

# BANTOX® & BLASTOX®

Technical Bulletin

TB-003

## THE BANTOX PROCESS

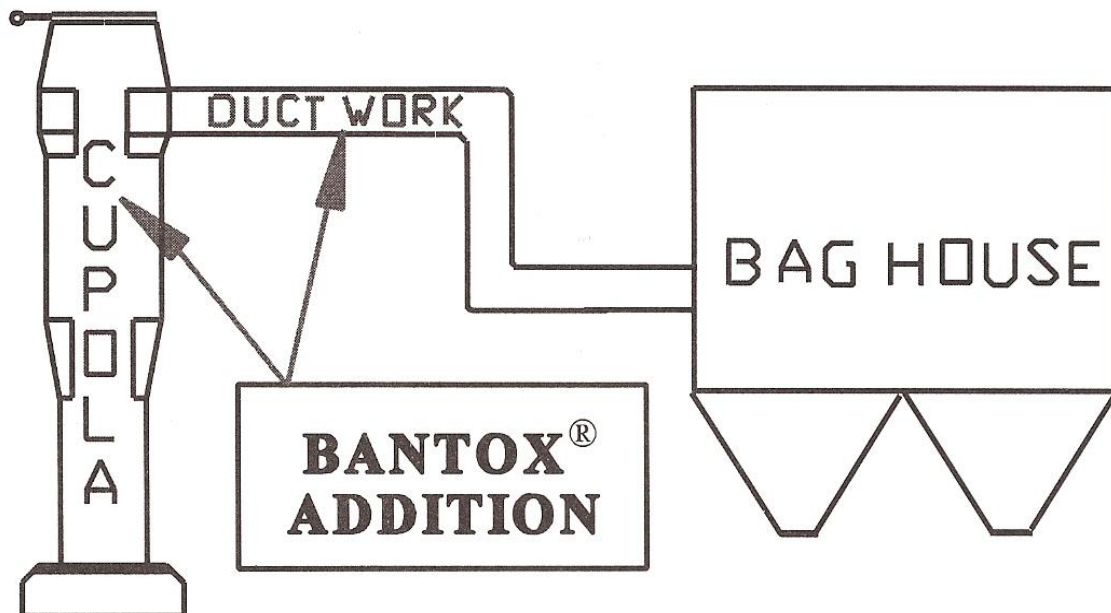
### The Bantox® Foundry RCRA Hazardous Waste Prevention Process

The Bantox Process® is an innovative, in-process modification system used by the foundry industry to prevent the generation of hazardous baghouse dusts. The system consists of a metered injection unit that delivers EPA Best Demonstrated Available Technology (BDAT) chemicals into collection streams in order to reduce the leachability of heavy metals including lead, cadmium and chromium. Patented in 1986, the Bantox Process® has since helped many foundries reduce disposal costs by an average of over 50-percent of the costs of hazardous waste disposal, and in actual field applications, it has been observed to be the most cost-effective stabilization system of its kind.

### Operation of The Bantox Process®

The schematic below shows how the Bantox Process® operates in typical foundry pollution control systems that capture gas and particulate from furnace units and transfer it to a baghouse. Bantox® chemical addition is accomplished directly into the furnace charge door or into duct work leading to the baghouse with the aid of small injection units. With this type of injection, The TDJ Group, Inc. has obtained state and federal EPA approval to operate this process without you needing to seek EPA treatment permits.

### The Bantox Process® in Operation



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The TDJ Group fabricates a variety of units capable of accurately feeding prescribed dosages of Bantox® chemicals. These units consist of a hopper, a feed device, a blower and a control panel for easy operation. Custom units ranging from fully automated filling and performance to simple manual operation can be designed and fabricated in-house, or The TDJ Group can provide technical assistance to foundry clients who desire to manufacture their own unit.

The Bantox Process® uses complex calcium silicate chemicals as a base ingredient with addition of other chemicals to enhance stabilization. As such, the Bantox® chemistry is on EPA's list of BDAT technologies for the stabilization of heavy metals, virtually assuring you of effective, long-term metals immobilization. A particular chemical blend from the product line and the proper dose rate is identified in bench-scale treatability studies performed on the waste. Following successful bench-scale testing, a field application project is performed for the client demonstrating the efficiency of the system.

### **Benefits of The Bantox Process®**

The most readily calculated benefit of using the Bantox Process® is the significant reduction in waste management costs by either avoiding hazardous waste disposal, or by further reducing the costs of other hazardous waste prevention methods. In fact, significant price reductions are not uncommon when the Bantox Process® is compared to these other methods. Also, as a TDJ client, you will no longer be generating a hazardous waste, thereby avoiding listing in RCRA Hazardous Waste Generators Reports, and you minimize your liabilities. As one industry corporate environmental officer of 12 facilities stated "...the Bantox Process® is an insurance policy for all of our plants."