



the **OUTRIGGER**

JUNE 2017

R. Baker & Son Magazine - 10 Years Strong
Service-Disabled Veteran-Owned Business

R. Baker & Son Enabling Work and Surgical Demolition Project

R. Baker & Son was awarded a project in New York City to dismantle and scrap the enclosure and air inlet duct for a retired-in-place combustion turbine/generator set and all associated equipment, ductwork, enclosures, and structural support components.

R. Baker provided labor, supervision, tools, equipment, scaffolding and materials required to complete the project in accordance with the scope of work specifications & contract drawings. Prior to mobilizing, a kickoff meeting was held and the approved Site Specific Health & Safety Plan was reviewed by all employees. Once mobilized, R. Baker's project team cleaned up the work area and scaffolding was erected for abatement of the turbine and demising wall. The area was protected with guard rails and bollards and cordoned off with caution tape and perimeter netting.

As the abatement was being performed, R. Baker had an alternate crew dismantling and scrapping a rooftop stack and associated intake duct and exhaust duct. Once the rooftop stack was removed, new roof framing, metal decking, EPDM roofing membrane on rigid insulation, and recovery board were installed to close the opening made by the stack removal.

Upon completion of the abatement, crews dismantled and scrapped the turbine enclosure housing and stator. The project also required interior surgical demolition of steel beams, piping, conduits, junction boxes, devices, panels, and cabling. The project was kept clean, and at the end of each shift the work area was broom swept and all materials and equipment were properly stored to ensure a safe environment.

Tools and equipment utilized by R. Baker & Son during the project included electric forklifts, articulated man lifts, cranes, scaffolding, ladders, Sawzalls, dump hoppers, roll-off containers for debris, and 100% certified fall protection.



inside this issue...

**Enabling Work and Surgical Demolition Project
Assisting Customers With Precision Assembly & Re-Assembly
Scaffold Safety / Mist Cannons Take On Demolition Dust
Baker Quality Award Winners**

Assisting Customers With Precision Assembly & Re-Assembly

There are plenty of contractors to be found out there who can take heavy machinery apart to one extent or another, but when it comes to the complexities involved in assembling, reassembling and relocating equipment, choosing the right contractor becomes far more important.



Many details must be taken into consideration when it comes to assembly and reassembly. If equipment is to be disassembled and relocated, it must be pre-determined where equipment will be split, and into how many sections, to prepare for packaging and transport. Every opening along the machine's route through a building – elevators, doorways, windows, roof openings, etc. – must be plotted, because the smallest opening is always the weakest link.

When factory acceptance testing (FAT) is required, as is common with pharmaceuticals equipment, it should be performed with equipment in the same layout it will have at the permanent location. This allows reuse of the same piping, wiring, flex hoses, and connections used at the FAT, saving substantial time and money. If existing equipment is being relocated, this is the ideal time to replace defective parts, gasketing, and old or worn items.

Equipment packaging is extremely important. All parts must be clearly identified and marked for reassembly at the new location, and all fluids, media and product materials must be removed immediately after factory testing and prior to shipment. If equipment is to be shipped by sea or air, moisture intrusion is a risk that may require desiccants and other special packaging. We recommend that, when dealing with large, complex equipment, it is advisable to have a factory-trained technician onsite to provide basic consultation on how the equipment is packaged, how it should be assembled, and whether there are any specific steps that should be

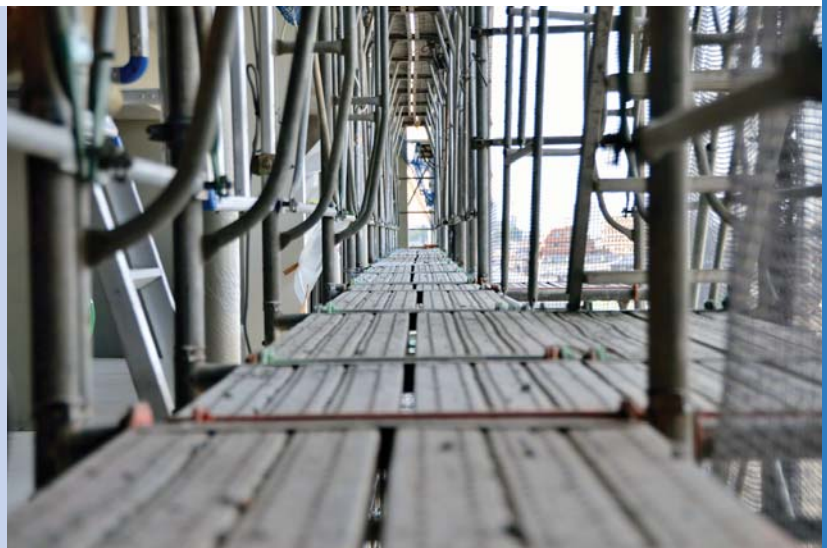
taken during or following assembly. Many manufacturers require a factory tech to witness and document certain steps during assembly. While factory consultation can add to project costs, it is almost always money well spent.

Quality contractors like R. Baker & Son do far more than just rigging equipment into place when it arrives on site. Whether installing new or relocating existing equipment, all personnel should be fully knowledgeable on every project detail, asking all the right questions and able to assemble all types of systems – piping, electrical, controls, compressed air, nitrogen, hydraulics, etc. – to startup readiness.

SCAFFOLD SAFETY

Scaffolds are commonly used on demolition projects, and OSHA has outlined key engineering controls and work practices for their safe use:

- ⇒ When erecting scaffolding, ensure that it is plumb, braced and guyed to prevent tipping swaying and displacement.
- ⇒ Scaffolds must be built on base plates and mud sills or other firm foundations.
- ⇒ Ensure that footings can support the scaffold without settling or moving.
- ⇒ Scaffolding must be fully planked or decked on all working levels. If using wood, it must be properly graded for the intended load.
- ⇒ Guardrails between 38 and 45 inches high and/or fall protection systems must be provided on platforms above 10 feet.
- ⇒ All scaffolds must be inspected by a competent person once erected, before each work shift, and after any occurrence that might affect structural integrity.



Mist Cannons Take On Demolition Dust

Demolition dust has been linked to numerous health hazards and safety risks and state and local agencies enforce strict controls. When left unchecked, inhaled demolition dust particles can irritate airways and exacerbate lung conditions as well as contaminate the environment and reduce visibility. Excessive exposure can cause serious diseases like silicosis and histoplasmosis. This is why dust suppression is an important consideration on every R. Baker & Son demolition project, and one of the most effective methods we utilize on our projects is the dust suppression cannon.

Surface wetting with hoses and sprinklers has long been used as a way to suppress dust, but this method has a number of drawbacks. Effectiveness is limited, as dust still emanates when materials are broken and dry surfaces are exposed, standing water and mud can create environmental and safety concerns, and oversaturated debris is heavier and more costly to dispose of. Significant man hours are required to operate and monitor water sources, further increasing costs, and runoff must be properly diverted, drained or contained.

Dust suppression cannons, on the other hand, which launch an atomized spray of water from a high-velocity fan, pose none of these problems. Miniscule water droplets, about 50-200 microns in size, collide with airborne dust particles, driving them to the ground, simultaneously wetting surfaces as the droplets fall. Hoses and sprinklers produce spray droplets that are too large to capture airborne dust and can only suppress surface dust at its source.

The BossTek DustBoss DB-60, one of the most effective and widely used units on the market, has a throw of 200 feet and can trap dust over an area of more than two football fields. It uses as little as 12 gallons per minute, about twenty times less than traditional surface wetting methods. Video of a DustBoss in action on an R. Baker & Son demolition project was featured several years ago on BossTek's website and has gained nearly 6,500 views on YouTube since it was posted in 2008.

View here:

<https://youtu.be/ikq2T1XNp9A>



R. Baker & Son Quality Award Winners...

Through their concerted and continual dedication to safety, Congratulations to John Matishek and Michael Caniano, this quarter's recipients of the R. Baker & Son Quality Award. The Quality Award program was established to recognize individuals for their outstanding achievements in safety, project execution and customer satisfaction, and for their continuing dedication to R. Baker & Son's growth and success.

Congratulations to all crew members for a job well done!

