Elite Manufacturing Technologies
USEPA Facility ID – ILP000345
Sampling and Reporting Plan
June 2019 (revised 12/15/2020)

Section I. – Introduction

Elite Manufacturing Technologies wastewater discharge is regulated by the USEPA Federal Industrial Pretreatment Program and administered by USEPA Region 5 in Chicago Illinois. Elite's discharge is regulated by the following sections of the Code of Federal Regulations (CFR):

Part 403 General Pretreatment Regulations for Existing and New Sources of Pollution

Part 403.12, General Reporting Requirements

The above apply to administration and reporting requirements for Elite Manufacturing.

Part 433 Metal Finishing Point Source Category, Subpart A Metal Finishing Category 433.17

The above apply specific limits and requirements to discharges from Phosphate Line Operational Process and Grinding / Wet Dust Collector Process *if* discharged to sanitary system.

Part 136 Guidelines Establishing Test Procedures for Analysis of Pollutants

The above apply sample collection, preservation and testing methods to above discharges. ***NOTE:*** *Process wastewater from Grinding/ Wet Dust Collector process tanks and the Paint Line Wash Tank are currently not discharged to sanitary system and are hauled away on a regular basis. Therefore, no sampling of these processes is required.*

Section II. – Sampling and Reporting Frequency *(40CFR 403.12(e)(1),(g)(1))*

Sampling from sample location listed in Section III must be completed on a semi-annual basis in the months of June and December.

Reports with sampling results and other information (listed in Section V. – Reports) must be submitted semi-annually in months of June and December to USEPA Region 5 addresses listed in Section VI.

Section III. – Sample Locations *(40CFR 403.12(b)(5)(ii))*

Sample locations must; coincide with the points at which the effluent limits apply, produce a representative sample of the Industrial User's effluent, be safe, convenient, and accessible to Industrial User and Control Authority personnel.

Sample locations should allow the measurement or estimation of the volume of wastewater flow.

The following two sample points are located within the phosphate rinse line discharge. The two sample points shall be sampled and analyzed independently. The rinse process consists of two rinse tanks, each holding 900 gallons. One rinse tank is labeled Tank 2 and the other is labeled Tank 3. Tank 3 overflows into Tank 2 which then discharges into the sanitary drain

located on the floor. During a normal day, this discharge occurs between 8 to 15 hours (dependent upon the workload) at a constant flow rate between 1 to 2 gpm. The rinse tanks are also drained weekly to the sanitary drain located on the floor. The following discharge points must be sampled independently as part of this sampling plan:

- Sample Point 1 – Phosphate Line Process Operation Overflow Discharge
- Sample Point 2 – Phosphate Line Process Operation Batch Discharge

These sample locations are located at the North End of the Trench Drain along the west side of the process line. The sampling locations are shown on the plant process flow schematic.

Section IV. – Sampling Procedures *(40 CFR 403.12(g)(3))*

Sampling events should be scheduled for sampling in early June and December. Sampling should also be coordinated with staff responsible for processes to ensure process discharge is scheduled. Staff needs to contact commercial laboratory to set-up sampling date, review sampling protocol, USEPA requirements and reporting format.

1. Collection of samples from sampling points listed in Section III.

   Sample Location 1 – Phosphate Line Process Overflow Discharge
   The overflow discharge is a continuous flow from Tank 2 to the sanitary floor drain.

   Sample Location 2 - Phosphate Line Process Batch Discharge
   The weekly batch discharge consists of the entire capacity of both rinse tanks, Tanks 2 and 3, to the sanitary floor drain.

2. Sample Types. The parameters requiring grab or composite sampling are noted in Table 1.

   Composite: Composite sampling will be flow-proportional. Sampling may be done manually or automatically, and discretely or continuously. If discrete sampling is employed, at least 12 aliquots should be composited. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. 40 CFR 403.12(g)(3) requires that composite samples be collected for metals. The following procedures will be implemented for collection of composite samples from the two sample locations:

   - **Sample Location 1 - Phosphate Line Process Overflow Discharge:** A flow-proportional sample shall be collected using an ISCO 3710 sampler during work hours as discharge ceases when the system is shut down for the day. The rinse overflow discharges at a rate of one to two gpm for 8-15 hours, depending on work hours. The sampler will be programmed to sample every 15 gallons,

collecting 56-112 aliquots. The overflow discharge will be measured with an ISCO 4250 Velocity flow meter to ensure that the flow rate remains constant throughout sample collection. This ensures that the resulting composite sample will be flow proportional.

- **Sample Location 2 - Phosphate Line Process Batch Discharge:** A separate flow-proportional sample shall be collected from the batch discharge using an ISCO 3710 sampler. The rinse tanks contain a total of 1,800 gallons. The batch discharge takes approximately 1.5 hours to completely drain, resulting in a flow rate of around 20 gpm. The sampler will be programmed to collect an aliquot every 50 gallons until draining is complete, resulting in a total of 32-38 aliquots. The batch discharge will be measured with an ISCO 4250 Velocity flow meter to ensure that the flow rate remains constant throughout sample collection. This ensures that the resulting composite sample will be flow proportional.

Grab: A grab sample is an individual sample collected over a period of time not to exceed 15 minutes. Grab samples are taken manually, sample volume depends on the number of analyses to be performed. The sampler must make sure sufficient volume of sample is taken to conduct all analyses. Grab samples represent conditions at the moment sample is taken and do not represent conditions other times. Grab sampling is required under following conditions:

- 40 CFR 403.12(g)(3) requires grab samples for pH, cyanide, total phenols, oil and grease, sulfides, and volatile organic compounds.
- When discharge is not continuous (i.e., batch discharges of an hour or less), and when batch is continuously stirred or well-mixed and pollutant can be assumed to be uniform.

3. Sample Parameters *(40CFR 403.12(g)(1),(3))*

See Table 1

4. Sample Preservation, Holding Times and Containers *(40CFR Part 136)*

See Table 1

5. Sample Documentation – Chain of Custody

All sampling information should be included with report and is generally included on the chain of custody forms. This information should include:

1. Name of the person collecting sample(s).
2. Sample identification number(s).
3. Sample location.
4. Date and time of sample collection.
5. Parameters to be analyzed.
6. Container type(s) used.

7. Preservation method(s)
8. Type of sample collected (i.e., grab, composite) for each pollutant to be analyzed.
9. Results of any analysis performed in the field (e.g., pH and temperature).
10. Name(s), signature(s), dates and times of all persons handling the samples in the field and in the laboratory. Note: Laboratories often have separate chain-of-custody therefore chain-of-custody used in the field may end once the sample reaches the laboratory.
11. Chain of custody forms will be included with our semi-annual submissions.

Certified commercial laboratories should have proper chain of custody forms however staff should review forms to ensure required information is included.

Section V. – Semi-Annual Reports *(40CFR 403.12(b)(6)(e)(1))*

Semi-Annual reports shall contain the following information:

1. Facility name, address, and reporting period.
2. Contact name and telephone number.
3. Sample Results, regulatory limits.
4. Date, time, type of sample, preservation methods.
5. Discharge Flows at time of sampling
6. Identify any violations of regulatory limits.
7. Provide explanation of violations and corrective actions taken.
8. Signature of Authorized Representative.
9. Certification Statement regarding validity of information
10. Any changes to operations, process.
11. Elite will submit copies of manifests for all contracted wastewater retrievals during the report period.

Report format and certification statement to be used is attached.

NOTE: All sampling data and semi-annual reports are to be kept for a minimum of three years as required by 40 CFR 403.12(o)(1)(2).

Section VI. – Semi Annual Sampling Violation Procedures *(40CFR 403.12(g)(2))*

In the event there is a violation of one of the required parameters Elite staff must complete the following actions.

1. Notify USEPA staff by phone or email within 24 hours of becoming aware of the violation.
2. Arrange repeat sampling and analysis of the violation parameter.
3. Submit results to USEPA within 30 days after date of becoming aware of violation.

Reporting Submittal Information

All reports and follow up actions should be submitted to the email or postal address listed below. All correspondence should include facility name, subject line and facility identification number.

Elite Manufacturing Technologies Facility Identification Number: ILP000345

USEPA Contact Information:

Colin Sullivan, Phone: 312-886-2592 email: Sullivan.Colin@epa.gov

Additional required reporting email address: r5weca@epa.gov

Postal Address:

Attn: Colin Sullivan
Water Enforcement Compliance Assurance Branch (WC-15J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Table 1 – Sample / Analysis Information for Semi-Annual Reporting 40 CFR 433.17
Sample Type, Method, Preservation, Holding Time and Container per 40CFR Part 136
Following parameters apply to sample locations listed in Section III.

Parameter	Sample Type	Method	Sample Preservation	Holding Time	Container
Cadmium (T)	Composite	EPA 200.7 / 200.8	HNO_3 to pH < 2	6 mos	500 ml Plastic
Chromium (T)	Composite	EPA 200.7 / 200.8	HNO_3 to pH < 2	6 mos	500 ml Plastic
Copper (T)	Composite	EPA 200.7 / 200.8	HNO_3 to pH < 2	6 mos	500 ml Plastic
Lead (T)	Composite	EPA 200.7 / 200.8	HNO_3 to pH < 2	6 mos	500 ml Plastic
Nickel (T)	Composite	EPA 200.7 / 200.8	HNO_3 to pH < 2	6 mos	500 ml Plastic
Silver (T)	Composite	EPA 200.7 / 200.8	HNO_3 to pH < 2	6 mos	500 ml Plastic
Zinc (T)	Composite	EPA 200.7 / 200.8	HNO_3 to pH < 2	6 mos	500 ml Plastic
Cyanide (T)	Grab	EPA 335.4, Rev. 1.0	NaOH, 4°C	14 days	250 ml Plastic
Total Toxic Organics (TTO)	Grab	EPA 608/624/625	4°C	7 days	Glass
Parameters listed below are conventional pollutants, additional metals, organic and inorganic pollutants that may be required by local sewer use ordinance.					
Biochemical Oxygen Demand (BOD)	Composite	Std. Mthds. 5210B	4°C	48 hours	500 ml Plastic
Total Suspended Solids (TSS)	Composite	Std. Mthds. 2540D	4°C	7 Days	500 ml Plastic
Total Dissolved Solids (TDS)	Composite	Std. Mthds. 2540C	4°C	7 Days	500 ml Plastic
Ammonia Nitrogen (NH3-N)	Composite	EPA 350.1 Std. Mthds. 4500NH3D	H_2SO_4, 4°C	28 Days	500 ml Plastic
Fats, Oil & Grease (FOG) - Hexane	Grab	EPA 1664.Rev. A	HCL, 4°C	28 Days	1000 ml Amber Glass
Phenols	Grab	EPA 420.4R1	H_2SO_4, 4°C	28 Days	250 ml Amber glass