



PROBLEM: Towels and rags clogging pumps

SOLUTION: Macho Monster sewage grinder

CONSULTANT: Ravatt Albrecht & Associates

Monster Solutions

Santa Barbara Correctional Facility Puts Waste in Its Place!

Santa Barbara, CA - When clothing, towels, rags and trash joined the waste stream from toilets at the Santa Barbara County Jail, local wastewater treatment plant officials had a serious issue. Inmates were intentionally clogging and blocking downstream pumps and systems inside the plant, and the county needed to plunge the problem.

After nearly 10 years of difficulty, the jail installed sewage grinders to circumvent attempts to burden the county with extra work and repairs. "It was the right thing to do," says Paddy Langlands, Assistant Director of Facilities for the county. "They knew it was our stuff."

Initially, special hooks were installed in the 4-inch pipes behind the toilets to help catch items that should not have been flushed and to pinpoint which inmates were causing the problems. However, some systems could not be retrofitted and the tactic only partially solved the sewage disruptions. After reviewing several options, the county and its consulting engineer, Jim Albrecht of Santa Maria, Calif.-based Ravatt Albrecht & Associates, suggested a sewage grinder from JWC Environmental of Costa Mesa, Calif. "We had used JWC on another project at the juvenile hall in Santa Barbara and we had great reliability with it," Albrecht says. "We haven't received one complaint."

County officials witnessed the power of the machines before installation with a demonstration CD from the company. "It has these massive blades that can shred four-by-fours, chairs and sneakers," Langlands says. "The demo blew us away."

solids in and use a shearing action to slice them up. The grinder creates 16,240 pounds of force at peak performance.

"The majority of our jail projects use the smaller Muffin Monster® grinder, but because of the large flow this site needed our biggest — the Macho Monster," says Alec Mackie of JWC Environmental.

The installation is in a below-grade pit with the grinder located inside the outgoing sewage pipeline and an emergency bypass system. The sewage from the jail passes through the Macho Monster, before entering into the city sewer system for treatment.

"The grinder is sized based on the sewer flow rate — this single 18-inch pipeline handled all the flow from hundreds of inmates, so our biggest grinder was needed," Mackie says.

The clogging of prison sewer systems is a growing problem across the United States. In some cases, prisoners are footing the bill for repairs; in others, counties are paying close to \$1 million to rectify the situation.



This Macho Monster is located in an underground vault where sewage from the jail passes through it and into the city sewer system for treatment



The grinder features two rows of sharp steel cutter teeth, which pull



Officials at the Maguire Correctional Facility in San Mateo, Calif., are battling approximately \$700,000 in bills from the South Bayside System Authority, which maintains the area's sewer system. Inmates have been flushing plastic bags of illegal drugs, handmade weapons, cigarettes and orange jumpsuits, and at times, simply flooding jail cells to cause chaos, according to county officials.

Authorities attribute the flooding to overcrowded and understaffed conditions at the facility. Inmates working in the laundry room sneak extra clothing and sheets to friends, and there is insufficient staff to monitor inmates or search cells. The facility is considering installing delayed-flush mechanisms, and putting screens on jail toilets, stocking the jail commissary with more biodegradable items and limiting the possessions offered to inmates.

In another incident, two inmates at Collier Jail in Naples, Fla., were charged with tampering with the facility's sewage system when they intentionally clogged their toilets and caused unsanitary water to flood common areas and the infirmary.

For more information about JWC's grinders for correctional sites, visit www.jwce.com

For more information on the Ravatt Albrecht & Associates architectural firm, visit www.ravatt-albrecht.com.

—Michelle M. Murphy
Correctional News
July / August 2007



Jail facility managers Harry Mira (left) and Robert Rocho (right) stand next to the Macho Monster.

***“It has these massive blades that can shred four-by-fours, chairs and sneakers,”
Langlands says...***

“The demo blew us away.”



Headquarters

290 Paularino Ave.
Costa Mesa, CA 92626 USA
Toll Free: (800) 331-2277
Phone: (949) 833-3888
Fax: (949) 833-8858
jwce@jwce.com

Western Service

2600 S. Garnsey St.
Santa Ana, CA 92707, USA
Toll Free: (800) 331-2277
Phone: (949) 833-3888
Fax: (714) 751-1913
jwce@jwce.com

Eastern Service

4485 Commerce Dr, Ste 109
Buford, GA 30518, USA
Toll Free: (800) 331-8783
Phone: (770) 271-2106
Fax: (770) 925-9406
jwce@jwce.com

