Instructions for Completing
Ross Incineration Services, Inc. Waste Product Survey

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We have made these instructions as helpful as possible. But should you need additional assistance, your Account Representative will be glad to help. Just call 1-800-878-ROSS (7677).

GENERAL INSTRUCTIONS

The Waste Product Survey (WPS) is used to characterize the chemical and regulatory nature of a specific waste stream. You will notice that you do not need to send samples or analytical results unless specifically requested. A quote for incineration services will be developed once your WPS is received and reviewed.

Upon submittal, each WPS is assigned a unique number, which is used for tracking purposes. Please refer to this number in subsequent communications regarding this waste stream.

A separate WPS form must be completed for each waste stream. The information provided on the WPS must accurately and completely describe the waste stream as it will be shipped, not the original raw material from which the waste was generated. Feel free to make duplicates of the blank form, as needed.

If a question on the WPS does not apply, fill the blank with “N/A” (not applicable). If the concentration value for a specifically identified item is zero, indicate "zero" or "none" in the space provided. DO NOT LEAVE BLANK SPACES.

Attach any available information to the WPS which must be known to treat, store or dispose of the waste in accordance with the Resource Conservation and Recovery Act (RCRA), specifically 40 CFR 265.13 (OAC 3745-65-13). Include data developed under 40 CF 261 (OAC 3745-51) that the generator used to complete the WPS or to determine the waste is a hazardous waste. Examples of typical waste component verification information include Material Safety Data Sheets, analytical results, etc.

A comment section is provided at the end of the form. Use this space to provide further detail for any item on the survey. For example, if 40 CFR 261 Subpart B, C and D, ACGIH, OSHA or CERCLA information is available so indicate in Section 5 and provide the data in the comment section or attach it to the survey.

Please do not submit samples of your waste unless specifically requested.

INSTRUCTIONS BY SECTION

SECTION 1 WPS NUMBER

The WPS number is assigned by Ross Incineration and is unique to each specific waste stream. If applicable, provide the WPS number that previously described the stream, or indicate that this stream is a revision, in the "former WPS #" space.

SECTION 2 GENERATOR INFORMATION

- **Generator**: Provide the name of the legal generator as defined by RCRA regulations. Additionally, indicate the name of the original generator of the waste.
- **EPA ID number**: Note that the ID number is specific to the site from which the waste will be shipped.
- **Plant address**: The location where the waste is generated.
- **Ship from address**: May differ from the plant address if the waste is being stored at an off-site facility. Note that the EPA ID number is specific to the “ship from” address.
- **Service agreement entity**: Provide name of the company who has executed or will execute the service agreement under which this waste will be shipped.
- **After hours telephone number**: Phone number used to reach the technical contact or his/her designate (at home or at the plant) to resolve after hours discrepancies.
- **Emergency telephone number**: Designates a 24-hour safety contact, whose responsibility is to address emergency situations such as spills, fires or accidents. The number corresponds to that used as an emergency contact on the hazardous waste manifest.
- **10-Mg generator**: Indicate whether your facility is a 10 Mega gram benzene generator per 40 CFR 61.340.

SECTION 3 GENERAL INFORMATION

- Please attach to the WPS form any additional information which must be known to treat, store or dispose of the waste in accordance with 40 CFR 265.13 (OAC 3745-65-13), including but not limited to data developed under 40 CF 261 (OAC 3645-51), laboratory analysis, technical publications or Safety Data Sheets.
- **Waste name**: The general description of the waste. Examples include "waste ink", "rinse water" or wash solvent with adhesives."

- **Physical Description**: Please describe the physical appearance of the waste (e.g. rags soaked with grease, thick yellow liquid).
- **Generator code**: A code which you, the generator, assign for your own use (optional).
- **NAICS code**: Please provide the North American Industry Classification System code (NAICS) of the facility where the waste is generated.
- **Process that generates the waste**: Please specify. Examples include "overspray paint collected in water well of spray booth", "off-spec consumer commodity", etc.
- **Primary business activity**: Please describe the primary business activity conducted at the facility where the waste is generated.
- **Rate of generation**: Indicate whether the waste is a one-time generation or is generated on an ongoing basis. Indicate the generation rate (for example, 5 drums per month) and the current accumulation.
- **CERCLA waste**: Please indicate whether or not this waste is being generated due to a CERCLA (Superfund) cleanup.
- **Receive RCRA waste**: Determine whether or not the plant identified in "Generator Information" above receives RCRA hazardous waste from any other facility.
- **Original generator**: Determine whether or not the plant identified in "Generator Information" above generated the waste in question. If not, please identify the original generator.
- **TSCA**: Identify whether or not this waste is TSCA regulated.

SECTION 4 SHIPPING CONTAINERS

Specify all containers in which your company may want to ship material. List material of construction (steel, plastic, fiber, etc.) and container specifications (maximum dimensions and/or volume). If small containers (vials, bottles, aerosol cans, etc.) will be shipped, please list dimensions/volume of the small containers as well as the shipping container. See the examples that follow.

Volume/Dimensions	**Material of construction**	**Container type** (Drums, gaylords, etc.)
1. 55-gallon	steel	Drum
2. 2 cubic yd.	plastic	Supersack
3. 1 cubic yd.		Gaylord
4. 48"x48"x48" Pallet		Pallet
5. Bulk Tanker		Tanker
6. 5,000 gallon Tanker		Tanker
7. 12 oz. aerosol cans	12"x l2"x 12" boxes	48"x48"x48" pallets
8. 1 pt. glass bottles in 55-gallon	Steel	Drums

Be sure to indicate if the drums you have described are bladder drums (steel shell with a plastic liner). Also indicate if you will be using overpacks.

SECTION 5 CHEMICAL COMPOSITION

All components of the waste must be listed including, but not limited to those identified in 40 CFR 261 Subpart B, C & D. Please quantify the concentration of water, inorganic constituent, hazardous and non-hazardous materials. Be chemically specific. Trade names are not acceptable. The sum of the maximum concentrations for all components must be greater than or equal to 100%.

Please limit concentration ranges to a 30% span. Larger spans may result in varying regulatory descriptions.

Example: Waste paint

Chemical composition	**Concentration range (WT%)**
• Alkyd resin	10 to 25%
• Xylene	30 to 35%
• Mineral spirits	30 to 35%
• Pigments (titanium dioxide, iron oxide)	10 to 15%

Please note: **ANY** concentration of benzene must be specifically quantified.

If threshold limit values (ACGIH/OSHA) and reportable quantities (Table 302.4) are available for components of the waste stream, please note in comment section or attach.

SECTION 6 SOURCE OF INFORMATION

Please indicate whether analytical data, generator knowledge or both were used to complete the WPS. If analytical data is applicable, specify the method used to obtain a representative sample. Sampling methods are described in RCRA 40 CFR 261 Appendix I.

SECTION 7 SPECIFIC ANALYSIS OF WASTE

A. Organic bound concentration of halogen, sulfur, nitrogen and phosphorus: This section can be completed by calculation using generator knowledge of the waste stream. For example, if the waste contains 50% methylene chloride (methylene chloride is 84% chlorine by weight), then the waste contains 42% chlorine (50% of 84% = 42%). If you cannot complete this section by calculation, analysis is required. Values less than 0. 1 % can simply be stated as "less than 0. 1 %."

For your reference	**Typical indicators**
S = sulfur	thio, sulfo, mercapto, sulfate
Cl = chlorine	chloro, chloride
F = fluorine	fluoro, fluoride
Br = bromine	bromo, bromide
I = iodine	iodo, iodide
N = nitrogen	amino, imino, isocyanate, urethane
P = phosphorus	phosphor, phosphate

B. Metals content: Provide the actual (TOTAL) metals content, not the leachable (TCLP) concentration. Several of the metals listed here are not RCRA hazardous constituents, but may be of concern from a waste management perspective. Please attach analyses to the WPS when available. Generator knowledge is also acceptable.

For your reference	
Sb = antimony	Sb = antimony Pb = lead
As = arsenic	Hg = mercury
Ba = barium	Ni = nickel
Be = beryllium	Se = selenium
Cd = cadmium	Ag = silver
Cr = chromium	Ti = thallium
Cu = copper	Zn = zinc
Al = aluminum	Si = silicon
Mg = magnesium	Na = sodium
K = potassium	Li = lithium

C. PCB content: ANY concentration of PCB's must be reported. Documentation indicating concentration level and detection limit must be attached if PCB's are present. Ross Incineration cannot accept waste with PCB's greater than or equal to 50 ppm.

- **Asbestos Content**: Please identify whether this waste has been contaminated with Asbestos (as regulated under TSCA).
- **Infectious Waste**: Please identify whether the waste is regulated as a “medical waste” by USEPA.
- **Radioactivity above Background**: Please indicate whether the waste exhibits radioactivity above background levels.
- **Insecticides, herbicides, pesticides and rodenticides**: Provide the name, concentration of and an MSDS for, any insecticide, herbicide, pesticide and/or rodenticide present in the waste.
- **Dioxin**: Any concentration of dioxin requires a "yes" response. Documentation indicating the concentration level and detection limit must be attached if dioxin is present.
- **Total available cyanide greater than 250ppm**: Materials classified as "total available cyanides” are capable of reacting to form hydrogen cyanide when acidified. An applicable test method can be found in Chapter 7 of SW-846, Section 7.3.3.2.
- **Amenable cyanide**: Materials that are capable of being destroyed by the addition of chlorine under alkaline conditions. Applicable test methods can be found in Chapter 5 of SW-846, Section 9010 or 9012. If your response is positive, please provide concentration data.
- **Total available sulfides greater than 250ppm**: Materials classified as "total available sulfide" are capable of reacting to form hydrogen sulfide when acidified. An applicable test method can be found in Chapter 7 of SW-846, Section 7.3.4.1.
- **Hazardous Materials Identification System (HMIS)**: Possible descriptions of toxicity include severe irritant, corrosive, poisonous, or a reference to the HMIS rating. An MSDS can be attached and referenced. This is especially helpful and may be required for less common or proprietary materials.

SECTION 8 PHYSICAL PROPERTIES

that little circle should be superscript

- **Physical state and viscosity**: Please circle the appropriate physical state(s). Viscosity (at 70° F) must be quantified for bulk liquid wastes. For other wastes, viscosity can be described in common terms, for example, "like water", or "like grease".
- **Pumpability**: Indicate whether the waste is pumpable at **70°** F. If pumpability is significantly affected by temperature, or varies for any other reason, please explain.

- **Multi-layered**: Describe and quantify each layer of a multi-layered waste. For example, top layer = oil, 50%; bottom layer = water, 50%.
- **Dissolved and suspended solids**: Dissolved solids are the nonfilterable materials that cannot be separated except by evaporation of liquids or by chemical precipitation. Suspended solids are filterable materials held suspended in the liquid phase.
- **BTU/pound**: This information is specifically required by 40 CFR 264 Subpart 0 (OAC 3745-68-40 through 3745-68-47). As your first approximation, please limit ranges to 8,000 BTU/lb. Some typical BTU values are:

Oil	18,000 BTU/lb.
Hydrocarbons, Aliphatic & Aromatic	16-18,000 BTU/lb.
Primary Alcohols & Ketones	8,000 BTU/lb.
Resins (Variable by Resin Type)	12,000 BTU/lb.
Esters of Fatty Acids	20,000 BTU/lb.
Chlorinated Solvents	0-2,000 BTU/lb.
Amines (primary to tertiary)	8-14,000 BTU/lb.
Isocyanates	20-22,000 BTU/lb.
Glycols	6-8,000 BTU/lb.
Water	0 BTU/lb.

- **Ash content**: Ash content describes the amount of residue after combustion. Generally, the ash content is the inorganic, non-combustible component(s) of the waste.
- **Flash point**: You may provide either a fixed value or a range based upon regulatory requirements. Same as above
- **Vapor pressure**: Please provide the vapor pressure of the waste at 70° F (Reid vapor pressure, ASTM Method D323-82). You may multiple 51.714 by the vapor pressure measured in psia to convert to mm Hg.
- **Specific gravity**: Provide either the specific gravity or the weight per gallon.
- **pH**: Provide the pH of the waste stream for aqueous liquids only. Aqueous liquids contain 20% water or more as determined by EPA test methods.
- **Corrosivity**: This refers to corrosivity to carbon steel. Provide the corrosivity in mils per year for liquid waste streams. Measurement technique used is Coupon Immersion test method EPA 1110 from SW-846.
- **Color**: Provide the color of the waste. If color varies, please indicate so.
- **Odorous**: Please identify and describe any odor associated with this waste. DO NOT SMELL the waste. If it has a characteristic odor, describe it.
- **Dusting hazard**: Please identify whether this waste poses a dusting hazard during handling or repackaging. A dusting hazard is present if sufficient material can become airborne upon agitation or movement to pose a health hazard.

SECTION 9 REACTIVITY AND STABILITY

A. Reactivity Group Numbers: This information is required to determine the compatibility of your waste. The test methods are described in EPA Document Number EPA-600/2-84-057, February 1984. Reactivity Group Number definitions are available upon request.

B. Stability: Stability includes such issues as potential for polymerization with age, water reactivity, air reactivity, etc. Please define conditions under which this waste stream may be unstable.

C. Shock, heat and friction sensitivity: Shock sensitivity is defined as the potential for explosion when struck. Explain the potential for an explosion when the material is exposed to shock, heat, or friction during normal handling or incineration processing.

D. Is the waste stream reactive as defined by DOT?: Does the waste meet the USDOT definition found in 49 CFR 173.57? 49 CFR 173.115?

SECTION 10 EPA AND DOT INFORMATION

A/B. EPA Hazardous Waste No.: Provide this information per EPA's most recent listings. Explain your choice(s) of number(s), referencing chemical constituents and characteristics. For example, if you assign D001, the reason for selection may be that the flash point is less than 140° F. If you assign F002, provide the solvent or solvent blend necessitating the listing. If the waste is a "mixture" or "derived-from" waste, provide all EPA Hazardous Waste Numbers that carry through.

Of course, you will want to consider all of the D, F, K, U and P codes in making your determination regarding the waste codes that apply to the stream. For your convenience, Ross Incineration has provided the following list of constituents regulated as toxic per 40 CFR Part 281.24 (D004 through D043). If the waste stream exceeds the regulatory limit for any of the components listed, please assign the appropriate D-code to the waste stream. A Toxicity Characteristic Leaching Procedure (TCLP) is required if generator knowledge is NOT sufficient. If you have results from TCLP analysis, please attach them to the WPS.

C. State Hazardous Waste No.: Some states have established listings which may differ from federal regulations. Please provide the state hazardous waste number(s) where applicable.

D. DOT description: (In accordance with the Department of Transportation 49 CFR Parts 171 through 178). For assistance, call the DOT Standards Division (202) 366-4488.

When preparing a DOT description, take into account, as applicable, proper shipping name, technical name, hazard class, UN or NA number, packaging group number, and reportable quantities (49 CFR 172.101 Appendix).

Refer to 49 CFR 173 for guidance on determining the applicability of the DOT definition "Poison Inhalation Hazard."

EPA HW Number*	Constituent	Regulatory Level (mg/1)	CAS Number
D004	Arsenic	5.0	7440-38-2
D005	Barium	100.0	7440-39-3
D018	Benzene	0.5	71-43-2
D006	Cadmium	1.0	7440-43-9
D019	Carbon tetrachloride	0.5	56-23-5
D020	Chlordane	0.03	57-74-9
D021	Chlorobenzene	100.0	108-90-7
D022	Chloroform	6.0	67-66-3
D007	Chromium	5.0	7440-47-32
D023	o-Cresol	200.0***	95-48-7
D024	m-Cresol	200.0***	108-39-4
D025	p-Cresol	200.0***	106-44-5
D026	Cresol	200.0***	
D016	2,4-D	10.0	94-75-7
D027	1,4-Dichlorobenzene	7.5	106-46-7
D028	1,2-Dichlorethane	0.5	107-06-2
D029	1,1 -Dichloroethylene	0.7	75-35-4
D030	2,4-Dinitrotoluene	0.13**	121-14-2
D012	Endrin	0.02	72-20-8-
D031	Heptachlor (and its hydroxide)	0.008	76-44-8
D032	Hexachlorobenzene	0.13**	118-74-1
D033	Hexachloro-1,3-butadiene	0.5	87-68-3
D034	Hexachloroethane	3.0	67-72-1
D008	Lead	5.0	7439-97-6
D013	Lindane	0.4	58-89-9
D009	Mercury	0.2	74339-97-6
D014	Methoxychlor	10.0	72-43-5
D035	Methyl ethyl ketone	200.0	78-93-3
D036	Nitrobenzene	2.0	98-95-3
D037	Pentachlorophenol	100.0	87-86-5
D038	Pyridine	5.0**	110-86-1
D010	Selenium	1.0	7782-49-2
D011	Silver	5.0	7440-22-4
D039	Tetrachloroethylene	0.7	127-18-4
D015	Toxaphene	0.5	8001-35-1
D017	2,4,5-TP (Silvex)	1.0	93-72-1
D040	Trichloroethylene	0.5	79-01-6
D041	2,4,5-Trichlorophenol	400.0	95-95-4
D042	2,4,6-Trichlorophenol	2.0	88-06-2
D043	Vinyl chloride	0.2	75-01-4

*EPA hazardous waste number.

**Quantification limit is greater than the calculate regulatory level. The quantification limit therefore becomes the regulatory level.

***o, m and p-Cresol concentrations cannot be differentiated, the total Cresol (DO28) concentration is used. The regulatory level for Cresol is 200 mg/l.

Generators of hazardous waste shipments must also comply with the marking requirements of 40 CFR 262 (OAC 3734-52). Complete the blanks provided for container label(s) or placard(s).

SECTION 11 LAND DISPOSAL RESTRICTIONS

The purpose of this section is to determine if, by EPA definition, a waste and/or its treatment residue is restricted from being land disposed, and if so, what documentation is necessary with shipment (i.e. notification, certification, demonstration). For complete rules on land disposal restrictions, refer to 4 CFR 268 (OAC 3745-59).

A. Waste specific treatment standards and methods: Refer to 40 CFR 268.40.

B. Applicable definitions are found in 40 CFR 268.2

SECTION 12 AUTHORIZATION

The form must be signed by an individual authorized to represent the generator and be accountable for the information on the WPS. Please print or type this individual's full name and title below the signature. If the generator does not employ the person signing the WPS, the generator must define in writing the authority granted to that individual.

TEST METHODS

Laboratory analysis is required when: (A) Data supplied through generator knowledge of the waste stream; or (B) Data developed under 40 CFR 261 (OAC 3745-51), is insufficient to complete the Waste Product Survey. This analysis is the responsibility of the waste generator.

Following is a summary of the prescribed analysis for certain parameters that Ross Incineration requires knowledge of, for operation within the guidelines of 40 CFR 264.13 (OAC 3745-65-13), General Waste Analysis.

Analysis Parameter	**Measurement technique**	**Method No.***
Acrolein, acrylonitrile	GCMS	8260B
Aluminum	ICP, ICP/MS	6010C, 6020A
Amenable Cyanide	Distillation, colorimetric UV	9010B or 9012A
Antimony	ICP, ICP/MS	6010C, 6020A
Aromatic volatile organics	GCMS	8260B
Arsenic	ICP, ICP/MS	6010C, 6020A
Ash content	Physical evaluation	D482-87
Barium	ICP, ICP/MS	6010C, 6020A
Beryllium	ICP, ICP/MS	6010C, 6020A
Cadmium	ICP, ICP/MS	6010C, 6020A
Chlorinated herbicides	Gas chromatography	8151A
Chlorinated hydrocarbons	GC/MS	8260B, or 8270C
Chromium	ICP, ICP/MS	6010C, 6020A
Waste Compatibility	Waste Compatibility	ASTM D 5058 - Test Method A
Copper	ICP, ICP/MS	6010C, 6020A
Corrosivity	pH measurement	7040, 9041A, or 9045C
Cyanide	Colorimetric	9012A, or 9010B
Dioxins	High Resolution Gas Chromatography	8280B Mod, 8290A
Dissolved Solids	Gravimetric	APHA 2540C
Endothall (P088)	Gas Chromatography (EPA Method)	EPA 548.1
Flashpoint liquids	Pensky-Martens Closed-Cup, Seta flash closed tester	1010, ASTM D93
Ignitability nonliquids	Setaflash open cup	1030
Free Liquids	Physical Evaluation (Paint Filters Liquids Test)	9095
Halogenated volatile organics	GC/MS	8260B
Higher heating value	Physical evaluation	ASTM D240
Kinematic viscosity	Physical evaluation	ASTM D445
Land Ban -Preparation **	Preparation TCLP Leaching Procedure	1311
Lead	ICP, ICP/MS	6010C, 6020A
Magnesium	ICP, ICP/MS	6010C, 6020A
Mercury	CVAA	7470A / 7471A
Nickel	ICP, ICP/MS	6010C, 6020A
Nitroaromatics and cyclic ketones	GC/MS	8270C
Nonhalogenated volatile organics	Gas chromatography	8015B, 8260B
Organochlorine pesticides, PCBs	Gas chromatography	8081B
Organophosphorus pesticides	Gas chromatography	8141A
Phenols	GC/MS, Distillation color	8270C, 9065

Phthalate esters	GC/MS	8270C
Polychlorinated Biphenyls	Indicates presence and concentration of PCBs wastes.	8082
Polynuclear aromatic hydrocarbons	GC/MS	8270C
Reactivity	RCRA definition	
Selenium	ICP, ICP/MS	6010C, 6020A
Semivolatile organics	Gas chromatography/mass spectroscopy	8270C
Silicon	ICP	6010C
Silver	ICP, ICP/MS	6010C, 6020A
Sodium	ICP	6010C
Solids content	Physical evaluation	APHA 2540B
Specific gravity	Physical evaluation	ASTM D4052 OR D2320
Sulfide	Titrimetric Technique	9031, 9034. APHA 4500.S_2E
Suspended Solids	Gravimetric	EPA 160.2, APHA 2540D
Thallium	ICP, ICP/MS	6010C, 6020A
Total halides	Combustion/Titration, Ion chromatography	5050/9056, 9020
Toxicity	Toxicity Characteristic Leaching Procedures	1311
Vapor pressure		ASTM D2879
Volatile organics	Gas chromatography/mass spectroscopy	8260B
Warfarin (P001)	High Pressure Liquid Chromatography (HPLC), GC/MS	”HPLC”, 8270C
Water content	Karl Fisher titration	ASTM 6304
Zinc	ICP, ICP/MS or furnace	6010C, 6020A

* Test methods for Evaluating Solid Waste (SW-846) U.S. EPA, May 1997, 3rd ed. unless otherwise noted, or most current version.
** Design and Development of a Hazardous Waste Reactivity Testing Protocol EPA document No. EPA-600/2-84-057, Feb. 1984
ASTM - American Society for Testing and Materials
NACE - National Association for Corrosion Engineers