



Secondary Waste Treatment and Disposal

The [Blue Grass Chemical Agent-Destruction Pilot Plant \(BGCAPP\)](#) will routinely produce secondary wastes during the closure phase. These wastes include items such as personal protective equipment, maintenance wastes, used equipment parts, carbon filters and decontamination solutions. The safe handling of those wastes is a top priority for plant personnel.

Secondary Waste Management

BGCAPP has a process to manage all secondary waste generated during closure. The process has been reviewed extensively by the Kentucky Department for Environmental Protection and meets or exceeds all environmental regulatory requirements to properly manage waste from its generation to its final disposal.

Secondary wastes may be classified as municipal solid waste, recyclable material, hazardous waste, non-hazardous waste or universal waste. These wastes are thoroughly evaluated by skilled employees for proper management, including potential agent contamination and other hazardous constituents.

Secondary wastes that are not agent-contaminated are shipped off site by commercial transportation and disposal companies that are verified to meet rigorous safety and environmental standards prior to being placed on contract. These wastes include used oil, scrap metal, expired or unused chemicals, trash and construction debris.

Agent-contaminated secondary waste may be treated on site or containerized for off-site shipment to an approved treatment, storage and disposal facility (TSDF). For example, the Metal Parts Treater (MPT) has safely processed agent-contaminated, drained munition bodies and miscellaneous metal parts which are sent off site for recycling. However, when safety, efficiency or cost savings are better achieved by treating agent-contaminated secondary waste off site, BGCAPP partners with permitted facilities and community stakeholders to safely transport, treat and dispose of the waste. Off-site treatment and disposal of these types of wastes has been safely accomplished by BGCAPP and by other U.S. chemical weapons destruction sites at considerable savings to the taxpayer after acceptance by both the generating and receiving communities.

TSDFs selected to receive the waste must demonstrate excellent safety and environmental protection records, are subject to strict regulatory oversight, possess state-of-the-art equipment and processes and have established active public involvement programs with their surrounding communities. Transportation contractors responsible for safe shipment of agent-contaminated secondary waste are properly licensed hazardous material carriers with top safety and performance records. As appropriate to the nature of a particular waste, coordination is made with emergency response agencies along selected transportation routes. BGCAPP environmental and waste management personnel visit each receiving TSDF to perform audits to ensure wastes are properly managed from cradle to grave.

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Secondary Waste Treatment and Disposal (continued)



BGCAPP has submitted to the U.S. Environmental Protection Agency and Kentucky Department for Environmental Protection a secondary waste certification detailing the waste streams and final disposal facilities that receive the secondary waste for subsequent treatment and disposal.

Secondary Waste Management Approaches at BGCAPP

Waste	Source	Management Method
Carbon Filters	Operations and closure activities	<ul style="list-style-type: none"> Permitted TSDF
Concrete	Maintenance and closure activities	<ul style="list-style-type: none"> Permitted TSDF (if agent contamination concentration is below released criteria)
Projectile munition bodies	Projectile processing operations	<ul style="list-style-type: none"> MPT followed by scrap metal recycling
Non-metallic debris (combustible solids)	Operations, maintenance and closure activities	<ul style="list-style-type: none"> MPT (at or below permitted quantities) Permitted TSDF (if agent contamination concentration is below released criteria)
Metal Parts Treater residue	Operations, maintenance and closure activities	<ul style="list-style-type: none"> Permitted TSDF (non-agent contaminated)
Rubber/rubber-coated items	Operations, maintenance and closure activities	<ul style="list-style-type: none"> MPT (at or below permitted quantities) Permitted TSDF (if agent contamination concentration is below released criteria)
Spent decontamination solution	Operations, maintenance and closure activities	<ul style="list-style-type: none"> Agent Neutralization Reactor Permitted TSDF (if agent contamination concentration is below released criteria)
Spill residue	Spill-response activities	<ul style="list-style-type: none"> MPT Permitted TSDF (if agent contamination concentration is below released criteria)
Expired shelf-life chemicals	Laboratory	<ul style="list-style-type: none"> Permitted TSDF (non-agent contaminated)
Tank, sump and strainer sludge	Operations, maintenance and closure activities	<ul style="list-style-type: none"> MPT Permitted TSDF (if agent contamination concentration is below released criteria)
Used oils	Maintenance and closure activities	<ul style="list-style-type: none"> Recycling (if not agent contaminated)
Agent hydrolysate	Munition processing operations	<ul style="list-style-type: none"> Permitted TSDF
Non-contaminated rocket motors	Rocket processing operations	<ul style="list-style-type: none"> Permitted TSDF (if agent contamination concentration is below released criteria)
Contaminated rocket motors	Rocket processing operations	<ul style="list-style-type: none"> On-site Static Detonation Chamber units
Shipping and firing tubes	Rocket processing operations	<ul style="list-style-type: none"> Permitted TSDF (if agent contamination concentration is below released criteria)
Containerized rocket warheads containing residual amounts of GB or VX nerve agent	Rocket processing operations	<ul style="list-style-type: none"> On-site Static Detonation Chamber units
Off Gas Treatment Condensate	Process gas scrubbing systems	<ul style="list-style-type: none"> Permitted TSDF (if agent contamination concentration meets release criteria)
Steel pallets	Storage and transport of containerized drained rocket warheads	<ul style="list-style-type: none"> Scrap metal recycling (if agent contamination concentration meets release criteria)