to be economically practicable and that I have selected	the practicable method of t	treatment, si	torage,	or disposa	currently available	e to me v	which minimizes the			
	present and future threat to human health and the en- generation and select the best waste management me					ade a good taith	effort to n	ninimize my waste			
	Printed/Typed Name JIN PARK	Signature 2	71	-1-	uk	1	80	1°5 0°2			
1	17. Transporter 1 Acknowledgement of Receipt of Mat	erials									
	Printed Printed Printed Goodemoi	Signature Own	il.	M	ode	mite	88	1500			
	18. Transporter 2 Acknowledgement of Receipt of Mat			1							
	Printed/Typed Name	Signature					Mo.	Day Year			
1	19. Discrepancy Indication Space										
	20. Facility Owner or Operator: Certification of receip	of hazardous materials cov	rered by this	manife	st except -	s noted in Itom 16					
	Printed/Typed Name	Signature		marine	- evcebi a	- noted in tiem 17	Mo.	Day Year			
						1	I				

STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF SOLID & HAZARDOUS MATERIALS



Please type or print. Do not staple

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

HAZARDOUS WASTE MANIFEST P.O. Box 12820, Albany, New York 12212

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US	EPA ID No.	Manifest Doc. N	o. 2.	Page 1 c	I .		neavy bold li ederal Law.	ne
WASTE HEALTH EAT	N Y R O O	008660	1773	4	1				
3.Generator's Name and Mailing Add REALCO INC. P.O. BOX 9 LAKEVIEW NY 14085-00	lress			А.	Generato	YG 321 'ASPAVE			
Generator's Telephone Number (Transporter 1 (Company Name)) 6	716 510-6678 . US EPA ID Number	8	C.	State Trai	NKIRK, NY nsporter's ID	14048	0336	me)
TONAWANDA TANK TRA	NSPORT	N Y D 0 9 7 6	4 4 8 0		Transport	er's Telephone (16) 873-	
7 Transporter 2 (Company Name)		. US EPA ID Number		_		rsporter's ID	`.		
Designated Facility Name and Site	Address	0. 115 504 10 11 - 1	! ! !		State Fac	er's Telephone (**	
CWM CHEMICAL SERVIC		O. US EPA ID Number	7			,			
	P.O. BOX 20 <mark>0</mark>	N Y D 0 4 9 8	3 6 6 7	9 H.	Facility Te	elephone (71	6) 754	-8231	
11. US DOT Description (Including Pr	oper Shipping Name	e, Hazard Class and ID		Conta	- 1	13. Total	14. Unit		
g RQ Hazardous waste	solid, n.	o.s.	Nu	mber	Туре	.Quantity	Wt/Vol		ste No.
(CHROMIUM) 9, NA3077, PG III	·		0	0 1	dM>	OEKK	Y	STATE	<u>'</u>
ь.									,
				11	<u>.</u>			STATE	
C			1.	, J	- l	1		STATE	,
d.								EPA	
ļ " .			1 1	4				STATE	<u>'</u>
L Additional Descriptions for Materia	Is listed Above				K. Han	dling Codes for	Wastes I	isted Above	
1. Additional Descriptions for Addaria	171	١,		ιl	a	T	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Sied Above	
ь		d			b		d,		Ш
	EMERGENCY CONTACT: JIM THEK (714) 510-6678								
and are classified, packed, marked an national government regulations and If I am a large quantity generator, I co to be economically practicable and th present and future threat to human h	16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.								
Printed/Typed Name PATRICK T, MARTIN	The second second second	Tal	tud 17	Ma	tin.	1	<u>~81</u>	Day 19	Year O 2
17. Transporter 1 Acknowledgement Printed/Typed Name	of Receipt of Materia	Signature					Mo.	Day	Year
18. Transporter 2 Acknowledgement	TEA		0)	بد	تق صب	1 8	1 1 9	0 2
Printed/Typed Name	or Receipt of Maleria	Signature		0.5			Mo.	Day I	Year
19. Discrepancy Indication Space	ı.								
00.5 (1) 0 0 0 11 0 1	Sination of marint of	harardour materials as	warad he this :	alfast :		and to the state			
20. Facility Owner or Operator: Certification of Printed/Typed Name	treation of receipt of	Signature Signature	overea by this ma	nitest e	except as t	noted in Item 19	Mo.	Day	Year
			e de la companya de l			1	ı	I I I	

ATTACHMENT 2 PROJECT PHOTOS



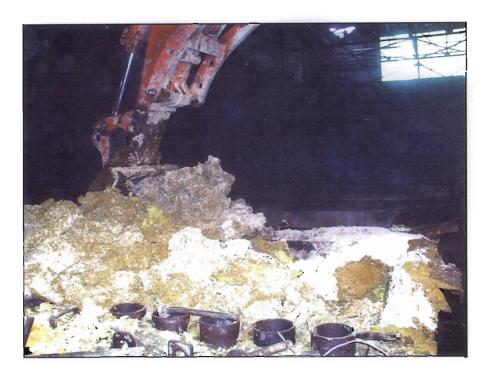


Photo 1. Mixing of clay absorbent w/ liquefied kolene residuals

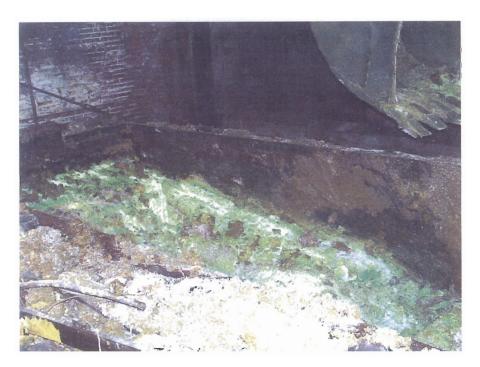


Photo 2. East end of Kolene tank process area after removal of liquefied material

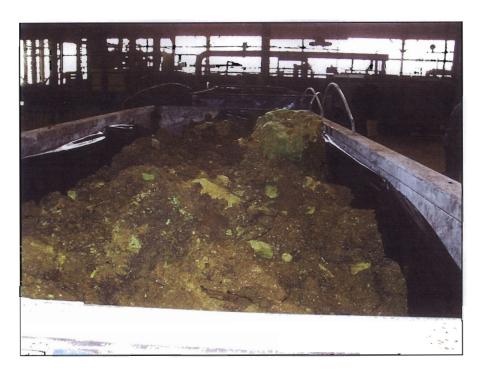


Photo 3. Solidified Kolene residuals (mixed with clay absorbent) in roll-off container



Photo 4. GEI initiating cutting of west wall of inner tank shell

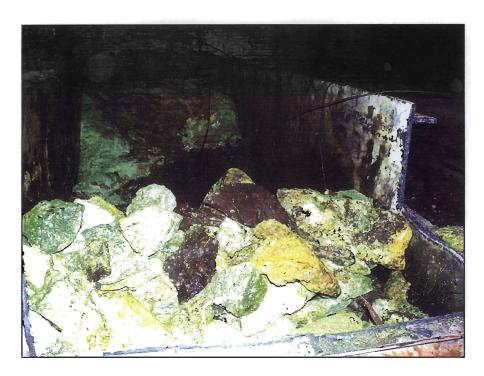


Photo 5. Kolene solids stockpiled in west end of tank



Photo 6. Solidified Kolene in process portion of tank (looking east)



Photo 7. Process portion of tank - looking east after removal of west & south walls

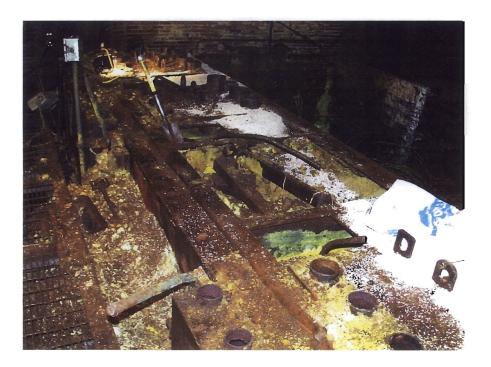


Photo 8. Heating tube & mixing compartment sections of tank prior to dismantlement



Photo 9. Mixing compartment removal



Photo 10. Kolene Residuals and ancillary materials along north side of tank



Photo 11. Insulating brick residue stockpiled for disposal



Photo 12. Contaminated steel tank components in roll-off awaiting disposal



Photo 13. Exposed tank pit looking east



Photo 14. Residuals clean-up in tank pit



Photo 15. Tank bottom support super structure

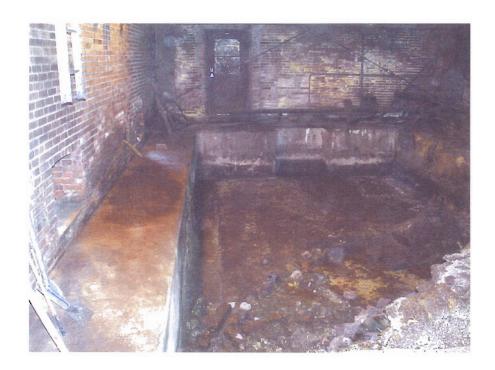


Photo 16. Tank pit looking east



Photo 17. Tank pit following final clean-out - looking east



Photo 18. Tank pit and adjacent south pit after final clean-out

1	
par et	
504	
_	
-	
_	
-	
-	
_	
, 	
_	
-	
_	
è	
_	
-	
_	
_	
-	
_	
-	
_	
-	
_	
-	
_	
_	
_	
_	
_	