

ATTACHMENT 13 SPILL AND OVERFLOW PREVENTION PROCEDURES

13.1 EVAPORATION TREATMENT UNIT

To prevent the possibility of the evaporation tanks overflowing, each tank is equipped with a float switch that activates an auto-dialer alarm system in the event the tank level reaches a level which leaves less than 24" of freeboard in the tanks. When activated, the auto-dialer will contact the NASA Fire Department. The NASA Fire Department phones are monitored 24 hours per day and 7 days a week.

Containerized waste that is added to the evaporation tanks is pumped into the tanks at the ETU's pump station located between the tanks. Any spills occurring during containerized waste transfers to the ETU tanks will be contained by the pump station's concrete pad. If circumstances do not allow pumping activities to take place on the concrete pad, plastic sheeting and catch pans will be utilized to prevent any potential spills. The current operational site-specific procedures are provided for informational purposes. These procedures are updated on a routine basis to ensure safe and compliant operation of the unit. The procedures are provided as Appendix A to this attachment.

Personnel performing tasks at the ETU are all certified in-house as Hazardous Waste Handlers (see Permit Attachment 8). This includes inspectors, sampling personnel, personnel handling of waste transfers to or from the tanks, and personnel involved with operational maintenance and all repairs. Tasks such as unit entry, air quality monitoring to determine conditions safe to human health, and selection of appropriate personal protective equipment are examples of skills developed from the training program.

13.2 FUEL TREATMENT UNIT

All unit operations are directed and performed by personnel qualified as "Hazardous Waste Handlers" (see Training Plan, Attachment 8). This training includes prevention of spills and overflow. The system's storage tank(s) liquid level indicator(s) are recorded every working day to assure that there is enough ullage for operations and that the integrity of the sight glasses is maintained. The 4,000-gallon storage tanks are operated at a maximum capacity of 3,600 gallons each. This operational method of maintaining a minimum ten percent headspace precludes overflowing. Tank bottoms, piping/equipment, and the secondary containment are inspected to assure that the system is not leaking. Routine maintenance of the system helps to prevent spills. This includes, but is not limited to, maintenance of connectors (flange-bolt torquing), flow components (flow meter calibration), and pressure systems (flex hose integrity). A backflow preventer and two check valves prevent the waste from contaminating the water supply. A check valve isolates the storage tank from the sample bottle aspirating panel to prevent siphoning.

All flex hose connections to the transport vehicle are placed over stainless steel drip pans during transfer operations. Sample bottles are placed in a stainless steel pan during operations. All work performed at the sample bottle panel is completed over a stainless steel catch basin.

Rupture discs, check valves, and vacuum breaks assure that the integrity of the glass lining of the tanks is not compromised. A check valve is also used to isolate the sample bottle panel from the system so it is not a point of siphoning failure. Prior to transporting the waste from the point of

generation to the unit, the containers are double checked for seal tightness. The containers are then restrained in the transport vehicle. At the unit, the containers are offloaded over the secondary containment. Sample bottles are placed in tertiary containment prior to system input. All transport of waste from the unit to either an off-site permitted disposal facility or the ETU is loaded over the secondary containment, with any hose connection placed over tertiary containment.