Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 1 of 82 PageID #:199

UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

THE UNITED STATES OF AMERICA,)	
Plaintiff,)	
v.))	No. 13 C 830
BEAVER OIL COMPANY, INC.,))	Judge Kim
Defendant.)	

CONSENT DECREE

TABLE OF CONTENTS

I. JURISDICTION AND VENUE	2-
II. <u>APPLICABILITY</u>	2-
III. <u>DEFINITIONS</u>	3-
IV. <u>CIVIL PENALTY</u>	7-
V. <u>COMPLIANCE REQUIREMENTS AND INJUNCTIVE RELIEF</u>	7-
VI. <u>STIPULATED PENALTIES</u>	22-
VII. <u>FORCE MAJEURE</u>	26-
VIII. <u>DISPUTE RESOLUTION</u>	28-
IX. INFORMATION COLLECTION AND RETENTION	31-
X. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS	33-
XI. <u>COSTS</u>	34-
XII. <u>NOTICES</u>	35-
XIII. <u>EFFECTIVE DATE</u>	37-
XIV. <u>RETENTION OF JURISDICTION</u>	37-
XV. MODIFICATION	37-
XVI. <u>TERMINATION</u>	38-
XVII. PUBLIC PARTICIPATION	38-
XVIII. <u>SIGNATORIES/SERVICE</u>	39-
XIX. INTEGRATION	39-
XX. FINAL JUDGMENT	40-
[APPENDICES]	

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 3 of 82 PageID #:201

1. Plaintiff United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), has filed an Amended Complaint in this action, alleging that Defendant, Beaver Oil Company, Inc. ("Beaver"), violated the Clean Water Act ("CWA"), 33 U.S.C. §§ 1251-1387, the Solid Waste Disposal Act (also known as the Resource Conservation and Recovery Act ("RCRA")), 42 U.S.C. §§ 6901-6992k, and the Illinois Environmental Protection Act, 415 Illinois Compiled Statutes ("ILCS") 5, and regulations promulgated thereunder.

2. The Amended Complaint alleged violations of: (a) Section 307 of the CWA, 33 U.S.C. § 1317; (b) applicable regulations promulgated thereunder and codified at 40 C.F.R. Parts 403 and 437; (c) an administrative order that EPA issued to Beaver pursuant to Section 309(a) of the CWA, 33 U.S.C. § 1319; (d) federally-enforceable requirements established by the Metropolitan Water Reclamation District of Greater Chicago ("the District") in a sewer user ordinance and in a Discharge Authorization that the District issued to Beaver; (e) Section 3005(a) of RCRA, 42 U.S.C. § 6925(a); (f) applicable regulations promulgated thereunder and codified at Title 35 Illinois Administrative Code (IAC), Parts 700-739 [40 C.F.R. Parts 260-279]; and (g) Beaver's RCRA operating permit. All of the violations referred to above relate to Beaver's used oil recycling and hazardous waste treatment and storage facility in Hodgkins, Illinois (the "Facility").

3. Beaver does not admit any liability to the United States arising out of the transactions or occurrences alleged in the Complaint.

4. The Parties recognize, and the Court by entering this Consent Decree ("Decree") finds, that this Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties and that this Decree is fair, reasonable, and in the public interest.

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 4 of 82 PageID #:202

5. NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue), and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

6. This Court has jurisdiction over the subject matter of this action, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, 33 U.S.C. § 1319(b), and 42 U.S.C. §§ 6928(a), and over the Parties. Venue lies in this district pursuant to 28 U.S.C. §§ 1391(b) and 1395(a), 33 U.S.C. § 1319(b), and 42 U.S.C. § 6928(a) because the violations alleged in the Amended Complaint are alleged to have occurred in this district, and Beaver is located in and conducts business in this judicial district.

7. For purposes of this Consent Decree, and any action to enforce this Consent Decree, Beaver consents to the Court's jurisdiction over this Consent Decree and waives any objections to venue in this judicial district. For purposes of this Consent Decree, Beaver agrees that the Amended Complaint states claims upon which relief may be granted pursuant to 33 U.S.C. § 1319 and 42 U.S.C. § 6928(a).

II. APPLICABILITY

8. The obligations of this Consent Decree apply to and are binding upon the United States and upon Beaver and its directors, officer, employees, agents, contractors, successors, and assigns.

9. No transfer of ownership or operation of the Facility, whether in compliance with the procedures of this paragraph or otherwise, shall relieve Beaver of its obligation to ensure that the terms of the Decree are implemented. At least 30 Days prior to such transfer, Beaver shall

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 5 of 82 PageID #:203

provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to the United States and EPA in accordance with Section XII (Notices). Any attempt to transfer ownership or operation of the Facility without complying with this paragraph constitutes a violation of this Consent Decree.

10. Beaver shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Consent Decree, as well as to any contractor retained to perform work required under this Consent Decree. Beaver shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

11. In any action to enforce this Consent Decree, Beaver shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

12. It is the express purpose of this Consent Decree to further the objectives of the CWA, RCRA, the Illinois Environmental Protection Act, as well as the regulations, discharge authorizations and permits issued pursuant to those Acts. All obligations in this Consent Decree shall have the objective of causing Beaver to be and remain in full compliance with the CWA, RCRA, and the Illinois Environmental Protection Act, as well as State and local laws, regulations, discharge authorizations and permits authorized pursuant to those Acts.

III. DEFINITIONS

13. Terms used in this Consent Decree that are defined in the CWA, RCRA, and the Illinois Environmental Protection Act, or in regulations promulgated pursuant to those Acts, shall have the meanings assigned to them in those Acts or such regulations, unless otherwise provided

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 6 of 82 PageID #:204

in this Consent Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

- a. "Amended Complaint" shall mean the amended complaint filed by the United States in this action.
- b. "Beaver" shall mean the entity named as the Defendant in the Complaint.
- c. "Clean Water Act" or CWA shall mean the Federal Water Pollution Control Act as amended and codified at 33 U.S.C. §§ 1251-1387.
- d. "Consent Decree" or "Decree" shall mean this Consent Decree and all Appendices attached hereto and plans approved pursuant to this Consent Decree.
- e. "Centralized Waste Treatment pretreatment subcategory" (or
 "CWT Pretreatment Subcategory") shall mean the category of waste as outlined and defined in 40 C.F.R. Part 437 as:
 - Subcategory A: Metals Treatment and Recovery
 - Subcategory B: Oils Treatment and Recovery
 - Subcategory C: Organics Treatment and Recovery
 - Subcategory D: Multiple Waste Streams
- f. "Date of Lodging" shall mean the date on which this Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Northern District of Illinois.
- g. "Day" or "Days" shall mean a calendar day or calendar days unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 7 of 82 PageID #:205

federal holiday, the period shall run to the close of business of the next business day.

- h. "District" (or "MWRD") shall mean the Metropolitan Water Reclamation
 District of Greater Chicago.
- i. "Discharge Authorization" (or "DA") shall mean the permit governing discharges from the Facility to the District's POTW, issued to Beaver by the District, and any subsequent amendment, revision, or re-issuance.
- j. "District POTW" shall mean the publicly-owned treatment works owned and operated by the District and located in Stickney, Illinois.
- k. "Effective Date" shall have the definition provided in Section XIII.
- "EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies.
- m. "Facility" shall mean Beaver's used oil and hazardous waste recycling facility located in Hodgkins, Illinois.
- n. "Hazardous Waste Processing Building" (or "HWPB") refers to the building depicted in drawing A-1.0 in the RCRA permit application that includes the permitted RCRA hazardous waste tanks T-1, T-2, T-3, T-4, T-5, T-6, T-7, T-9 and ancillary equipment.
- o. "Interest" shall mean interest at the rate specified in 28 U.S.C. § 1961 as of the Date of Lodging.
- p. "Monthly Influent Report" (or "MIR") shall mean the document required to be submitted under the current Discharge Authorization.

- q. "Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral.
- r. "Parties" shall mean the United States and Beaver.
- s. "Pretreatment Regulations" shall mean the General Pretreatment Regulations found at 40 C.F.R. Part 403 and the Categorical Pretreatment Regulations applicable to the Centralized Waste Treatment ("CWT") Facilities industrial category codified at 40 C.F.R. Part 437.
- t. "Resource Conservation and Recovery Act" or RCRA shall mean the Solid Waste Disposal Act as amended and codified at 42 U.S.C. §§ 6401-6992k.
- u. "Section" shall mean a portion of this Consent Decree identified by a Roman numeral.
- v. "State" shall mean the State of Illinois.
- w. "United States" shall mean the United States of America, acting on behalf of EPA.
- x. "Waste load" shall mean each individual load that Beaver accepts.
- y. "Waste stream" shall mean the waste loads that Beaver accepts that are from the same customer, are generated by a common process and that share chemical and physical properties such that a common analysis is representative of waste constituents and the waste constituent concentrations.
- z. "Waste Survey Form" shall mean the record created and retained by Beaver to determine and document the nature and characteristics of each waste stream it accepts.

IV. CIVIL PENALTY

14. Within 30 Days after the Effective Date of this Consent Decree, Beaver shall pay the sum of \$ 250,000.00 as a civil penalty, together with Interest accruing from the Effective Date.

15. Beaver shall pay the civil penalty and Interest due by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with written instructions to be provided to Beaver after the Date of Lodging by the Financial Litigation Unit of the U.S. Attorney's Office for the Northern District of Illinois. At the time of payment, Beaver shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in the above-captioned case, and shall reference the civil action number and DOJ case number 90-5-1-1-09169, to the United States in accordance with Section XII (Notices); by email to <u>acctsreceivable.CINWD@epa.gov;</u> and by mail to:

U. S. Environmental Protection AgencyCincinnati Finance Center26 W. Martin Luther King Dr.MS: NorwoodCincinnati, Ohio 45268

16. Beaver shall not deduct any civil or stipulated penalties paid under this Consent Decree in calculating its federal or state income tax.

V. COMPLIANCE REQUIREMENTS AND INJUCTIVE RELIEF

17. Beaver shall comply with the pretreatment requirements and standards set forth in the CWA and the Discharge Authorization issued pursuant to those laws with respect to the Facility. Beaver shall further comply with RCRA, the Illinois Environmental Protection Act, and federal and State regulations promulgated thereunder.

A. Clean Water Act

Waste Receipt and Customer Survey Form

18. Before acceptance, Beaver shall ensure that it performs a pre-approval review of each waste load to ensure treatability and compatibility with both other wastes being treated and Beaver's treatment system.

19. Beaver shall ensure that each waste load is accurately described and characterized in the Customer Waste Survey Form ("WSF") applicable to that waste stream. The Customer Waste Survey Form shall, at a minimum, characterize the waste load to accurately comply with all monthly influent reporting required by the current Discharge Authorization and as outlined in Paragraph 20.b. below and shall contain adequate information to determine the appropriate CWT Pretreatment Subcategory of the waste load.

20. <u>Fully Completed Waste Survey Form</u>: Prior to Beaver's acceptance of a waste load at its facility, Beaver shall comply with the following conditions:

- a. Beaver shall have a fully completed WSF either for that particular waste load or for a waste stream that is representative of the waste load being accepted.
- b. A fully completed WSF shall include, but not be limited to, the following information:
 - i. Generator name, facility location, mailing address and contact information;
 - ii. Process or act generating the waste;
 - iii. Physical and chemical characteristics as well as the chemical composition of the waste, including any hazardous waste classifications;

- iv. Shipping information such as basic DOT shipping description (the proper shipping name, hazard class number, UN identification number, and packing group number required by the Hazardous Materials Regulations found at 49 C.F.R. Parts 171-180); and
- v. Range of constituent concentrations, determined by representative sampling of the waste stream, or alternatively, if sampling is impracticable, by relevant sources of constituent information.
 - If sampling is used to determine the range of constituents, the sampling must be of a representative sample of the waste stream and must utilize approved methods to determine the range of constituents. EPA's approved methods for determining constituents in waste water are listed at 40 C.F.R. Part 136.
 - 2. If sampling is impracticable, the range of constituents may be determined from relevant sources of constituent information. The documentation Beaver uses to provide the information on the range of constituents shall be included with the WSF for the waste stream. Any waste stream still being accepted 2 years after the first acceptance of a waste load shall have sampling data. Relevant sources may not be used to establish the range of constituents for waste loads accepted after 2 years from the first load accepted from that waste steam.

- c. If a customer sends more than one type of waste stream to the facility, Beaver shall ensure that each waste stream has a fully completed WSF.
- d. Beaver shall maintain records for each waste load accepted at its facility that include the corresponding WSF for that particular waste load and Beaver's basis for its determination that the WSF is representative of the waste load received. This subsection does not require Beaver to keep a physical copy of the WSF with each wasteload.
- e. Beaver shall ensure that each waste stream it accepts at its facility is certified annually by the generator as having the same information in the WSF as outlined in subparagraph (b) i thru v, above, and as originally described in the WSF. Beaver shall file the annual certification of the generator with the WSF.
- f. Beaver shall ensure that sampling data characterizing the waste stream in the WSF is not over 5 years old.

21. Beaver shall reject each waste load that does not meet the requirements of Paragraph 20.

Monthly Influent Report

22. Beaver shall comply with the monthly influent reporting requirements as required by its current Discharge Authorization issued by MWRD.

- 23. In making its monthly influent report as required by its DA:
 - a. CWT Pretreatment Subcategory Reporting Requirement: to determine the CWT Pretreatment Subcategory for a waste, Beaver shall ask for and obtain this information from the customer as part of the information gathered in its customer's Waste Survey Form, or alternatively, shall derive this information

from the generator's Standard Industrial Classification (SIC) Code and/or North American Industry Classification System (NAICS), using the tables in Appendix A to determine the applicable CWT Pretreatment Subcategory for the waste load at issue.

b. Waste Constituents Reporting Requirement: In reporting waste constituents, Beaver shall maintain and report, for each waste stream or load, waste constituents by chemical compound name as defined by the priority pollutant list and the Resource Conservation and Recovery Act hazardous waste list (40 CFR Part 261) and concentration ranges of those waste constituents. These concentration ranges may be based upon current reference profiles from Beaver's Customer Waste Survey Forms, but only after Beaver has confirmed and documented that the waste stream or load corresponds to a specific Waste Survey Form, as required under Paragraph 20.d. above.

24. In its Quarterly Report submitted pursuant to Paragraph 44 of this Consent Decree, Beaver shall provide a copy to EPA of all correspondence between Beaver and the District, including but not limited to all reports, applications, engineering reports, self-monitoring reports, monthly influent reports, and general correspondence, as long as the Consent Decree is effective.

B. Hazardous Waste Management

Operating Record under 35 IAC § 724.173 [40 C.F.R. § 264.73]

25. <u>Manifested Wastes</u>: Beaver shall prepare and maintain an operating record at its facility that complies with the requirements of 35 IAC § 724.173 [40 C.F.R. § 264.73]. Beaver's

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 14 of 82 PageID #:212

operating record shall include, but not be limited to, documentation for each manifested shipment of hazardous waste received at its Facility that contains the following information:

- a. The waste description including: the manufacturing process that produced the waste (e.g., for a RCRA listed waste) or the reason for shipping the waste offsite (e.g., why no longer suitable for use by the generator, seasonal tank clean-out, spill response, equipment maintenance, facility closure, lease termination, environmental cleanup) or reason for off-spec determination; the physical form of the waste (liquid or solid or semisolid) at a standard temperature (25.00 °C; 77.00 °F) and all applicable EPA hazardous waste numbers.
- b. The quantity of waste received, and the quantity and date transferred into and out of each tank in the Hazardous Waste Processing Building (HWPB), including all phases of the waste.
- c. The method(s) of storage and treatment (see Appendix A to 35 IAC Part 724)[Table 2 in Appendix I to 40 CFR Part 264—Recordkeeping Instructions].
- d. The location to which each of the phases of the waste is pumped when it is removed from the HWPB, as well as the quantity and date.
- e. The above information must include cross-references to manifest document numbers.

26. <u>Other wastes/derived from materials</u>: Beaver shall document the volume, dates and methods of shipment, recipient, destination, and use of the material for each shipment offsite of materials handled in the HWPB that Beaver has determined is not a hazardous waste, or for any material derived from a hazardous waste that is no longer handled as a hazardous waste.

Waste Determination under 35 IAC § 722.111 [40 C.F.R. § 262.11]

27. No later than 45 days after the Effective Date of this Consent Decree, Beaver shall submit a Hazardous Waste Determination Plan ("HWDP") for EPA review and approval to conduct hazardous waste determinations at its facility in conformity with the requirements of 35 IAC § 722.111 [40 C.F.R. § 262.11]. Beaver's HWDP shall comply with or incorporate the following requirements:

- a. The HWDP shall identify which waste transfers will be subject to the waste determination requirement to be implemented in the HWDP. Transfers to be addressed shall include, but not be limited to, material transfers from the HWPB to non-RCRA permitted tanks and any solids removed from any processes or tanks at the HWPB.
- Beaver shall use the definition of hazardous waste found at 35 IAC § 721.103
 [40 CFR § 261.3].
- c. The HWDP shall require the use of the analytical methods specified by 35 IAC §§ 721.121 through 721.124 [40 CFR §§ 261.21 through 261.24] to determine whether a solid waste exhibits a characteristic of hazardous waste.
- d. Consistent with 35 IAC § 722.111(d) [40 C.F.R. § 262.11(d)], the HWDP shall require that a determination be made in accordance with 40 C.F.R. § 268.7 for each hazardous waste generated to ensure appropriate treatment and/or disposal.
- e. The HWDP shall require records of all waste determinations conducted at the facility to be maintained at the facility for three years.

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 16 of 82 PageID #:214

28. Beaver's HWDP shall specifically address the practice of transferring waste via piping or through use of flexible hose from the HWPB to a tank or tanker that is not covered by the RCRA permit and how the hazardous waste determination shall be made on the waste to be transferred. The HWDP shall include testing of wastes using approved EPA methods for any characteristic constituents that may be present. The HWDP shall specifically address the following actions, at a minimum:

- a. Prior to pumping any material out of tank T9 to the F-tanks, CWT oil subcategory tanks, or a tanker, Beaver shall collect a representative sample and test it for any constituents listed in Table 1 of 40 CFR § 261.24 that may be present, including metals or organics that were present in any of the hazardous wastes treated in tank T5 since the last time tank T9 was decontaminated (tank heel removed and all lines flushed).
- b. Prior to pumping any waste from tank T5 to the F-tanks, Beaver shall take a representative sample of the waste in tank T5 and test it for any constituents listed in Table 1 of 40 CFR § 261.24 that may be present, including metals or organics that were present in any of the hazardous wastes treated in tank T5 since the last time tank T5 was decontaminated (tank heel removed and all lines flushed).

29. Upon approval by EPA, Beaver shall implement the terms of its approved HWDP.
30. In the first three quarterly reports submitted pursuant to Paragraph 44 (Quarterly Reports), Beaver shall include copies of all waste determinations performed for the Facility for that quarter.

Compatibility Testing of Wastes

31. No later than 14 days after the Effective Date of this Consent Decree, Beaver shall prepare and submit a Waste Compatibility Testing Plan ("WCTP") for EPA review and approval that complies with all permit conditions found in the State portion of its RCRA permit at Section IX Special Conditions, A. "Waste Analysis".

32. Beaver's WCTP shall include but not be limited to a procedure to assess the compatibility of a waste with the wastes already stored in the HWPB and/or container storage area before such wastes are placed into a storage unit.

33. At a minimum, Beaver's WCTP shall incorporate the following requirements:

- a. The WCTP shall require that Tank Farm Compatibility will be assessed by performing a Liquid Waste Compatibility Test on the liquid received for bulk storage with a composite sample of the tanks within the containment system to which the new waste will be added.
- b. The WCTP shall require that compatibility testing shall be performed using the Liquid Waste Compatibility Test, ASTM D5058-12 (attached as Appendix B).

34. The WCTP shall require Beaver to keep records of the compatibility testing, including the volumes of wastes used to conduct the test and any generation of heat or violent reactions, as described in Section 11.7 of ASTM D5058-12 (attached as Appendix B). Upon approval by EPA, Beaver shall implement the terms of its approved WCTP.

Tank Usage

35. Beaver shall treat hazardous waste only in the HWPB or in the wastewater treatment units as defined in 35 IAC § 720.110 [40 CFR § 260.10]. Beaver shall store hazardous waste only in:

- a. DOT-approved containers in the RCRA-permitted container storage area;
- b. The RCRA-permitted tank systems in the HWPB; and
- c. For waste generated by Beaver, in compliance with the hazardous waste generator accumulation time standards found at 35 IAC § 722.134 [40 C.F.R. § 262.34] and pursuant to subparagraph (a).

36. No later than 30 days after the Effective Date of this Consent Decree, Beaver shall submit for EPA review and approval a plan for a one-time sampling of tanks F3 and F4, which shall describe Beaver's plan to representatively sample and analyze the contents of each tank using the TCLP Method 1311. Within 30 days of EPA approval, Beaver shall implement the approved sampling plan. If the material is found to be a hazardous waste, the material in the tank shall be managed as a hazardous waste and shipped off-site with a hazardous waste manifest to a RCRA-permitted TSD facility. For any tanks found to contain hazardous waste, Beaver Oil shall submit a closure plan and close the tank in accordance with 35 IAC § 725.297 [40 CFR § 265.197] before the tank can be returned to service.

37. Unless Beaver obtains a RCRA permit for the F-tanks, any waste from the HWPB that is piped to the F-tanks shall be shown to not be a hazardous waste through testing for all hazardous waste constituents that may be present.

38. Until renewal of Beaver's RCRA hazardous waste permit, Beaver shall submit identification of all tanks used as hazardous waste generator accumulation tanks which do not

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 19 of 82 PageID #:217

need a permit in accordance with 35 IAC § 722.134(a) [40 CFR § 262.34(a)] to EPA and Illinois EPA on a quarterly basis as specified in Paragraph 44.

Documentation Requirement

39. Beaver shall maintain at its facility all information/documentation required by 35 IAC § 721.102(f) [40 CFR § 261.2(f)], for material that would otherwise be a hazardous waste that Beaver claims is not a solid waste because the material is being recycled. This requirement would apply, but not be limited, to any caustic material brought on-site and placed into either the outside caustic tank or the new caustic tank, which caustic material would meet the definition of D002 if not recycled.

40. For all materials claimed to be used in recycling (recycled materials), the information/documentation required shall include but not be limited to:

a. Identification of the virgin material(s) that is being replaced by the recycled material (*e.g.*, the D002 or the cleaning product), the specifications and/or characteristics of the recycled material that provide the basis to document that it will meet its intended treatment or cleaning purpose and will be as effective in treating wastes or cleaning as the replaced virgin material. This showing shall include, but not be limited to: i) the measured pH of the recycled material when received, ii) the volumes received, iii) the tank into which the recycled material is initially received and any tanks into which it is subsequently pumped, and iv) documentation that the recycled material does not contain significant amounts of toxic constituents, including but not limited to metals.

b. During usage of the recycled material in treatment of Facility wastewater, Beaver shall also record the treatment tank used, and the approximate volume and pH of the recycled material transferred to the treatment tank. Beaver shall also record at the Facility the pH readings of the wastewater prior to and after treatment with the recycled material.

C. Training

41. During the life of this Consent Decree, Beaver shall provide and require annual formal training for all individuals with environmental management responsibilities at the Facility with respect to, but not limited to, compliance with the obligations of this decree.

D. Approval and Implementation of Plans, Permits and Reporting

- 42. <u>Approval of Deliverables</u>.
 - a. After review of any plan, report, or other item that Beaver is required to submit pursuant to this Consent Decree, EPA shall, in writing: (i) approve the submission; (ii) approve the submission upon specified conditions; (iii) approve part of the submission and disapprove the remainder; or (iv) disapprove the submission.
 - b. If EPA approves the submission, Beaver shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved.
 - c. If EPA conditionally approves the submission or approves the submission only in part, Beaver shall, upon written direction from EPA, take all actions required by the approved plan, report, or other item that EPA determines are technically severable from any disapproved portions, subject to Beaver's right

to dispute only the specified conditions or the disapproved portions, under Section VIII (Dispute Resolution).

- d. If the submission is disapproved in whole or in part:
 - i. Beaver shall, within 45 Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, to EPA. If the resubmission is approved in whole or in part, Beaver shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved.
 - ii. Any stipulated penalties applicable to the original submission, as provided in Section VI (Stipulated Penalties), shall accrue during the 45 Day period or other specified period, but shall not be payable unless the resubmission is untimely or EPA disapproves the resubmission in whole or in part. Notwithstanding the preceding sentence, if EPA determines the original submission was so deficient as to constitute a material breach of Beaver's obligations under this Consent Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.
 - iii. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA may again direct Beaver to correct any deficiencies, in accordance with the preceding subparagraphs, or may itself correct any deficiencies, subject to

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 22 of 82 PageID #:220

Beaver's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties.

43. <u>Permits</u>. Where any obligation under this Consent Decree requires Beaver to obtain a federal, state, or local permit or approval, Beaver shall submit to the appropriate agency timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Beaver may seek relief under the provisions of Section VII (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Beaver has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

44. <u>Quarterly Reports</u>. No later than 45 Days after the end of each calendar-year quarter (i.e., by May 15, August 15, November 15, and February 15) after the Effective Date, Beaver shall submit a report for the preceding quarter to the United States in accordance with Section XII (Notices). Each report shall include, at a minimum:

- a. A written summary of all activities undertaken pursuant to this Consent Decree;
- b. The information/documents required by Paragraphs 24, 30, and 38;
- c. A written summary of any noncompliance with the District's Discharge Authorization Permit issued to Beaver and/or any enforcement action taken against Beaver by the District;
- d. A written summary of any noncompliance with the State's RCRA Permit issued to Beaver and/or any enforcement action taken against Beaver by the State; and

e. A description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.

45. Whenever any violation of this Consent Decree or of any applicable permits or any other event affecting Beaver's or its Facility's performance under this Consent Decree may pose an immediate threat to the public health or welfare or the environment, Beaver shall notify EPA orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after Beaver first knew of the violation or event. Nothing in this paragraph relieves Beaver of its obligation to provide the notice required by Section VII (Force Majeure).

46. Each report submitted by Beaver to EPA under this Section shall be signed by an official of Beaver as defined by 40 C.F.R. § 270.11 and include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

47. The reporting requirements of this Consent Decree do not relieve Beaver of any reporting obligations required by the CWA, RCRA or its implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.

48. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

VI. STIPULATED PENALTIES

49. Beaver shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section VII (Force Majeure), including any work plan or schedule approved under this Consent Decree, according to all applicable requirements of this Consent Decree and within the specified time schedules established by or approved under this Consent Decree.

50. If Beaver fails to pay the civil penalty required to be paid under Section IV (Civil Penalty) when due, Beaver shall pay a stipulated penalty of \$500 per Day for each Day that the payment is late.

51. The following stipulated penalties shall accrue per violation for each violation of the requirements of this Consent Decree at Paragraph 21, which requires Beaver to reject each waste load shipment which does not meet the requirements of Paragraph 20 (e.g., has a Fully Completed Waste Survey Form with appropriate documentation that it is representative of the waste load):

Penalty Per Violation	Number of Violations
\$100	1st through 5th violation
\$350	5th through 10th violation
\$750	10th violation and beyond

52. <u>Plan Submittal and Implementation Requirements</u>. The following stipulated penalties shall accrue per violation per Day for each failure to timely submit, modify, or implement, as approved, the plans required by this Consent Decree at Paragraphs 27 and 29

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 25 of 82 PageID #:223

(Hazardous Waste Determination Plan), and 31 and 34 (Waste Compatibility Plan) and 36 (Sampling Plan for tanks F3 and F4):

Penalty Per Violation Per Day	Period of Noncompliance
\$100	1st through 14th Day
\$350	15th through 30th Day
\$750	31st Day and beyond

53. <u>Recordkeeping Requirements.</u> A stipulated penalty of \$500 shall accrue per violation for each failure to maintain an Operating Record as required by this Consent Decree at Paragraphs 25 (Manifested Wastes) and 26 (Other Wastes/Derived from Materials) and 39 and 40 (Documentation Requirement).

54. <u>Reporting Requirements.</u> A stipulated penalty of \$500 shall accrue per violation for each failure to report a waste load in its Monthly Influent Report as required at Paragraphs 22 and 23 (Monthly Influent Reports) or timely submit quarterly reports as required by this Consent Decree at Paragraph 44 (Quarterly Reports).

55. <u>Training Requirements</u>. Annual training as required by Paragraph 41 must occur for all individuals with environmental management responsibilities to the Facility at least once in every calendar year. If training is not conducted in a calendar year, the following stipulated penalties shall accrue per Day beginning on January 1 for the following year:

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 26 of 82 PageID #:224

Penalty Per Violation Per Day	Period of Noncompliance
\$100	1st through 14th Day
\$350	15th through 30th Day
\$750	31st Day and beyond

56. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

57. Beaver shall pay any stipulated penalty within 45 Days of receiving the United States' written demand. Beaver shall pay the stipulated penalties to the United States in the manner set forth and with the confirmation notices required by Paragraph 15 (Payment of Civil Penalty to the United States), except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

58. Stipulated penalties shall continue to accrue as provided in Paragraph 56 (Accrual of Stipulated Penalties), during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to the Court, Beaver shall pay any accrued penalties determined to be owing, together with Interest, to the United States, in accordance with Paragraph 57 (Payment of Stipulated Penalties), within 30 Days of the Effective Date of the agreement resolving the dispute or the receipt of EPA's decision or order.

- b. If the dispute is appealed to the Court and the United States prevails in whole or in part, Beaver shall pay any accrued penalties determined by the Court to be owing, together with Interest, within 60 Days of receiving the Court's decision or order, except as provided in subparagraph c.
- c. If any Party appeals the District Court's decision, Beaver shall pay any accrued penalties determined to be owing, together with Interest, no more than 30 Days of receiving the final appellate court decision.

59. If Beaver fails to pay stipulated penalties according to the terms of this Consent Decree, Beaver shall be liable for Interest on such penalties, accruing as of the date payment became due. Nothing in this paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for Beaver's failure to pay any stipulated penalties.

60. Subject to the provisions of Section X (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for Beaver's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of statutory or regulatory requirements, Beaver shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

61. The computation of any period of time set forth in this Consent Decree shall be governed by Rule 6 of the Federal Rules of Civil Procedure. In computing any period of time under this Consent Decree, where the last Day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next business Day.

VII. FORCE MAJEURE

62. Force Majeure, for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Beaver, of any entity controlled by Beaver, or of Beaver's officers, employees, agents, consultants or contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Beaver's best efforts to fulfill the obligation. The requirement that Beaver exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent possible. "Force Majeure" does not include Beaver's financial inability to perform any obligation under this Consent Decree nor does it include unanticipated or increased costs or expenses associated with the performance of Beaver's obligations under this Consent Decree.

63. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, Beaver shall provide notice orally or by electronic or facsimile transmission to EPA, within 72 hours of when Beaver first knew that the event might cause a delay. Within seven Days thereafter, Beaver shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; the actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Beaver's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Beaver, such event may cause or contribute to an endangerment to public health, welfare or the environment. Beaver shall include with any notice all available documentation

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 29 of 82 PageID #:227

supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Beaver from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Beaver shall be deemed to know of any circumstance of which Beaver, any entity controlled by Beaver, or Beaver's contractors knew or should have known.

64. If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Beaver in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

65. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Beaver in writing of its decision.

66. If Beaver elects to invoke the dispute resolution procedures set forth in Section VIII (Dispute Resolution), it shall do so no later than 21 Days after receipt of EPA's written notice. In any such proceeding, Beaver shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Beaver complied with the requirements of Paragraphs 62 (Definition of Force Majeure) and 63 (Notification Requirements). If Beaver carries this burden,

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 30 of 82 PageID #:228

the delay at issue shall be deemed not to be a violation by Beaver of the affected obligation of this Consent Decree identified to EPA and the Court.

VIII. DISPUTE RESOLUTION

67. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Beaver's failure to seek resolution of a dispute under this Section shall preclude Beaver from raising any such issue as a defense to an action by the United States to enforce any obligation of Beaver arising under this Consent Decree.

68. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Beaver sends the United States a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 20 Days from the date the dispute arises, unless that period is modified by written agreement of all Parties. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be considered binding unless, within 30 Days after the conclusion of the informal negotiation period, Beaver invokes formal dispute resolution procedures as set forth below.

69. Formal Dispute Resolution.

a. Beaver shall invoke formal dispute resolution procedures, within the time period provided in the preceding paragraph, by serving on the United States a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis,

or opinion supporting Beaver's position and any supporting documentation relied upon by Beaver.

b. The United States shall serve its Statement of Position within 45 Days of receipt of Beaver's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Beaver, unless Beaver files a motion, within 30 days of receipt of the United States' Statement of Position, requesting judicial review of the dispute in accordance with the following paragraph.

70. Judicial Review

- a. Beaver may seek judicial review of the dispute by filing with the Court and serving on the United States, in accordance with Section XII (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 30 Days of receipt of the United States' Statement of Position pursuant to Paragraph 69 (Formal Dispute Resolution). The motion shall contain a written statement of Beaver's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.
- b. The United States shall respond to Beaver's motion within the time period allowed by the Local Rules of this Court. Beaver may file a reply memorandum, to the extent permitted by the Local Rules.

71. <u>Standard of Review</u>

- a. Except as otherwise provided in this Consent Decree, in any dispute brought under this Section pertaining to EPA's determination regarding the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by EPA under this Consent Decree; the adequacy of the performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Beaver shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.
- b. Except as otherwise provided in this Consent Decree, in any other dispute brought under this Section, Beaver shall bear the burden of demonstrating that its position complies with this Consent Decree and better furthers the objectives of the Consent Decree.

72. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Beaver under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 58 (Effect of Dispute Resolution). If Beaver does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VI (Stipulated Penalties).

IX. INFORMATION COLLECTION AND RETENTION

73. The United States, the State, and the District, and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into the Facility, at all reasonable times, upon presentation of credentials, to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States, the State, or the
 District, in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Beaver or its representatives, contractors, or consultants;
- d. obtain documentary evidence, including photographs and similar data; and
- e. assess Beaver's compliance with this Consent Decree.

74. Upon request, Beaver shall provide EPA, the State, the District or their authorized representatives splits of any samples taken by Beaver pursuant to this Consent Decree.

75. Until three years after the termination of this Consent Decree, Beaver shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to Beaver's performance of its obligations under this Consent Decree, including but not limited to all records required by Section V (Compliance Requirements and Injunctive Relief). This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures.

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 34 of 82 PageID #:232

76. At any time during this information-retention period, upon request by the United States, Beaver shall provide copies of any documents, records, or other information required to be maintained under this section. Any records that are created electronically shall be preserved in their native format and produced in that format upon request.

77. At the conclusion of the information-retention period provided in this section, Beaver shall notify EPA at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding paragraph and, upon request by the EPA, Beaver shall deliver any such documents, records, or other information to EPA as requested.

78. Beaver may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Beaver asserts such a privilege, it shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Beaver. However, no documents, records, or other information submitted pursuant to or necessary to determine compliance with the requirements of this Consent Decree shall be withheld from the United States on grounds of privilege.

79. Beaver may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that Beaver seeks to protect as CBI, Beaver shall follow the procedures set forth in 40 C.F.R. Part 2.

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 35 of 82 PageID #:233

80. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Beaver to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permit.

X. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

81. This Consent Decree resolves the civil claims of the United States for the violations alleged in the Amended Complaint filed in this action through the Date of Lodging.

82. The United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraph 81. This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the CWA, the RCRA, the Illinois Environmental Protection Act or the implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly specified in Paragraph 81. The United States further reserves all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, Beaver's Facility, whether related to the violations addressed in this Consent Decree or otherwise.

83. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties, or other appropriate relief relating to the Facility, Beaver shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 36 of 82 PageID #:234

subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 81 of this Section.

84. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Beaver is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and Beaver's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that Beaver's compliance with any aspect of this Consent Decree will result in compliance with provisions of the CWA, RCRA, the Illinois Environmental Protection Act or with any other provisions of federal, State, or local laws, regulations, or permits.

85. This Consent Decree does not limit or affect the rights of Beaver or of the United States against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against Beaver, except as otherwise provided by law.

86. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

XI. COSTS

87. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect its costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Beaver.

XII. NOTICES

88. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

To the United States:

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611 Re: DOJ No. 90-5-1-1-09169

Jonathan C. Haile Assistant United States Attorney 219 S. Dearborn St., 5th Floor Chicago, Illinois 60604

To EPA:

Thomas Martin Associate Regional Counsel U.S. EPA, Region 5 77 W. Jackson Blvd. (C-14J) Chicago, IL 60640

and

as to the requirements of the CWA:

Director, Water Division Attention: Water Enforcement and Compliance Assurance Branch U.S. Environmental Protection Agency, Region 5 77 W. Jackson Blvd. (W-15J) Chicago, IL 60604

and

as to the requirements of RCRA

Director, Land and Chemicals Division

Attention: RCRA Branch U.S. Environmental Protection Agency, Region 5 77 W. Jackson Blvd. (LR-8J) Chicago, IL 60604

To the State of Illinois:

Director, Division of Land Pollution Control Attention: Todd Marvel, RCRA Coordinator Illinois Environmental Protection Agency P.O. Box 19276 Springfield, Illinois 62794-9276

To the District:

Mr. Mathew Joseph, P.E. Assistant Director of Monitoring and Research Industrial Waste Division 111 East Erie Street Chicago, IL 60611

and

Mr. Ronald M. Hill General Counsel Law Department Metropolitan Water Reclamation District of Greater Chicago 100 East Erie Street Chicago, IL 60611

To Beaver:

Ray Vintika Beaver Oil Company, Inc. 6037 Lenzi Avenue Hodgkins, IL 60525

and

Elizabeth S. Harvey Swanson, Martin, & Bell, LLP 330 N. Wabash Avenue, Suite 3300 Chicago, IL 60611 89. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above. Notices submitted pursuant to this paragraph shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XIII. EFFECTIVE DATE

90. The Effective Date of this Consent Decree shall mean the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

XIV. RETENTION OF JURISDICTION

91. The Court shall retain jurisdiction over this Consent Decree, until termination of this Consent Decree, for the purpose of resolving disputes arising under this Consent Decree or entering orders modifying this Consent Decree as provided in Section XV (Modification), and for effectuating or enforcing compliance with the terms of this Consent Decree.

XV. MODIFICATION

92. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by all the Parties.

93. Where the modification constitutes a material change to this Consent Decree, it shall be effective only upon approval by the Court.

94. Any disputes concerning modification of this Consent Decree shall be resolved pursuant to Section VIII (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 71 (Standard of Review), the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

37

XVI. TERMINATION

95. No earlier than five calendar years after the Effective Date, and after Beaver has completed the requirements of Section V (Compliance Requirements and Injunctive Relief) of this Consent Decree, and has thereafter maintained continuous satisfactory compliance with this Consent Decree and applicable permits for a period of one (1) calendar year, and has paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, Beaver may serve upon the United States and EPA in accordance with Section XII (Notices) a request for termination, stating that Beaver has satisfied those requirements, together with all necessary supporting documentation.

96. Following the United States' receipt of Beaver's request for termination, the Parties shall confer informally concerning the request and any disagreement that the Parties may have as to whether Beaver has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States agrees that the Consent Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Consent Decree.

97. If the United States does not agree that the Decree may be terminated, Beaver may invoke the dispute resolution procedures of Section VIII (Dispute Resolution). However, Beaver shall not invoke the procedures of that Section until at least 90 Days after service of its request for termination.

XVII. PUBLIC PARTICIPATION

98. This Consent Decree shall be lodged with the Court for a period of not less than30 Days for public notice and comment in accordance with 28 C.F.R. § 50.7.

38

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 41 of 82 PageID #:239

99. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate.

100. Beaver consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Consent Decree, unless the United States has notified Beaver in writing that it no longer supports entry of the Consent Decree.

XVIII. SIGNATORIES/SERVICE

101. The undersigned representative of Beaver and the undersigned delegate of the Attorney General of the Department of Justice each certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

102. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis.

103. Beaver agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XIX. INTEGRATION

104. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Consent Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and

39

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 42 of 82 PageID #:240

approved pursuant to this Consent Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Consent Decree or the settlement it represents, nor shall it be used in construing the terms of this Consent Decree.

XX. FINAL JUDGMENT

105. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the Parties. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Federal Rules of Civil Procedure 54 and 58.

Dated and entered this _____ day of _____, 2015.

UNITED STATES DISTRICT JUDGE Northern District of Illinois, Eastern Division Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 43 of 82 PageID #:241

Signature page for the Consent Decree in United States v. Beaver Oil Company, Inc.

FOR THE UNITED STATES OF AMERICA

03-31-205

Date

G. C. Malance

Thomas A. Mariani, Jr. Deputy Section Chief Environmental Enforcement Section Environmental & Natural Resources division

<u>4-7-20</u>75

ZACHARY T. FARDON United States Attorney 10~1 By:

JONATHAN C. HAILE Assistant United States Attorney 219 South Dearborn Street Chicago, IL 60604 (312) 886-2055 jonathan.haile@usdoj.gov

Signature page for the Consent Decree in United States v. Beaver Oil Company, Inc.

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 44 of 82 PageID #:242

Signature page for the Consent Decree in United States v. Beaver Oil Company, Inc.

3/9/2015 Date

2/26/2015

Date

126/15

SUSAN HEDMAN Regional Administrator Region 5 United States Environmental Protection Agency 77 W. Jackson Blvd. Chicago, IL 60640

BERTRAM C. FREY Acting Regional Counsel Region 5 United States Environmental Protection Agency 77 W. Jackson Blvd. Chicago, IL 60640

THOMÁS J. MARTIN Associate Regional Counsel Region 5 United States Environmental Protection Agency 77 W. Jackson Blvd. Chicago, IL 60640 Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 45 of 82 PageID #:243

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Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 46 of 82 PageID #:244

Signature page for the Consent Decree in United States v. Beaver Oil Company, Inc.

FOR BEAVER:

2-1

Date

Signature Name: R. VIN HIZA Title: Address:

Agent Authorized to Accept Service on Behalf of Above-signed Party:

VINT Name: K _____ V - 1Title: Address: 6037 LENZI AVE. HODGRINS 16, 60525 Ph. Number:

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 47 of 82 PageID #:245

APPENDIX A

Crosswalk from Standard Industrial Classification to CWT Pretreatment Subcategory

Appendix A Part 1: Cross	swalk from Standard Industrial Classification to I	Pretreatment Subca	tegory
Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
0211	BEEF CATTLE FEEDLOTS	412	CAFO
0212	BEEF CATTLE, EXCEPT FEEDLOTS	412	CAFO
0213	HOGS	412	CAFO
0214	SHEEP AND GOATS	412	CAFO
0219	GENERAL LIVESTOCK, NEC	412	CAFO
0241	DAIRY FARMS	412	CAFO
0251	BROIL, FRY AND ROAST CHICKENS	412	CAFO
0252	CHICKEN EGGS	412	CAFO
0253	TURKEY AND TURKEY EGGS	412	CAFO
0254	POULTRY HATCHERIES	412	CAFO
0259	POULTRY AND EGGS, NEC	412	CAFO
0272	HORSES AND OTHER EQUINES	412	CAFO
0273	ANIMAL AQUACULTURE	451	Concentrated Aquatic Animal Production
0741	VET SERVICES FOR LIVESTOCK	460	Hospital
0742	VET SERV FOR ANIMAL SPECIALTY	460	Hospital
0921	FISH HATCHERIES AND PRESERVES	451	Concentrated Aquatic Animal Production
1011	IRON ORES	440	Ore mining and dressing
1021	COPPER ORES	440	Ore mining and dressing
1031	LEAD AND ZINC ORES	440	Ore mining and dressing
1041	GOLD ORES	440	Ore mining and dressing
1044	SILVER ORES	440	Ore mining and dressing
1061	FERROALLOY ORES, EXCL VANADIUM	440	Ore mining and dressing
1081	METAL MINING SERVICES	440	Ore mining and dressing
1094	URANIUM-RADIUM-VANADIUM ORES	440	Ore mining and dressing
1099	METAL ORES, NEC	440	Ore mining and dressing
1221	BITUMINOUS COAL & LIG, SURFACE	434	Coal mining
1222	BITUMINOUS COAL & LIG, UNDERGR	434	Coal mining
1231	ANTHRACITE MINING	434	Coal mining
1311	CRUDE PETROLEUM & NATURAL GAS	435	Oil & Gas Extraction
1381	DRILLING OIL AND GAS WELLS	435	Oil & Gas Extraction
1382	OIL AND GAS FIELD EXPLORATION	435	Oil & Gas Extraction
1389	OIL AND & FIELD SERVICES, NEC	435	Oil & Gas Extraction

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
1411	DIMENSION STONE	436	Mineral Mining and Processing
1422	CRUSHED AND BROKEN LIMESTONE	436	Mineral Mining and Processing
1423	CRUSHED AND BROKEN GRANITE	436	Mineral Mining and Processing
1429	CRUSHED AND BROKEN STONE, NEC	436	Mineral Mining and Processing
1442	CONSTRUCTION SAND AND GRAVEL	436	Mineral Mining and Processing
1446	INDUSTRIAL SAND	436	Mineral Mining and Processing
1455	KAOLIN AND BALL CLAY	436	Mineral Mining and Processing
1459	CLAY, CERAMIC & REFRAC MAT NEC	436	Mineral Mining and Processing
1474	POTASH, SODA & BORATE MINERALS	436	Mineral Mining and Processing
1475	PHOSPHATE ROCK	436	Mineral Mining and Processing
1479	CHEM & FERT MINERA MINING, NEC	436	Mineral Mining and Processing
1481	NONMETAL MINERAL (EXCEPT FUELS	436	Mineral Mining and Processing
1499	MISC NONMETAL MINERALS, NEC	436	Mineral Mining and Processing
1629	Heavy Construction, NEC	450	Construction and Development
2011	MEAT PACKING PLANTS	432	Meat and Poultry Products
2013	SAUSAGES & PREPARED MEAT PROD	432	Meat and Poultry Products
2015	POULTRY SLAUGHTERING & PROCESS	432	Meat and Poultry Products
2021	CREAMERY BUTTER	405	Dairy products processing
2022	CHEESE, NATURAL AND PROCESSED	405	Dairy products processing
2023	CONDENSED AND EVAPORATED MILK	405	Dairy products processing
2024	ICE CREAM AND FROZEN DESSERTS	405	Dairy products processing
2026	FLUID MILK	405	Dairy products processing
2033	CANNED FRUITS, VEG, PRES, JAM	407	Canned and preserved fruits and vegetables processing
2035	PICKLED FRTS & VEG. SAUCES	407	Canned and preserved fruits and vegetables processing
2037	FROZEN FRTS, FRT JUICES & VEG	407	Canned and preserved fruits and vegetables processing
2041	FLOUR & OTHER GRAIN MILL PROD	406	Grain mills
2043	CEREAL BREAKFAST FOODS	406	Grain mills
2044	RICE MILLING	406	Grain mills
2045	BLENDED AND PREPARED FLOUR	406	Grain mills
2046	WET CORN MILLING	406	Grain mills
2047	DOG AND CAT FOOD	406	Grain mills
2061	CANE SUGAR, EXCEPT REFINE ONLY	409	Sugar processing

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
2062	CANE SUGAR REFINING	409	Sugar processing
2063	BEET SUGAR	409	Sugar processing
2077	ANIMAL AND MARINE FATS & OILS	432	Meat and Poultry Products
2091	CANNED & CURED FISH & SEAFOOD	408	Canned and preserved seafood processing
2092	FRE OR FROZ PCK FISH, SEAFOOD	408	Canned and preserved seafood processing
2096	POTATO CHIPS & SIMILAR SNACKS	407	Canned and preserved fruits and vegetables processing
2211	BROAD WOVEN FABRIC MILLS, COTT	410	Textile mills
2221	BROAD WOVEN FABRIC MILLS, SYNT	410	Textile mills
2231	BROAD WOVEN FABRIC MILLS, WOOL	410	Textile mills
2241	NARROW FAB & OTHER SMALLWARES	410	Textile mills
2251	WOMEN'S FULL/KNEE LENGTH HOSRY	410	Textile mills
2252	HOSIERY, NEC	410	Textile mills
2253	KNIT OUTERWEAR MILLS	410	Textile mills
2254	KNIT UNDERWEAR MILLS	410	Textile mills
2257	CIRCULAR KNIT FABRIC MILLS	410	Textile mills
2258	WARP KNIT FABRIC MILLS	410	Textile mills
2259	KNITTING MILLS, NEC	410	Textile mills
2261	FINISH OF BRD WOV FAB OF COTTN	410	Textile mills
2262	FINISH OF BRD WOV FAB/MAN-MADE	410	Textile mills
2269	FINISHERS OF TEXTILES, NEC	410	Textile mills
2273	CARPETS AND RUGS, NEC	410	Textile mills
2281	YARN SPIN MILLS:COTTON, MM FIB	410	Textile mills
2282	YARN TEXT, THROW, TWIST & WIND	410	Textile mills
2284	THREAD MILLS	410	Textile mills
2295	COATED FABRICS, NOT RUBBERIZED	410	Textile mills
2296	TIRE CORD AND FABRIC	410	Textile mills
2297	NONWOVEN FABRICS	410	Textile mills
2298	CORDAGE AND TWINE	410	Textile mills
2299	TEXTILE GOODS, NEC	410	Textile mills
2322	MEN'S & BOYS UNDERWEAR & NIGHT	410	Textile mills
2396	AUTOMOTIVE TRIMMINGS, APPAREL	410	Textile mills
2399	FABRCATED TEXTILE PRODUCTS NEC	410	Textile mills

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
2421	SAWMILLS & PLANING MILLS, GEN	429	Timber products processing
2431	MILLWORK	429	Timber products processing
2434	WOOD KITCHEN CABINETS	429	Timber products processing
2435	HARDWOOD VENEER AND PLYWOOD	429	Timber products processing
2436	SOFTWOOD VENEER AND PLYWOOD	429	Timber products processing
2439	STRUCTURAL WOOD MEMBERS, NEC	429	Timber products processing
2491	WOOD PRESERVING	429	Timber products processing
2493	RECONSTITUTED WOOD PRODUCTS	429	Timber products processing
2499	WOOD PRODUCTS, NEC	429	Timber products processing
2511	WOOD HOUSEHOLD FURN, EXC UPHOL	429	Timber products processing
2512	WOOD HOUSEHOLD FURN, UPHOLSTER	429	Timber products processing
2514	METAL HOUSEHOLD FURNITURE	433	Metal Finishing
2517	WOOD TV, RADIO, PHONO CABINET	429	Timber products processing
2521	WOOD OFFICE FURNITURE	429	Timber products processing
2522	METAL OFFICE FURNITURE	433	Metal Finishing
2531	PUBLIC BUILDING/RELATED FURNIT	433	Metal Finishing
2541	WOOD PARTI, SHELF, LOCK, ETC	429	Timber products processing
2542	METAL PARTI, SHELF, LOCKERS	433	Metal Finishing
2591	DRAPE HARDWARE/WINDOW BLINDS	433	Metal Finishing
2599	FURNITURE AND FIXTURES, NEC	433	Metal Finishing
2611	PULP MILLS	430	Pulp, paper and paperboard
2621	PAPER MILLS	430	Pulp, paper and paperboard
2631	PAPERBOARD MILLS	430	Pulp, paper and paperboard
2653	CORRUGATED/SOLID FIBER BOXES	430	Pulp, paper and paperboard
2655	FIBER CANS, TUBES, DRUMS & PROD	430	Pulp, paper and paperboard
2656	SANITARY FOOD CONTAINERS	430	Pulp, paper and paperboard
2657	FOLDING PAPERBOARD BOXES	430	Pulp, paper and paperboard
2671	COATED & LAMINATED PACKAGING	430	Pulp, paper and paperboard
2672	COATED & LAMINATED, NEC	430	Pulp, paper and paperboard
2674	BAGS, UNCOATD PAPER & MULTIWALL	430	Pulp, paper and paperboard
2679	CONV PAPER & PAPERBRD PRODUCTS	430	Pulp, paper and paperboard
2796	PLATEMAKING SERVICES	433	Metal Finishing

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
2812	ALKALIES AND CHLORINE	415	Inorganic chemicals manufacturing
2813	INDUSTRIAL GASES	415	Inorganic chemicals manufacturing
2816	INORGANIC PIGMENTS	415	Inorganic chemicals manufacturing
2819	INDUSTRIAL INORGANIC CHEMICALS	415	Inorganic chemicals manufacturing
2821	PLSTC MAT./SYN RESINS/NV ELAST	414	Organic chemicals, plastics and synthetic fibers
2822	SYN RUBBER (VULCAN ELASTOMERS)	428	Rubber Manufacturing
2823	CELLULOSIC MAN-MADE FIBERS	414	Organic chemicals, plastics and synthetic fibers
2824	SYN ORG FIBERS, EXCEPT CELLULOS	414	Organic chemicals, plastics and synthetic fibers
2833	MEDICINAL CHEM/BOTANICAL PRODU	439	Pharmaceutical manufacturing
2834	PHARMACEUTICAL PREPARATIONS	439	Pharmaceutical manufacturing
2835	DIAGNOSTIC SUBSTANCES	439	Pharmaceutical manufacturing
2836	BIOLOGCAL PROD, EXCEPT DIAGNOS	439	Pharmaceutical manufacturing
2841	SOAP/DETERG EXC SPECIAL CLEANR	417	Soap and detergent manufacturing
2842	SPECIALTY CLEANING, POLISHING	414	Organic chemicals, plastics and synthetic fibers
2843	SURF ACTIVE AGENT, FIN AGENTS	417	Soap and detergent manufacturing
2844	PERFUMES, COSMETICS, TOILET PREP	414	Organic chemicals, plastics and synthetic fibers
2851	PAINTS/VARNISH/LACQUERS/ENAMEL	446	Paint formulating
2861	GUM AND WOOD CHEMICALS	454	Gum and wood chemicals manufacturing
2865	CYCLIC CRUDES INTERM., DYES	414	Organic chemicals, plastics and synthetic fibers
2869	INDUST. ORGANIC CHEMICALS NEC	414	Organic chemicals, plastics and synthetic fibers
2873	NITROGEN FERTILIZERS	418	Fertilizer manufacturing
2874	PHOSPHATIC FERTILIZERS	422	Phosphate manufacturing
2875	FERTILIZERS, MIXING ONLY	418	Fertilizer manufacturing
2879	PESTICIDES & AGRICULTURAL CHEM	455	Pesticide chemicals
2891	ADHESIVES AND SEALANTS	414	Organic chemicals, plastics and synthetic fibers
2892	EXPLOSIVES	457	Explosives manufacturing
2893	PRINTING INK	447	Ink formulating
2895	CARBON BLACK	458	Carbon black manufacturing
2899	CHEMICALS & CHEM PREP, NEC	414	Organic chemicals, plastics and synthetic fibers
2911	PETROLEUM REFINING	419	Petroleum refining
2951	PAVING MIXTURES AND BLOCKS	443	Paving and roofing materials (tars and asphalt)
2952	ASPHALT FELT AND COATINGS	443	Paving and roofing materials (tars and asphalt)

Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
2992	LUBRICATING OILS AND GREASES	419	Petroleum refining
2999	PROD OF PETROLEUM & COAL, NEC	419	Petroleum refining
3011	TIRES AND INNER TUBES	428	Rubber Manufacturing
3021	RUBBER AND PLASTICS FOOTWEAR	428	Rubber Manufacturing
3052	RUBBER & PLASTICS HOSE & BELT	428	Rubber Manufacturing
3053	GASKETS, PACKING & SEALING DEV	428	Rubber Manufacturing
3061	MECHANICAL RUBBER GOODS	428	Rubber Manufacturing
3069	FABRICATED RUBBER PRODUCTS, NEC	428	Rubber Manufacturing
3081	UNSUPPORTED PLSTICS FILM/SHEET	463	Plastics molding and forming
3082	UNSUPPORTED PLASTICS PROF SHAP	463	Plastics molding and forming
3083	LAMINATED PLASTICS PLATE/SHEET	463	Plastics molding and forming
3084	PLASTIC PIPE	463	Plastics molding and forming
3085	PLASTIC BOTTLES	463	Plastics molding and forming
3086	PLASTICS FOAM PRODUCTS	463	Plastics molding and forming
3087	CUSTOM COMPOUNDED PURCH. RESIN	463	Plastics molding and forming
3088	PLASTICS PLUMBING FIXTURES	463	Plastics molding and forming
3089	PLASTICS PRODUCTS, NEC	463	Plastics molding and forming
3111	LEATHER TANNING AND FINISHING	425	Leather tanning and finishing
3211	FLAT GLASS	426	Glass manufacturing
3221	GLASS CONTAINERS	426	Glass manufacturing
3229	PRESSED & BLOWN GLASS & GWARE	426	Glass manufacturing
3231	GLASS PROD MADE OF PURCH. GLAS	426	Glass manufacturing
3241	CEMENT, HYDRAULIC	411	Cement manufacturing
3251	BRICK AND STRUCTURAL CLAY TILE	436	Mineral Mining and Processing
3253	CERAMIC WALL AND FLOOR TILE	436	Mineral Mining and Processing
3255	CLAY REFRACTORIES	436	Mineral Mining and Processing
3259	STRUCTURAL CLAY PRODUCTS NEC	436	Mineral Mining and Processing
3261	VITREOUS CHINA PLUMBING FIXTUR	436	Mineral Mining and Processing
3262	VIT CHINA TABLE & KTCHN ARTICL	436	Mineral Mining and Processing
3263	FINE EARTHENWARE	436	Mineral Mining and Processing
3264	PORCELAIN ELECTRICAL SUPPLIES	436	Mineral Mining and Processing
3269	POTTERY PRODUCTS, NEC	436	Mineral Mining and Processing

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tandard Industrial Classification	SIC Description	Pretreatment Subcategory	
3272	CONCRETE PROD EXC BLCK & BRICK	411	Cement manufacturing
3273	READY-MIXED CONCRETE	411	Cement manufacturing
3274	LIME	436	Mineral Mining and Processing
3275	GYPSUM PRODUCTS	436	Mineral Mining and Processing
3291	ABRASIVE PRODUCTS	436	Mineral Mining and Processing
3292	ASBESTOS PRODUCTS	427	Asbestos manufacturing
3295	MINE & EARTHS, GROUND OR TREAT	436	Mineral Mining and Processing
3296	MINERAL WOOL	426	Glass manufacturing
3297	NONCLAY REFRACTORIES	436	Mineral Mining and Processing
3299	NONMETALLIC MINERAL PROD, NEC	436	Mineral Mining and Processing
3312	BLAST FURN/STEEL WORKS/ROLLING	420	Iron and steel manufacturing
3313	ELECTROMETALLURGICAL PRODUCTS	424	Ferroalloy manufacturing
3315	STEEL WIRE DRAW & STEEL NAILS	420	Iron and steel manufacturing
3316	COLD ROLLED STEEL SHEET/STRIP	420	Iron and steel manufacturing
3317	STEEL PIPE AND TUBES	420	Iron and steel manufacturing
3321	GRAY IRON FOUNDRIES	464	Metal molding and casting (foundries)
3322	MALLEABLE IRON FOUNDRIES	464	Metal molding and casting (foundries)
3324	STEEL INVESTMENT FOUNDRIES	464	Metal molding and casting (foundries)
3325	STEEL FOUNDRIES, NEC	464	Metal molding and casting (foundries)
3331	PRIMRY SMELTING & COPPER REFIN	421	Nonferrous metals manufacturing
3334	PRIMARY PRODUCTION OF ALUMINUM	421	Nonferrous metals manufacturing
3339	PRMRY SMELT/NONFERROUS METALS	421	Nonferrous metals manufacturing
3341	2NDARY SMELT/NONFERROUS METALS	421	Nonferrous metals manufacturing
3351	ROLL/DRAW/EXTRUDING OF COPPER	468	Copper forming
3353	ALUMINUM SHEET, PLATE AND FOIL	467	Aluminum forming
3354	ALUMINUM EXTRUDED PRODUCTS	467	Aluminum forming
3355	ALUMINUM ROLLING & DRAWING NEC	467	Aluminum forming
3356	ROLL, DRAW & EXTRUD NONFERROUS	471	Nonferrous metals forming and metal powders
3357	DRAW/INSULAT OF NONFERROUS WIR	467	Aluminum forming
3357	DRAW/INSULAT OF NONFERROUS WIR	468	Copper forming
3357	DRAW/INSULAT OF NONFERROUS WIR	471	Nonferrous metals forming and metal powders
3363	ALUMINUM DIE CASTING	467	Aluminum forming

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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
3363	ALUMINUM DIE CASTING	471	Nonferrous metals forming and metal powders
3364	NONFERROUS DIE CAST, EXC. ALUM	464	Metal molding and casting (foundries)
3365	ALUMINUM FOUNDRIES	464	Metal molding and casting (foundries)
3366	COPPER FOUNDRIES	464	Metal molding and casting (foundries)
3369	NONFERROUS FOUNDRIES, EXC ALUM	464	Metal molding and casting (foundries)
3398	METAL HEAT TREATING	433	Metal Finishing
3399	PRIMARY METAL PRODUCTS, NEC	471	Nonferrous metals forming and metal powders
3411	METAL CANS	465	Coil coating
3412	METAL BARRELS, DRUMS AND PAILS	433	Metal Finishing
3421	CUTLERY	433	Metal Finishing
3423	HAND AND EDGE TOOLS, NEC	433	Metal Finishing
3425	HAND SAWS AND SAW BLADES	433	Metal Finishing
3429	HARDWARE, NEC	433	Metal Finishing
3431	METAL SANITARY WARE	433	Metal Finishing
3432	PLUMB FIXTURE FITTINGS & TRIM	433	Metal Finishing
3433	HEATING EQUIP, EXCEPT ELECTRIC	433	Metal Finishing
3441	FABRICATED STRUCTURAL METAL	433	Metal Finishing
3442	METAL DOORS, SASH, AND TRIM	433	Metal Finishing
3443	FAB PLATE WORK (BOILER SHOPS)	433	Metal Finishing
3444	SHEET METAL WORK	433	Metal Finishing
3446	ARCHITECTURAL METAL WORK	433	Metal Finishing
3448	PREFABRICATED METAL BUILDINGS	433	Metal Finishing
3449	MISC. STRUCTUAL METAL WORK	433	Metal Finishing
3451	SCREW MACHINE PRODUCTS	433	Metal Finishing
3452	BOLTS, NUTS, RIVETS & WASHERS	433	Metal Finishing
3462	IRON AND STEEL FORGINGS	433	Metal Finishing
3463	NONFERROUS FORGINGS		Aluminum forming
3463	NONFERROUS FORGINGS	468	Copper forming
3463	NONFERROUS FORGINGS	471	Nonferrous metals forming and metal powders
3465	AUTOMOTIVE STAMPINGS	433	Metal Finishing
3466	CROWNS AND CLOSURES	433	Metal Finishing
3469	METAL STAMPINGS, NEC		Metal Finishing

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
3471	PLATING AND POLISHING	433	Metal Finishing
3479	METAL COATING & ALLIED SERVIC	433	Metal Finishing
3482	SMALL ARMS AMMUNITION	433	Metal Finishing
3482	SMALL ARMS AMMUNITION	471	Nonferrous metals forming and metal powders
3483	AMMUNIT., EXC. FOR SMALL ARMS	433	Metal Finishing
3483	AMMUNIT., EXC. FOR SMALL ARMS	471	Nonferrous metals forming and metal powders
3484	SMALL ARMS	433	Metal Finishing
3489	ORDNANCE AND ACCESSORIES, NEC	433	Metal Finishing
3491	INDUSTRIAL VALVES	433	Metal Finishing
3492	FLUID POWER VALVES & HOSE FITT	433	Metal Finishing
3493	STEEL SPRINGS, EXCEPT WIRE	433	Metal Finishing
3494	VALVES AND PIPE FITTINGS, NEC	433	Metal Finishing
3495	WIRE SPRINGS	433	Metal Finishing
3496	MISC. FABRICATED WIRE PRODUCTS	433	Metal Finishing
3497	METAL FOIL AND LEAF	433	Metal Finishing
3498	FABRICATED PIPE AND FITTINGS	433	Metal Finishing
3499	FABRICATED METAL PRODUCTS NEC	433	Metal Finishing
3511	TURBINES & TURBINE GENERATOR	433	Metal Finishing
3519	INTERNAL COMBUSTION ENGINES	433	Metal Finishing
3523	FARM MACHINERY AND EQUIPMENT	433	Metal Finishing
3524	LAWN AND GARDEN EQUIPMENT	433	Metal Finishing
3531	CONSTRUCTION MACHINERY	433	Metal Finishing
3532	MINING MACHINERY	433	Metal Finishing
3533	OIL FIELD MACHINERY	433	Metal Finishing
3534	ELEVATORS AND MOVING STAIRWAYS	433	Metal Finishing
3535	CONVEYORS & CONVEYING EQUIPMEN	433	Metal Finishing
3536	CRANES/HOISTS/MONORAIL SYSTEMS	433	Metal Finishing
3537	INDUSTRIAL TRUCKS AND TRACTORS	433	Metal Finishing
3541	MACHINE TOOLS, METAL CUTTING	433	Metal Finishing
3542	MACHINE TOOLS, METAL FORMING	433	Metal Finishing
3543	INDUSTRIAL PATTERNS	433	Metal Finishing
3544	SPECIAL DIES/TOOLS/JIGS & FIXT	433	Metal Finishing

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

Appendix A Part 1: Cross	walk from Standard Industrial Classification to P	retreatment Subca	tegory .
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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
3545	MACHINE TOOL ACCESSORIES	433	Metal Finishing
3546	POWER DRIVEN HAND TOOLS	433	Metal Finishing
3547	ROLLING MILL MACHINERY	433	Metal Finishing
3548	WELDING APPARATUS	433	Metal Finishing
3549	METALWORKING MACHINERY, NEC	433	Metal Finishing
3552	TEXTILE MACHINERY	433	Metal Finishing
3553	WOODWORKING MACHINERY	433	Metal Finishing
3554	PAPER INDUSTRIES MACHINERY	433	Metal Finishing
3555	PRINTING TRADES MACHINERY	433	Metal Finishing
3556	FOOD PRODUCTS MACHINERY	433	Metal Finishing
3559	SPECIAL INDUSTRY MACHINERY, NEC	433	Metal Finishing
3561	PUMPS AND PUMPING EQUIPMENT	433	Metal Finishing
3562	BALL AND ROLLER BEARINGS	433	Metal Finishing
3563	AIR AND GAS COMPRESSORS	433	Metal Finishing
3564	BLOWER AND FANS	433	Metal Finishing
3565	PACKAGING MACHINERY	433	Metal Finishing
3566	SPEED CHANGERS, DRIVES & GEARS	433	Metal Finishing
3567	INDUSTRIAL FURNACES AND OVENS	433	Metal Finishing
3568	POWER TRANSMISSION EQUIPMENT	433	Metal Finishing
3569	GENERAL INDUSTRIAL MACHINERY	433	Metal Finishing
3571	ELECTRONIC COMPUTERS	433	Metal Finishing
3572	COMPUTER STORAGE DEVICES	433	Metal Finishing
3575	COMPUTER TERMINALS	433	Metal Finishing
3577	COMPUTER PERIPHERAL EQUIP, NEC	433	Metal Finishing
3578	CALC & ACCOUNTING EQUIPMENT	433	Metal Finishing
3579	OFFICE MACHINES	433	Metal Finishing
3581	AUTOMATIC MERCHANDISING MACHIN	433	Metal Finishing
3582	COMMERCIAL LAUNDRY EQUIPMENT	433	Metal Finishing
3585	REFRIGERATION & HEATING EQUIP	433	Metal Finishing
3586	MEASURING & DISPENSING PUMPS	433	Metal Finishing
3589	SERVICE INDUSTRY MACHINERY	433	Metal Finishing
3592	CARBURETORS, PISTONS, RINGS, VALV	433	Metal Finishing

Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
3593	FLUID POWER CYLINDERS & ACTUAT	433	Metal Finishing
3594	FLUID POWER PUMPS AND MOTORS	433	Metal Finishing
3596	SCALES AND BALANCES, EXC. LAB	433	Metal Finishing
3599	INDUSTRIAL MACHINERY, NEC	433	Metal Finishing
3612	TRANSFORMERS	433	Metal Finishing
3613	SWITCHGEAR & SWITCHBOARD APPAR	433	Metal Finishing
3621	MOTORS AND GENERATORS	433	Metal Finishing
3624	CARBON AND GRAPHITE PRODUCTS	433	Metal Finishing
3625	RELAYS AND INDUSTRIAL CONTROLS	433	Metal Finishing
3629	ELECTRICAL INDUSTRIAL APPARATS	433	Metal Finishing
3631	HOUSEHOLD COOKING EQUIPMENT	466	Porcelain Enameling
3632	HOUSEHOLD REFRIG. & FREEZERS	433	Metal Finishing
3633	HOUSEHOLD LAUNDRY EQUIPMENT	433	Metal Finishing
3634	ELECTRIC HOUSEWARES AND FANS	433	Metal Finishing
3635	HOUSEHOLD VACUUM CLEANERS	433	Metal Finishing
3639	HOUSEHOLD APPLIANCES, NEC	433	Metal Finishing
3641	ELECTRIC LAMPS	433	Metal Finishing
3643	CURRENT-CARRYING WIRING DEVICE	433	Metal Finishing
3644	NONCURRENT-CARRYING WIRING DEV	433	Metal Finishing
3645	RESIDENTIAL LIGHTING FIXTURES	433	Metal Finishing
3646	COMMERCIAL LIGHTING FIXTURES	433	Metal Finishing
3647	VEHICULAR LIGHTING EQUIPMENT	433	Metal Finishing
3648	LIGHTING EQUIPMENT, NEC	433	Metal Finishing
3651	RADIO AND TV RECEIVING SETS	433	Metal Finishing
3652	PHONOGRAPH RECORDS	433	Metal Finishing
3661	TELEPHONE/TELEGRAPH APPARATUS	433	Metal Finishing
3663	RADIO & TV COMMUNICATION EQUIP	433	Metal Finishing
3669	COMMUNICATIONS EQUIPMENT, NEC.		Metal Finishing
3671	ELECTRON TUBES	469	Electrical and electronic components
3672	PRINTED CIRCUT BOARD		Metal Finishing
3674	SEMICONDUCTORS & RELATED DEVIC		Electrical and electronic components
3675	ELECTRONIC CAPACITORS		Metal Finishing

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

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Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
3676	RESISTORS FOR ELEC APPLICATION	433	Metal Finishing
3677	ELEC COILS, TRANSF. & INDUCTOR	433	Metal Finishing
3678	CONNECTORS FOR ELEC APPLICATIO	433	Metal Finishing
3679	ELECTRONIC COMPONENTS, NEC	433	Metal Finishing
3691	STORAGE BATTERIES	461	Battery manufacturing
3692	PRIMARY BATTERIES, DRY & WET	461	Battery manufacturing
3694	ELEC EQUIP FOR INT COMBUS ENGI	433	Metal Finishing
3695	MAG & OPTICAL RECORDING MEDIA	433	Metal Finishing
3699	ELEC MACHINERY, EQUIP & SUPPLIE	433	Metal Finishing
3711	MOTOR VEHICLES & CAR BODIES	433	Metal Finishing
3713	TRUCK & BUS BODIES	433	Metal Finishing
3714	MOTOR VEHICLE PARTS & ACCESSOR	433	Metal Finishing
3715	TRUCK TRAILERS	433	Metal Finishing
3716	MOTOR HOMES	433	Metal Finishing
3721	AIRCRAFT	433	Metal Finishing
3724	AIRCRAFT ENGINES & ENGINE PART	433	Metal Finishing
3728	AIRCRAFT PARTS AND EQUIP, NEC	433	Metal Finishing
3731	SHIP BUILDING AND REPAIRING	433	Metal Finishing
3732	BOAT BUILDING AND REPAIRING	433	Metal Finishing
3743	RAILROAD EQUIPMENT	433	Metal Finishing
3751	MOTORCYCLES, BICYCLES AND PART	433	Metal Finishing
3761	GUIDED MISSILES & SPACE VEHICL	433	Metal Finishing
3764	SPACE PROPULSION UNITS & PARTS	433	Metal Finishing
3769	SPACE VEHICLE EQUIPMENT, NEC	433	Metal Finishing
3792	TRAVEL TRAILERS AND CAMPERS	433	Metal Finishing
3795	TANKS AND TANK COMPONENTS	433	Metal Finishing
3799	TRANSPORTATION EQUIPMENT, NEC	433	Metal Finishing
3812	SEARCH & NAVIGATION EQUIPMENT	433	Metal Finishing
3821	LAB APPARATUS & FURNITURE		Metal Finishing
3822	ENVIRONMENTAL CONTROLS	433	Metal Finishing
3823	PROCESS CONTROL INSTRUMENTS	433	Metal Finishing
3824	FLUID METERS & COUNTING DEVICE	433	Metal Finishing

P.F.			
Standard Industrial		Pretreatment	
Classification	SIC Description	Subcategory	Pretreatment Subcategory Description
3825	INSTRUMENTS TO MEASURE ELECTRI	433	Metal Finishing
3826	ANALYTICAL INSTRUMENTS	433	Metal Finishing
3827	OPTICAL INSTRUMENTS AND LENSES	433	Metal Finishing
3829	MEASURING & CONTROLLING DEVICE	433	Metal Finishing
3841	SURGICAL & MEDICAL INSTRUMENTS	433	Metal Finishing
3842	SURGICAL APPLIANCES & SUPPLIES	433	Metal Finishing
3843	DENTAL EQUIPMENT AND SUPPLIES	433	Metal Finishing
3844	X-RAY APPARATUS AND TUBES	433	Metal Finishing
3845	ELECTROMEDICAL EQUIPMENT	433	Metal Finishing
3851	OPHTHALMIC GOODS	433	Metal Finishing
3861	PHOTOGRAPHIC EQUIP & SUPPLIES	433	Metal Finishing
3873	WATCHES, CLOCKS & WATCHCASES	433	Metal Finishing
3911	JEWELRY, PRECIOUS METAL	433	Metal Finishing
3914	SILVERWARE AND PLATED WARE	433	Metal Finishing
3915	JEWELERS' MATERIALS & LAPIDARY	433	Metal Finishing
3931	MUSICAL INSTRUMENTS	433	Metal Finishing
3944	GAMES, TOYS & CHILDREN'S VEHIC	433	Metal Finishing
3949	SPORTING & ATHLETIC GOODS, NEC	433	Metal Finishing
3951	PENS & MECHANICAL PENCILS	433	Metal Finishing
3953	MARKING DEVICES	433	Metal Finishing
3961	COSTUME JEWELRY	433	Metal Finishing
3965	FASTENERS, BUTTONS, NEEDLES	433	Metal Finishing
3993	SIGNS AND ADVERTISING DISPLAYS	433	Metal Finishing
3995	BURIAL CASKETS	433	Metal Finishing
3996	HARD SURFACE FLOOR COVERINGS	443	Paving and roofing materials (tars and asphalt)
3999	MANUFACTURING INDUSTRIES, NEC	433	Metal Finishing
4011	RAILROADS, LINE HAUL OPERATING	433	Metal Finishing
4013	RAILROAD SWTCHING & TERM ESTAB	433	Metal Finishing
4491	MARINE CARGO HANDLING	442	Transportation Equipment Cleaning
4499	WATER TRANSPORTATION SERIVCES	442	Transportation Equipment Cleaning
4581	Airports	449	Airport Deicing
4612	CRUDE PETROLEUM PIPELINES		Petroleum refining

Standard Industrial		Pretreatment	
Classification 4741	SIC Description RENTAL OF RAILROAD CARS	Subcategory 442	Pretreatment Subcategory Description Transportation Equipment Cleaning
4911	ELECTRICAL SERVICES	423	Steam electric power generating
4925	MIXED, MANUFAC, OR LIQ GAS PROD	435	Oil & Gas Extraction
4931	ELEC & OTHER SERVICES COMBINED	423	Steam electric power generating
4939	COMBINATION UTILITIES, NEC	423	Steam electric power generating
4953	REFUSE SYSTEMS	444	Waste combustors
4953	REFUSE SYSTEMS	445	Landfills
4961	STEAM & AIR-CONDITIONING SUP	423	Steam electric power generating
5032	BRICK, STONE & RELAT MATERIALS	436	Mineral Mining and Processing
5159	FARM-PRODUCT RAW MATERIALS	406	Grain mills
5169	CHEMICALS AND ALLIED PRODUCTS	414	Organic chemicals, plastics and synthetic fibers
5171	PETROLEUM BULK STATIONS & TERM	419	Petroleum refining
7221	PHOTOGRAPHIC STUDIOS, POTRAIT	459	Photographic
7335	COMMERCIAL PHOTOGRAPHY	459	Photographic
7336	COMM ART & GRAPHIC DESIGN	459	Photographic
7384	PHOTOFINISHING LABORATORIES	459	Photographic
7692	WELDING REPAIR	433	Metal Finishing
7699	REPAIR SHOPS & RELATED SERVICE	442	Transportation Equipment Cleaning
8011	OFFICES & CLINICS OF MED DOCT	460	Hospital
8021	OUTPATIENT CARE FACILITIES	460	Hospital
8031	OFFICES/CLINCS OF DOC OF OSTEO	460	Hospital
8041	OFFICES & CLINICS OF CHIROPRAC	460	Hospital
8042	OFFICES & CLINICS OF OPTOMETRI	460	Hospital
8043	OFFICES & CLINICS OF PODIATRIS	460	Hospital
8049	OFFICES OF HEALTH PRACTITIONER	460	Hospital
8051	SKILLED NURSING CARE FACILITIE	460	Hospital
8052	INTERMEDIATE CARE FACILITIES	460	Hospital
8059	NURSING AND PERSONAL CARE, NEC	460	Hospital
8062	GEN. MEDICAL/SURGICAL HOSPITAL	460	Hospital
8063	PSYCHIATRIC HOSPITALS	460	Hospital
8069	SPECIALTY HOSPITALS	460	Hospital
8071	MEDICAL LABORATORIES	460	Hospital

Appendix A Part 1: Crosswalk from Standard Industrial Classification to Pretreatment Subcategory

Case: 1:13-cv-00830 Document #: 56-2 Filed: 04/08/15 Page 62 of 82 PageID #:260

Standard Industrial		Pretreatment	
Classification		Subcategory	
		460	Hospital
	HOME HEALTH CARE SERVICES	460	Hospital
	KIDNEY DIALYSIS CENTERS	460	Hospital
8093	SPECIALITY OUTPATIENT CLINICS	460	Hospital
8099	HEALTH & ALLIED SERVICES, NEC	460	Hospital

Appendix AT art 2. 01000	walk from North Amercican industry classification S	<u>, otom to i ionoun</u>	
North Amercican Industry	North Amercican Industry Classification System	Pretreatment	
Classification System	Description	Subcategory	Pretreatment Subcategory Description
112112	Cattle Feedlots	412	CAFO
112120	Dairy Cattle and Milk Production	405	Dairy products processing
112210	Hog and Pig Farming	412	CAFO
112310	Chicken Egg Production	412	CAFO
112320	Broilers and Other Meat Type Chicken Production	432	Meat and Poultry Products
112330	Turkey Production	412	CAFO
112340	Poultry Hatcheries	412	CAFO
112390	Other Poultry Production	412	CAFO
112511	Finfish Farming and Fish Hatcheries	451	Concentrated Aquatic Animal Production
112512	Shellfish Farming	451	Concentrated Aquatic Animal Production
211111	Crude Petroleum and Natural Gas Extraction	435	Oil & Gas Extraction
212111	Bituminous Coal and Lignite Surface Mining	434	Coal mining
212112	Bituminous Coal Underground Mining	434	Coal mining
212210	Iron Ore Mining	440	Ore mining and dressing
212221	Gold Ore Mining	440	Ore mining and dressing
212222	Silver Ore Mining	440	Ore mining and dressing
212231	Lead Ore and Zinc Ore Mining	440	Ore mining and dressing
212234	Copper Ore and Nickel Ore Mining	440	Ore mining and dressing
212291	Uranium-Radium-Vanadium Ore Mining	440	Ore mining and dressing
212299	All Other Metal Ore Mining	440	Ore mining and dressing
212311	Dimension Stone Mining and Quarrying	436	Mineral Mining and Processing
212312	Crushed and Broken Limestone Mining and Quarrying	436	Mineral Mining and Processing
212313	Crushed and Broken Granite Mining and Quarrying	436	Mineral Mining and Processing
212319	Other Crushed and Broken Stone Mining and Quarryin	436	Mineral Mining and Processing
212321	Construction Sand and Gravel Mining	436	Mineral Mining and Processing
212322	Industrial Sand Mining	436	Mineral Mining and Processing
212324	Kaolin and Ball Clay Mining	436	Mineral Mining and Processing
212325	Clay and Ceramic and Refractory Minerals Mining	436	Mineral Mining and Processing
212391	Potash, Soda, and Borate Mineral Mining	436	Mineral Mining and Processing
212392	Phosphate Rock Mining	436	Mineral Mining and Processing
212393	Other Chemical and Fertilizer Mineral Mining	436	Mineral Mining and Processing
212399	All Other Nonmetallic Mineral Mining	436	Mineral Mining and Processing

	North Amercican Industry Classification System	Pretreatment	
Classification System	Description	Subcategory	Pretreatment Subcategory Description
213112	Support Activities for Oil and Gas Operations	435	Oil & Gas Extraction
213115	Support Activities for Nonmetallic Minerals (excep	436	Mineral Mining and Processing
221111	Hydroelectric Power Generation	423	Steam electric power generating
221112	Fossil Fuel Electric Power Generation	423	Steam electric power generating
221113	Nuclear Electric Power Generation	423	Steam electric power generating
221119	Other Electric Power Generation	423	Steam electric power generating
221121	Electric Bulk Power Transmission and Control	423	Steam electric power generating
221122	Electric Power Distribution	423	Steam electric power generating
221330	Steam and Air-Conditioning Supply	423	Steam electric power generating
311111	Dog and Cat Food Manufacturing	406	Grain mills
311221	Wet Corn Milling	406	Grain mills
311230	Breakfast Cereal Manufacturing	406	Grain mills
311311	Sugarcane Mills	409	Sugar processing
311312	Cane Sugar Refining	409	Sugar processing
311313	Beet Sugar Manufacturing	409	Sugar processing
311411	Frozen Fruit, Juice, and Vegetable Manufacturing	407	Canned and preserved fruits and vegetables processing
311421	Fruit and Vegetable Canning	407	Canned and preserved fruits and vegetables processing
311511	Fluid Milk Manufacturing	405	Dairy products processing
311512	Creamery Butter Manufacturing	405	Dairy products processing
311513	Cheese Manufacturing	405	Dairy products processing
311514	Dry, Condensed, and Evaporated Dairy Product Manuf	405	Dairy products processing
311520	Ice Cream and Frozen Dessert Manufacturing	405	Dairy products processing
311611	Animal (except Poultry) Slaughtering	432	Meat and Poultry Products
311612	Meat Processed from Carcasses	432	Meat and Poultry Products
311613	Rendering and Meat Byproduct Processing	432	Meat and Poultry Products
311615	Poultry Processing	432	Meat and Poultry Products
311712	Fresh and Frozen Seafood Processing	408	Canned and preserved seafood processing
311822	Flour Mixes and Dough Manufacturing from Purchased	406	Grain mills
311919	Other Snack Food Manufacturing	407	Canned and preserved fruits and vegetables processing
311941	Mayonnaise, Dressing, and Other Prepared Sauce Mar	407	Canned and preserved fruits and vegetables processing
313111	Yarn Spinning Mills	410	Textile mills
313112	Yarn Texturizing, Throwing, and Twisting Mills	410	Textile mills

ppendix A Part 2: Cros	swalk from North Amercican Industry Classification S	ystem to Pretreat	The subcategory
	y North Amercican Industry Classification System	Pretreatment	
Classification System		Subcategory	Pretreatment Subcategory Description
313113	Thread Mills	410	Textile mills
313210	Broadwoven Fabric Mills	410	Textile mills
313221	Narrow Fabric Mills	410	Textile mills
313230	Nonwoven Fabric Mills	410	Textile mills
313241	Weft Knit Fabric Mills	410	Textile mills
313249	Other Knit Fabric and Lace Mills	410	Textile mills
313311	Broadwoven Fabric Finishing Mills	410	Textile mills
313312	Textile and Fabric Finishing (except Broadwoven Fa	410	Textile mills
313320	Fabric Coating Mills	410	Textile mills
314110	Carpet and Rug Mills	410	Textile mills
314992	Tire Cord and Tire Fabric Mills	410	Textile mills
314999	All Other Miscellaneous Textile Product Mills	410	Textile mills
315111	Sheer Hosiery Mills	410	Textile mills
315119	Other Hosiery and Sock Mills	410	Textile mills
315191	Outerwear Knitting Mills	410	Textile mills
315192	Underwear and Nightwear Knitting Mills	410	Textile mills
315221	Men's and Boys' Cut and Sew Underwear and Nightwe	410	Textile mills
315299	All Other Cut and Sew Apparel Manufacturing	428	Rubber Manufacturing
315992	Glove and Mitten Manufacturing	410	Textile mills
315999	Other Apparel Accessories and Other Apparel Manufa	410	Textile mills
316110	Leather and Hide Tanning and Finishing	425	Leather tanning and finishing
316211	Rubber and Plastics Footwear Manufacturing	428	Rubber Manufacturing
321113	Sawmills	429	Timber products processing
321114	Wood Preservation	429	Timber products processing
321211	Hardwood Veneer and Plywood Manufacturing	429	Timber products processing
321212	Softwood Veneer and Plywood Manufacturing	429	Timber products processing
321213	Engineered Wood Member (except Truss) Manufacturi	429	Timber products processing
321214	Truss Manufacturing	429	Timber products processing
321219	Reconstituted Wood Product Manufacturing	429	Timber products processing
321911	Wood Window and Door Manufacturing	429	Timber products processing
321999	All Other Miscellaneous Wood Product Manufacturing	429	Timber products processing
322110	Pulp Mills	430	Pulp, paper and paperboard

Appendix A Part 2: Crosswalk from North Amercican Industry Classification System to Pretreatment Subcategory

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	North Amercican Industry Classification System	Pretreatment	
	Description	Subcategory	Pretreatment Subcategory Description
322121	Paper (except Newsprint) Mills	430	Pulp, paper and paperboard
322122	Newsprint Mills	430	Pulp, paper and paperboard
322130	Paperboard Mills	430	Pulp, paper and paperboard
322211	Corrugated and Solid Fiber Box Manufacturing	430	Pulp, paper and paperboard
322212	Folding Paperboard Box Manufacturing	430	Pulp, paper and paperboard
322214	Fiber Can, Tube, Drum, and Similar Products Manufa	430	Pulp, paper and paperboard
322215	Nonfolding Sanitary Food Container Manufacturing	430	Pulp, paper and paperboard
322221	Coated and Laminated Packaging Paper Manufacturing	430	Pulp, paper and paperboard
322222	Coated and Laminated Paper Manufacturing	430	Pulp, paper and paperboard
322224	Uncoated Paper and Multiwall Bag Manufacturing	430	Pulp, paper and paperboard
322225	Laminated Aluminum Foil Manufacturing for Flexible	433	Metal Finishing
322231	Die-Cut Paper and Paperboard Office Supplies Manuf	430	Pulp, paper and paperboard
322291	Sanitary Paper Product Manufacturing	430	Pulp, paper and paperboard
322299	All Other Converted Paper Product Manufacturing	430	Pulp, paper and paperboard
323122	Prepress Services	433	Metal Finishing
324110	Petroleum Refineries	419	Petroleum refining
324121	Asphalt Paving Mixture and Block Manufacturing	443	Paving and roofing materials (tars and asphalt)
324122	Asphalt Shingle and Coating Materials Manufacturin	443	Paving and roofing materials (tars and asphalt)
324191	Petroleum Lubricating Oil and Grease Manufacturing	419	Petroleum refining
324199	All Other Petroleum and Coal Products Manufacturin	419	Petroleum refining
325110	Petrochemical Manufacturing	414	Organic chemicals, plastics and synthetic fibers
325120	Industrial Gas Manufacturing	415	Inorganic chemicals manufacturing
325131	Inorganic Dye and Pigment Manufacturing	415	Inorganic chemicals manufacturing
	Synthetic Organic Dye and Pigment Manufacturing	414	Organic chemicals, plastics and synthetic fibers
	Alkalies and Chlorine Manufacturing	415	Inorganic chemicals manufacturing
325182	Carbon Black Manufacturing	458	Carbon black manufacturing
	All Other Basic Inorganic Chemical Manufacturing	415	Inorganic chemicals manufacturing
325191	Gum and Wood Chemical Manufacturing	454	Gum and wood chemicals manufacturing
	Cyclic Crude and Intermediate Manufacturing	414	Organic chemicals, plastics and synthetic fibers
	Ethyl Alcohol Manufacturing	414	Organic chemicals, plastics and synthetic fibers
	All Other Basic Organic Chemical Manufacturing	414	Organic chemicals, plastics and synthetic fibers
	Plastics Material and Resin Manufacturing	414	Organic chemicals, plastics and synthetic fibers

Appendix A Part 2: Crosswalk from North Amercican Industry Classification System to Pretreatment Subcategory

orth Amercican Industr Classification System	y North Amercican Industry Classification System Description	Pretreatment Subcategory	Pretreatment Subcategory Description
325212	Synthetic Rubber Manufacturing	428	Rubber Manufacturing
325221	Cellulosic Organic Fiber Manufacturing	414	Organic chemicals, plastics and synthetic fibers
325222	Noncellulosic Organic Fiber Manufacturing	414	Organic chemicals, plastics and synthetic fibers
325311	Nitrogenous Fertilizer Manufacturing	418	Fertilizer manufacturing
325312	Phosphatic Fertilizer Manufacturing	422	Phosphate manufacturing
325314	Fertilizer (Mixing Only) Manufacturing	418	Fertilizer manufacturing
325320	Pesticide and Other Agricultural Chemical Manufact	455	Pesticide chemicals
325411	Medicinal and Botanical Manufacturing	439	Pharmaceutical manufacturing
325412	Pharmaceutical Preparation Manufacturing	439	Pharmaceutical manufacturing
325413	In-Vitro Diagnostic Substance Manufacturing	439	Pharmaceutical manufacturing
325414	Biological Product (except Diagnostic) Manufacturi	439	Pharmaceutical manufacturing
325510	Paint and Coating Manufacturing	446	Paint formulating
325520	Adhesive Manufacturing	414	Organic chemicals, plastics and synthetic fibers
325611	Soap and Other Detergent Manufacturing	417	Soap and detergent manufacturing
325612	Polish and Other Sanitation Good Manufacturing	414	Organic chemicals, plastics and synthetic fibers
325613	Surface Active Agent Manufacturing	417	Soap and detergent manufacturing
325620	Toilet Preparation Manufacturing	414	Organic chemicals, plastics and synthetic fibers
325910	Printing Ink Manufacturing	447	Ink formulating
325920	Explosives Manufacturing	457	Explosives manufacturing
325991	Custom Compounding of Purchased Resins	463	Plastics molding and forming
325992	Photographic Film, Paper, Plate, and Chemical Manu	433	Metal Finishing
325998	All Other Miscellaneous Chemical Product and Prepa	414	Organic chemicals, plastics and synthetic fibers
326112	Plastics Packaging Film and Sheet (including Lamin	430	Pulp, paper and paperboard
326113	Unlaminated Plastics Film and Sheet (except Packag	463	Plastics molding and forming
326121	Unlaminated Plastics Profile Shape Manufacturing	463	Plastics molding and forming
326122	Plastics Pipe and Pipe Fitting Manufacturing	463	Plastics molding and forming
326130	Laminated Plastics Plate, Sheet (except Packaging)	463	Plastics molding and forming
326140	Polystyrene Foam Product Manufacturing	463	Plastics molding and forming
326150	Urethane and Other Foam Product (except Polystyren	463	Plastics molding and forming
326160	Plastics Bottle Manufacturing	463	Plastics molding and forming
326191	Plastics Plumbing Fixture Manufacturing	463	Plastics molding and forming
326192	Resilient Floor Covering Manufacturing	443	Paving and roofing materials (tars and asphalt)

	North Amercican Industry Classification System Description	Pretreatment Subcategory	Pretreatment Subcategory Description
326199	All Other Plastics Product Manufacturing	463	Plastics molding and forming
326211	Tire Manufacturing (except Retreading)	405	Rubber Manufacturing
326220	Rubber and Plastics Hoses and Belting Manufacturin	428	Rubber Manufacturing
326291	Rubber Product Manufacturing for Mechanical Use	428	Rubber Manufacturing
326299	All Other Rubber Product Manufacturing	428	Rubber Manufacturing
327111	Vitreous China Plumbing Fixture and China and Eart	436	Mineral Mining and Processing
327112	Vitreous China, Fine Earthenware, and Other Potter	436	Mineral Mining and Processing
327112	Porcelain Electrical Supply Manufacturing	436	Mineral Mining and Processing
		436	Mineral Mining and Processing
327121	Brick and Structural Clay Tile Manufacturing	436	
327122	X		Mineral Mining and Processing
327123	Other Structural Clay Product Manufacturing	436	Mineral Mining and Processing
327124	Clay Refractory Manufacturing	436	Mineral Mining and Processing
327125	Nonclay Refractory Manufacturing	436	Mineral Mining and Processing
327211	Flat Glass Manufacturing	426	Glass manufacturing
327212	Other Pressed and Blown Glass and Glassware Manuf	426	Glass manufacturing
327213	Glass Container Manufacturing	426	Glass manufacturing
327215	Glass Product Manufacturing Made of Purchased Glas	426	Glass manufacturing
327310	Cement Manufacturing	411	Cement manufacturing
327320	Ready-Mix Concrete Manufacturing	411	Cement manufacturing
327332	Concrete Pipe Manufacturing	411	Cement manufacturing
327390	Other Concrete Product Manufacturing	411	Cement manufacturing
327410	Lime Manufacturing	436	Mineral Mining and Processing
327420	Gypsum Product Manufacturing	436	Mineral Mining and Processing
327910	Abrasive Product Manufacturing	436	Mineral Mining and Processing
327992	Ground or Treated Mineral and Earth Manufacturing	436	Mineral Mining and Processing
327993	Mineral Wool Manufacturing	426	Glass manufacturing
327999	All Other Miscellaneous Nonmetallic Mineral Produc	436	Mineral Mining and Processing
331111	Iron and Steel Mills	420	Iron and steel manufacturing
331112	Electrometallurgical Ferroalloy Product Manufactur	424	Ferroalloy manufacturing
331210	Iron and Steel Pipe and Tube Manufacturing from Pu	420	Iron and steel manufacturing
331221	Rolled Steel Shape Manufacturing	420	Iron and steel manufacturing
331222	Steel Wire Drawing	420	Iron and steel manufacturing

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North Americican Industr Classification System	y North Amercican Industry Classification System Description	Pretreatment Subcategory	Pretreatment Subcategory Description
331311	Alumina Refining	415	Inorganic chemicals manufacturing
331312	Primary Aluminum Production	421	Nonferrous metals manufacturing
331314	Secondary Smelting and Alloying of Aluminum	421	Nonferrous metals manufacturing
331315	Aluminum Sheet, Plate, and Foil Manufacturing	467	Aluminum forming
331316	Aluminum Extruded Product Manufacturing	467	Aluminum forming
331319	Other Aluminum Rolling and Drawing	467	Aluminum forming
331411	Primary Smelting and Refining of Copper	421	Nonferrous metals manufacturing
331419	Primary Smelting and Refining of Nonferrous Metal	421	Nonferrous metals manufacturing
331421	Copper Rolling, Drawing, and Extruding	468	Copper forming
331422	Copper Wire (except Mechanical) Drawing	468	Copper forming
331423	Secondary Smelting, Refining, and Alloying of Copp	421	Nonferrous metals manufacturing
331491	Nonferrous Metal (except Copper and Aluminum) Roll	471	Nonferrous metals forming and metal powders
331492	Secondary Smelting, Refining, and Alloying of Nonf	421	Nonferrous metals manufacturing
331511	Iron Foundries	464	Metal molding and casting (foundries)
331512	Steel Investment Foundries	464	Metal molding and casting (foundries)
331513	Steel Foundries (except Investment)	464	Metal molding and casting (foundries)
331521	Aluminum Die-Casting Foundries	421	Nonferrous metals manufacturing
331521	Aluminum Die-Casting Foundries	467	Aluminum forming
331522	Nonferrous (except Aluminum) Die-Casting Foundries	464	Metal molding and casting (foundries)
331524	Aluminum Foundries (except Die-Casting)	464	Metal molding and casting (foundries)
331525	Copper Foundries (except Die-Casting)	464	Metal molding and casting (foundries)
331528	Other Nonferrous Foundries (except Die-Casting)	464	Metal molding and casting (foundries)
332111	Iron and Steel Forging	433	Metal Finishing
332112	Nonferrous Forging	467	Aluminum forming
332112	Nonferrous Forging	468	Copper forming
332112	Nonferrous Forging	471	Nonferrous metals forming and metal powders
332114	Custom Roll Forming	433	Metal Finishing
332115	Crown and Closure Manufacturing	433	Metal Finishing
332116	Metal Stamping	433	Metal Finishing
332117	Powder Metallurgy Part Manufacturing	433	Metal Finishing
332211	Cutlery and Flatware (except Precious) Manufacturi	433	Metal Finishing
332212	Hand and Edge Tool Manufacturing	433	Metal Finishing

Appendix A Part 2: Crosswalk from North Amercican Industry Classification System to Pretreatment Subcategory

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North Amercican Industry	North Amercican Industry Classification System	Pretreatment	and the statement of the
Classification System	Description	Subcategory	Pretreatment Subcategory Description
332213	Saw Blade and Handsaw Manufacturing	433	Metal Finishing
332214	Kitchen Utensil, Pot, and Pan Manufacturing	433	Metal Finishing
332311	Prefabricated Metal Building and Component Manufac	433	Metal Finishing
332312	Fabricated Structural Metal Manufacturing	433	Metal Finishing
332313	Plate Work Manufacturing	433	Metal Finishing
332321	Metal Window and Door Manufacturing	433	Metal Finishing
332322	Sheet Metal Work Manufacturing	433	Metal Finishing
332323	Ornamental and Architectural Metal Work Manufactur	433	Metal Finishing
332410	Power Boiler and Heat Exchanger Manufacturing	433	Metal Finishing
332420	Metal Tank (Heavy Gauge) Manufacturing	433	Metal Finishing
332431	Metal Can Manufacturing	465	Coil coating
332439	Other Metal Container Manufacturing	433	Metal Finishing
332510	Hardware Manufacturing	433	Metal Finishing
332611	Spring (Heavy Gauge) Manufacturing	433	Metal Finishing
332612	Spring (Light Gauge) Manufacturing	433	Metal Finishing
332618	Other Fabricated Wire Product Manufacturing	433	Metal Finishing
332710	Machine Shops	433	Metal Finishing
332721	Precision Turned Product Manufacturing	433	Metal Finishing
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	433	Metal Finishing
332811	Metal Heat Treating	433	Metal Finishing
332812	Metal Coating, Engraving (except Jewelry and Silve	433	Metal Finishing
332813	Electroplating, Plating, Polishing, Anodizing, and	413	Electroplating
332911	Industrial Valve Manufacturing	433	Metal Finishing
332912	Fluid Power Valve and Hose Fitting Manufacturing	433	Metal Finishing
332913	Plumbing Fixture Fitting and Trim Manufacturing	433	Metal Finishing
332919	Other Metal Valve and Pipe Fitting Manufacturing	433	Metal Finishing
332991	Ball and Roller Bearing Manufacturing	433	Metal Finishing
332992	Small Arms Ammunition Manufacturing	433	Metal Finishing
332992	Small Arms Ammunition Manufacturing	471	Nonferrous metals forming and metal powders
332993	Ammunition (except Small Arms) Manufacturing	433	Metal Finishing
332993	Ammunition (except Small Arms) Manufacturing	471	Nonferrous metals forming and metal powders
332994	Small Arms Manufacturing	433	Metal Finishing

Appendix A Part 2: Crosswalk from North Amercican Industry Classification System to Pretreatment Subcategory

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North Americican Industry	North Amercican Industry Classification System	Pretreatment	
	Description	Subcategory	Pretreatment Subcategory Description
332995	Other Ordnance and Accessories Manufacturing	433	Metal Finishing
332996	Fabricated Pipe and Pipe Fitting Manufacturing	433	Metal Finishing
332998	Enameled Iron and Metal Sanitary Ware Manufacturin	433	Metal Finishing
332999	All Other Miscellaneous Fabricated Metal Product M	433	Metal Finishing
333111	Farm Machinery and Equipment Manufacturing	433	Metal Finishing
333112	Lawn and Garden Tractor and Home Lawn and Garder	433	Metal Finishing
333120	Construction Machinery Manufacturing	433	Metal Finishing
333131	Mining Machinery and Equipment Manufacturing	433	Metal Finishing
333132	Oil and Gas Field Machinery and Equipment Manufact	433	Metal Finishing
333210	Sawmill and Woodworking Machinery Manufacturing	433	Metal Finishing
333220	Plastics and Rubber Industry Machinery Manufacturi	433	Metal Finishing
333291	Paper Industry Machinery Manufacturing	433	Metal Finishing
333292	Textile Machinery Manufacturing	433	Metal Finishing
333293	Printing Machinery and Equipment Manufacturing	433	Metal Finishing
333294	Food Product Machinery Manufacturing	433	Metal Finishing
333295	Semiconductor Machinery Manufacturing	433	Metal Finishing
333298	All Other Industrial Machinery Manufacturing	433	Metal Finishing
333311	Automatic Vending Machine Manufacturing	433	Metal Finishing
333312	Commercial Laundry, Drycleaning, and Pressing Mach	433	Metal Finishing
333313	Office Machinery Manufacturing	433	Metal Finishing
333314	Optical Instrument and Lens Manufacturing	433	Metal Finishing
333315	Photographic and Photocopying Equipment Manufactur	433	Metal Finishing
333319	Other Commercial and Service Industry Machinery Ma	433	Metal Finishing
333411	Air Purification Equipment Manufacturing	433	Metal Finishing
333412	Industrial and Commercial Fan and Blower Manufactu	433	Metal Finishing
333414	Heating Equipment (except Warm Air Furnaces) Manut	433	Metal Finishing
333415	Air-Conditioning and Warm Air Heating Equipment an	433	Metal Finishing
333511	Industrial Mold Manufacturing	433	Metal Finishing
333512	Machine Tool (Metal Cutting Types) Manufacturing	433	Metal Finishing
333513	Machine Tool (Metal Forming Types) Manufacturing	433	Metal Finishing
333514	Special Die and Tool, Die Set, Jig, and Fixture Ma	433	Metal Finishing
333515	Cutting Tool and Machine Tool Accessory Manufactur	433	Metal Finishing

Appendix A Part 2: Crosswalk from North Amercican Industry Classification System to Pretreatment Subcategory

	North Amercican Industry Classification System	Pretreatment	
	Description	Subcategory	Pretreatment Subcategory Description
333516	Rolling Mill Machinery and Equipment Manufacturing	433	Metal Finishing
333518	Other Metalworking Machinery Manufacturing	433	Metal Finishing
333611	Turbine and Turbine Generator Set Units Manufactur	433	Metal Finishing
333612	Speed Changer, Industrial High-Speed Drive, and Ge	433	Metal Finishing
333613	Mechanical Power Transmission Equipment Manufactu	433	Metal Finishing
333618	Other Engine Equipment Manufacturing	433	Metal Finishing
333911	Pump and Pumping Equipment Manufacturing	433	Metal Finishing
333912	Air and Gas Compressor Manufacturing	433	Metal Finishing
333913	Measuring and Dispensing Pump Manufacturing	433	Metal Finishing
333921	Elevator and Moving Stairway Manufacturing	433	Metal Finishing
333922	Conveyor and Conveying Equipment Manufacturing	433	Metal Finishing
333923	Overhead Traveling Crane, Hoist, and Monorail Syst	433	Metal Finishing
333924	Industrial Truck, Tractor, Trailer, and Stacker M	433	Metal Finishing
333991	Power-Driven Handtool Manufacturing	433	Metal Finishing
333992	Welding and Soldering Equipment Manufacturing	433	Metal Finishing
333993	Packaging Machinery Manufacturing	433	Metal Finishing
333994	Industrial Process Furnace and Oven Manufacturing	433	Metal Finishing
333995	Fluid Power Cylinder and Actuator Manufacturing	433	Metal Finishing
333996	Fluid Power Pump and Motor Manufacturing	433	Metal Finishing
333997	Scale and Balance Manufacturing	433	Metal Finishing
333999	All Other Miscellaneous General Purpose Machinery	433	Metal Finishing
334111	Electronic Computer Manufacturing	433	Metal Finishing
334112	Computer Storage Device Manufacturing	433	Metal Finishing
334119	Other Computer Peripheral Equipment Manufacturing	433	Metal Finishing
334210	Telephone Apparatus Manufacturing	433	Metal Finishing
334220	Radio and Television Broadcasting and Wireless Com	433	Metal Finishing
334290	Other Communications Equipment Manufacturing	433	Metal Finishing
334310	Audio and Video Equipment Manufacturing	433	Metal Finishing
334411	Electron Tube Manufacturing	469	Electrical and electronic components
334412	Bare Printed Circuit Board Manufacturing	433	Metal Finishing
334413	Semiconductor and Related Device Manufacturing	469	Electrical and electronic components
334414	Electronic Capacitor Manufacturing	433	Metal Finishing

	North Amercican Industry Classification System Description	Pretreatment Subcategory	Pretreatment Subcategory Description
334415	Electronic Resistor Manufacturing	433	Metal Finishing
334416	Electronic Coil, Transformer, and Other Inductor M	433	Metal Finishing
334417	Electronic Connector Manufacturing	433	Metal Finishing
334418	Printed Circuit Assembly (Electronic Assembly) Man	433	Metal Finishing
334419	Other Electronic Component Manufacturing	433	Metal Finishing
334510	Electromedical and Electrotherapeutic Apparatus Ma	433	Metal Finishing
334511	Search, Detection, Navigation, Guidance, Aeronauti	433	Metal Finishing
334512	Automatic Environmental Control Manufacturing for	433	Metal Finishing
334513	Instruments and Related Products Manufacturing fo	433	Metal Finishing
334514	Totalizing Fluid Meter and Counting Device Manufac	433	Metal Finishing
334515	Instrument Manufacturing for Measuring and Testing	433	Metal Finishing
334516	Analytical Laboratory Instrument Manufacturing	433	Metal Finishing
334517	Irradiation Apparatus Manufacturing	433	Metal Finishing
334518	Watch, Clock, and Part Manufacturing	433	Metal Finishing
334519	Other Measuring and Controlling Device Manufacturi	433	Metal Finishing
334612	Prerecorded Compact Disc (except Software), Tape,	433	Metal Finishing
334613	Magnetic and Optical Recording Media Manufacturing	433	Metal Finishing
335110	Electric Lamp Bulb and Part Manufacturing	433	Metal Finishing
335121	Residential Electric Lighting Fixture Manufacturin	433	Metal Finishing
335122	Commercial, Industrial, and Institutional Electric	433	Metal Finishing
335129	Other Lighting Equipment Manufacturing	433	Metal Finishing
335211	Electric Housewares and Household Fan Manufacturin	433	Metal Finishing
335212	Household Vacuum Cleaner Manufacturing	433	Metal Finishing
335221	Household Cooking Appliance Manufacturing	466	Porcelain Enameling
335222	Household Refrigerator and Home Freezer Manufactur	433	Metal Finishing
335224	Household Laundry Equipment Manufacturing	433	Metal Finishing
335228	Other Major Household Appliance Manufacturing	433	Metal Finishing
335311	Power, Distribution, and Specialty Transformer Man	433	Metal Finishing
335312	Motor and Generator Manufacturing	433	Metal Finishing
335313	Switchgear and Switchboard Apparatus Manufacturing	433	Metal Finishing
335314	Relay and Industrial Control Manufacturing	433	Metal Finishing
335911	Storage Battery Manufacturing	461	Battery manufacturing

	North Amercican Industry Classification System	Pretreatment	
	Description	Subcategory	Pretreatment Subcategory Description
335912	Primary Battery Manufacturing	461	Battery manufacturing
335921	Fiber Optic Cable Manufacturing	426	Glass manufacturing
335921	Fiber Optic Cable Manufacturing	463	Plastics molding and forming
335929	Other Communication and Energy Wire Manufacturing	467	Aluminum forming
335929	Other Communication and Energy Wire Manufacturing	468	Copper forming
335929	Other Communication and Energy Wire Manufacturing	471	Nonferrous metals forming and metal powders
335931	Current-Carrying Wiring Device Manufacturing	433	Metal Finishing
335932	Noncurrent-Carrying Wiring Device Manufacturing	433	Metal Finishing
335991	Carbon and Graphite Product Manufacturing	433	Metal Finishing
335999	All Other Miscellaneous Electrical Equipment and C	433	Metal Finishing
336111	Automobile Manufacturing	433	Metal Finishing
336112	Light Truck and Utility Vehicle Manufacturing	433	Metal Finishing
336120	Heavy Duty Truck Manufacturing	433	Metal Finishing
336211	Motor Vehicle Body Manufacturing	433	Metal Finishing
336212	Truck Trailer Manufacturing	433	Metal Finishing
336213	Motor Home Manufacturing	433	Metal Finishing
336214	Travel Trailer and Camper Manufacturing	433	Metal Finishing
336311	Carburetor, Piston, Piston Ring, and Valve Manufac	433	Metal Finishing
336312	Gasoline Engine and Engine Parts Manufacturing	433	Metal Finishing
336321	Vehicular Lighting Equipment Manufacturing	433	Metal Finishing
336322	Other Motor Vehicle Electrical and Electronic Equi	433	Metal Finishing
336330	Motor Vehicle Steering and Suspension Components (433	Metal Finishing
336340	Motor Vehicle Brake System Manufacturing	433	Metal Finishing
336350	Motor Vehicle Transmission and Power Train Parts M	433	Metal Finishing
336360	Motor Vehicle Seating and Interior Trim Manufactur	410	Textile mills
336370	Motor Vehicle Metal Stamping	433	Metal Finishing
336391	Motor Vehicle Air-Conditioning Manufacturing	433	Metal Finishing
336399	All Other Motor Vehicle Parts Manufacturing	433	Metal Finishing
336411	Aircraft Manufacturing	433	Metal Finishing
336412	Aircraft Engine and Engine Parts Manufacturing	433	Metal Finishing
336413	Other Aircraft Parts and Auxiliary Equipment Manuf	433	Metal Finishing
336414	Guided Missile and Space Vehicle Manufacturing	433	Metal Finishing

	walk from North Amercican Industry Classification S		nem oubcategoly
	North Amercican Industry Classification System	Pretreatment	
Classification System 336415	Description	Subcategory	Pretreatment Subcategory Description
	Guided Missile and Space Vehicle Propulsion Unit a	433	Metal Finishing
336510	Railroad Rolling Stock Manufacturing	433	Metal Finishing
336611	Ship Building and Repairing	433	Metal Finishing
336612	Boat Building	433	Metal Finishing
336991	Motorcycle, Bicycle, and Parts Manufacturing	433	Metal Finishing
336992	Military Armored Vehicle, Tank, and Tank Component	433	Metal Finishing
336999	All Other Transportation Equipment Manufacturing	433	Metal Finishing
337110	Wood Kitchen Cabinet and Countertop Manufacturing	429	Timber products processing
337122	Nonupholstered Wood Household Furniture Manufactu	429	Timber products processing
337124	Metal Household Furniture Manufacturing	433	Metal Finishing
337127	Institutional Furniture Manufacturing	433	Metal Finishing
337129	Wood Television, Radio, and Sewing Machine Cabinet	429	Timber products processing
337211	Wood Office Furniture Manufacturing	429	Timber products processing
337212	Custom Architectural Woodwork and Millwork Manufac	429	Timber products processing
-337214	Office Furniture (except Wood) Manufacturing	433	Metal Finishing
337215	Showcase, Partition, Shelving, and Locker Manufact	433	Metal Finishing
337920	Blind and Shade Manufacturing	433	Metal Finishing
339111	Laboratory apparatus and furniture manufacturing	433	Metal Finishing
339112	Surgical and Medical Instrument Manufacturing	433	Metal Finishing
339113	Surgical Appliance and Supplies Manufacturing	433	Metal Finishing
339114	Dental Equipment and Supplies Manufacturing	433	Metal Finishing
339115	Ophthalmic Goods Manufacturing	433	Metal Finishing
339911	Jewelry (except Costume) Manufacturing	433	Metal Finishing
339912	Silverware and Hollowware Manufacturing	433	Metal Finishing
339913	Jewelers' Material and Lapidary Work Manufacturing	433	Metal Finishing
339914	Costume Jewelry and Novelty Manufacturing	433	Metal Finishing
339920	Sporting and Athletic Goods Manufacturing	433	Metal Finishing
339941	Pen and Mechanical Pencil Manufacturing	433	Metal Finishing
339943	Marking Device Manufacturing	433	Metal Finishing
339950	Sign Manufacturing	433	Metal Finishing
339991	Gasket, Packing, and Sealing Device Manufacturing	428	Rubber Manufacturing
339992	Musical Instrument Manufacturing	433	Metal Finishing

Appendix A Part 2: Crosswalk from North Amercican Industry Classification System to Pretreatment Subcategory

	waik from North Amercican Industry Classification S	Pretreatment	
Classification System	Description	Subcategory	Pretreatment Subcategory Description
339993	Fastener, Button, Needle, and Pin Manufacturing	433	Metal Finishing
339995	Burial Casket Manufacturing	433	Metal Finishing
339999	All Other Miscellaneous Manufacturing	433	Metal Finishing
423320	Brick, Stone, and Related Construction Material Me	436	Mineral Mining and Processing
424590	Other Farm Product Raw Material Merchant Wholesale	406	Grain mills
424690	Other Chemical and Allied Products Merchant Wholes	414	Organic chemicals, plastics and synthetic fibers
424710	Petroleum Bulk Stations and Terminals	419	Petroleum refining
444130	Hardware Stores	442	Transportation Equipment Cleaning
444210	Outdoor Power Equipment Stores	442	Transportation Equipment Cleaning
482111	Line-Haul Railroads	433	Metal Finishing
482112	Short Line Railroads	433	Metal Finishing
486110	Pipeline Transportation of Crude Oil	419	Petroleum refining
488310	Port and Harbor Operations	442	Transportation Equipment Cleaning
488320	Marine Cargo Handling	442	Transportation Equipment Cleaning
512220	Integrated Record Production/Distribution	433	Metal Finishing
541430	Graphic Design Services	460	Hospital
541922	Commercial Photography	460	Hospital
561622	Locksmiths	442	Transportation Equipment Cleaning
562211	Hazardous Waste Treatment and Disposal	437	Centralized Waste Treatment
562211	Hazardous Waste Treatment and Disposal	444	Waste combustors
562211	Hazardous Waste Treatment and Disposal	445	Landfills
562212	Solid Waste Landfill	445	Landfills
562213	Solid Waste Combustors and Incinerators	444	Waste combustors
562219	Other Nonhazardous Waste Treatment and Disposal	437	Centralized Waste Treatment
562219	Other Nonhazardous Waste Treatment and Disposal	444	Waste combustors
562219	Other Nonhazardous Waste Treatment and Disposal	445	Landfills
562920	Materials Recovery Facilities	414	Organic chemicals, plastics and synthetic fibers
621111	Offices of Physicians (except Mental Health Specia	460	Hospital
621112	Offices of Physicians, Mental Health Specialists	460	Hospital
621410	Family Planning Centers	460	Hospital
621491	HMO Medical Centers	460	Hospital
621492	Kidney Dialysis Centers	460	Hospital

Appendix A Part 2: Crosswalk from North Amercican Industry Classification System to Pretreatment Subcategory

North Amercican Industry	North Amercican Industry Classification System	Pretreatment	
	Description	Subcategory	Pretreatment Subcategory Description
621493	Freestanding Ambulatory Surgical and Emergency Cen	460	Hospital
621511	Medical Laboratories	460	Hospital
621512	Diagnostic Imaging Centers	460	Hospital
621610	Home Health Care Services	460	Hospital
621991	Blood and Organ Banks	460	Hospital
621999	All Other Miscellaneous Ambulatory Health Care Ser	460	Hospital
622110	General Medical and Surgical Hospitals	460	Hospital
622210	Psychiatric and Substance Abuse Hospitals	460	Hospital
622310	Specialty (except Psychiatric and Substance Abuse)	460	Hospital
623110	Nursing Care Facilities	460	Hospital
623311	Continuing Care Retirement Communities	460	Hospital
811310	Commercial and Industrial Machinery and Equipment	433	Metal Finishing
811411	Home and Garden Equipment Repair and Maintenance	442	Transportation Equipment Cleaning
811430	Footwear and Leather Goods Repair	442	Transportation Equipment Cleaning

APPENDIX B – LIQUID WASTE COMPATIBILITY TEST, ASTM D5058-12



Designation: D5058 - 12

Standard Practices for Compatibility of Screening Analysis of Waste¹

This standard is issued under the fixed designation D5058; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 These practices cover assessment of the compatibility/ reactivity of waste. The individual practices are as follows:

	Sections
Practice A—Commingled Waste Compatibility	8-12
Practice B—Polymerization Potential (Reaction with	
Triethylamine)	13-18
Practice C—Water Compatibility	19-25

1.2 These practices are applicable to waste liquids, sludges, semi-solids, and solids.

1.3 These practices are designed and intended as a preliminary or supplementary test to complement the more sophisticated quantitative analytical techniques that should be used to determine waste composition and compatibilities. This standard offers the user the option and the ability to screen wastes for potentially hazardous reactions when the more sophisticated techniques are not available and the total waste composition is unknown and to screen compatibility when the composition is known. (**Warning**—Delayed or slow reactions of wastes may go unnoticed.)

1.4 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.4.1 *Exception*—The values given in parentheses are for information only.

1.5 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. For specific hazard and warning statements, see Sections 1.3, 6.1, 10, 11.2.3, 11.5.2, 16 and 23.

2. Referenced Documents

2.1 ASTM Standards:²

D1193 Specification for Reagent Water

D5681 Terminology for Waste and Waste ManagementE1 Specification for ASTM Liquid-in-Glass ThermometersE200 Practice for Preparation, Standardization, and Storage of Standard and Reagent Solutions for Chemical Analysis

3. Terminology

3.1 *Definitions*—For definitions of terms used in this screening practice, refer to Terminology D5681.

3.2 Definition of Term Specific to This Standard:

3.2.1 *screening*—a *preliminary* qualitative or semiquantitative test, developed from classical qualitative and quantitative techniques, that is designed to efficiently give the user specific information about a waste that will aid in determining waste identification, process compatibility, and safety in handling.

4. Summary of Practices

4.1 *Practice A*— Representative samples of waste are added to each other. The generation of heat or violent reaction is noted. In addition, the production of mists, fumes, dusts, gases, layering, polymerization, precipitation, emulsification or increase in viscosity and other chemical or physical changes are noted.

4.2 *Practice B*— Reactivity of wastes is determined by adding an aliquot of a sample to an equal volume of reagent and observing any characteristic reaction, such as temperature increase, gas evolution, gelling, or polymerization.

4.3 *Practice C*— Water and the waste are mixed in an approximate 10 + 1 ratio to test for compatibility. A thermometer is used to measure heat generation when applicable. Qualitative solubility and relative apparent density are observed concurrently.

5. Purity of Reagents

5.1 *Purity of Reagents*—Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available.³ Other grades may be used

¹ These practices are under the jurisdiction of ASTM Committee D34 on Waste Management and are the direct responsibility of Subcommittee D34.01.05 on Screening Methods.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Reagent Chemicals, American Chemical Society Specifications, Am. Chemical Soc., Washington, DC. For suggestions on the testing of reagents not listed by the American Chemical Society, see *Reagent Chemicals and Standards*, by Joseph Rosin, D. Van Nostrand Co., Inc., New York, NY, and the *United States Pharmacopeia*.

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D5058 – 12

provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without lessening the accuracy of the determination (see Practice E200).

5.2 *Purity of Water*— Unless otherwise indicated, references to water shall be understood to mean reagent water as defined by Type III of Specification D1193.

6. Sampling

6.1 **Warning**—Avoid inhalation of or skin contact with any hazardous waste.

6.2 Obtain representative samples of waste. If composite samples are taken, report any generation of heat, gases or solids during compositing. If reactions are observed during compositing, then individual samples should be taken. If the waste is suspected of containing varying proportions of reactive compounds, take individual samples and conduct tests on each sample.

6.3 Allow all samples to stabilize to room temperature and analyze as soon as possible.

6.4 Always perform this procedure in a hood with the sash down as far as possible.

7. Quality Assurance

7.1 Thermometers are evaluated and verified at a frequency specified by the laboratory (see Specification E1).

7.2 Care is taken to ensure that samples are representative of the total wastes involved.

PRACTICE A—COMMINGLED WASTE COMPATIBILITY

8. Significance and Use

8.1 This practice is intended for use by those in the waste management industries to aid in determining the compatibility of hazardous wastes before they are commingled.

9. Apparatus

9.1 Graduated Cylinders, 100 mL.

9.2 Thermometer, 20 to 110° C or equivalent with 0.5° C divisions.

9.3 Disposable Pipet.

9.4 Spatula.

- 9.5 Beakers, 500 mL.
- 9.6 Funnels.

9.7 Vortex Mixer (optional).

10. Hazards

10.1 **Warning**—Avoid inhalation of and skin and eye contact with any hazardous material.

10.2 **Warning**—This procedure must be performed within a laboratory fume hood with the sash down as far as possible.

10.3 **Warning**—By keeping the sample size small and by first screening for very reactive wastes, the overall hazard is small. The small hazard is justified due to the much larger hazard of mishandling reactive waste at plant scale.

11. Procedure

11.1 Determine the total quantity *A* of the incoming waste to be added to the storage or treatment unit.

11.2 Determine the total quantity B of the waste in the storage tank or treatment unit.

11.2.1 Both quantities *A* and *B* must be stated in the same units of measure; pounds or gallons are typically used.

11.2.2 The waste in a tank can be estimated from the design volume of the tank. The volume of a tank truck can be determined from the contents' net weight and an estimate of the density. A value of 3.75 kg/L (8.34 lb/gal) can be used as an approximate density for a wide range of aqueous wastes.

11.2.3 The total volume of A and B, upon mixing, should not exceed 300 mL. The initial volume A (150 mL) may be adjusted proportionally to accommodate total volume specification. (**Warning**—Perform a pre-test using 1 or 2 mL of each sample to reduce the risk when mixing potentially highly reactive wastes.)

11.3 Place in a 500-mL beaker 150 mL of a representative sample from the storage tank or treatment unit.

11.3.1 Measure the temperature, when applicable, of the test sample and remove the thermometer.

NOTE 1—High precision thermometers may be employed to provide higher sensitivity in temperature readings.

11.4 Use the ratio A + B of wastes to determine the aliquot, *V*, in milliliters, of incoming waste to now be added. Use the following equation:

$$V = V\left(A/B\right) \tag{1}$$

where V is the volume in milliliters used in step 11.3 (150 mL), and A and B are as defined in 11.1 and 11.2 respectively.

11.5 Slowly and very carefully add the aliquot V of incoming waste to the test sample volume V already in the beaker.

11.5.1 The recommended rate of addition is approximately 1 mL/s.

11.5.2 While the addition is in progress, watch for adverse reactions. (**Warning**—If a reaction is observed, stop the addition immediately and report the observation.)

11.6 If after adding the aliquot V of incoming waste no adverse reaction is observed, mix well and immediately measure the temperature.

11.6.1 Compare the temperature here with the temperature measured in step 11.3.1. Record the difference, using (+) to indicate an increase and (-) to indicate a decrease in temperature (see Note 1).

NOTE 2—Mixing the representative waste samples at equal proportions can increase the sensitivity of reactivity and may be used as a substitute or in addition to the test based on actual proportions.

11.7 Record any generation of heat or violent reaction. Record the production of any mists, fumes, dust, or gases. Any layering, polymerization, precipitation, emulsification, increase in viscosity, bubbling, foaming, solidification, spattering, or other interaction of the commingled wastes must be observed and recorded.

11.8 If no reaction is observed, the waste passes the compatibility test. If any reaction or temperature rise is observed, the incoming waste has failed the compatibility test and is reported. D5058 – 12

12. Precision and Bias

12.1 No statement is made about either the precision or bias of this practice since the result merely states whether there is conformance to the criteria for success specified in the procedure.

PRACTICE B—POLYMERIZATION POTENTIAL (REACTION WITH TRIETHYLAMINE)

13. Significance and Use

13.1 This practice is significant to those in the waste management industries.

13.2 It is designed to screen wastes that have the potential of undergoing hazardous polymerization when mixed with incompatible waste streams.

13.3 This practice can be used to detect potential hazardous polymerization of waste containing or suspected of containing isocyanates such as methylene bis-phenyl isocyanate, methylene diisocyanate (MDI), or toluene diisocyanates (TDI).

14. Apparatus

14.1 White Ceramic Spotplate.

14.2 Disposable Transfer Pipets.

14.3 Spatula.

14.4 10-mL Graduated Cylinder, with stopper.

14.5 *Thermometer*, 20 to 110° C or equivalent with 0.5° C divisions.

15. Reagents and Materials

15.1 Triethylamine (CH₂CH₃)₃ N.

16. Hazards

16.1 Use triethylamine in the hood and avoid exposure.

16.2 With samples that do not contain any reactive compounds, this test procedure does not present any other special hazards. However, samples that are reactive will fail this test and some reaction will result. The reaction could be severe.

16.3 **Warning**—By keeping the sample size small and by first screening for very reactive wastes, the overall hazard is small. The small hazard is justified due to the much larger hazard of mishandling reactive waste at plant scale.

17. Procedure

17.1 Conduct the following procedure in a fume hood:

17.1.1 Place approximately 1 mL of triethylamine reagent in the cavity of a ceramic spotplate.

17.1.2 Place approximately 1 mL of sample in the spotplate cavity with reagent. Immediately lower hood sash as protection against violent reactions.

17.1.3 Observe mixture for about 1 min and record any reaction characteristics, such as gas evolution, fuming, charring, precipitation, gelling, polymerization, or burning.

17.1.4 If any reaction characteristics are observed, then material is reactive and fails this test. Material which fails this test should not be tested using 17.2 or 17.3.

17.2 Conduct the following procedure with special care in a fume hood:

17.2.1 Add about 5 mL of reagent to a 10-mL graduated cylinder or disposable test tube.

17.2.2 Carefully add 5 mL of sample to the cylinder, stopper, and invert several times or vortex to mix well. Immediately remove stopper, insert the thermometer, and record temperature of mixture (see Note 1).

17.2.3 Continue to monitor temperature of mixture for several minutes. Observe and record any reaction characteristics, such as temperature increase, gas evolution or gelling. Note that gas evolution may be observed as tiny bubbles that consistently rise to surface (see 17.3).

17.2.4 If temperature increases significantly or any reaction characteristics are observed, then material is reactive and fails this test. Material which fails this test should not be tested using 17.3.

17.3 If gas evolution is difficult to observe during 17.2, conduct the following procedure with special care in a fume hood:

17.3.1 Add about 5 mL of reagent to 10-mL graduated cylinder or disposable test tube.

17.3.2 Carefully add 5 mL of sample to the cylinder, stopper, and invert several times or vortex to mix well. Immediately remove stopper and restopper. Lower hood sash as protection against violent reaction.

17.3.3 After several minutes, carefully remove stopper and observe mixture for gas evolution. Gas evolution will be observed as immediate venting or bubbles at surface, similar to opening a carbonated drink.

17.3.4 If gas evolution is observed, then material is reactive and fails this test. If no gas evolution or other signs of reaction are observed, the material has passed the test.

17.3.5 Record observations.

18. Precision and Bias

18.1 No statement is made about either the precision or bias of this practice since the result merely states whether there is conformance to the criteria for success specified in the procedure.

PRACTICE C-WATER COMPATIBILITY

19. Significance and Use

19.1 This practice is intended for use by those in the waste management industries.

19.2 This practice is used to determine whether a waste has the potential to generate extreme heat or violent reactions, and produce fumes, dusts, gases, or other products when mixed with water.

19.3 This practice is designed to determine water compatibility of a waste.

19.4 This practice can be used to qualitatively judge the solubility and apparent density of waste (if immiscible) relative to water.

20. Interferences

20.1 The generation of colorless fumes or gases, pressure buildup without visible bubbling, mild effervescence, or heat may go undetected.

21. Apparatus

21.1 *Disposable Beakers*, test tubes, or similar equipment.21.2 *Disposable Pipet* (5-mL capacity).

D5058 – 12

21.3 Spatula.

21.4 *Thermometer*, 20 to 110° C or equivalent with 0.5° C divisions.

21.5 Vortex Mixer (optional).

22. Reagents and Materials

22.1 Reagent Water.

23. Hazards

23.1 Avoid inhalation of and skin and eye contact with any hazardous waste.

23.2 This procedure must be performed within a laboratory fume hood with the sash down as far as possible.

23.3 **Warning**—By keeping the sample size small and by first screening for very reactive wastes, the overall hazard is small. The small hazard is justified due to the much larger hazard of mishandling reactive waste at plant scale.

24. Procedure

24.1 Keep thermometer in water at room temperature until ready for use. Note temperature of water in degrees Celsius or Fahrenheit.

24.2 Bring sample to room temperature, if necessary.

24.3 Place a small amount (approximately 10 mL) of water into a disposable beaker or test tube.

24.4 Introduce approximately 1 mL of waste into the beaker or test tube and mix well. Note any violent reactions, fumes, dusts or gases, and any precipitates or emulsions, and record observations. 24.5 If any such reactions are noted, the waste fails the water compatibility test.

24.6 Once it has been determined that no violent reaction is occurring, and as soon as possible after 24.4, place the thermometer into the beaker or test tube and note any temperature change (increase (+) or decrease (-)), recording the change in temperature in degrees Celsius or Fahrenheit (see Note 1).

24.7 Some reactions may have a latent period or accelerate as they proceed. Retain the mixed sample for 5 or 10 min, then observe it and record its temperature again.

24.8 If no reactions were observed and no significant temperature change is noted, the waste has passed the water compatibility test.

24.9 Report the miscibility and apparent density of the sample as immiscible or miscible and lighter or heavier than water.

25. Precision and Bias

25.1 No statement is made about either the precision or bias of this practice since the result merely states whether there is conformance to the criteria for success specified in the procedure.

26. Keywords

26.1 compatibility; waste screening

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