



**Division Waste Management and Radiation Control**



**USED OIL PROCESSOR PERMIT**

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**Permittee Name:** Emerald Services Inc.

**Permittee Mailing Address:** 2450 South 800 West  
Salt Lake City, Utah 84119

**Permittee Phone Number:** (206) 832-3000

**Permittee Administrative Contact:** Michelle Lackman  
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**Facility Address:** 2450 South 800 West  
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**Type of Permit:** Used Oil Processor Permit

**Permit #:** UOP-0090

**Original Date of Issuance:** November 1, 2004

**EPA ID #:** UTR000008201

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Scott T. Anderson, Director  
Division of Waste Management and Radiation Control

**I.A. Effect of Permit**

- I.A.1. Emerald Services Inc. (hereafter referred to as “Permittee”) is hereby authorized to operate as a Used Oil Processor located at 2450 South 800 West, Salt Lake City, Utah in accordance with all applicable requirements of R315-15 of the Utah Administrative Code and of the Used Oil Management Act (the Act) 19-6-701 et. seq., Utah Code Annotated and this Permit.
- I.A.2. This permit shall be effective for a term not to exceed ten years in accordance with the requirements of R315-15-15 of the Utah Administrative Code.
- I.A.3. Attachments incorporated by reference are enforceable conditions of this Permit, as are documents incorporated by reference into the attachments. Language in Conditions I and II supersedes any conflicting language in the attachments or documents incorporated into the attachments.
- I.A.4. It shall not constitute a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the Permittee’s business activity in order to maintain compliance with the conditions of this Permit and its attachments.

**I.B. Permit Revocation**

- I.B.1. Violation of any permit condition or failure to comply with any applicable provision of the applicable statutes and rules shall be grounds for enforcement actions, including revocation of this Permit. The Director shall notify the Permittee in writing of his intent to revoke this Permit.

**I.C. Permit Modification**

- I.C.1. The Permittee may request modifications to any item or operational activity covered by this Permit by submitting a written permit modification request to the Director. If the Director determines the modification request is substantive, a public hearing, a 15-day public comment period or both may be required before a decision by the Director on the modification request. Implementing a modification prior to the Director’s written approval constitutes a violation of this Permit and may be grounds for enforcement action or permit revocation.
- I.C.2. Changes in operational activities include any expansion of the facility beyond the areas designated, alteration of processing operational parameters, changes in the type or number of storage tanks, piping, other equipment and changes to the contingency plan.
- I.C.3. The Director may require the Permittee to submit additional information when reviewing permit modification requests to ensure the safe handling of used oil at the processing facility in accordance with Section 19-6-710(3)(b)(xii) Utah Code Annotated.
- I.C.4. The Director may modify this Permit as necessary to protect human health and the environment or because of statutory or regulatory changes.

I.C.5. The Permittee shall notify the Director, in writing, of any non-substantive changes, such as changes in the contact person, within 20 days of the change.

**I.D. Emergency Controls Systems and Facility Maintenance**

I.D.1 The Permittee shall maintain and operate the Processor facility to minimize the possibility of fire, explosion or sudden or non-sudden release of used oil to air, ground, soil, surface and groundwater and sewer systems that could threaten human health and the environment.

I.D.2. The Permittee shall have communication systems, fire alarms and fire suppression equipment in place and operational at the facility, as well as arrangements with local emergency response teams (i.e. fire, police and hospital) in accordance with R315-15-5.3 of the Utah Administrative Code.

I.D.3. The Permittee shall have written documentation of inspections, conducted weekly, of used oil equipment, secondary containment, containers, tanks, fire suppression systems (portable and fixed), and testing of emergency alarms for fire and emergency communication systems in accordance with Attachment 2 (Safety, Security and Inspection Forms).

I.D.4. Inspection documents shall include inspector's name, date, areas inspected, any problems found, and the subsequent actions taken by the facility to maintain system integrity.

I.D.5. The Permittee shall secure the facility, lock the entrance security gate and maintain adequate perimeter fencing to prevent access by unauthorized persons or vehicles during hours when the facility is closed and the Permittees authorized personnel are not present.

I.D.6. The Permittee shall maintain spill kits and fire extinguishers as specified in Attachment 3 (Emergency Controls and Contingency Plan). Locations of the spill kits and fire extinguishers are shown in Attachment 1 (Facility Site Plan Map).

I.D.7. A secondary containment system for used oil containers, process and storage tanks, and piping and ancillary equipment shall be maintained for the facility in accordance with R315-15-5.5(c) of the Utah Administrative Code. The joints between the concrete floor and the tank pads shall be sealed to prevent migration of oil to the soil and groundwater.

I.D.8. Used oil, water or other liquids that may accumulate in the secondary containment system or any ancillary facility sumps shall be removed within 24 hours of discovery to prevent the possible migration to soil, ground or surface waters.

**I.E. Emergency Controls and Contingency Plan**

I.E.1. The Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are necessary to protect human health and the environment. In the event of a release of used oil, the Permittee shall immediately

take appropriate actions in accordance with the Permittee's Emergency Controls and Contingency Plan (Attachment 3), and R315-15-9 of the Utah Administrative Code.

- I.E.2. The Permittee shall keep a current copy and all revisions of the Emergency Controls and Contingency Plan (Attachment 3) on site until facility closure.
- I.E.3. The Permittee shall provide a current copy to local police, fire departments, hospitals and State local emergency response teams that may be called upon during an emergency in accordance with R315-15-5.3(b)(3).
- I.E.4. The Permittee shall implement the Contingency Plan whenever there is an imminent or actual emergency situation.
- I.E.5. The Permittee shall notify the Utah Department of Environmental Quality's 24-hour Answering Service, (801) 536-4123, for used oil releases exceeding 25 gallons or for smaller releases that pose a potential threat to human health or the environment in accordance with R315-15-9.1 of the Utah Administrative Code. The Permittee shall provide the information required by R315-15-9.1(c) of the Utah Administrative Code.
- I.E.6. In accordance with R315-15-9.4 of the Utah Administrative Code, the Permittee shall submit to the Director a written report within 15 days of any reportable release of used oil. The report shall also include a description of actions taken by the Permittee to prevent future spills.

**I.F. Record Keeping Requirements and Retention**

- I.F.1. The Permittee shall maintain all used oil records required by R315-15 of the Utah Administrative Code and this Permit at the Permittee's Processor facility located at located at 2450 South 800 West, Salt Lake City, Utah.
- I.F.2. Records may be in hard copy or in an electronic format and shall be readily accessible for inspection by authorized representatives of the Director. The Permittee shall maintain, for a minimum of three years, all applicable used oil processor tracking records required by R315-15 of the Utah Administrative Code and this Permit, with the exception of the operating record, which shall be kept until facility closure.
- I.F.3. The Permittee shall maintain other records (e.g. training and financial assurance) required by R315-15 of the Utah Administration Code and this Permit.

**I.G. Operating Record**

- I.G.1 The Permittee shall keep and maintain a written operating record (paper or electronic) until final closure of the facility that contains the following information:
  - I.G.1.a. All used oil records (sampling methods and analytical results) required by R315-15-5.6 of the Utah Administrative Code and this Permit.
  - I.G.1.b. The Permittee shall maintain summary reports and details of all incidents that require implementation of the Emergency Control and Contingency Plan (Attachment 3).

I.G.1.c. The Permittee shall maintain records detailing the mass balance of oily wastewater received at the facility or generated at the facility via gravity separation and records documenting oily wastewater disposal.

I.G.1.d. The Permittee shall retain records detailing the mass balance of wastewater entering and leaving the facility. This includes wastewater discharge records. This does not include water used in non-contact cooling processes.

**I.H. Tracking Records**

I.H.1. The Permittee shall maintain the following written (or electronic) tracking records that document used oil operations conducted at this processing facility.

I.H.1.a. The Permittee shall maintain records of used oil accepted at the facility or shipped from the facility in accordance with the requirements of R315-15-5.7(a) and R315-15-5.7(b), respectively, of the Utah Administrative Code.

I.H.1.b. The Permittee shall maintain used oil storage tank records (bulk storage) that document the date, time, operator (initials), and volume of the used oil deposited into each tank and the date, time, operator (initials), and destination of the used oil removed from each tank (including inter-tank transfers).

I.H.1.c. The Permittee shall maintain daily inventory of used oil containers (with volumes) that are stored in the facility's Receiving and South Storage warehouses, (Attachment 1-Facility Site Plan Map).

**I.I. Sampling and Analysis Plan**

I.I.1. The Permittee shall follow all sampling and analytical procedures in Condition II.E and Attachments 5 (Sample Collection Procedures) and 6 (Analysis Plan) when conducting used oil sampling and analytical testing to meet the requirements of R315-15-5.6 of the Utah Administrative Code and this Permit.

**I.J. Prohibitions**

I.J.1. The Permittee shall not manage used oil in surface impoundments or waste piles.

I.J.2. The Permittee shall not place, manage, discard or otherwise dispose of used oil in any manner specified in R315-15-1.3 of the Utah Administrative Code.

I.J.3. Used oil that has been mixed with hazardous waste as defined by R315-261 of the Utah Administrative Code or PCBs as defined by R315-301-2(53) of the Utah Administrative Code shall no longer be managed as used oil and shall be subject to the rules applicable to hazardous waste and PCB-contaminated waste.

I.J.4. Used oil shall not be stored in containers; tanks or piping that have previously stored hazardous waste, unless the tanks, containers and piping are cleaned in accordance with R315-261-7 of the Utah Administrative Code.

- I.J.5. The Permittee shall not accept used oil for storage with a PCB concentration greater than or equal to 50 mg/kg (ppm).
- I.J.6. The Permittee shall manage used oil with PCB concentrations of greater than or equal to 2 mg/kg but less than 50 mg/kg in accordance with R315-15-18 of the Utah Administrative Code. Used oil shall not be diluted to avoid any provision of any Federal or State environmental regulation.
- I.J.7. Used oil shall not be stored in tanks, containers or associated piping that have previously stored PCB contaminated materials at or above 50 mg/kg (ppm), unless the tanks, containers and piping or storage units are decontaminated as described in 40 CFR 761 Subpart S.
- I.J.8. Any used oil that was mixed with the PCB-contaminated material shall be managed in accordance with R315-15-18 of the Utah Administrative Code and 40 CFR 761 Subpart S.

**I.K. Waste Characterization and Disposal**

- I.K.1. The Permittee shall document and maintain records showing proper characterization, handling and disposal for used oil related wastes, including oily wastewater for a minimum of three years.
- I.K.2. The Permittee shall properly characterize used oil related wastes to determine if the wastes are hazardous or non-hazardous in accordance with R315-261 and R315-15-8 of the Utah Administrative Code. All wastes generated during used oil operations shall be handled in accordance with this Permit and R315-15 of the Utah Administrative Code. The wastes shall be taken to an appropriate facility permitted to handle the type of waste generated.
- I.K.3. The Permittee shall notify the Director within 24 hours of any used oil found with a PCB concentration greater than or equal to 50 mg/kg (ppm).

**I.L. Liability and Financial Assurance Requirements**

- I.L.1. The Permittee shall be financially responsible for cleanup and closure costs, general liabilities and environmental pollution legal liability for bodily or property damage to third parties resulting from sudden release of use oil in accordance with R315-15-10 through 12 of the Utah Administrative Code and this Permit.
- I.L.2. The Permittee shall provide documentation of financial responsibility, for cleanup and closure, environmental pollution legal liability, and general liability coverage annually to the Director for review and approval by March 1 of each reporting year or upon request by the Director.
- I.L.3. The Permittee shall receive written approval from the Director for any changes in the extent, type (e.g., mechanism, insurance carrier or financial institution), or amount of the environmental pollution legal liability or financial assurance mechanism for coverage of physical or operational conditions at the facility that

change the nature and extent of cleanup and closure costs prior to implementation of these changes.

**I.M. Cleanup and Closure Plan**

- I.M.1. The Permittee shall update its closure plan cost estimates and provide the updated estimate to the Director, in writing, within 60 days following a facility modification that causes an increase in the financial responsibility required under R315-15-10 of the Utah Administrative Code. Within 30 days of the Director's written approval, the owner or operator shall provide to the Director the information specified in R315-15-11.2(b)(2) of the Utah Administrative Code and Condition II.G of this Permit.
- I.M.2. The Permittee shall initiate closure of the facility within 90 days after the Permittee receives the final volume of used oil or after the Director revokes the Permittee's Processor Permit in accordance with the requirements of R315-15-11.3 of the Utah Administrative Code and this Permit.
- I.M.3. The Permittee shall remove or decontaminate used oil residues in tanks, containment system, and the environment in accordance R315-15-5.5(f) of the Utah Administrative Code and the Closure Plan, Attachment 8.
- I.M.4. Within 60 days of completion of cleanup and closure, the Permittee shall submit to the Director, by registered mail, a certification that the facility has been closed in accordance with R315-15-11.4 of the Utah Administrative Code and the specifications of the approved cleanup and closure plan. An independent, Utah-registered professional engineer and the Permittee shall sign the closure certification.
- I.M.5. Additional sampling and remediation may be required by the Director to verify that cleanup and closure has been completed according to R315-15 of the Utah Administrative Code.

**I.N. Used Oil Handler Certificate**

- I.N.1. In accordance with R315-15-5.9 of the Utah Administrative Code, the Permittee shall not operate as a used oil processor without obtaining annually a Used Oil Handler Certificate from the Director. The Permittee shall pay a used oil handler fee, pursuant to Utah Administrative Code Annotated Condition 63J-1-504, by December 31 of each calendar year to receive certification for the upcoming calendar year.

**I.O. Inspection and Inspection Access**

- I.O.1. Any duly authorized employee of the Director may, at any reasonable time and upon presentation of credentials, have access to and the right to copy any records relating to used oil and to inspect, audit or sample. The employee may also make record of the inspection by photographic, electronic, audio, video or any other reasonable means to determine compliance.
- I.O.2. The authorized employees may collect soil, groundwater or surface water samples to evaluate the Permittee's compliance.

I.O.3. Failure to allow reasonable access to the property by authorized employees is a “denial of access” and may be grounds for enforcement action or permit revocation.

**I.P. Annual Report**

I.P.1. As required by R315-15-13.5 of the Utah Administrative Code, the Permittee shall prepare and submit an Annual Report to the Director by March 1 of the following year. The Annual Report shall describe the Permittee’s used oil activities in Utah and document financial assurance using the Division’s Processor Annual Report form.

**I.Q. Other Laws**

I.Q.1. Nothing in this permit shall be construed to relieve the Permittee of his obligation to comply with any Federal, State or local law.

**I.R. Enforceability**

I.R.1. Violations documented through the enforcement process pursuant to Utah Code Annotated 19-6-112 may result in penalties assessed in accordance with R315-102 of the Utah Administrative Code.

**I.S. Effective Date**

I.S.1. The permit is effective on the date of signature by the Director.



**II.A. General Operations**

- II.A.1. The Permittee is authorized to store and process used oil, via gravity separation only, in accordance with R315-15-5 of the Utah Administrative Code at 2450 South 800 West, Salt Lake City, Utah.
- II.A.2. The Permittee is authorized to store a maximum of 516,424 gallons of used oil in tanks, containers and associated piping (Attachment 1 - Facility Site Plan Map).
- II.A.3. The Permittee shall maintain a current process and instrument diagram (PID), certified by a Utah professional engineer (Attachment 4 - PID Diagram,).
- II.A.4. The Permittee shall only store used oil in tanks, containers or units subject to regulations under R315-265 or R315-264 of the Utah Administrative Code and maintain tanks, containers, associated piping, pumps and valves in good operational condition.
- II.A.5. The Permittee may only accept used oil from a Utah-permitted used oil transporter or deliveries of exempted oily wastewater from waste haulers that maintain all required permits or registrations with the State, counties or municipalities.
- II.A.6. The Permittee shall verify, at the time of acceptance, that the transporter delivering the used oil has recorded the halogen content of the used oil on the shipping documents.
- II.A.7. The Permittee is not required to further test used oil from a Utah-registered used oil marketer if the marketer provides, at the time of acceptance, analytical data results documenting that the used oil has been tested for the parameters in R315-15-1.2 of the Utah Administrative Code.
- II.A.8. If the transporter has not documented the halogen content on the shipping records, then the Permittee shall determine the halogen content of the shipment of used oil received at the facility, prior to acceptance.
  - II.A.8.a. The Permittee shall determine the halogen content by collecting a representative sample in accordance with Condition II.E. and Attachment 5 (Sample Collection Procedures), and by screening the used oil sample for halogens, or by submitting the sample to a Utah-certified laboratory for analysis in accordance with the analytical requirements of Attachment 6 (Analysis Plan).
  - II.A.8.b. The Permittee shall then record the results of the halogen testing of any untested used oil received at the facility in the facility operating record.
- II.A.9. The Permittee shall only deliver shipments of used oil to transporters with a valid Utah Used Oil Transporter Permit issued by the Director.
- II.A.10. Used oil recovered from oily water shall be managed as used oil in accordance with R315-15 of the Utah Administrative Code and this Permit.

**II.B. PCB Contaminated Used Oil**

II.B.1. The Permittee shall not accept or store used oil with PCB concentrations greater than or equal to 50 mg/kg (ppm) unless the Permittee complies with TSCA regulations 40 CFR 761. Used oils containing PCB concentrations greater than or equal to 2 mg/kg but less than 50 mg/kg are subject to both R315-15 of the Utah Administrative Code and 40 CFR 761.

**II.C. Used Oil Storage**

II.C.1. The Permittee shall only store used oil in the tanks and containers specified in Table II.C.

**Table II.C: Description of Used Oil and Oily Water Storage Tanks, Totes and Drums.**

<b>Container/ Tank No.</b>	<b>Capacity* (gal)</b>	<b>Type</b>	<b>Type Storage and Location</b>
AST #1	7,041	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #2	7,018	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #3	7,357	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #4	8,478	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #5	8,478	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #6	8,478	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #7	8,478	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #8	8,478	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #9	8,478	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #10	8,478	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #11	10,027	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #12	10,027	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #13	19,698	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #14	19,698	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #15	19,698	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #16	19,480	Steel Tank	Used Oil/Bulk Storage Area 1, back row
AST #17	19,645	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #18	19,534	Steel Tank	Used Oil/Bulk Storage Area 2, front row

<b>Container/ Tank No.</b>	<b>Capacity* (gal)</b>	<b>Type</b>	<b>Type Storage and Location</b>
AST #19	20,216	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #20	19,480	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #21	18,403	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #22	19,425	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #23	20,447	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #24	19,645	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #25	19,676	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #26	20,447	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #27	20,612	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #28	19,022	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #29	19,022	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #30	20,963	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #31	14,484	Steel Tank	Used Oil/Bulk Storage Area 2, front row
AST #32	20,963	Steel Tank	Used Oil/Bulk Storage Area 2, front row
Shop Heater AST	300	Steel Tank	Receiving Warehouse
Drums (55-gal)	7150	Steel/Poly Drums	Receiving Warehouse (130 drums maximum)
Totes (300-gal)	6000	Poly	Receiving warehouse (20 300-gallon Totes maximum)
Drums (55-gal)	5500	Steel/Poly Drums	South Storage Warehouse (100 55-gallon drums maximum)
Totes (300-gal)	6000	Poly	South Storage Warehouse (20 300-gallon Totes maximum)
*Maximum facility used oil storage capacity = 516,424 Gallons (Tanks, containers (516,324 gallons) and tank farm piping (100 Gallons))			

II.C.2. The Permittee shall conduct inspections of used oil storage containers, tanks and secondary containment systems in accordance with Attachment 2 (Safety, Security and Inspection Forms) of this Permit. The Permittee shall record the inspector's name, the time and date of the inspection and the condition of the tanks, storage containers and secondary containment systems. The Permittee shall document in the

- inspection log any issues discovered during the inspections (e.g. leaking tanks or water accumulation) and any actions taken by the Permittee to resolve these issues.
- II.C.3. The Permittee shall label used oil storage tanks, piping, drums and containers with the words “Used Oil.”
- II.C.4. The Permittee shall keep drums and containers of used oil closed except while removing or adding used oil.
- II.C.5. The Permittee may not store used oil in units other than tanks, containers, or units subject to regulations under R315-264 or R315-265.
- II.D. Used Oil Loading and Unloading Requirements**
- II.D.1. The Permittee shall ensure that operations involving the loading or unloading of used are conducted in accordance with Attachment 7 (Used Oil Loading and Unloading Procedures).
- II.E. Used Oil Sampling and Analysis**
- II.E.1. The Permittee shall ensure a representative sample is collected from tanks, totes, drums or other containers from which used oil is collected in accordance with Attachment 5 (Sample Collection Procedures). Sampling personnel shall be trained on appropriate sampling methods for each type of container and matrix.
- II.E.2. Samples collected from bulk oil containers greater than 55 gallons shall be individual samples, not composite samples.
- II.E.3. A representative composite sample may be collected from individual drums or containers containing used oil from the same source. A representative composite sample may consist of not more than four drums per composite sample. The individual samples shall be taken and consolidated into one representative composite sample and tested.
- II.E.4. Drums or containers of used oil from different sources or processes shall be sampled individually.
- II.E.5. A COLIWASA shall be used to collect samples from drums or containers less than or equal to 55 gallons. The entire COLIWASA contents shall be place in one sample container.
- II.E.6. The Permittee shall analyses used oil and other related materials in accordance with the requirements of Attachment 6 (Analysis Plan).
- II.F. Used Oil Training**
- II.F.1. The Permittee shall train handlers of used oil in accordance with R315-15 of the Utah Administrative Code and the requirements of this Permit. New employees may not manage or process used oil without a trained employee present until used oil training is completed.

- II.F.2. Employee training shall include documentation that the following topics were covered: identification of used oil, recordkeeping requirements and facility used oil procedures for handling, transporting, sampling and analysis, emergency response, spill reporting and personal safety.
- II.F.3. The Permittee shall provide, at a minimum, an annual used oil-training refresher course for employees handling used oil. Additional training is required if the Permittee changes used oil handling procedures.
- II.F.4. The Permittee shall keep training records for each employee for a minimum of three years. Employees and supervisors shall sign and date training attendance sheets to document class attendance.
- II.F.5. Employees collecting and performing field halogen testing shall be trained and shall demonstrate competence in collecting a representative used oil sample and testing for halogens using a CLOR-D-TECT<sup>®</sup> kit prior screening used oil.

**II.G. Facility Closure**

- II.G.1. The Permittee shall implement the closure plan in Attachment 8 (Facility Closure Plan) to evaluate the potential impacts of used oil operations on the surrounding soil, groundwater and surface water in accordance with R315-15-11 of the Utah Administrative Code. The Permittee shall also be responsible for any cleanup of any used oil contamination that has migrated beyond the facility property boundaries in accordance with R315-15-11(d) of the Utah Administrative Code.

**II.H. Emergency Spill Response and Remediation**

- II.H.1. In accordance with R315-15-9.1 of the Utah Administrative Code, the person responsible for the spill shall immediately take appropriate action to minimize the threat to human health and the environment and notify the DEQ Hotline at (801) 536-4123 if the spill is greater than 25 gallons or smaller spills if it poses a threat to human health or the environment (Attachment 3 – Emergency Controls and Contingency Plan).
- II.H.2. Responders shall take action to prevent spills from spreading by utilizing absorbent, dirt, booms, pads, rags, etc.
- II.H.3. The Permittee is responsible for the material release and shall recover oil and remediate any residue from the impacted soils, water, or other property, or take any other actions as required by the Director until there is no longer a hazard to human health or the environment.
- II.H.4. Once the material is containerized, a waste determination shall be made to determine the material's disposition.
- II.H.5. The Director may require additional cleanup action to protect human health or the environment.

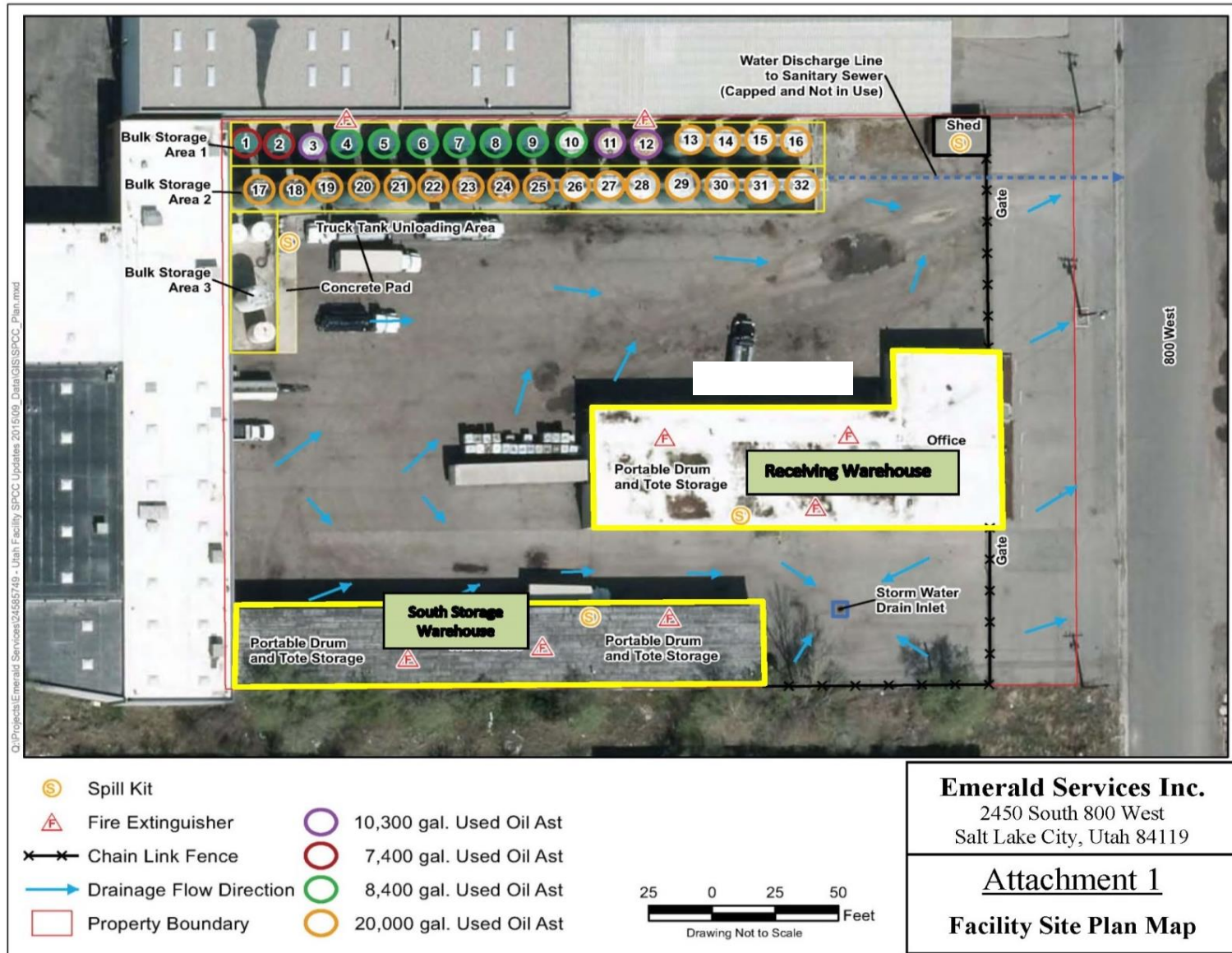
- II.H.6. All costs associated with the cleanup shall be at the expense of the Permittee.
- II.H.7. Spill kits shall contain, at a minimum, the equipment listed in Table II.H. of this Permit.

**Table II.H: Spill Kit Equipment Requirements**

Equipment Description	Quantity
Shovel	1
Buckets	1
Spill Pad	10
Granulated Absorbent	2 ft <sup>3</sup>
Boom/Oil Socks	1
Spill Plan with Emergency Contact Numbers	1
Blank Spill Report Sheets	2

- II.H.8. The Permittee shall report all relevant information, including the amount of waste generated from cleanup efforts, the characterization of the waste (i.e. hazardous or non-hazardous), final waste determination, and disposal records. The report shall also include actions taken by the Permittee to prevent future spills.
- II.H.9. In accordance with R315-15-9.4 of the Utah Administrative Code, the Permittee shall submit to the Director a written report within 15 days of any reportable release of used oil.

**Attachment 1: Facility Site Plan Map**



**Attachment 2**

**Safety, Security and Inspection Forms**

**A. Purpose**

A.1. This procedure is designed to meet the used oil regulatory requirements for the maintenance and inspection of R315-15 of the Utah Administrative Code and Emerald’s Services, Inc.’s (Emerald) Used Oil Processor Permit to assure the protection of human health and the environment. The location of the used oil storage areas and emergency equipment are shown in Attachment 1. Emerald shall document the inspection and maintenance of used oil containers, tanks, fire suppression systems (portable and fixed), and facility emergency equipment and alarms. Emerald’s Branch Manager is responsible for the implementation of the inspection program. Comprehensive inspection forms shall be used for inspection and Safety/Emergency Equipment (Appendix 1 & 2); not all items on forms are applicable to this facility). Inspection forms consist of either a written hardcopy or equivalent electronic format. Inspection forms and any associated documents (i.e. actions taken due to deficiencies) shall be incorporated into the Facility's Operating Record.

**B. Inspections**

B.1. Used oil storage areas shall be inspected, at a minimum, according to the frequency specified in Table 1. Inspectors are required to document the date and time of inspection, name of the inspector, the status of each inspected item, the reason for each “not ok” status checked and the date corrective action was taken, along with the initials of the person making the determination, If the inspector documents any problems during the inspection he will report the deficient condition to Emerald’s facility manager. Emerald’s management will verify (written documentation) that any deficiencies identified during the inspection are corrected in a timely manner and used oil spills are immediately cleaned-up.

B.2. Inspectors shall receive training to enable them to identify any problems associated with the used oil storage areas or emergency equipment. These records shall be maintained at the facility in a readily available location and maintained for a minimum of three 3 years from the applicable record's inspection date.

**Table 1: Frequency of Used Oil Inspections**

Inspection Type	Items Inspected	Frequency
Use Oil Storage Areas	Tanks/Auxiliary piping/Valves Containers Secondary Containment Areas	Weekly
Emergency Equipment	Spill Kits/Eye wash/Safety Showers Fire extinguishers Communication System Personal Safety Equipment First Aid Kits	Weekly



**Attachment 2 - Appendix 1**  
**Weekly SPCC Inspection**

<b>Compliance Header</b>	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
<b>Weekly SPCC Inspection Instructions</b>	
Fully explain all items that need immediate attention in the comment section after each question that fails. Include the location of the deficiency and the corrective action necessary.	
<b>A. Drainage/Containment</b>	
Any noticeable sheen on run off?	
Containment area drainage valves closed and locked?	
No visible oil sheen in containment area?	
No standing water in containment area or sump?	
Containment floor and walls free of cracks?	
Containment free of weeds (inside and out)?	
Drip pans not overflowing, properly labeled	
<b>B. Pipelines</b>	
No sign of corrosion or other damage to pipes and or supports?	
Buried pipes are not exposed (if applicable)?	
Out of Service Pipes capped?	
Signs and barriers to protect pipelines from vehicles are in place and visible?	
No leaks at valves, flanges or other fittings (check EACH connection)?	
<b>C. ASTs</b>	
Tank surfaces checked for signs of leakage?	

Tank condition good (no rusting, corrosion, pitting)?	
Bolts, rivets, and or seams are not damaged?	
Tank foundation intact?	
Level gauges and alarms working properly?	
Vents not obstructed?	
Manways, flanges, and gaskets free from leaks?	
<b>D. Truck Loading/Unloading Area</b>	
No standing water in rack area?	
No leaks in hoses, stored with caps in place?	
Drip pans not overflowing, properly labeled?	
Catch basins free of contamination?	
Containment curbing or trenches intact?	
Connects are capped or blank flanged?	
Eye wash station available and functioning and stocked?	
<b>E. Security</b>	
Fence and gates intact?	
Access doors and overhead doors have locks?	
AST valves locked when not in use?	
Starter controls for pumps locked when not in use?	
Lighting is sufficient and functioning properly?	
<b>Compliance Footer</b>	
Inspector Signature	
Attach Photo	
Inspection Overall Assessment	

**Attachment 2 – Appendix 2**  
**Safety and Security Inspection**

<b>Compliance Header</b>	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
<b>CO Safety Security Inspection Instructions</b>	
Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.	
<b>CO Safety Security Inspection Items</b>	
Perimeter Fences - Check for evidence of failure (e.g., broken ties, corrosion, holes, distortion, other).	
Gates/External Warehouse Doors - Check for evidence of failure (e.g., locking mechanism, broken ties, corrosion, holes, distortion, direct access doors working properly, other).	
Warning Signs - Check for evidence of failure (e.g., missing, faded, other).	
Exit Signs - Check for evidence of failure (e.g., missing sign, illumination, lamp bulbs, battery backup, other).	
Exits/Firelanes/Evacuation Routes - Check that all routes are clear or unobstructed.	
Lighting System - Check for evidence of failure (e.g. expired lamps, effectiveness, location, other).	
Emergency Lighting System - Check for evidence of failure (e.g., expired lamps, battery backup, effectiveness, other).	
Accessibility of Safety Equipment/Protective Gear - Check for evidence of availability (e.g., hardhats, face shields, goggles, safety glasses, boots, gloves, aprons, uniforms, duct tape, absorbents, other).	
Adequate Supply of Safety Equipment/Protective Gear - Check for evidence of availability (e.g., cleanliness, inventory available, other).	

Condition of Safety Equipment - Check for evidence of failure (e.g., review PPE for damage or excessive wear, other).	
Breathing Apparatus Accessibility - Check for evidence of availability (e.g. SCBA respirators, equipment, other).	
Breathing Apparatus Adequate Supply/Full Charge - Check for evidence of availability (e.g., SCBA tanks, charged, other).	
Breathing Apparatus Condition - Check for evidence of failure (e.g., SCBA damage, other).	
First Aid Kits - Check for evidence of availability (e.g., adequate inventory, other).	
Bloodborne Pathogen Kits - Check for evidence of availability (e.g., adequate inventory, other).	
Emergency Eyewashes - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning drain, leaking, other).	
Emergency Showers - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, leaking, other).	
Internal/External Communication - Check for evidence of failure (e.g., inadequate supply of phones or radios, malfunctioning intercom, telephones not working properly, emergency alarm does not work, phone moved from proper location, other).	
Fire Extinguishers - Check for evidence of failure (e.g., overdue inspection, not charged, inaccessible, other).	
Absorbent Supply - Check for evidence of availability (e.g., adequate inventory, other).	
Recovery Drum Supply - Check for evidence of availability (e.g., adequate inventory, other).	
Respirators and Cartridges - Check for evidence of availability (e.g., adequate APR inventory, other).	
Fire Suppression System Accessibility - Check for evidence of failure (e.g., monitors, pull stations, alarms, other).	
Fire Suppression System Operable - Check for evidence of failure (e.g., test, other).	

Water Lines/Hydrants - Check for evidence of failure (e.g., blocked, broken, other).	
Alarm Systems - Check for evidence of failure (e.g., test, other).	
Fire Blankets - Check for evidence of availability (e.g., adequate inventory, other).	
Strainer on Fire Suppression System - Check for evidence of failure (e.g., functioning as intended, other).	
Surveillance System/Guard Service - Check for evidence of failure (e.g., equipment or service provided and functioning properly, other).	
Supplied Air Delivery System and Reserve - Check for evidence of failure (e.g., system operational, equipment functioning, other).	
Decontamination Equipment/Spill Clean-up Equipment - Check for evidence of availability (e.g., adequate supply of shovels, mops, cleaning solvents, available inventory, other).	
Portable Sump Pumps - Check for evidence of availability (e.g., adequate inventory, functioning properly, other).	
Gasoline Pumps - Check for evidence of failure (e.g., broken parts, leaks, other).	
Loud Speakers - Check for evidence of failure (e.g., test, other).	
Chocked Wheels on Parked Vehicles - Check for evidence of failure (e.g., chocks not used, missing, deteriorated, other).	
Cylinders Secure - Check for evidence of failure (e.g., properly stored, secured, chained, other).	
Ventilation Operable - Check for evidence of failure (e.g., system working as intended, other).	
Fall Protection - Check for evidence of availability (e.g., adequate inventory, integrity of equipment, other).	
Electrical Boxes - Check for evidence of failure (e.g., closed, not blocked, marked properly, other).	
Emergency Contact Info Posted - Check for evidence of availability (e.g., up-to-date postings, location requirement, other).	
Hearing Protection Available - Check for evidence of availability (e.g., type appropriate per location, other).	

Housekeeping - Check for evidence of failure (e.g., blocked egress, proper storage, procedure followed, other).	
Portable Compressor - Check for evidence of availability (e.g., adequate inventory, functioning properly, other).	
Lime Supply - Check for evidence of availability (e.g., adequate inventory, other).	
QC Lab Hood - Check for evidence of failure (e.g., functioning properly, other).	
Roll off Parking Area - Check for evidence of failure (e.g., housekeeping, staging, other).	
Dumpster/Outside Containers - Check for evidence of failure (e.g., housekeeping, condition, appropriate use and storage, other)	
Storm water Collection System - Check for evidence of failure (e.g., functioning properly, damaged equipment, integrity, other).	
Rally Point - Check for evidence of failure (e.g., location identified, communication, other).	
Visitor Log - Check for evidence of failure (e.g., available, communication, proper use, other).	
Contingency Plan - Check for evidence of failure (e.g., available, up-to-date, communication, other).	
Wind Instrument/Wind Sock - Check for evidence of failure (e.g., operational, functioning properly, not broken, other).	
<b>Compliance Footer</b>	
Inspector Signature	
Attach Photo	
Inspection Overall Assessment	

**Attachment 3**

**Emergency Controls and Contingency Plan**

**A. Introduction**

A.1. This Emergency Control and Contingency Plan is designed in accordance with the requirements of the Utah Administrative Code R315-15.5 to implement a contingency plan and emergency procedures including the appropriate equipment required to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water. This plan also establishes activities required of Emerald Services, Inc. personnel to carry out to mitigate such discharges (i.e., countermeasures) should they occur. The Emergency Control and Contingency Plan is to be used in association with the facility's Spill Prevention Control and Countermeasures Plan (SPCC) (SPCC Plan not incorporated into this Permit).

**B. Facility Description and Operations**

B.1. The facility stores used oil on-site for periods exceeding 35 days. There is no active processing of used oil that occurs at the site. The used oil is stored in drums, totes or tanks. Sufficient secondary containment is provided in all storage areas per requirements of R315-15-5 of the Utah Administrative Code and the Spill Prevention Control and Countermeasures regulations.

**C. Site Security**

C.1. The facility operates during normal business hours. A chain-link fence surrounds the area that includes all of the facility's structures. At night, the facility's operational areas are lighted. Access to the facility is restricted to employees, contractors, vendors and authorized visitors. Storage tanks are located inside the facility's secured area and totes and drums are inside a building.

**D. Commitment of Manpower and Resources**

D.1. The facility shall have an emergency coordinator at the facility or on call that is available to respond to a facility emergency immediately (Table D.1). The primary and secondary emergency coordinators are listed in Table D.1, below. The emergency coordinators shall be thoroughly familiar with all aspects of the facility's emergency control and contingency plan, facility operations, and have the authority to commit the resources needed to carry out the contingency plan. In their absence, all facility and office personnel will evacuate, and the most senior employee will contact the emergency coordinators.

**Table D.1: Facility Emergency Coordinators and Contact Information**

<b>Emergency Coordinators</b>	<b>Title</b>	<b>Contact Information</b>
Joe Dwyre	Facility Manager (Utah)	Office Phone: 503-723-6379 Cell (24 hrs.): 503-706-011
Joe Valerio	Regional Operations & Facility Manager	Office Phone: 509-928-6835 Cell Phone: 509-998-6671

**E. Facility Emergency Equipment**

E.1. The facility is equipped with the emergency equipment listed in Table E.1. All emergency equipment is inspected and maintained as necessary to assure its proper operation in time of emergency.

**Table E.1: List of Facility Emergency Equipment**

Physical Description	Location	Capabilities/Intended Use
Spill Control Equipment	<ul style="list-style-type: none"> <li>• Truck/Tank Unloading Area</li> <li>• Warehouses (Receiving &amp; South Storage)</li> <li>• Storage Shed NW Corner Property</li> </ul>	Secondary spill containment
Fire extinguishers	<ul style="list-style-type: none"> <li>• Receiving Warehouse (3 extinguishers)</li> <li>• South Storage Warehouse (3 extinguishers)</li> <li>• Bulk Storage Area 1 (2 extinguishers)</li> </ul>	Extinguish fires, dry chemical type
First aid kit	East side of warehouse wall and main office.	Treat minor injuries
Tools	Tool room north east corner of the Receiving Warehouse	Various repairs
Recovery drums	Receiving and South Storage Warehouses	Secondary Containment
Eye wash stations	Receiving Warehouse: break room and east wall	Employee safety from chemical splashes
Safety and warning signs	Each gate entrance and safety board in drivers office	Employee safety
Hard hats, safety glasses, goggles, and face shields	Each driver assigned equipment and extra stored in main office	Protection handling
Chemically resistant gloves, boots, rain suit, apron	Drivers issued gear and extra stored in main office	Protection
Communications system	Each employee issued a company phone	Emergency Calls

**F. Communication**

F.1. In the event of an emergency or used oil spill, employees will use cell phones and in-person verbal communication to notify employees of the emergency and any need to evacuate and also to contact the supervisors and emergency coordinators and provide details regarding the emergency or spill event.



## G. Facility Emergency Evacuation Plan

- G.1. In the event of a serious spill, fire, or explosion which presents possible hazards to human health and to the environment, all personnel will immediately evacuate the premises in accordance with the following procedures.
- G.2. Cell phones will be used to alert employees of an emergency.
- G.3. Employees shall muster at the parking lot directly across the street at the corner of 2400 South and 800 West for further instructions (Figure G.3- Emergency Evacuation Route Diagram).

**Figure G.3: Emergency Evacuation Route Diagram**



## H. Coordination Agreements

- H.1. A copy of the Emergency Control and Contingency Plan and all revisions will be sent to the government agencies and prime emergency responders. A copy of the plan will be maintained onsite.
- H.2. The fire department is familiar with the facility layout, products transferred, stored, and handled, and hazardous waste stored.

## I. Spill Control, Emergency Response and Reporting Requirements

- I.1. Emerald shall immediately cleanup any spill which occurs during the loading or unloading of used oil at the facility.
- I.2. The operator shall call 911 when warranted to summon emergency personnel to the scene.
- I.3. The operator shall take action to prevent the spilled material from spreading by utilizing absorbent, dirt, booms, pads, rags, etc. The operator should prevent used oil from entering any adjacent storm water drain, sewer drain system or leaving the facility boundary.

- I.4. In the event that more resources are required, the operator will contact a supervisor to dispatch a spill response team to help facilitate the mitigation and/or remediation of the spill.
- I.5. Used oil spills exceeding 25 gallons, or smaller quantities that pose a risk to human health and the environment, shall be reported to Emerald management and to the Utah Department of Environmental Quality immediately after containment of the spill (Table I.5). The report must follow the reporting requirements of R315-15 and Emerald Services, Inc.’s Processor Permit. Within 15 days after any release of used oil that is reported under R315-15-9 of the Utah Administrative Code, the person responsible for the material at the time of the release shall submit to the Director a written report in accordance with the reporting requirements of R315-15-9 of the Utah Administrative Code.

**Table: I.5: List of Agencies to Notify in Case of a Spill**

Agencies Notification	Contact Phone Number
National Response Center	(800) 424-8802
Utah Department of Environmental Quality (within 24 hrs.)	(801) 536-4123

- I.6. Emerald Services, Inc. operators shall submit a completed spill report to a supervisor at or before the end of the operators shift
- I.7. Emerald Services, Inc. employees shall report any spills to facility management, regardless of the volume. Employees are exempted from reporting de minimis drips to management that are immediately cleaned up by the responsible employee (Table I.7):

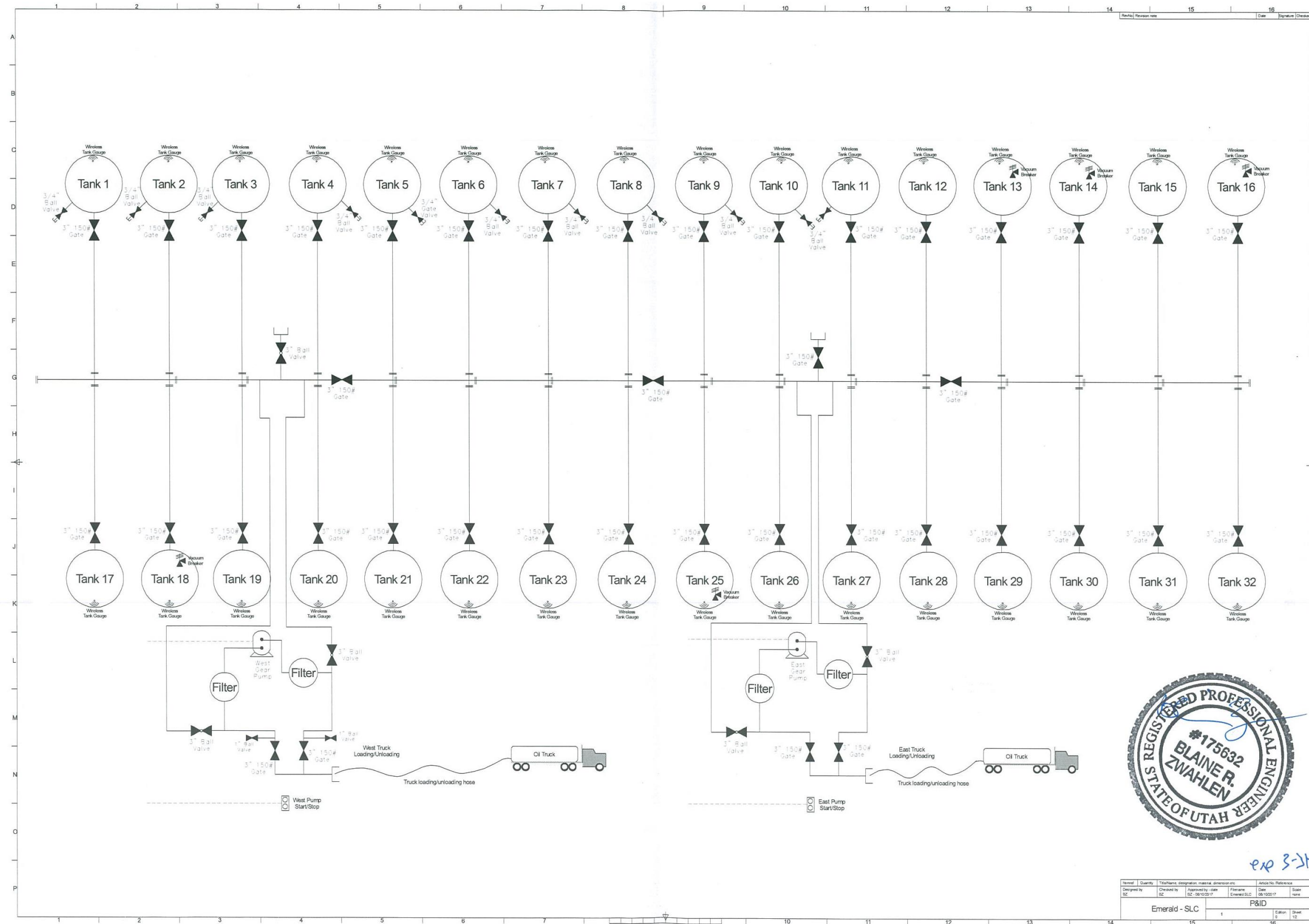
**Table: I.7: Emergency Contacts List**

Contact Person	Title	Contact Information
Joe Dwyre	Branch General Manager	Office: 503-723-6379 Cell (24 hrs.): 503-706-0311 Email: Joe.Dwyre@thermofluids.com
Joe Valerio	Regional Operations Manager	Mobile: 509-998-6671 Office: 509-928-6835 Email: jvalerio@emeraldrenews.com
Salt Lake City Fire (In case of fire or injury)	NA	<b>911</b>
Clean Harbors	Response/Cleanup Contractors	Office: 800-645-8265

**Attachment 3 - Appendix 1: Emerald Services, Inc. Spill Report Form**

Part A: Discharge Information		Name of Employee Reporting Spill:		
<b>General information when reporting spill to outside agencies</b> Name: Emerald Services, Inc. Address: 2450 South 800 West South Salt Lake, UT 84119  Telephone: (206) 832-3000 (Headquarters) Owner/Operator: Emerald Services, Inc. 7343 East Marginal Way Seattle, WA 98108 Primary Contact: Joe Dwyre, Branch General Manager Work: 503-723-6379 Cell (24 hrs.): (503) 706-0311		<b>Type of oil:</b>	<b>Discovery date and time:</b>	
		<b>Total quantity released:</b>	<b>Discharge date and time:</b>	
		<b>Location/Source:</b>	<b>Affected media:</b> <input type="checkbox"/> Soil <input type="checkbox"/> Surface Waters <input type="checkbox"/> Storm Drain <input type="checkbox"/> Sewer/POTW <input type="checkbox"/> Other	
<b>Nature of discharges, environmental/health effects, and damages:</b>				
<b>Actions taken to stop, remove, and mitigate impacts of the discharge:</b>				
Part B: Notification Log				
Discharges of any Amount	Date and Time	Name of Person Receiving the Call		
Discharges Exceeding 25 gallons	Date and Time	Name of Person Receiving the Call		
Salt Lake City Fire Department/Other      911				
Utah Department of Environmental Quality (801) 536-4123				
<b>Other Notification Information:</b>				

### Attachment 4 - Piping and Instrument Diagram



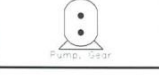



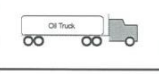
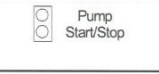
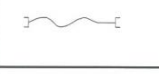




8-14-17

exp 3-1-18

Revised	Quantity	Title/Name, designation, material, dimension, etc.	Article No. Reference
1		Emerald - SLC	P&ID

**Attachment 4 - Piping and Instrument Diagram (continued)**

Description	Symbol
Gate Valve	
Ball Valve	
Gear Pump	
Wireless Level Gauge, transmits tank level and high-level alarms to receiver.	
Filter	
Vacuum Breaker, pressure relief device	
Transport Truck	
Start/Stop Switch for Pumps	
Transfer Hose	
Hose Connection	
Storage Tanks	

Tank	Capacity, gal.	Contents
1	7,041	Used Oil
2	7,018	Used Oil
3	7,357	Used Oil
4	8,478	Used Oil
5	8,478	Used Oil
6	8,478	Used Oil
7	8,478	Used Oil
8	8,478	Used Oil
9	8,478	Used Oil
10	8,478	Used Oil
11	10,027	Used Oil
12	10,027	Used Oil
13	19,698	Used Oil
14	19,698	Used Oil
15	19,698	Used Oil
16	19,480	Used Oil
17	19,645	Used Oil
18	19,534	Used Oil
19	20,216	Used Oil
20	19,480	Used Oil
21	18,403	Used Oil
22	19,425	Used Oil
23	20,447	Used Oil
24	19,645	Used Oil
25	19,676	Used Oil
26	20,447	Used Oil
27	20,612	Used Oil
28	19,022	Used Oil
29	19,022	Used Oil
30	20,963	Used Oil
31	14,484	Used Oil
32	20,963	Used Oil



exp 3-31-18

Emerald - SLC	P&ID
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## Attachment 5

### **Sample Collection Procedures**

#### **A. General**

- A.1. Shipments of bulk used oil shipped directly from the facility to facilities that burn the used oil as fuel shall meet the specification requirements of R315-15.1.2 of the Utah Administrative Code prior to shipment. Bulk shipments of used oil to another used oil processing facility only require testing to confirm that PCB concentrations in the used oil are less than 2 mg/kg (ppm).

#### **B. Tank Lock Down Procedure**

- B.1. The operator shall “lock down” the tank valve so that used oil cannot be added or removed from the tank. The operator shall record the date and time the tank was locked down and current volume of used oil in the facility’s operating record
- B.2. Once analytical results are received, and determined to be acceptable, the operator may remove the lock on the tank and pump the oil from the tank into a used oil transportation vehicle for delivery to the customer or used oil processing facility as applicable. The operator shall record the time the lock was removed and the volume of oil removed from the tank in the operating record.

A representative sample will be collected from the tank as outlined below and sent to a Utah certified laboratory for analysis.

#### **C. Tanks/Containers $\geq$ 375 gallons Sampling Procedure**

##### **C.1. Sampling Method ASTM-D7831 – Discrete Depth Device (Bacon Bomb)**

A Bacon Bomb sampler is used to collect samples from discrete depths within the tanks. The Bacon Bomb sampler consists of a cylindrical reservoir chamber with a weighted plunger that seals the chamber. A line is attached to the weighted plunger which has a locking mechanism or discrete samples. Sample container and jars, labels, sample logs are needed and a chain of custody form, if applicable.

##### **C.2. Step 1**

Lower the tank sampler in the closed position to the bottom of the tank. Pull up on the plunger line and allow the sampler to fill while pulling the device up slowly before releasing the plunger line to seal the sampler. Pour liquid into a sample container. Empty sampling device back into the tank and wipe off with an absorbent pad.

##### **C.3. Step 2**

Follow instructions for step one but lower the sampling device half way into the tank before pulling the string to remove the top and pull the device up slowly. Empty the sample into the sample container and empty remaining liquid back in the tank and wipe off sampler.

C.4. Step 3  
Follow instructions from steps 1 and 2 and pull a sample from the top 1/3 of the tank and empty into the sampling container and empty the sampling device and wipe clean.

C.5. Step 4  
Mix the oil in the sample container and transfer into the laboratory sample jar, label the sample jar and fill out chain of custody (if applicable) for lab. Follow lab procedures for proper packing and shipping.

C.6. Return all equipment to proper storage area and dispose PPE in appropriate container,

**D. Drums/Containers < 375 gallons Sampling Procedure**

D.1. Sampling Method ASTM- ASTM-D7831 – COLIWASA Sampling Device

COLIWASA Sampling Device: Glass or Polypropylene/ plastic type tube or “tank” sampler with a stopper at one end attached by a rod running the length of the tube to a locking mechanism at the other end.

D.2. Step 1  
Open the COLIWASA by placing the stopper mechanism or inter tube in the open position.

D.3. Step 2  
Lower the tapered end of the outer sampling tube in the liquid at a rate that allows the liquid level inside and outside to the tube to equalize. If the level of the liquid in the sample tube is lower than that outside the sampler, the sampling rate is too fast and a non-representative will result.

D.4. Step 3  
Use the stopper or tube mechanism to close the COLIWASA when it has reached the desired depth.

D.5. Step 4  
Slowly withdraw the sample from the liquid, keeping the seal closed and holding the tube in a vertical position. Wipe the exterior of the sampler tube with a rag or allow the excess liquid to drain back into the container.

D.6. Step 5  
Open sample jar and dispense the entire contents from COLIWASA into sample jar.

D.7. Step 6  
Label sample jar and fill out chain of custody for laboratory or screen sample the sample with a CLOR-D-TECT<sup>®</sup> halogen test kit (EPA Method 9077) and document the results. Follow any required laboratory procedures for proper packing and shipping.

**Attachment 6**  
**Analysis Plan**

**A. Halogen Field Screening Methods**

A.1. The Permittee shall screen, when applicable, used oil or oily water subject to R315-15 of the Utah Administrative Code in accordance with the following requirements:

A.1.a. CLOR-D-TECT<sup>®</sup> halogen test kit (EPA Method 9077) for oil containing less than 20% water; or

A.1.b. HYDROCLOR-Q<sup>®</sup> test kit if the oil contains between 20% and 70% water using the following conversion formula:

$$\text{True Halogen Concentration} = \text{Reading Syringe} + [(10 + \text{ml oil in sample})/10]$$

**Example:** sample contains 6 ml water and 4 ml oil (60% water) and the syringe reading is 2,000 ppm, then the true concentration is:

$$2,000 \text{ ppm} [(10 \text{ ml} + 4 \text{ ml})/10] = 2,800 \text{ ppm}$$

A.1.c. HYDROCLOR-Q test kit without correction for oil containing greater than 70% water.

**B. Quality Control Sample**

B.1. A The CLOR-D-TECT<sup>®</sup> kit (Method 9077 of SW846) requires that a quality control sample (duplicate) be analyzed for each sampling event.

**C. Halogen Laboratory Analytical Methods**

C.1. When relying on laboratory testing, the Permittee shall submit a representative used oil sample to a Utah-certified laboratory to analyze for total halogen concentrations using Method 9076.

**D. Rebuttable Presumption**

D.1. The Permittee may rebut the hazardous waste presumption in accordance with R315-15-4.5 of the Utah Administrative Code if the Permittee can demonstrate that the used oil does not contain significant concentrations of any of the halogenated hazardous constituents listed in Appendix VIII of EPA CFR 40, Part 261 which includes volatiles, semi-volatiles, PCBs, pesticides, herbicides and dioxin/furans. Generator knowledge may be used to exclude testing for pesticides, herbicides and dioxins/furans unless coming from a process where this is expected.

**E. PCB Contaminated Used Oil**

E.1. Laboratory testing for PCBs shall be conducted in accordance with R315-15-18(d) of the Utah Administrative Code when used to satisfy any requirements of R315-15 of the Utah Administrative Code and this Permit.

E.2. The required PCB sample preparation and analytical methods are listed in Table E.1.



**Table E.1: PCB Sample Preparation and Analytical Methods**

Sample Preparation Methods	Analytical Method	Analytes *	
		<i>PCB CAS RN</i>	<i>PCB Aroclor</i> <sup>®</sup>
3500C (General) 3580A (Preparation) 3665A (Cleanup)	8082A	<b>12674-11-2</b>	<b>1016*</b>
		147601-87-4	1210
		151820-27-8	1216
		11104-28-2	<b>1221*</b>
		37234-40-5	1231
		11141-16-5	<b>1232*</b>
		71328-89-7	1240
		<b>53469-21-9</b>	<b>1242*</b>
		<b>12672-29-6</b>	<b>1248*</b>
		165245-51-2	1250
		89577-78-6	1252
		<b>11097-69-1</b>	<b>1254*</b>
		<b>11096-82-5</b>	<b>1260*</b>
		37324-23-5	1262
11100-14-4	1268		
<p>* Note: Analyses of the seven Aroclors<sup>®</sup> bolded/* in the last column are mandatory to analyze. A total of seven Aroclors<sup>®</sup> are required. Choose additional Aroclors<sup>®</sup> from the last column for analysis if they may have contaminate the oil.</p>			

## **Attachment 7**

### **Used Oil Loading and Unloading Procedures**

#### **A. Training**

Emerald Services, Inc. drivers and other personnel who may assist with these operations will be trained in these procedures prior to actually loading and unloading used oil at the processor facility.

#### **B. Pump Locations**

Vehicles may be unloaded or loaded at 1 of 2 locations in the tank farm. Pump 1 is located on the west side of the tank farm between tanks 19 and 20. Pump 2 is located on the east side of the tank farm between tanks 26 and 27. Trucks park adjacent to these pumps for loading and unloading activities. During loading and unloading operations, a trained operator shall remain at the transfer location and maintain control of the operations throughout the entire used oil transfer.

#### **C. Procedures**

- C.1. Tanker trucks will be parked next to tank designated by Facility Manager or designee.
- C.2. Operators shall secure the vehicle by positioning wheels chocks, place a warning sign and applying the emergency brakes before loading or unloading used oil from vehicles.
- C.3. Prior to off-loading trucks, the destination tank that will be utilized must be measured to ensure there is adequate space for the load. Measurement shall be conducted as follows:
  - C.3.a. Tank volume shall be verified by using the supplied weighted tape measure and all measurements shall be done at the top of the tanks.
  - C.3.b. The measurements must be verified with the tank charts volume chart located in the back of each tank file.
  - C.3.c. Tanks shall maintain approximately 1,200 gallons of head space at all times to accommodate expansion and are never to be filled to the top.
- C.4. Once adequate volume is confirmed for tank loading, and if tank off-loading is to occur, driver will connect one section of three (3) inch vacuum line from the truck to the fixed tank connection. Each cam lock fitting on each end will be wired closed for safety and drip pans placed under each connection. The filter basket valve is always closed during offloading.
- C.5. The operational employee present shall monitor the level of the destination tank or tanker from the top of the tank or tanker, and shall notify the driver immediately if the transfer needs to be stopped in order to prevent overfilling.
- C.6. After the transfer is complete a measurement of the level shall be conducted on the tank with the weighted tape measure, and 1,200 gallons head space shall be verified.

Contact the Facility Manager for instructions if the 1,200 gallons minimum head space requirement is not met.

- C.7. The main person responsible for the load shall add the tank measurements to the tank charts and check the accuracy of the load by comparing the tanker measurements and/or load paperwork with the volume recorded for the tank. If there are discrepancies of more than 10%, contact the Facility Manager for discrepancy resolution.
- C.8. After the transfer is complete each hose will be disconnected and caps and plugs will be secured on each hose end, tank fittings, and truck fittings.
- C.9. Both operators will verify that all valves are closed, replace all plugs and cam caps, and secure the tank with a lock.
- C.10. Tank charts will be filled out upon completion of the transfer and shall include:
  - C.10.a. Starting and ending inches of the tank
  - C.10.b. Gallons transferred
  - C.10.c. Total gallons in tank after off-loading
  - C.10.d. Initials of both responsible parties

**Attachment 8**  
**Facility Closure Plan**

Emerald Services, Inc. shall at time of closure comply with all of the clean-up and requirements of R315-15-5 and this Closure Plan (Attachment 8), including:

- 1) Appendix 1- Estimated Closure Costs Tasks, and
- 2) The July 11, 2019 draft of the “Revised Facility Closure Plan, Emerald Services Inc., Used Oil Processing and Hazardous Waste Transfer Facility, 2450 South 800 West, Salt Lake City, Utah, (UTR000008201/UOP-0090).”

**Attachment 8 – Appendix 1**

**Estimated Closure Costs**

Task #	Itemized Task Closure Cost Description				
<b>1</b>	<b>Soil and Groundwater Testing</b>	<b>Quantity</b>	<b>Units</b>	<b>Rate</b>	<b>Current Cost</b>
	Sampling (labor)	10	Hours	\$75.00	\$750.00
	Sampling (labor) Supervisor	10	Hours	\$80.00	\$800.00
	Soil (18)/Groundwater (3) Samples & Analytical Testing	21	Each	\$550.00	\$11,550.00
	Drilling for soil sample collection	20	Hours	\$175.00	\$3,500.00
	Equipment Rental	2	Days	\$600.00	\$1,200.00
	<b>Site Sampling and Analytical Cost Sub-Total</b>				
<b>2</b>	<b>Facility Decommission and Certification</b>	<b>Quantity</b>	<b>Units</b>	<b>Rate</b>	<b>Current Cost</b>
	Prepare Health & Safety Plan Protect Coordination and Scheduling	1	Each	\$4,248.00	\$4,248.00
	Removal, Transportation, Sale and/or Recycling of Used Oil	516,424	Gallons	\$0.08	\$41,313.92
	Tanks Rinsate Heel/Sludge/Solids	6,950	Gallons	\$1.89	\$13,135.50
	Tanks Rinsate Oily Water	13,000	Gallons	\$0.79	\$10,270.00
	Diesel Fuel for Rinsate	1,550	Gallons	\$2.79	\$4,324.50
	Rinsate Analytical	34	Each	\$525.00	\$17,850.00
	Tanks(s) Cleaning/Decontamination	1	34	\$34,800.00	\$34,800.00
	Tank Cleaning Mobilization / Port to Port	15	Days	\$34.00	\$510.00
	Tanks Decontamination Activity Supplies, Meters, PPE (per day)	15	Days	\$275.00	\$4,125.00
	Tank Decontamination Facility Fees; Energy Fees	1	Each	\$6,695.58	\$6,695.58
	Warehouse Decontamination (2)	2	Each	\$2,874.00	\$5,748.00
	Used Oil Drums Treatment/Disposal	230	55 gal Drum	\$60.00	\$13,800.00
	Transportation Containerized Used Oil	1	Truck	\$3,052.00	\$3,052.00
	Fuel Surcharge (Containerized Used Oil Transportation)	1	Each	\$244.00	\$244.00
	Soil Removal (labor)	10	Hours	\$75.00	\$750.00
	Soil Removal Supervisor	10	Hours	\$80.00	\$800.00
	Transportation/disposal contaminated soil removal	27	Tons	\$50.00	\$1,350.00
<b>Plant Decommission Cost Sub-Total</b>					<b>\$163,016.50</b>
<b>3</b>	<b>Closure Certification</b>	<b>Quantity</b>	<b>Units</b>	<b>Rate</b>	<b>Current Cost</b>
	Independent P.E. Verification	1	Each	\$3,500.00	\$3,500.00
	Division of Waste Management & Radiation Control Review	5.5	Hours	\$90.00	\$495.00
	<b>Final Closure Verification Cost Sub-Total</b>				
<b>Total Estimated Closure Costs</b>					<b>\$184,811.50</b>



**REVISED FACILITY CLOSURE PLAN  
EMERALD SERVICES INC.  
USED OIL PROCESSING AND HAZARDOUS WASTE TRANSFER  
FACILITY  
2450 SOUTH 800 WEST, SALT LAKE CITY, UTAH  
(UTR000008201/UOP-0090)**

---

**July 11, 2019**

**Project #: 091-009-001**

**SUBMITTED BY:** Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

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**PREPARED FOR:** Safety-Kleen Systems,  
Inc.

1050 N. Third Street, Laramie, WY 82070

ENGINEERING SOLUTIONS. ADVANCING BUSINESS.

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**CERTIFICATION STATEMENT**

**FACILITY CLOSURE PLAN**

**EMERALD SERVICES INC.**

**USED OIL PROCESSING AND HAZARDOUS WASTE TRANSFER FACILITY**

**2450 SOUTH 800 WEST, SALT LAKE CITY, UTAH**

I certify this closure plan presented was prepared under my supervision. To the best of my knowledge, the information presented herein is true and accurate and the work was performed in accordance with professional standards.



---

Conrad Morgan, P.E. No. 11037963-2202

July 11,

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Date



# 1.0 INTRODUCTION AND FACILITY DESCRIPTION

Emerald Services, Inc. (Emerald) operates a Used Oil Processing and Hazardous Waste Transfer Facility located at 2450 South 800 West, in Salt Lake City, Utah (Figure 1). The facility is managed under a Used Oil Processor Permit (Permit # UOP-0090) that was issued on March 20, 2018. In 2016, Emerald was acquired by Safety-Kleen Systems, Inc. (S-K), a wholly owned subsidiary of Clean Harbors. Management has decided to close the facility. The decision to close was determined on April 8, 2019. Since the acquisition, facility closure activities have become the responsibility of the S-K Closure/Corrective Action Group. This Closure Plan specifies performance standards and describes procedures for closure of the used oil processing facility in accordance with the Permit and Utah Administrative Code R315-15-11.

The site (Figure 2) includes warehouses, above-ground tanks in bulk storage areas, and associated ancillary equipment. The surrounding land is zoned and permitted for light industrial use. The facility was utilized as a used oil processing and hazardous waste transfer facility; transferring materials from bulk tanker trucks and package trucks to above ground tanks and storage of drums and totes in warehouses. Emerald handled antifreeze, mixed fuels, oil filters, parts washing solvent and other materials generated in the automobile industry and other industries which generate used lubrication oil. The facility also processed used oil by filtration. The following permitted units are displayed on Figure 2:

- Bulk Storage Area 1: This area is located near the north property line and contains 16 tanks and associated processing equipment with a maximum 179,390-gallons of storage tank capacity and approximately 50-gallons of storage capacity in the piping. The secondary containment area is constructed of concrete and rebar.
- Bulk Storage Area 2: This area is located south of Bulk Storage Area 1 and north of the concrete Truck Tank Unloading Area. Bulk Storage Area 2 also contains 16 tanks. The tanks and associated processing equipment have a maximum 311,984-gallons of storage capacity with approximately 50-gallons of storage capacity in the piping. The secondary containment area is also constructed of concrete and rebar.
- South Storage Warehouse: This warehouse is located along the southern border of the property and contains two tote and drum storage areas. The Permit notes 100/55-gallon drums and 20/300-gallon totes can be stored with a maximum capacity of 11,500-gallons of used oil.
- Receiving Warehouse: The receiving area also contains a drum and tote storage area on the west side of the building. The Permit notes a maximum of 130/55-gallon drums and 20/300-gallon totes can be stored with a capacity of 13,150-gallons of used oil. Additionally, a 300-gallon shop heater aboveground storage tank is located in the warehouse.

The tank farm, receiving warehouse, storage warehouse, and piping contains approximately 516,424 total gallons of permitted storage capacity for used oil. The following areas are not identified as permitted units; however, S-K intends to address them as part of proposed closure activities:

- Bulk Storage Area 3: This tank farm contains four transfer tanks with an unknown storage capacity. These tanks are located in a smaller secondary containment area that abuts Bulk Storage Area 2 and the Truck Tank Unloading Area.
- Truck Tank Unloading Area: This loading area is located adjacent to the Bulk Storage Area 2 and 3 and consists of a concrete pad.

## 1.1 FACILITY CONTACT INFORMATION

Please find facility contact information below:

**Facility Address:**

Emerald Services Inc.  
2450 South 800 West  
Salt Lake City, UT 84119  
(206) 832-3000

**Permittee Administrative Contact:**

Michelle Lackman  
Senior Environmental Compliance Manager  
Cell: (253) 278-4110  
Email: mlackman@emeraldrenews.com  
2450 South 800 West  
Salt Lake City, UT 84119

**Facility Closure Contact:**

Brian Culnan  
Director – Facility Closures & Corrective Action  
Office: (307) 742-6150  
Email: brian.culnan@safety-kleen.com  
1050 North 3rd Street, Suite M  
Laramie, WY 82072

**Facility Contact (Utah):**

Joe Dwyre, Branch General Manager

Office: (503) 723-6379

Cell: (503) 706-0311

Email: Joe.Dwyre@thermofluids.com

**Facility Contact (Washington):**

Joe Valerio, Facility Manager

Cell: (509) 998-6671

Email: jvalerio@emeraldrenews.com

## 2.0 PROPOSED CLOSURE ACTIVITIES

Closure activities are proposed in the following subsections. Tank cleaning activities for the aboveground storage tanks (ASTs) in Bulk Storage Areas 1 and 2 have already been conducted. The tanks were emptied and cleaned to perform integrity testing in accordance with operating requirements. The tank cleaning activities were performed in October 2018 associated piping was decontaminated in June 2019; however, additional visual inspection will be conducted on tanks (including piping and connections) to confirm tanks were fully drained and cleaned.

Documentation of tank cleaning will be presented in a pending closure report. Closure activities described in this plan consist of inspection procedures for the previously cleaned tanks to verify effective decontamination, as well as inspection and decontamination procedures for the tank containment and permitted container storage areas. In addition, the 300-gallon waste oil heating tank will also be decontaminated. Lastly, this closure plan describes soil and groundwater sampling that will be conducted following decontamination. These procedures are described below. As mentioned in Section 1, the decision to close the Emerald facility was made on April 8, 2019.

### 2.1 REMOVAL OF USED OIL INVENTORY

As part of operations, the used oil tanks were emptied, cleaned and inspected. All used oil was sent to a permitted processor/re-refiner within the internal Emerald/S-K management system. Used oil was removed using existing equipment and infrastructure (vehicles, loading areas, secondary containment, etc.) to mitigate potential of releases.

### 2.2 INSPECTION PROCEDURES

Inspection activities will be conducted on secondary containment structures in Bulk Storage Areas 1 and 2, and concrete flooring associated with the portable drum and tote storage areas in the Receiving and South Storage warehouses. Inspections will be performed under the supervision of an independent Utah-certified professional engineer; for cracks, gaps, or other lapses in integrity.

### 2.3 DECONTAMINATION PROCEDURES

Decontamination activities, as noted above, were conducted inside all 32 tanks and associated piping within Bulk Storage Areas 1 and 2 in October 2018 and June 2019. Additional decontamination will be conducted within the permitted warehouse storage units, secondary containment structures within the bulk storage areas, and concrete flooring associated with the portable drum and tote storage areas. Also, decontamination will be conducted in areas where used oil was stored during recent site inspections. Decontamination rinsate will be sampled for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and RCRA 8 metals (Method 6010B) per permitted applicable waste management.

### **2.3.1 BULK STORAGE AREA 1 AND 2 DECONTAMINATION**

The interior of the ASTs in Bulk Storage Areas 1 and 2 and associated ancillary components; including pipes, fittings, pumps, etc., were previously decontaminated with a high-pressure, non-phosphate detergent/water solution, followed by rinsing with tap water. Interior tank surfaces were decontaminated to the extent practicable. To confirm adequate decontamination inside the tanks and piping, S-K will perform additional visual inspections as mentioned above and measure the lower-explosive limit in each tank. A calibrated combustible gas meter will be inserted into each AST and within piping to the extent practicable to confirm the atmosphere is 5 percent (%) or lower of the LEL. In the event visual inspections identify remaining amounts of oil or substantial staining, or if atmospheric readings are above 5% of the LEL, additional decontamination activities will be conducted.

Concrete secondary containment features will also be decontaminated with a high-pressure, non-phosphate detergent/water solution, followed by rinsing with tap water. Decontamination will continue on containment features until they are determined to have a clean debris surface.

### **2.3.2 RECEIVING AND SOUTH STORAGE WAREHOUSE DECONTAMINATION**

The shop heater AST, and its associated components, in the receiving warehouse will be decontaminated in a similar manner to the ASTs described above. Drums and totes will be removed from the site as needed. The concrete flooring of the permitted storage areas inside each warehouse will be cleaned. Decontamination will consist of a high-pressure, non-phosphate detergent/water solution, followed by rinsing with tap water. Decontamination of the concrete floors will continue until clean debris surfaces are observed. Decontamination in the shop heater AST will be confirmed in the same manner as the bulk storage ASTs.

## **2.4 SOIL AND GROUNDWATER SAMPLING**

Soil and groundwater samples will be collected onsite to determine if the subsurface was impacted during operational activities. Proposed soil and groundwater sampling locations are displayed on Figure 2. S-K proposes to install a total of 15 borings; 11 for soil sampling, 3 for soil and groundwater, and 1 for groundwater only. Soil and groundwater sampling locations are generally proposed in locations susceptible to releases immediately adjacent to permitted areas. Sample locations may be slightly adjusted in the field, pending results of the inspection, towards potential cracks, gaps, or other lapses of integrity as well as to facilitate access for sampling equipment. Attempts will also be made to bias sample locations near certain features; such as sumps, manifold pans, and slab joints; identified during previous site inspections.

Prior to conducting the site investigation activities, Blue Stakes of Utah811 will be notified to identify potential underground utilities. Additionally, a private utility locator will perform additional surface delineation of underground utilities using ground penetrating radar (GPR) and radio frequency.

Soil borings will be installed with hydraulic direct-push rig, a direct push hand tool, and/or a hand auger. Sampling locations in concrete will be cored prior sampling. Soil samples will be continuously collected in acetate liners from ground surface (or collected in a hand auger bucket), to a target depth of five feet below ground surface (ft-bgs). Soil lithology will be documented in accordance with the Unified Soils Classification System (USCS) by a qualified geologist. Other information, such as color, grain size, and texture, will also be noted on boring logs. An aliquot from each 2 to 5-foot sample interval will be removed and placed in a Ziploc™ style bag and allowed to reach ambient temperature for field screening. The headspace in each bag will be measured for relative total organic vapor (TOV) concentrations using a calibrated photoionization detector (PID).

One soil sample will be collected from the 14 proposed soil borings identified on Figure 2. Each sample will be submitted for laboratory analyses of volatile organic compounds (VOCs, Method 8260B/Field Method 5035), total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO), motor oil (Method 8015D), semivolatile organic compounds (SVOCs, Method 8270D), RCRA 8 metals (Method 6010B), and polychlorinated biphenyls (PCBs, Method 8082A).

Temporary groundwater monitoring wells will be installed at four boring locations as displayed on Figure 2. Groundwater is anticipated at an approximate depth of five ft-bgs. A 1-inch polyvinyl chloride (PVC) pipe, with slotted screen, will be placed downhole in each temporary well. Grab groundwater samples will be collected using a peristaltic pump and dedicated tubing. Groundwater samples will be submitted for laboratory analysis of VOCs (Method 8260B), TPH-GRO/DRO/motor oil (Method 8015D), SVOCs (Method 8270D), and PCBs (Method 8015D). Soil and groundwater samples will be placed in an iced cooler subsequent to collection. Samples will be shipped for overnight delivery to Pace Analytical Laboratories. S-K will request a Level IV data validation analytical package.

## **2.5 BACKGROUND SOIL SAMPLING**

S-K also intends to collect up to three background samples in locations the certifying engineer determines to be unaffected by facility operations. The purpose of background sample collection is to aid in determining background concentrations in site soils. Background samples will be collected in a similar manner to those proposed above; sealed, labeled, placed on ice in a cooler and submitted for analysis of RCRA 8 metals Method 6010B. All borings will be

backfilled with hydrated bentonite, with surfaces patched to match surrounding conditions (as necessary), upon completion of sampling activities.

## **2.6 SAMPLE LOCATION SURVEY**

Sampling locations will be surveyed with a hand-held GPS and/or licensed surveyor. The top of PVC elevation for temporary groundwater wells will be surveyed to an accuracy of 0.01 foot. The locations and elevation will be surveyed relative to the USGS or similar datum.

## **2.7 WASTE MANAGEMENT**

Debris, sludge, and wash/rinse water generated during the decontamination activities will be collected and stored in labeled 55-gallon drums and/or roll-off bins. Disposable equipment used during decontamination will be placed in 55-gallon drums separate from the wash/rinse water and debris/sludge. The wash/rinse water, sludge, and solid debris will be managed through the Emerald/S-K waste management system, in accordance with applicable regulations. Volumes of waste generated, waste management procedures, and facility manifests will be provided in the final closure report.



## 3.0 FUTURE ACTIVITIES AND REPORTING

S-K intends to perform closure activities per the following general schedule:

Action	Time Frame
Notification of Closure Activities	May 16, 2019
Initiate Closure Activities	After Utah Department of Environmental Quality (UDEQ) approval of Closure Plan and no later than 90 days after the final volume of used oil received
Submit Soil and Groundwater Data and Data Validation Report to UDEQ	30 Days after receipt of complete and final soil and groundwater laboratory data
Submit the Engineer Certified and Signed Closure Report to UDEQ	60 Days after Completion of Closure

### 3.1 QUALITY ASSURANCE/QUALITY CONTROL

Quality assurance and quality control (QA/QC) will serve two purposes for field and laboratory sampling:

1) documentation of data quality and 2) to identify areas of weakness within the measurement process that need correction. A brief discussion of the QA/QC elements to be implemented during the closure activities are described below.

#### 3.1.1 FIELD CONTROL SAMPLES

Blind duplicate (field replicate) samples will be collected to evaluate precision associated with the reproducibility of sampling techniques and the homogeneity of sample matrices. Replicate samples will be collected for each groundwater and soil sample at a frequency of 10 percent or one for every 10 samples. If less than 10 samples are collected during a particular sampling event, one blind duplicate sample per matrix will be collected. Since the replicate will be “blind” to the laboratory, it will have a coded identity on its label and on the chain-of-custody record form. The actual sampling location and identification will be recorded on the daily log form and the sampling log form. Duplicate samples are collected to check sampling and laboratory analytical precision. Additionally, a laboratory prepared trip blank will be included in every cooler containing samples for analyses of VOCs.

#### 3.1.2 LABORATORY QUALITY CONTROL SAMPLES

Laboratories routinely perform matrix spike and matrix spike duplicate (MS/MSD) analysis to determine laboratory precision and method bias for sample matrices at the time of sample preparation and analysis. Matrix spike/matrix spike duplicates will be prepared and analyzed by the laboratory at a frequency of one per every 20 investigative

samples received for each matrix. MS/MSDs are samples in which compounds are added before extraction and analyses. The recoveries for spiked compounds can be used to assess how well the method for analysis recovers target compounds.

### **3.2 DATA EVALUATION**

The data generated through field activities or by the laboratory will be reduced and validated prior to reporting. An independent data validation review will be performed on the data received from the laboratories to verify and document that the soil and groundwater were analyzed in accordance with the project requirements and that the laboratory analytical report is complete. Soil and groundwater data will be validated in general accordance with USEPA CLP National Functional Guidelines for Organic Superfund Methods Data Review, document number EPA-540-R-2017-002 (January 2017) with additional reference to the USEPA CLP National Functional Guidelines for Organic Data Review, document number EPA 540/R-99/008 (October 1999) and USEPA CLP National Functional Guidelines for Inorganic Superfund Methods Data Review, document number EPA-540-R-2017-001 (January 2017) with additional reference to the USEPA CLP National Functional Guidelines for Inorganic Data Review, document number EPA 540-R-04-004 (October 2004).

### **3.3 CLOSURE REPORT AND CLOSURE PERFORMANCE STANDARDS**

Following the data evaluation process, S-K will prepare a closure report that includes:

- Utah Professional Engineering certification.
- Summary of field, laboratory, and data validation activities (decontamination, sampling, analyses, and reporting).
- Tabulation of soil and groundwater data in spreadsheet format.
- Volume of wastes removed, transport and waste manifests.
- Photo-documentation.
- Deviations from this closure plan.
- Comparison of soil data to standards including (a) site specific background results from background samples, (b) November 2005 UDEQ Initial and Tier I Screening Levels, and (c) May 2019 United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs).
- Comparison of groundwater data to standards including (a) April 2019 Utah Administrative Rule R317.6 Table 1 Groundwater Quality Standards, (b) November 2005 UDEQ Initial and Tier I Screening Levels, and (c) May 2019 USEPA RSLs.

### 3.4 ADDITIONAL POTENTIAL FUTURE ACTIVITIES

S-K has proposed performance standards for potential soil and/or groundwater impacts in the above subsection. If soil and groundwater results are below performance standards, the site will be certified closed. In the event that soil or groundwater quality exceeds levels as proposed in this closure plan, S-K anticipates formally evaluating and/or discussing results with UDEQ; and submitting investigation or remedial plans if necessary.

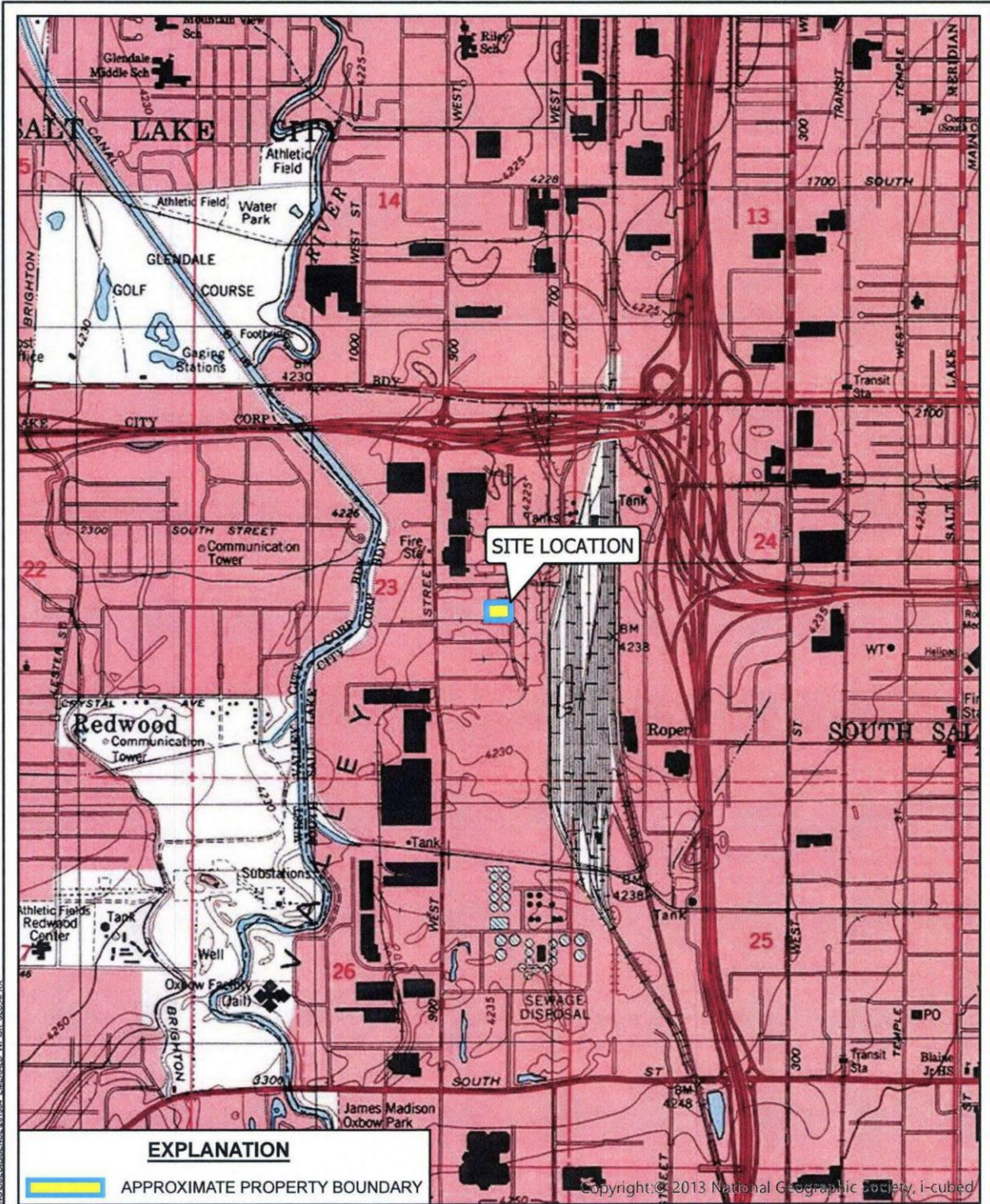
## 4.0 REFERENCES

United States Environmental Protection Agency. 2017a. USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review, document number EPA-540-R-2017-002. January 2017.

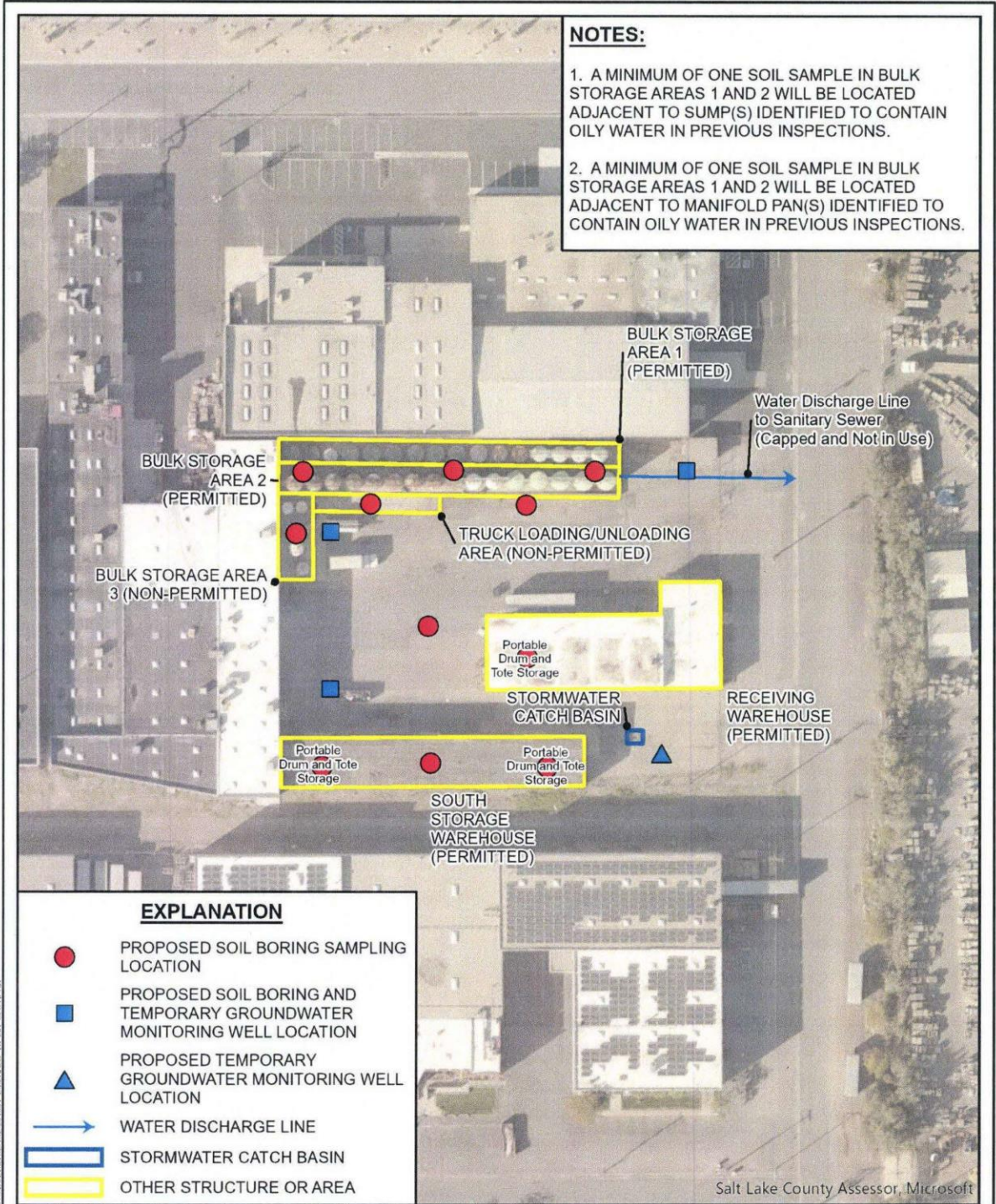
United States Environmental Protection Agency. 2017b. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review, document number EPA-540-R-2017-002. January 2017.

Utah Department of Environmental Quality, Division Waste Management and Radiation Control. 2018. Emerald Services Inc., 2450 South 800 West, Salt Lake City, Utah (UTR000008201/UOP-0090). March 20, 2018.

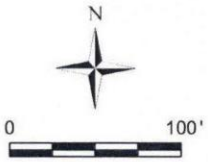
## FIGURES



	<p>1252 Commerce Drive Laramie, WY 82070 www.trihydro.com (P) 307.745.7474 (F) 307.745.7729</p>	<b>FIGURE 1</b>			
		<b>SITE LOCATION</b>			
		<b>2450 SOUTH 800 WEST</b> <b>EMERALD ENVIRONMENTAL SERVICES</b> <b>SALT LAKE CITY, UTAH</b>			
Drawn By: BR	Checked By: MJ	Scale: 1" = 2,000'	Date: 5/16/19	File: Fig1_SLC_SiteLoc	



S:\TRIHEDRO\2019\2450 SOUTH 800 WEST\2450 SOUTH 800 WEST\2450 SOUTH 800 WEST\_SLC\_AREX



**Trihydro**  
CORPORATION  
1252 Commerce Drive  
Laramie, WY 82070  
www.trihydro.com  
(P) 307.745.7474 (F) 307.745.7729

**FIGURE 2**  
**SITE MAP AND PROPOSED SAMPLING LOCATIONS**

**2450 SOUTH 800 WEST**  
**EMERALD ENVIRONMENTAL SERVICES**  
**SALT LAKE CITY, UTAH**

Drawn By: BR	Checked By: MJ	Scale: 1" = 100'	Date: 7/11/19	File: Fig2_SLC_SiteMap
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