US EPA RECORDS CENTER REGION 5
436223

WASTE CHARACTERIZATION REPORT

☒ New Waste? ☐ Reapproval? *Previous Approval No.* _____ T# _____

Section A - Treatment and Disposal

(please check one)

☒ Michigan Disposal Waste Treatment Plant
(Waste Stabilization and Treatment)
49350 N. I-94 Service Drive
Belleville, MI 48111
Customer Satisfaction: (800) 592-5489

☒ Michigan Recovery Systems, Inc.
(Waste Solvent Recovery, Fuel Blending)
36345 Van Born Road
Romulus, MI 48174
Customer Satisfaction: (800) 521-0998

☐ Wayne Disposal, Inc. – Subtitle C Landfill
(Secure Hazardous Waste Landfill)
49350 N. I-94 Service Drive
Belleville, MI 48111
Customer Satisfaction: (800) 592-5489

Are transportation, site or special services needed?
✓ Yes ____ No
If yes, please explain _____

Section B - Customer Information

SIC # _____
Generator US EPA ID # OHD004278628
Generator U.S. EPA Dayton Electroplate
Facility Address 1030 Valley ST
City Dayton State OH Zip 45404

Mailing Address (if different) 26 W MLK DR. (B-3)
City Cincinnati State OH Zip _____
Generator Contact Steve Renninger
Title ON Scene Coordinator
Phone 937-223-6768 Fax 937-223-6762

EQ Customer No. 2309
Invoicing Company Smith Technology
Address 2080 S. Carboy
City Mt Prospect State IL Zip 60056
Country U.S.
Invoicing Contact Todd Ritsema
Phone 847-437-3408 Fax 847-437-6064
Technical Contact Same
Phone _____ Fax _____
Purchasing Contact Same

Is a Purchase Order or Release required for EQ to receive payment on this waste stream? ✓ Yes ____ No
If yes, please list P.O. and/or Release No: To Follow
Is this waste stream Surcharge Exempt? ✓ Yes ____ No
If yes, Surcharge Exemption Form must be submitted with this Waste Characterization Report and with every waste shipment.

Section C - Shipping and Handling Information

1) Is this waste Reactive, Shock Sensitive, Pyrophoric, Explosive, Infectious or Radioactive? ____ Yes ✓ No
If yes, please explain and/or call 1-800-592-5489 for assistance _____

2) Is this waste an Oxidizer? ____ Yes X No

3) Shipping mode: ☐ Bulk Solid (Yd³ < 2000 lbs/yd³) ☐ Bulk Solid (Ton >2000 lbs/yd³) ☐ Bulk Liquids (gal)
☐ Cubic Yard Boxes ☒ Drums ☐ Other (palletized, 5 gallon pails, etc.) 5 x 55
(please explain)

4) Shipping volume per year _____ One time only volume _____

5) DOT shipping name Waste Flammable Solid, organic, n.o.s.
Hazard Class 4.1 UN/NA Number UN1325

Section D - Physical Characteristics

1) Color (describe): Red/Black Odor (describe): Paint Free Liquids (%): 0 Solids (%): 100

2) pH Range: ☐ <2 ☐ 2 - 4.9 ☒ 5 - 9.9 ☐ 10 - 12.4 ☐ >12.5

3) Flash Point: ☐ <90 °F ☒ 90 - 140 °F ☐ >140 °F ☐ >200 °F

4) Physical state at 70 °F: ☐ Solid ☐ Dust ☐ Liquid ☐ Soil ☒ Sludge (non pumpable)

5) Does this waste contain debris? ____ Yes X No

Section E - Generating Process and Regulatory Information

1) Waste common name: Flammable Solids

2) Provide a *detailed* description of the process(es) generating this waste (describe each step and attach a flow diagram, if available): CERCLA Clean up of former plating facility.

3) Describe the composition of the waste (attach analytical data or MSDS's, if available):

Grease	to	30-70 %
Paint Related Material	to	30-70 %
Gels / Resins	to	0-10 %
Tar / Asphalt	to	0-10 %
	to	%
		Total = 100 %

4) Based upon RCRA waste regulations (40 CFR 261), Michigan Act 451 Rules, and TSCA regulations:

	Yes	No	Code or Comment
A) Is this an EPA RCRA hazardous waste (D, F, K, U or P)?	✓		D001
B) Does this waste leach Copper>100 mg/l or Zinc>500 mg/l?		✓	
C) Is this an EPA RCRA Characteristic (D-coded) hazardous waste containing underlying hazardous constituents? If yes, please fill out UTS Certification Form provided.	✓		D001
D) Is this a Michigan Act 451 nonhazardous liquid waste?		✓	
E) Is this a Michigan Act 451 hazardous waste?		✓	
F) Does this waste exceed LDR treatment standards?	✓		
G) Does this waste contain free liquids? (use paint filter test)		✓	
H) Does this waste contain metallic fines or powders?		✓	
I) Does this waste contain greater than or equal to 500 ppmw VOC?		✓	
J) Does this waste contain reactive cyanide above 250 ppm or reactive sulfide above 500 ppm?		✓	
K) Is this a dioxin or furan bearing waste as per 40 CFR part 261.31?		✓	
L) Does this waste contain HOCs >1000 ppm?		✓	
M) Is this a liquid waste containing Nickel >134 mg/l or Thallium >130 mg/l?		✓	
N) Does this waste contain asbestos?(friable or nonfriable?)		✓	
O) Does this waste contain biodegradable sorbents?		✓	
P) Is this a PCB waste regulated by TSCA? If yes, please complete Section G.		✓	

Section F - Reclamation/Recycling/Fuel Blending

(Complete for Michigan Recovery Systems, Inc. Only)

1) Heat value (BTU/lb): N/A 3) Chlorine(%): N/A 5) PCBs (total ppm): N/A

2) Water (%): N/A 4) Solids (%): N/A

Section G - PCB

(Complete only if you answered "yes" to Section E, Question 4P)

1) Does the waste contain PCBs at >50 ppm or is the PCB contamination from a source with concentration of >50 ppm? ____Yes ✓No

2) Does this waste contain free liquids? (use paint filter test) ____Yes ✓No

3) Is the non-liquid PCB waste in the form of soil, rags, or other debris? ____Yes ✓No

4) Do the PCB capacitors come from a PCB capacitor or equipment manufacturer? ____Yes ____No ✓NA

5) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained of

Section H - TCLP Regulatory Action Levels Certifications

Please indicate which constituent concentrations are below the regulatory level in column 1 or write in the actual level if the concentration is greater than the regulatory level in column 2:

Based on: ☐ Analysis ☒ Generator Knowledge (Is analysis attached? ___Yes ___No)

Code		(1) Concentration (mg/l)		(2) Actual Concentration	Code		(1) Concentration (mg/l)		(2) Actual Concentration
D004	Arsenic	<5	<5		D023	O-Cresol		<200	NA
D005	Barium	<100	<100		D024	M-Cresol		<200	
D006	Cadmium	<1	<1		D025	P-Cresol		<200	
D007	Chromium	<5	<5		D026	Cresols		<200	
D008	Lead	<5	<5		D027	1,4-Dichlorobenzene		<7.5	
D009	Mercury	<.2	<0.2		D028	1,2-Dichloroethane		<0.5	
D010	Selenium	<1	<1		D029	1,1-Dichloroethylene		<0.7	
D011	Silver	<5	<5		D030	2,4-Dinitrotoulene		<0.13	
001D	Copper	<100	<100		D031	Heptachlor		<0.008	
003D	Zinc	<500	<500		D032	Hexachlorobenzene		<0.13	
D012	Endrin		<0.02	NA	D033	Hexachlorobutadiene		<0.5	
D013	Lindane		<0.4		D034	Hexachloroethane		<3.0	
D014	Methoxychlor		<10		D035	Methyl Ethyl Ketone		<200	
D015	Toxaphene		<0.5		D036	Nitrobenzene		<2	
D016	2,4-D		<10		D037	Pentachlorophenol		<100	
D017	2,4,5-TP(silvex)		<1		D038	Pyridine		<5	
D018	Benzene		<0.5		D039	Tetrachloroethylene		<0.7	
D019	Carbon-Tetrachloride		<0.5		D040	Trichloroethylene		<0.5	
D020	Chlordane		<0.03		D041	2,4,5-Trichlorophenol		<400	
D021	Chlorobenzene		<100		D042	2,4,6-Trichlorophenol		<2	
D022	Chloroform		<6.0		D043	Vinyl Chloride		<0.02	

Section I - Benzene NESHAP 40 CFR 61, subpart FF

1) Does the waste stream come from a facility with one of the SIC codes listed under the NESHAP?
___Yes ✓ No If yes, which SIC Number? _____

2) Does the waste contain >10% water? ___Yes ✓ No

3) Does your company treat wastes from facilities with Total Annual Benzene (TAB) >10 Mg/year? ___Yes ✓ No

4) Does the waste contain >1.0 mg/kg total Benzene? ___Yes ✓ No
If no to Question 4, stop here. If yes, please answer the remaining questions.

5) What is the total Benzene concentration in your waste? percent or Ø ppmw.
(Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602, and 624.)

6) What is the TAB quantity for your facility? Ø Mg/Year

NESHAP SIC CODES		
2812	2836	2875
2813	2841	2879
2816	2842	2891
2819	2843	2892
2821	2844	2893
2822	2851	2895
2823	2861	2899
2824	2865	2911
2833	2869	3312
2834	2873	4959
2835	2874	9511

Section J - Certification

I authorize EQ's Resource Team to add supplemental information to the waste approval file provided I am contacted and give verbal permission. I authorize EQ's Resource Team to obtain a sample from any waste shipment for purposes of verification and confirmation.

I certify that all information (including attached information) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein.

Signature Ø Steve R. Title OSC

Printed Name S. RENNINGER Date 2/5/97

ATTACHMENT 1
40 CFR 268.48 TABLE — UNIVERSAL TREATMENT STANDARDS (UTS); NON-WASTEWATER

USEPA Dayton Electroplate — Flamm. Solid

(Generator Name) (Waste Stream) (Approval/Tracking No.)

Please check all constituents present in the waste material.

SEMIVOLATILES:

	mg/Kg	
☐	3.4	Acenaphthene
☐	3.4	Acenaphthylene
☐	9.7	Acetophenone
☐	140	2-Acetylaminofluorene
☐	23	Acrylamide
☐	14	Aniline
☐	3.4	Anthracene
☐	6.0	Benzal Chloride
☐	3.4	Benz (a) anthracene
☐	6.8	Benzo (b) fluoranthene
☐	6.8	Benzo (k) fluoranthene
☐	1.8	Benzo (g,h,i) perylene
☐	3.4	Benzo (a) pryene
☐	7.2	Bis (2-Chloroisopropyl)ether
☐	15	4-Bromophenyl phenyl ether
☐	28	Butyl benzyl phthalate
☐	16	p-Chloraniline
☐	7.2	bis(2-Chloroethoxy) Methane
☐	6.0	bix (2-Chlorethyl) ether
☐	3.4	Chrysene
☐	5.6	m-Cresol
☐	5.6	p-Cresol
☐	5.6	0-Cresol
☐	14	p-Chloro-m-cresol
☐	5.6	2-Chloronaphthalene
☐	5.7	2-Chlorophenol
☐	8.2	Dibenz (a,h) anthracene
☐	0.10	tns (2,3-Dibromopropyl) phosphate
☐	6.0	m-Dichlorobenzene
☐	6.0	o-Dichlorobenzene
☐	6.0	p-Dichlorobenzene

	mg/Kg	
☐	14	2,4-Dichlorophenol
☐	14	2,6-Dichlorophenol
☐	28	Diethyl Phthalate
☐	14	2,4-Dimethyl phenol
☐	28	Dimethyl phthalate
☐	28	Di-n-butyl phthalate
☐	2.3	1,4-Dinitrobenzene
☐	2.5	2-sec-Butyl-4,6dinitrophenol (Dinoseb)
☐	160	4,6-Dinitro-o-cresol
☐	160	2,4-Dinitrophenol
☐	140	2,4-Dinitrotoluene
☐	28	2,6-Dinitrotoluene
☐	28	Di-n-octyl phthalate
☐	14	Di-n-propylnitrosamine
☐	13	Diphenylamine
☐	13	Diphenylnitrosamine
☐	28	bis(2-Ethylhexyl) phthalate
☐	3.4	Fluoranthene
☐	3.4	Fluorene
☐	10	Hexachlorobenzene
☐	5.6	Hexachlorobutadiene
☐	30	Hexachloroethane
☐	2.4	Hexachlorocyclopentadiene
☐	30	Hexachloropropylene
☐	3.4	Indeno (1,2,3-c,d) pyrene
☐	0.066	Isodrin
☐	2.6	Isosafrole
☐	0.13	Kepone
☐	1.5	Methapyrilene
☐	15	3-Methylcholanthrene
☐	30	4,4-Methylene bis (2-chloroaniline)

	mg/Kg	
☐	4.6	Methyl parathion
☐	14	0-Nitroaniline
☐	28	p-Nitroaniline
☐	14	Nitrobenzene
☐	13	o-Nitrophenol
☐	29	p-Nitrophenol
☐	17	N-Nitrose-di-n-butylamine
☐	28	N-Nitrosodiethylamine
☐	2.3	N-Nitrosodimethylamine
☐	2.3	N-Nitrosomethylethylamine
☐	2.3	N-Nitrosomorpholine
☐	35	N-Nitrosopiperidine
☐	35	N-Nitrosopyrrolidine
☐	28	5-Nitro-o-toluidine
☐	4.6	Parathion
☐	10	Pentachlorobenzene
☐	4.8	Pentachloronitrobenzene
☐	7.4	Pentachlorophenol
☐	16	Phenacetin
☐	5.6	Phenanthrene
☐	6.2	Phenol
☐	28	Phthalic acid
☐	28	Phthalic anhydride
☐	1.5	Pronamide
☐	8.2	Pyrene
☐	16	Pyridine
☐	22	Safrole
☐	14	1,2,4,5-Tetrachlorobenzene
☐	7.4	2,3,4,6-Tetrachlorophenol
☐	7.4	2,4,5-Trichlorophenol
☐	7.4	2,4,6-Trichlorophenol

DIOXINS AND DIBENZOFURANS:

	mg/Kg	
☐	0.001	Pentachlorodibenzo-furans
☐	0.001	Pentachlorodibenzo-p-dioxins

	mg/Kg	
☐	0.001	Hexachlorodibenzo-furans
☐	0.001	Hexachlorodibenzo-p-dioxins

	mg/Kg	
☐	0.001	Tetrachlorodibenzo-furans
☐	0.001	Tetrachlorodibenzo-p-dioxins

CHLORINATED HERBICIDES, ORGANOCHLORINE PESTICIDES, ORGANOPHOSPHORUS COMPOUNDS, INORGANICS, AND PCB'S:

	mg/Kg	
☐	0.066	Aldrin
☐	0.066	alpha-BHC
☐	0.066	beta-BHC
☐	0.066	delta-BHC
☐	0.066	gamma-BHC (Lindane)
☐	0.26	Chlordance (alpha & gamma isomers)
☐	0.087	o,p`-DDD
☐	0.087	p,p`-DDD
☐	0.087	o,p`-DDE

	mg/Kg	
☐	0.087	p,p`-DDE
☐	0.087	o,p`-DDT
☐	0.087	p,p`-DDT
☐	0.13	Dieldrin
☐	6.2	Disulfoton
☐	0.066	Endosulfan I
☐	0.13	Endosulfan II
☐	0.13	Endosulfan sulfate
☐	0.13	Endrin
☐	0.13	Endrin aldehyde

	mg/Kg	
☐	0.066	Heptachlor
☐	0.066	Heptachlor epoxide
☐	0.18	Methoxychlor
☐	10	Total PCB's
☐	4.6	Phorate
☐	2.6	Toxaphene
☐	7.5	2,4,5-T
☐	7.9	2,4,5-TP(Silvex)
☐	590	Cyanides (total)
☐	30	Cyanides (amenable)

USEPA Dayton Electroplate — Flamm. Solids

(Generator Name) — (Waste Stream) — (Approval/Tracking No.)

Please check all constituents present in the waste material.

CARBAMATE PRODUCTION CONSTITUENTS:

	mg/Kg	
☐	1.4	A2213
☐	0.28	Aldicarb sulfone
☐	1.4	Barban
☐	1.4	Bendiocarb
☐	1.4	Bendiocarb phenol
☐	1.4	Benomyl
☐	1.4	Butylate
☐	0.14	Carbaryl
☐	1.4	Carbendazim
☐	0.14	Carbofuran
☐	1.4	Carbofuran phenol
☐	1.4	Carbosulfan
☐	1.4	*m*-Cumenyl methylcarbamate
☐	1.4	Cycloate

	mg/Kg	
☐	1.4	Diethylene glycol, dicarbamate
☐	1.4	Dimetilan
☐	28	Dithiocarbamates (Total)
☐	1.4	EPTC
☐	1.4	Formetanate hydrochloride
☐	1.4	Formparanate
☐	1.4	3-Iodo-2-propynyl *n*-butylcarbamate
☐	1.4	Isolan
☐	1.4	Methiocarb
☐	0.14	Methomyl
☐	1.4	Metolcarb
☐	1.4	Mexacarbate
☐	1.4	Molinate

	mg/Kg	
☐	0.28	Oxamyl
☐	1.4	Pebulate
☐	5.6	*o*-Phenylenediamine
☐	1.4	Physostigmine
☐	1.4	Physostigmine salicylate
☐	1.4	Promecarb
☐	1.4	Propham
☐	1.4	Propoxur
☐	1.4	Prosulfocarb
☐	1.4	Thiodicarb
☐	1.4	Thiophanate-methyl
☐	0.28	Tirpate
☐	1.4	Triallate
☐	1.5	Triethylamine
☐	1.4	Vernolate

VOLATILES:

	mg/Kg	
☐	160	Acetone
☐	1.8	Acetonitrile
☐	84	Acrylonitrile
☐	10	Benzene
☐	15	Bromodichloromethane
☐	15	Bromoform (Tribromomethane)
☐	15	Bromomethane (Methyl bromide)
☐	2.6	n-Butanol (n-Butyl alcohol)
☐	36	2-Butanone (Methyl ethyl ketone)
☐	6.0	Carbon Tetrachloride
☐	0.28	2-Chloro-1,3 butadiene
☐	6.0	Chlorobenzene
☐	15	Chlorodibromomethane
☐	6.0	Chloroethane
☐	6.0	Chloroform
☐	30	Chloromethane (Methyl Chloride)
☐	30	3-Chloropropylene

	mg/Kg	
☐	15	1,2-Dibromo-3-chloropropane
☐	15	1,2-Dibromoethane (ethylene dibromide)
☐	15	Dibromomethane
☐	7.2	Dichlorodifluoromethane
☐	6.0	1,1-Dichloroethane
☐	6.0	1,2-Dischlorethene
☐	6.0	1,1-Dichloroethylene
☐	30	trans-1,2-Dichloroethylene
☐	18	1,2-Dichloropropane
☐	18	cis-1,3-Dichloropropylene
☐	18	trans-1,3-Dichloropropylene
☐	170	1,4-Dioxane
☐	33	Ethyl acetate
☐	10	Ethyl benzene
☐	360	Ethyl cyanide (Propanenitrile)
☐	160	Ethyl Ether
☐	160	Ethyl Methacrylate
☐	33	2-Hexanone (Methyl isobutyl ketone)

	mg/Kg	
☐	65	Iodomethane
☐	170	Isobutanol (isobutyl alcohol)
☐	84	Methacrylonitrile
☐	30	Methylene chloride
☐	160	Methyl methacrylate
☐	5.6	Naphthalene
☐	6.0	Pentachloroethane
☐	6.0	1,1,1,2-Tetrachloroethane
☐	6.0	1,1,2,2-Tetrachloroethane
☐	6.0	Tetrachloroethylene
☐	10	Toluene
☐	19	1,2,4-Trichlorobenzene
☐	6.0	1,1,1-Trichloroethane
☐	6.0	1,1,2-Trichloroethane
☐	6.0	Trichloroethylene
☐	30	1,2,3-Trichloropropane
☐	30	Trichloromonofluoro methane
☐	30	1,1,2-Trichloro-1,2,2-trifuoroethane
☐	6.0	Vinyl chloride
☐	30	Xylene-mixed isomers (Total)

METALS AND VOLATILES BY TCLP:

	mg/L	
☐	2.1	Antimony
☐	5.0	Arsenic
☐	7.6	Barium
☐	0.014	Beryllium
☐	0.19	Cadmium
☐	0.86	Chromium (total)

	mg/L	
☐	0.37	Lead
☐	0.025	Mercury
☐	5.0	Nickel
☐	0.16	Selenium
☐	0.30	Silver
☐	0.078	Thallium

	mg/L	
☐	0.23	Vanadium*
☐	5.3	Zinc*
☐	0.75	Methanol
☐	4.8	Carbon disulfide
☐	0.75	Cyclohexanone

*Not underlying hazardous constituents (see 60 FR Jan. 3, 1995)

ATTACHMENT 2
CERTIFICATION FORM — UNIVERSAL TREATMENT STANDARDS (UTS)

USEPA Dayton Electroplate Flamm. Solids
(Generator) (Waste Stream) (Approval/Tracking No.) (Date)

CERTIFICATION FORM
UNIVERSAL TREATMENT STANDARDS (UTS)

The Environmental Protection Agency (EPA) has promulgated new treatment standards for wastes displaying the characteristic of ignitability (D001), and/or corrosivity (D002), and/or toxicity (D012-43). Those ignitable wastes containing greater than 10% total organic carbon (i.e., D001 high TOC subcategory) do NOT require completion of this Certification Form. [September 19, 1994 (59FR 47982-48110); corresponding to 40 CFR Parts 148, 260, 261, 264, 265, 266, 268, and 271].

In response to these new treatment standards, EQ - The Environmental Quality Company must be assured that all waste streams of concern comply. The generator may make this determination based on waste analysis data, knowledge of the waste or both. When the determination is based on generator knowledge, the EPA requires that the generator's operating record and all supporting data used to make this determination be kept by the generator.

EQ is requesting that you certify that the waste material corresponding to:

Approval or T #_____DOES or DOES NOT *(circle one)* contain hazardous constituents as listed in 40 CFR 268.48 Table — Universal Treatment Standards (UTS), *see Attachment 1.*

IF YOU HAVE MATERIAL THAT **DOES** CONTAIN HAZARDOUS CONSTITUENTS
(constituents are at a concentration **ABOVE** the treatment standard):

I, _____, hereby certify that this waste material corresponding to
(Printed Name)

Approval or T #_____contains only the hazardous constituents that have been circled/marked on Attachment 1.

IF YOU HAVE MATERIAL THAT **DOES NOT** CONTAIN HAZARDOUS CONSTITUENTS
(constituents are at a concentration **BELOW** the treatment standard):

I, S. RENNINGER, hereby certify that this waste material corresponding to
(Printed Name)

Approval or T #_____contains none of the hazardous constituents as listed in 40 CFR 268.48 Table — UTS.

Signature Steve R. Renninger Title OSC

Company Name EPA Date 2/5/97