

When the facility operates Bottom Ash System No. 2, the bottom ash will be directed through a metal recovery system. All metal recovery occurs within the facility's enclosed ash house. In summary, the metal recovery system consists of the following processes. A vibrating finger deck will separate the bottom ash 6" minus fraction from the 6" plus fraction. The plus fraction is comprised primarily of ferrous metals and will be routed to the ferrous recovery roll-off. The minus fraction will be subjected to further processing. A drum magnet will be used to recover additional ferrous metals from the 6" minus bottom ash fraction. The ferrous metals reclaimed by the magnet are directed to the same ferrous recovery roll-off box that receives the 6" plus ash fraction removed by the finger deck. The 6" minus bottom ash continues through the system for additional processing. The 6" minus fraction is then processed through a 3/8" screen. The 3/8" minus bottom ash is deposited onto a final combined ash conveyor where it mixes with conditioned flyash and routes to a roll-off box for offsite disposal. The 3/8" plus material is routed to an eddy current separator to recover non-ferrous metals. The 3/8" plus bottom ash is processed through the eddy current separator. This machine induces a magnetic field into metals that are ordinarily non-magnetic (e.g., copper, aluminum). This induced magnetic field allows for magnetic separation of non-ferrous metals. The separated non-ferrous metals drop to the non-ferrous roll-off for delivery to an offsite metals recycler. The remaining 3/8" plus bottom ash drops to the common combined ash conveyor where it mixes with the 3/8" minus bottom ash and the conditioned flyash.

The bottom ash will fall from the bottom ash system No. 2 head pulley directly onto the vibrating finger deck. 6" plus "bottom ash" is primarily ferrous metals. This 6" plus fraction vibrates across the finger deck and falls directly into the ferrous recovery roll-off. The bottom ash 6" minus fraction passes through the finger deck and onto the lower pan of the machine. A Walker Magnetics rotating drum magnet is located above the discharge end of the vibrating finger deck lower pan, where the bottom ash transfers onto the 3/8" screen. This device recovers the ferrous metals present in the 6" minus bottom ash fraction and deposits it into a vibrating pan conveyor and into the common ferrous recovery roll-off. This recovered material is shipped offsite to a ferrous metals recycler.

The remaining 6" minus bottom ash fraction transfers from the lower pan of the vibrating finger deck onto a 3/8" screen. The 3/8" minus material passes through the screen and falls directly to the combined ash belt conveyor. This combined ash conveyor ultimately accepts all the facility's ash substreams (i.e., 3/8" minus bottom ash, processed 3/8" plus bottom ash and conditioned flyash). The 3/8" plus bottom ash fraction is then processed through a IMRO RecycleCraft eddy current separator. The recovered non-ferrous metal is directed to a vibrating pan conveyor and into the non-ferrous roll-off box. When the non-ferrous box is filled it is hauled offsite to a metals recycler.

When the metals recovery system is operating (i.e., bottom ash system 2 is operating), a slide gate in flyash conveyor No. 4 will be closed. When the gate is closed, the flyash will not fall to the No. 1 flyash conditioner. Instead the flyash continues traveling on the No. 4 flyash conveyor to the No. 5 flyash drag conveyor. An enclosed chute in the No. 5 flyash conveyor deposits the ash into the No. 2 flyash hopper. A rotary valve at the bottom of the No. 2 flyash hopper meters flyash into the No. 2 flyash conditioner. The wetted flyash exits the No. 2 conditioner and is directed to the common combined ash belt conveyor. The combined ash from this conveyor then drops into the combined ash roll-off box or dump trailer. These containers are then either sent direct to the landfill, or staged in the adjacent ash storage building, or covered with tarps on impervious pavement outside awaiting transport.