

Appendix D.9.5 Containment Building- Debris Portion- Process Flow Description

The Mixing Bin Tanks (MBT-3 and MBT-4) are located perpendicular to the south wall of the building. Waste will be placed into the tanks by accessing the truck ramps outside the south wall of the building. Treatment reagents will be manually added to the south end of the tanks. The reagents may be added through hard piping from product storage tanks located outside the south wall of the building, through front-end loader or dump truck from bulk reagent storage areas located elsewhere on the site, from containerized reagent storage areas. Although not currently planned, the water and reagent additive system installed in the Stabilization Portion of the Containment Building may also be extended to the Debris Portion of the Containment Building to allow those additives to be automatically added to the tanks. The waste and additives will be mixed using an excavator similar to those used elsewhere at the facility. The excavators will be located on raised platforms that run parallel to the east side of each tank. When treatment has been completed, the treated waste will off-loaded from the tanks into dump trucks. The dump trucks will enter and exit the building through the overhead doors along the north wall of the building. Upon exiting the building, the trucks will follow established traffic patterns for moving the waste to the appropriate areas of the facility.

Waste Treatment (stabilization) in tanks in the Containment Building will utilize a variety of reagents, including but not limited to, cement, lime, ferrous sulfate, bleach, clay and sodium hydrogen sulfide. Due to the potential generation of hydrogen sulfide and other potential toxic gases during waste treatment, USEI conducts periodic air monitoring to demonstrate compliance with applicable environmental and safety regulations.

Table D-2a – RCRA Mix Bin Tanks (Debris Portion)

RCRA Mix Bin Tanks (Debris Portion)					
Typical Use Waste/Process¹	Mix Bin Tank No.	Depth	Width	Length	Capacity (gallons)²
Part A Solid Wastes, Part A aqueous wastes (organic and inorganic), Part A Hazardous Debris	MBT No.3	8 ft.	17 ft.	60 ft.	45,780
Part A Solid Wastes, Part A aqueous wastes (organic and inorganic), Part A Hazardous Debris	MBT No.4	8 ft.	17 ft.	60 ft.	45,780

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¹ Waste over 500 ppm VOC are subject to 40 CFR § 264.1080 Subpart CC

² Volume assumes 2 ft. of freeboard based on engineered structural load capacities. Total capacity of each Mix Bin Tank is 61,000 gallons.

**Table D-2b - Mix Bin Tanks (Debris Portion) Primary and Secondary Containment
Volume Summary**

Mix Bin Tanks (Debris Portion) Primary and Secondary Containment Volume Summary			
Unit	Primary Volume (gal)- zero freeboard	Primary Volume (gal)- 2 feet of freeboard	Secondary Containment Capacity (gal)- entire building (debris portion) from Table D-1
Each Mix Bin Tank	61,000	45,780	45,135

Table D-2c - Containment Building (Debris Portion) Mix Bin Tanks Primary and Secondary Containment Capacities

Containment Building (Debris Portion) Mix Bin Tanks Primary and Secondary Containment Capacities					
Unit	Primary Containment Capacity (max. gal.) ¹	Primary Containment Capacity (max. design operating gal.) ²	Primary Containment Capacity (operating gal.) ³	Secondary Containment Capacity (gal.) ⁴	Operating Limit – Liquids (gal.) ⁵
MBT-3	61,000	49,590	45,780	45,135	12,000
MBT-4	61,000	49,590	45,780	45,135	12,000

¹ Based on dimensions as illustrated in the “Plan and Elevations” and the “Sections and Details” drawings from Leavitt & Associates Engineers, Inc. and contained in the Request for Proposal for the Stabilization Facility Retrofit, September 2006.

² Operating capacity based on engineered structural load capacities.

³ Operating capacity based on maintaining 2 feet of freeboard.

⁴ Mix Bin Tank secondary containment capacity was determined by using the “Actual Containment Volume of Containment System” for the Total – Containment Building (Debris Portion) from Attachment 24, Table D-1 of the November 12, 2004 Permit, less the volumetric footprint of any structures added as part of this modification.

⁵ Based on limit in permit, which is the actual amount that can be practically treated in each tank.