4.c. *Mitigation Procedures: Attach a description of procedures, structures or equipment used at the facility to:*

1. Mitigate effects of equipment failure and power outages

Equipment used at the Triumvirate Environmental facility does not pose a human health, safety, or an environmental concern in cases of equipment failure to operate. Equipment is not used in processes for which failure may create a dangerous situation. The paragraphs below indicate what type of equipment driven by internal combustion engines or by electrical motors is used in process and storage areas at the facility and the implications that may result from not being able to operate any of this equipment at any given time.

Container Storage Unit: Forklifts may be used in this area to move drums and will not jeopardize safety if they cannot be operated at any given time. Fire alarm actuators located in this unit and in other parts of the facility are operated by a battery backup system in case of commercial power failure. The sprinkler system that covers both buildings at the facility is activated by mechanical heat sensors.

Consolidation/Stabilization Operations: These operations may use a backhoe, small mixer, and portable pumps and hoses. This equipment will not present a safety threat in case of power failure. Once approved and the operations commence proper equipment will be purchased

2. Prevent hazards in unloading operations (i.e., ramps, special forklifts);

The Triumvirate Environmental facility loads and unloads waste materials in containers and in bulk at several locations in the facility. Drums and other non-bulk containers are transferred throughout the facility with forklifts. Drums are loaded and unloaded at the existing dock located on the west side of the container storage unit. The containers are transferred with forklifts from the transportation vehicles to the container storage unit and from there to the consolidation/stabilization areas or back to the loading dock for shipment. Loading and unloading of waste material in bulk occurs in the consolidation area inside the building (only loading). Solid hazardous wastes may be consolidated into a bulk container kept just outside the west wall of the north building.

The container loading/unloading dock is provided with manufactured dock plates that have been secured to the dock structure at the locations where the trailers park to load and unload containers. The dock plates are adjustable ramps that provide forklifts the safest means to access containers inside the van trailers. Before a forklift goes inside a trailer, and while any bulk transportation vehicle is being loaded or unloaded, the wheels of the vehicle are blocked to prevent it from moving. Ramps and roll-over berms used by forklifts when transferring drums at the facility have been designed with a gentle slope.

3. *Prevent undue exposure of personnel to hazardous waste (ie., protective clothing);*

Selection of proper personal protective equipment has been made in accordance with the hazard presented by the operation. The next paragraphs discuss the types of personal protection equipment provided by Triumvirate Environmental and the operations and locations where the quipment used is required.

Head Protection: Hard hats are required to be worn when working at the Triumvirate Environmental Facility. Hard hats are not required indoors in the office space.

Eye and Face Protection: Protection to the eye and to the face from injuries caused by flying objects and corrosive liquids is provided by safety glasses and by face shields, respectively. Safety glasses are required to be worn by personel in the facility. Safety glasses and a face shield, or full face respirator, must be worn by personnel conducting consolidation operations and sampling and testing corrosive liquid. Operators consolidating, sampling and testing non-corrosive waste liquids and solids in drums should wear a face shield.

Respiratory Protection: Respirators prevent breathing air contaminated with harmful vapors. Operators consoldating wastes classified by DOT as “inhalation hazard” should wear full-face respirators. Consolidation of inhalation hazard waste should be conducted with respirators fitted with cartridges capable of removing the contaminants contained in vapors from wastes being consolidated. The selection of cartridges appropriate for the material being handled is made in accordance with guidelines pulished by the National Insitute for Occupational Safety and Health (NIOSH). Cartidges are used for no more than one shift and are changed out more frequently, if required by the manufactors instructions.

Hearing Protection: When necessary, hearing protection is provided in accordance with OSHA regulations.

Torso Protection: All facility personel wear clothing equivelant to level D protection, with eye and head protection depending on the operation or the location where it is being conducted, as explained in other parts of this section. The level of protection is supplemented with permeable and non-permable coveralls and corrosive-resistant aprons and suits in accordance with the guidelines shown below.

Permeable coveralls: For consolidation of waste solids in bulk containers and in drums.

Non-Permeable Coveralls: For consolidation of non-corrosive waste liquids.

Corrosive-Resistant aprons: For sampling and testing waste drums.

Corrosive-Resistant Suits: Such suits should be worn for consolidation of corrosive liquids.

Arm and Head Protection: Gloves are used at the Triumvirate Environmental facility to prevent injuries due to cuts, absorption of chemicals, and acid burns of the skin. Leather gloves are worn for handling closed drums and by operators working in the consolidation of waste solids. If leather gloves are contaminated with RCRA hazardous waste they are disposed of. Chemical/Corrosive resistant gloves are used for sampling and testing waste in drums.

Foot and Leg Protection: Safety and corrosive-resistant boots or boot covers prevent workers at the Triumvirate Environmental facility from injuries due to falling objects and from corrosive liquids. Steel toe safety boots are worn by operators handling closed drums and consolidating waste liquid and solids. Personnel consolidating corrosive liquids should wear corrosive-resistant boots or covers.

Air Contaminants Reduction: Triumvirate Environmental's waste management operations will meet current requirements from the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) regarding contaminant exposure levels that are considered safe for the health of the workers. There are two operations where employee exposure to air contaminants is a potential concern. These are: the container storage unit and the liquid consolidation operations.

The container storage unit presents a potential danger to operators only when the unit is opened for the first time during the day. There is a concern that toxic vapors may accumulate during workdays at night, weekends, or holidays. This will affect the first operator entering the container storage unit. When opening the container storage unit, after it has been closed during the night, weekend, or holiday, the worker will wear a respirator and open the doors for ventilation.

Liquid Consolidation operations may take place at the consolidation area inside the north building with the adjacent doors kept open.

Explosion Protection: The potential for an explosion exists at the container storage unit and during the consolidation operations.

Materials capable of causing an explosion at the container storage unit are vapor or fumes that may accumulate during weekdays at night, weekends or holidays. Such fumes may result from chemical reactions and high vapor pressure of materials stored in the unit.

Explosion-proof lighting and the lack of other possible ignition sources minimizes the potential for an explosion at the container storage unit due to accumulated vapors or fumes. At the beginning of the work day, the first operator(s) entering the container storage unit will wear appropriate respirator(s) and open the doors for ventilation. In addition, if flammable are stored in the building a hand-held explosion meter is available at the facility to monitor accumulation of explosive vapors. Currently no flammables are stored in the building and no explosion meter is stored at the facility, this would change if the building went through and NFPA upgrade.

Other operations that may emit dust, mist, or vapor having the potential to form an explosive environment are consolidation operations. These are operations in which waste is transferred from drums into tote tanks or into trailers. Waste liquid transfer operations will be conducted inside a confined environment where the possibility of an explosion is minimal. The air inside this environment is removed constantly, which prevents the accumulation of vapors. Years of experience in bulking waste in trailers have proven that this operation does not generate a significant amount of dust and does not cause clouds of dust. Should waste materials change such that dust emissions become a problem, equipment to spray a water mist over the consolidation area will be used to suppress dust generation.

4.Prevent contamination of water supplies;

There are no drinking or other types of water supply wells located near the Triumvirate Environmental facility that could become contaminated due to normal waste management operations or accidents at the facility. There is no surface water bodies used for water supply that could be affected by facility operations. All liquid releases will be contained in secondary containment to prevent contamination of water supplies. Spills and large releases are managed in accordance with the Preparedness and Prevention Plan and the Contingency Plan.

5.Prevent run-off from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (i.e., dikes, berms, trenches);

Section 7.1 of the Contingency Plan for Solid and Hazardous Waste Operations was prepared in response to requests in section II.A.4.b. of the permit application form. It contains a description of the containment systems used to prevent releases from the various processes and operations conducted at the facility. Storage areas are provided with secondary containments capable of containing at least 10% of the maximum volume permitted for storage in containers in each area. In the unlikely event of the containment capacities of those areas being exceeded, the storm water pond will contain the release within the Triumvirate Environmental Facility.

According to the 2009 FEMA floodplain map, the Triumvirate Environmental site is not located in a 100-year floodplain area..

6.Prevent releases to atmosphere; and

The facility will prevent releases of air contaminants to the atmosphere that may pose a threat to the environment or to human health. These air contaminants do not pose a threat to human health, but may present an environmental concern and an odor problem. Similar processes conducted at other Triumvirate Facilities without the emissions control systems have not experienced odor problems. Therefore, it is not expected that this Triumvirate Environmental facility will generate odors at unacceptable levels. Environmental concerns with respect to these contaminants are mitigated by compliance with RCRA requirements of 40 CFR 264, Subpart CC.

Accidental releases may also occur during consolidation operations at the consolidation area. These releases could be caused by a reaction between waste materials or by the high vapor pressure of the waste material. Gases from accidental releases occurring at these operational areas will be confined to the space where the operation is conducted.

7.Prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes [270.14(b)(9)]

Processes and operations where ignitable wastes are handled at the TEI facility are operated in a manner that reduces or eliminates the possibility of ignition and the formation of explosive environments. Equipment and tools used to manage ignitable wastes have been designed and manufactured with materials that prevent the generation of sparks. Operators use equipment to handle open drums in a way that reduces the impact between hard surfaces, and the equipment is made of materials that do not produce sparks upon impact or friction. Non-manual driven parts and equipment are operated either by air or explosion-proof electric motors. There are no operations conducted at the facility that generate open flames or sparks. Smoking of tobacco products will be restricted to areas small in number and size, segregated from operation and process areas.

Waste streams received at the facility are segregated in compatibility groups in accordance with the DOT hazard class displayed on the drum. The hazard class is determined by an evaluation conducted on the waste before receipt by the facility. The segregation of wastes in compatibility groups is designed to prevent the accidental commingling of waste or materials during spills or other incidents. Before waste streams are commingled or consolidated, the waste streams will be tested for compatibility using the method described in sub-section 14.0 of the Waste Analysis Plan (Section II.A.5/6) to prevent chemical reactions with undesirable consequences.

4.d. *Preparedness and Prevention:*

Attach a description of the preparedness and prevention procedures required by 40 CFR Part 264, Subpart C, including design and operation of the facility, required equipment, testing and maintenance of equipment, access to communications or alarm system, required aisle space, and arrangement with local authorities.

A preparedness and Prevention plan is attached and located on pages 2APP-1 through 2APP-9

4.e . *Attach an outline of both the introductory and continuing training programs used to prepare persons to operate or maintain the hazardous waste management facility in safe manner to demonstrate compliance with 2964.16 [270.14(b)(12)] and a brief description of how training will be designed to meet actual job tasks [264.16(a)(3)]*

The training program has been attached and is located on pages 2ATP-1 through 2ATP-22