Part I - General Facility Information

A. General Information: 1 Through 18: Completed in pages I-1 through I-3 of the form

Part I - General Facility Instructions: 19 Through 21: Completed on page I-3 and I-5

B. Site Information:

1 and 2: Completed in page I-3 of the form.

3. Attach a scale drawing and photographs of the facility showing the location of all past, present, and future treatment, storage, and disposal areas. Also show the hazardous wastes traffic pattern, including estimated volume and control. Photos I.B.3.-1 through I.B.3.-3 show copies of aerial photographs taken in January 1981, November 1984, and February 1994, respectively. The 1981 photo shows the general area, which was a vacant field. The 1984 photo shows the facility at its present location. Photographs I.B.3.-1 through I.B.3.-3 were prepared by the Florida Department of Transportation, and they were distributed by Orange County in the State of Florida. These aerial photographs indicate past uses of the site before the facility was built on it in 1984. Photos I.B.3.-4 through I.B.3.-7 are aerial views taken in 1995 by a private company that show the Chemical Conservation Corporation facility, which is now Triumvirate Environmental Services, Inc. Photos I.B.3.-8 through I.B.3.-18 shows various treatment and storage areas. Photographs I.B.3-4 through I.B.3.-18 illustrate the facility, its use, and are included for informational purposes.

Figure II.A.5 shows the hazardous waste management areas at the facility. Photos I.B.3.-8 through I.B.3.-18 contains views of the areas indicated in Figure II.A.5. The traffic volume into and out of the facility is very low, averaging 3 tractor trailers per week and 1 box truck per day.

- 4. Attach topographic maps which show all the features indicated in the instruction sheet for this part. Figure I B 3 is a computer-generated composite of a section of two maps named "Lake Jessamine" and "Pine Castle" (reference codes 28081-D4-TF-024 and 28081-D3-TF-024, respectively), published by the U.S. Geological Survey (USGS) in a 7.5-minute quadrangle. Both maps were needed because a small portion of the eastern area encompassed by a 1-mile radius from the facility site is contained in the "Pine Castle" map, while the remainder of the circled area is shown in the "Lake Jessamine" map. Figure I B 3 contains the following features and information, in accordance with instructions in the permit application form:
 - a. Map scale and date. The 7.5-minute quadrangle, is provided in a 1:24,000 scale, which is equivalent to a 1-inch-to 2,000-feet scale. Both the "Lake Jessamine" and "Pine Castle" maps were last revised in 1980.
 - **b**. 100-year floodplain area. Floodplain areas are shown in Figure II.A.3 which is a copy of the storm water map. We have included this map to show and illustrate the exact location of the 100 year floodplain which is not readily discernible in the FEMA map FIRM Maps (I.B.5 and I.B.4).

The FEMA flood maps are also attached from 2009 as Figures I.B.5 and I.B.4. These maps are provided because it shows both lots of Triumvirate Environmental (Florida), Inc. are outside the 100-year floodplain.

- **c**. Orientation of map. North orientation is indicated on each of the aerial photographs and the flood plain map.
- d. Surface water bodies within ¹/4 mile of the facility property boundary. Except for Boggy Creek, which runs north to south at the northeast of the site and storm water ponds to the west and southwest of Triumvirate Environmental Services, Inc., there are no bodies of water of sufficient proximity and magnitude to exert a significant influence on the groundwater system beneath the Triumvirate Environmental Services, Inc. site. The ponds are shown at the center of the left hand margin and at the lower left hand corner. See figure II A 1.
- e. Surrounding land uses. On the east side of the Triumvirate Environmental Services, Inc., facility is an open, vacant lot. To the west is Cook Composites & Polymer. To the south, across Rocket Boulevard, are warehouses and small businesses. To the north are industrial facilities. See figure II A 1.a(11)
- **f.** Legal boundaries of the facility. Information of distances and bearings of legal boundaries for the facility are shown in Figure II.A.2 Boundary and Topographic Survey.
- **g.** Injection wells used by the facility within one mile of the facility property boundaries. The facility does not use injection wells.
- **h.** Drinking water wells listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundary. There are no known drinking water wells within ½ mile of the facility property line.
- i. Intake and discharge structures within one mile. Storm water collected in the general area of the facility discharges into Boggy Creek at a point directly east of the facility site. See figure II A 1

5 and 6 Completed on page I-4 of the form.

C. Land Use Information:

1 through 3: Completed on page I-4 of form.

D. Operating Information:

1 through 3: Completed on page I-4 of the form

As explained on page i of this application, the organization of the permit application follows a format established in a reference guide published by the State of Florida Department of Environmental Protection (DEP) titled Hazardous Waste Facility Permit Application Instructions and Forms dated 5/15/1996. The application has followed the reference guide's format to ensure that it addresses all of the reference guide's requirements. Even though the reference guide does

not require it, a brief description of the facility operations is provided below to develop a better understanding of the topics addressed in the application.

FACILITY OPERATIONS

The Triumvirate Environmental Services, Inc., facility in Orlando is presently permitted for the storage and consolidation of hazardous and solid (i.e., non-hazardous) waste. Triumvirate Environmental Services, Inc. is also a transporter of hazardous waste and operates a hazardous waste transfer facility at the site. The storage and consolidation operations are authorized by a Hazardous Waste Facility Operating and Corrective Action Permit issued on January 28, 2009. This permit allows the facility to store up to 824 55-gallon containers in the container storage unit, and to consolidate waste with other compatible wastes. The facility may use the container storage unit to hold waste regulated under the transfer facility provisions for short periods of time. The transfer facility provisions allow a hazardous waste transporter to hold waste at the transfer facility for ten days or less while in transportation to another facility. The Triumvirate Environmental Services, Inc., facility on Rocket Boulevard is also registered with the FDEP as a used oil transfer facility.

FACILITY OPERATION DESCRIPTIONS

The following discussion of the facility operations includes:

- Waste Evaluation Procedures used to evaluate waste streams for receipt by Triumvirate Environmental Services, Inc.;
- Inspection and Testing of Incoming Wastes Procedures used to inspect and test waste upon arrival at the facility;
- Waste Receipt and Distribution Routing of waste within the facility upon its acceptance;
- Evaluation of Waste before Shipment Description of procedures utilized to characterize different wastes prior to shipment to off-site facilities.
- Container Storage Unit Description of the container storage area and its use;
- Consolidation of Wastes Discussion of methods used to reduce the number of containers processed.
- Stabilization of Wastes Discussion chemical stabilization (chemical fixation) of wastes; and
- Storage of Non-Hazardous Wastes

Waste Evaluation: These procedures begin with the waste approval process found in the Waste Analysis Plan, which contains methods employed to evaluate waste streams. Results from this evaluation determine whether to grant or deny approval to ship the waste stream to the Triumvirate Environmental Services, Inc. facility. The process consists of obtaining a completed waste profile form from the generator that describes the type and composition of the waste, as well as its physical and chemical characteristics. The form also states the environmental and transportation regulatory status for the waste based on the source, composition, and characteristics of the

waste. The waste approval process describes the rationale used to review profiles and supporting documents that may accompany the profile form. Guidance describing circumstances under which supporting documents must be submitted is provided in the Waste Analysis Plan. Waste codes and types that are permitted and prohibited at the facility are described in the Waste Analysis Plan.

Wastes accepted at Triumvirate Environmental Services, Inc. are stored, consolidated, repacked, or treated. All storage is in containers, including waste managed through the 10-day transfer area. Consolidation consists of pouring containers together into shippable drums. Re-packaging consists of removing inner containers from outer containers and placing them in appropriate containers for outbound shipments. Treatment consists of stabilization of wastes in roll-off boxes with cement or other suitable material approved by The Department. As part of the evaluation process, each waste is evaluated for one of these handling methods.

Modifications made to the profile as a result of the evaluation process, and decisions made with respect to granting or denying an approval to a waste stream are recorded and maintained in the profile review form.

Inspection and Testing of Incoming Wastes: Procedures for inspection and testing of incoming wastes are described in Section II.A. pages 5 & 6, of the Waste Analysis Plan. These procedures describe the methods used to ensure that the waste received conforms to relevant characteristics stated in the waste profile form provided by the generator. Those characteristics ensure that the waste is compatible with other wastes. Compatibility is verified by a test consisting of mixing the waste in question with wastes contained in containers into which the waste is planned to be transferred. Failure of a waste to pass a compatibility test may be evidence that the waste in question does not conform to the specifications stated in the profile, or the failure may occur from testing errors, such as inadvertently mixing incompatible materials. The steps taken in the compatibility test will be verified before assuming that the waste in question does not conform to the specification in the profile.

Inspection and testing procedures for incoming wastes are dependent on the management method. Results from the inspection and testing of waste are entered an electronic data base. Inspection and testing of wastes generally takes place before the wastes are transferred to the container storage cells. The waste verification process also describes procedures for management of incoming wastes that do not conform to information provided in the waste evaluation documents.

Waste Receipt and Distribution: Van trailers (trailers) transporting waste containers to the facility park next to the loading dock, with their rear doors facing the dock side. Containers arriving at Triumvirate Environmental Services, Inc. may bring "permitted waste" or "transfer facility waste." Permitted waste arrives on a manifest showing Triumvirate Environmental Services, Inc. with the EPA ID, number of FLD 980 559 728; whereas, for transfer facility waste, Triumvirate Environmental Services, Inc. with the EPA ID number of FLD 980 559 728 is not shown as the designated facility.

Transfer facility waste arriving at Triumvirate Environmental Services, Inc. is in route to other TSD facilities. Most of that waste remains in the same trailer in which it arrived or it is transferred to another trailer. The outbound shipment is made within 10 days of arrival at the facility. Under certain situations (such as no additional trailer is available or no parking space is available at the loading/unloading dock), the transfer facility waste containers from a shipment may be stored temporarily in the container storage unit and then loaded into an outbound trailer. The outbound waste in such case must leave Triumvirate Environmental Services, Inc. within 10 days of receipt of the transfer facility waste.

Containers holding transfer facility waste can be distinguished from those holding permitted waste because all waste that is permitted or terminated at Triumvirate Environmental Services, Inc. receives a barcode label. Transfer waste does not receive a barcode label. The barcode label shows the drum identification number and the drum receipt date. In addition, manifests listing transfer facility waste in storage at the unit are maintained at the facility. Procedures for compliance with regulatory requirements and for management of transfer facility waste are documented in section II.A.7 - "Recordkeeping & Reporting."

The procedures used to inspect inbound waste shipments are found in the Waste Analysis Plan. Containers holding permitted waste are unloaded from incoming trailers and placed on the loading dock or in the staging areas located inside the container storage unit with the hazardous waste label easily visible. Containers in a shipment may hold one or several waste streams, and each waste stream may contain one or several drums. The facility tracks all inbound waste through an electronic system that details each manifest and barcodes all waste that is terminated at the facility. All containers that are accepted at the facility receive a unique barcode and label which will identify how the drum will be handled. Any container that is being transferred will be counted and tracked in the electronic system through the transfer station function. All transfer waste is inspected, counted, and placed into an electronic transfer station which monitors the waste that is onsite. DOT hazard classes are used for the segregation of waste materials.

Evaluation of Waste Before Shipment: The last part of the Waste Analysis Plan pertaining to classification of wastes deals with the evaluation of the waste before it is shipped to an off-site facility. These procedures are found under the title of "Evaluation of Wastes for Shipment," of the Waste Analysis Plan (Section II.A.5/6). The procedures require evaluation of the hazardous waste codes, the land disposal restriction notification requirements, and DOT description for consolidated waste and stabilized waste. Waste in transfer that does not receive any type of management at the facility except storage is not discussed. The same regulatory status shown in shipping documents and container markings for the inbound load may also be used for shipping the "storage only" waste out. Consolidated waste is assigned the same codes that belonged to waste put into the consolidated containers. The DOT description is a generic proper shipping name that best describes the mixture, which may be determined by inspecting the DOT descriptions that belong to individual waste streams comprising the mixture.

Container Storage Unit: The existing permitted unit consists of a rectangular area where several storage cells have been built. Every cell has been provided with a separate secondary containment designed to store compatible waste and isolate it from incompatible waste that may be stored in contiguous cells. The secondary containment structures consist of curbs, roll-over berms, and the walls of the warehouse building where the unit is located. A concrete curb along the building's perimeter wall contains spills. A synthetic coating material resistant to solvents and corrosives has been applied to the floor surface to protect it from the attack of aggressive chemicals and from the wear of equipment that rolls over the area. The dimensions of the secondary containment systems are such that they are capable of containing spills the size of at least 10% of the maximum storage capacity of the cells (40 CFR 264.175). A detailed description of dimensions, construction, and capacity of the secondary containment systems is provided by "Secondary Containment" (Section II.B.1).

Storage of ignitable hazardous waste at the facility is at least 15 meters from the nearest property boundary. Ignitable and Incompatibles (Section II.B.2.) discusses requirements that apply to ignitable, reactive, and incompatible waste.

Triumvirate Environmental Services, Inc., manages a large variety of waste types at the unit, several of which may be incompatible with other waste stored in the unit. Therefore, a system to prevent the storage of incompatible wastes in the same cell has been developed and described in "Segregation & Separation" (Section II.B.3.). The system segregates and separates containers holding incompatible waste with the use of a method that the U.S. Department of Transportation requires for the transportation of hazardous materials. Since hazardous wastes are also hazardous materials, the same requirements apply during transportation. This method has been selected because it is easy to understand, implement, and communicate, and because it does not require other waste evaluation activities in addition to the ones already in place.

The method is based on the DOT Hazard Class (or division) that is a component of the DOT description. The DOT description is reviewed during the waste evaluation process conducted on every waste stream before it is approved for management at the Triumvirate Environmental Services, Inc. facility. The determination of compatible hazard classes is made with the use of the table found in the DOT regulations. A sign showing the hazard classes applicable to the wastes stored in the cell is posted for each cell.

Once the waste has been inspected and tested, the operator locates the cell where the container is to be stored by means of the hazard class shown on the hazardous waste label.

The last two sections of the container subpart are "Management of Containers", Section II.B.4, and "Inspection Procedures", Section II.B.5, "Management of Containers" describes the procedures the facility uses to inspect the integrity of the containers, the manner of placement in the cells and handling during storage, and the system utilized to manage rejected waste drums while stored in the unit. The inspection procedures describe the methods used to inspect drums, structures, and equipment inside the unit.

Consolidation of Wastes: The hazardous waste regulations do not consider Consolidation a treatment operation; therefore, there is not a section in the permit application questionnaire and instruction booklet that addresses such operations. Since compatibility of wastes during consolidation is a major concern, "Segregation & Separation" (Section II.B.3) includes discussion of this operation.

Triumvirate Environmental Services, Inc. is authorized to consolidate compatible hazardous wastes stored in containers into larger containers. Hazardous waste which can be disposed of together at an approved hazardous waste facility will only be consolidated together. Only hazardous waste that has passed the acceptance procedures described in the Waste Compatibility Test Manual will be consolidated. Triumvirate Environmental Services, Inc. will not consolidate acids, inhalation hazards, reactives (D003) or oxidizers. Flammable material which is intended for fuel blending or incineration may be consolidated contingent upon NFPA upgrades. Consolidations will take place in the Waste Consolidation and Stabilization Area identified in Figure II.A.5.

Stabilization: Triumvirate Environmental Services, Inc. will stabilize metal bearing wastes (D004-D008, D010-D011) with stabilizing agents such as cement or other material approved by the department. Examples of such waste streams are contaminated soil with RCRA metals. Stabilization will occur in cubic yard boxes or roll-off containers. The procedures and equipment involved in stabilization are outlined in The Containers section. Details on the testing of the waste are located in the Waste Analysis Plan.

In the solid waste permit Triumvirate Environmental Services, Inc., is authorized to solidify non-hazardous materials such as waste water, antifreeze, latex paint, and resin.

Storage of Non-hazardous Wastes: Triumvirate Environmental Services, Inc., will store non-RCRA regulated (i.e., non-hazardous) wastes in the container storage unit. These wastes will be included as part of the total permitted hazardous storage capacity. Non-hazardous wastes include used oil, anti-freeze, latex paint, and oil filters. Non-hazardous wastes may also be placed inside a roll-off box for shipments offsite.

Triumvirate Environmental Services, Inc. follows the procedures outlined in 40 CFR 279 for on specification used oil. Triumvirate Environmental Services, Inc. also follows the hazardous waste rebuttal for used oil following the procedures outlined in 40 CFR 279/10(b)(ii).