

## NAWTEC16-1941

Operational Training: The Role of Simulators in Plant Operations

Presented by: Roger Boisse, Senior Manager, Operations Projects  
Wheelabrator Technologies

### Abstract

It's 4 a.m. and the crane operator is a little overzealous, which is starting to show inside the boiler. The bad news is that by the way he's feeding the chute, it's only a matter of time until the control room operator loses control of the combustion process, the temperature drops and they'll face the consequences. The good news, this is a drill. It's only a drill. And the situation they're facing is only a simulation.

As part of its core training program for plant operating personnel, Wheelabrator Technologies relies on a special computer simulator, licensed from Von Roll Inova, that's as close to real life as flight simulators are to flying. Just as there's no airplane to damage as the pilot trains, there's no boiler. The simulator runs a sophisticated computer program that is identical to the control rooms of the waste-to-energy facilities Wheelabrator operates. It provides users with real-life operating challenges—the good, the bad, and the ugly.

Operating scenarios are simulated to exacting standards to provide plant personnel—the plant managers, control room operators, and crane operators—with the ability to respond appropriately to any situation. The simulator allows users to

adjust any aspect of operation, from over- or under-fire air to moisture in the virtual trash being fed into the boilers. The process encourages teamwork and allows users to experience situations that could damage property, injure employees or harm the environment. The benefits of the ability to replicate upset and emergency, situations are clear: employees are ready for anything and the instruction helps prevent what would otherwise be downtime or expensive mistakes.

The simulator process only works, however, because it's part of Wheelabrator's overall training process. The simulator enhances "textbook" instruction in theory and hands-on qualification checks that all operators receive on a regular basis. It allows them to apply the knowledge they gain from the instruction in the controlled atmosphere of the simulator.

Roger Boisse, Senior Manager, Operations Projects with Wheelabrator Technologies, will explain the core operations training program and demonstrate the combustion simulator developed by Von Roll Inova, showing how it can be effective in providing operators with hands-on, and risk-free, experience.