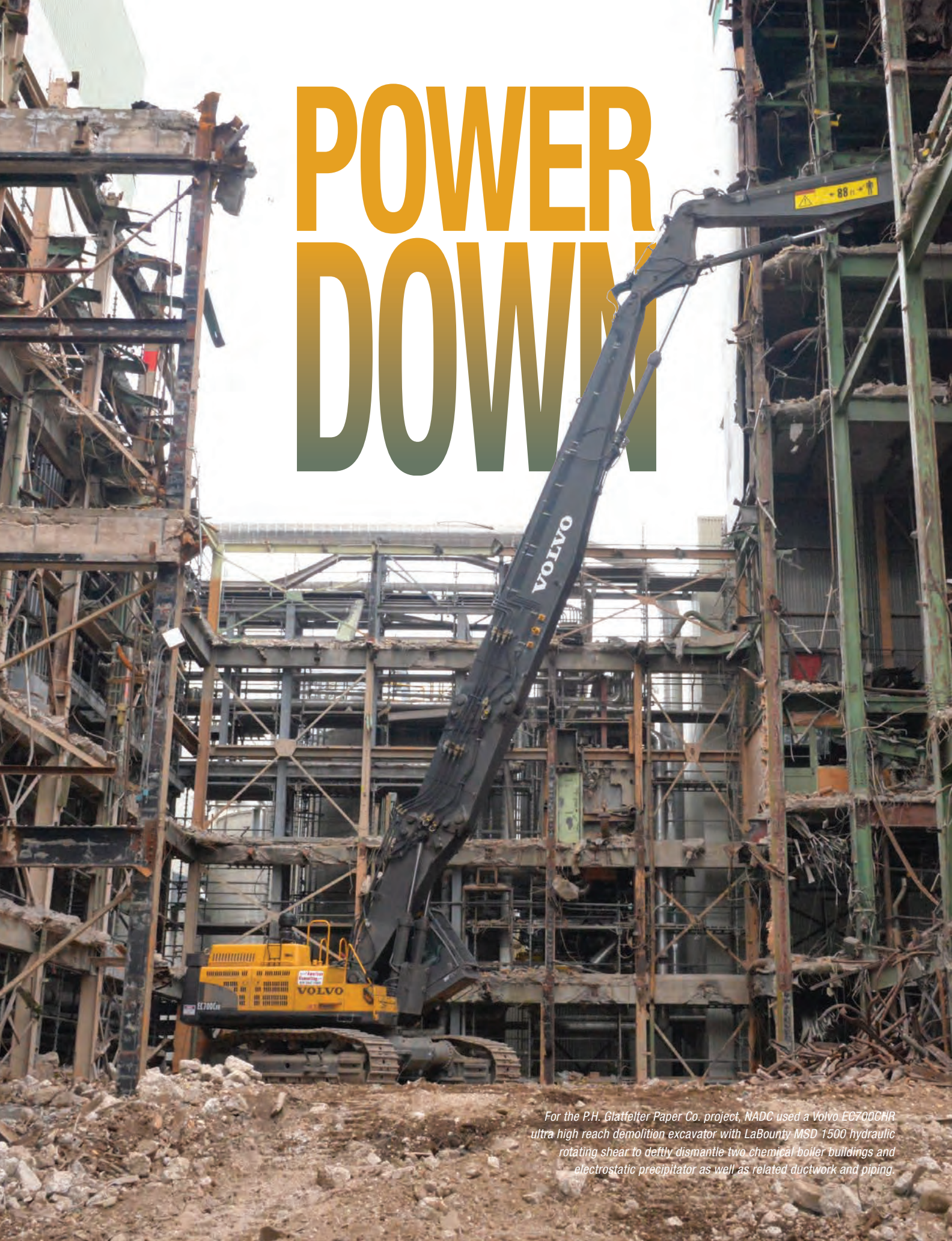
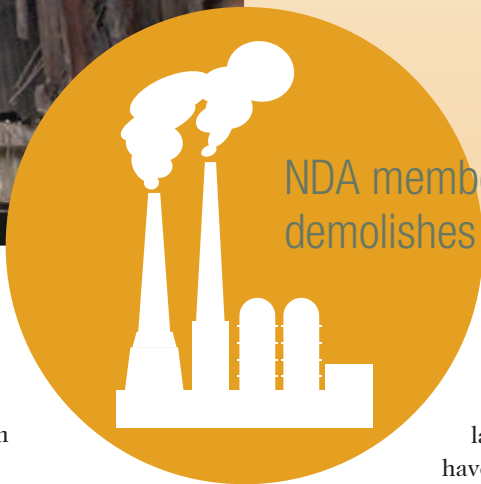


POWER DOWN



For the P.H. Glatfelter Paper Co. project, NADC used a Volvo EC700CHR ultra high reach demolition excavator with LaBounty MSD 1500 hydraulic rotating shear to deftly dismantle two chemical boiler buildings and electrostatic precipitator as well as related ductwork and piping



NDA member North American Dismantling Corp. demolishes two boiler buildings in Spring Grove, Penn.

Steam coal generates more than 40 percent of the United States' total electricity. It is the backbone of industrial facilities nationwide, where the energy is used for heating and processing operations.

As coal-fired power plants and boiler systems age, they are being retired and replaced by more efficient natural gas fueled power plants, a trend kindled by rich supplies of shale gas, higher coal costs and tighter U.S. Environmental Protection Agency (EPA) requirements for emissions controls.

These are boom times for demolition contractors engaged in power plant

decommissioning. The companies that labor in this league have extensive knowledge of federal, state and local regulations for environmental cleanup coupled with operator competency and the right mix of equipment.

Since 1984, NDA member North American Dismantling Corporation (NADC), based in Lapeer, Michigan, has been providing comprehensive industrial demolition for manufacturing facilities, specializing in decommissioning projects for power plants, pulp mills and chemical plants across the United States and Canada.

Greg Goscenski, NADC site superintendent with 40 years in the demo field, explains that a power plant is a unique beast in terms of what is required to

bring it down safely. "NADC is a total demolition contractor, which means we handle initial permitting through site remediation, including salvaging equipment and selling scrap."

He explains, "Environmental issues are the chief concern when decommissioning a power plant or industrial boiler system, particularly with asbestos abatement, which is most usually prevalent in older plants. Larger power houses are usually situated along rivers or downtown areas with surrounding utilities and potential water contamination issues."

In Spring Grove, Pennsylvania, NADC dismantled and demolished two chemical boiler buildings and electrostatic precipitator at the P.H. Glatfelter Co. papermaking facility. This work was undertaken to provide the space required for two new natural gas fired boilers

The Glatfelter project had tight space constraints, with as little as seven feet between structures.



A new Volvo EC380E equipped with LaBounty grapple was used to process material.



PROJECT STATISTICS

JOB COMPLETE IN



6
WEEKS

REMOVED

2,500

TONS OF STEEL,
CONCRETE AND
MISCELLANEOUS
SCRAP

94%

OF MATERIAL
RECYCLED

that will replace three coal fired boiler units. Goscenski estimated the job to be completed within six weeks and will remove 2500 tons of steel, concrete and miscellaneous scrap, 94 percent of which will be recyclable.

P.H. Glatfelter Co. was founded during the Civil War and is headquartered in nearby York. It is a global manufacturer of specialty paper products such as tea bags, postage stamps and playing cards.

Glatfelter uses its boiler system primarily for processing purposes. Low pressure steam and heat cooks the pulp and helps dry the finished paper. The steam is also used for supplemental power at the facility and sold back to the power grid.

NADC removed two 1950s era chemical recovery boilers, one 130 feet high and the second 100 feet high, to lighten the overall weight of the superstructures. This was followed by a targeted material reduction dismantle including stacks, combustion chambers and tube bundles and then dismantling the outer steel walls. This approach allowed NADC to maintain total control of the structure during demolition the activities without impacting Glatfelter's ongoing normal operations.

The biggest challenge with the project was the limited space NADC had to work within. The boiler buildings were boxed between two operational control rooms — with a slim 7-foot passageway between — and ringed by live pipes carrying boiling liquefied paper pulp and steam. “We had to take every precaution to not puncture any of the piping or buildings with falling debris,” Goscenski says.

A skywalk connector approximately 25 feet overhead hindered easy access to the work site and caused the NADC crew to limbo its three Volvo excavators into position.

The mainstay of work was completed by a Volvo EC700CHR ultra high reach excavator equipped with a LaBounty MSD 1500 hydraulic rotating shear. The machine is the largest in the Volvo demolition excavator product line with an operating weight of 196,189 pounds and maximum pin height reach of 105.1 feet.

The ultra high reach excavator is factory-fitted with the Volvo demolition guard kit that includes frame-mounted falling object guard (FOG) to protect the operator and cab from wayward debris, double thickness side doors, bolt-in side impact protection plates and full length



track chain guards to keep demolition debris from lodging in the tracks.

Says Goscenski, “When I started working in demolition in 1975, we had a wrecking ball and an excavator. Today, the demands are much greater for high precision work. You have to invest in the equipment to do the work required, and that is what customers expect.

“The EC700 is a more versatile machine for us. With the boom self-assembly, you don’t need a second excavator to assist and with the different configurations that are available it’s like having two machines in one. For example, with the shorter configuration we can add a heavier shear on the end to give more power at lower heights.”

Inside the tilting cab that pivots up to 30 degrees, a standard camera projects the view from the top of the boom. NADC supplements with a second camera mounted high on an adjacent building to cast an alternative perspective. If the operator cannot clearly see where the shear is maneuvering, he can radio to Goscenski in the office trailer for guidance. This camera feeds over the Internet, so employees back at the Michigan headquarters can also check the progress on the job site. **D**



OTHER NADC POWER PLANT DEMO PROJECTS

The push for more efficient power plants is accelerating the demand for demolition contractors that can capably handle all aspects of environmental decommissioning, from initial site surveys and permitting to dismantling and recycling. Within the past two years, NADC managed two such high profile projects in New York and Mississippi.

FAR ROCKAWAY POWER PLANT, QUEENS, NEW YORK

The National Grid Far Rockaway power plant has been fired by coal, fuel oil and natural gas since its commissioning in 1954. The plant was taken out of service in June 2012, and in late fall of that year, NADC was contracted to provide for complete abatement and demolition.

Major structures abated and dismantled included Unit #4 boiler house and turbine hall, ash silo building, transformers and overhead transmission lines, 2 million gallon main underground oil tank and ancillary piping, groundwater monitoring wells and coal handling structure. Additionally, NADC provided for the development and administration of a storm water management plan and Community Air Monitoring Program (CAMP). CAMP continuously monitors air born particulates, noise levels, volatile organic compound concentrations and seismic vibration control. For this project, NADC hired a full time site safety manager, licensed by The City of New York Department of Buildings.



NADC contracted for complete abatement and demo of the National Grid Far Rockaway power plant.

During dismantling, NADC utilized its extensive network of aftermarket agents to provide for salvage, sale and reuse of process and power equipment, including use of a commercial open hopper barge to transport scrap metal to an end recycler. Using marine transport also reduced truck traffic impact on nearby residential areas. A Pegson 400S rock crusher was onsite to process hard fill to the requisite backfill specs which eliminated the need to haul the hard fill off site or import fill materials. This restoration strategy also reduced contract costs for the customer.

The Eaton Power Plant demo project in Petal, Mississippi, was completed with a combination of multi-size excavators fitted with concrete processors, hydraulic shears and grapples. Adding to the complexity was the plant’s location next to the Lear River.

EATON POWER PLANT, PETAL, MISSISSIPPI

NADC was contracted by Mississippi Power Company, a subsidiary of Southern Company, to decommission and demolish Plant Eaton Units 1, 2 and 3, which included dismantling, rigging and removing the powerhouse, turbine room basement, boiler houses, three boilers with associated piping and ductwork, two (2) 125-foot brick stacks, coal hoppers, screen well and river intake structures (which were decommissioned and backfilled). Compounding the complexity was the plant’s proximity to Lear River, a short 50 feet away, which had been used for condenser circulating water and internal plant services. The environmental decommissioning also included removal of asbestos, chemical residuals and PCBs. NADC employed a combination of hydraulic excavators equipped with concrete processors, hydraulic shears and grapples in completing these controlled demo activities and finished one month ahead of schedule.