Pratt & Whitney East Hartford Facility

**Location:** East Hartford, Connecticut

**Operations:** Manufacture & Repair of Jet Engines and Jet Engine Parts

**Population:** >8500 employees

**Size:** 4.3 million FT$^2$ factory space/1.5 million FT$^2$ office space/1023 acres
Hearing Conservation - Who is involved?

• Multiple HCP teams exist and work together to reduce noise at the P&W East Hartford Facility

• Each team is a cross functional team which consist of representatives from EHS, Facilities & Services, Machine Tool Services, Hourly Associates, Medical, Management & Engineering
Integration of Exposure monitoring into HCP

• Maps placed at various strategic locations (outside of noisy areas)
• Maps illustrate “Hearing Protection Required” zones
• Maps point to relative location vs. these zones
• Zones shrink over time as noise “point of generations” are eliminated
• Ear plug dispensers placed at these locations for easy access
HCP Best Practices - Visuals

Seeing the Noise....
Hearing Conservation video created

“Now Hear This – Hearing loss is preventable”
- Video focuses on new P&W HCP requirements
- Interviews with existing & retired P&W employees regarding hearing loss
- Prevention & control measures implemented

“Shop Talk” newsletters focused on Hearing protection requirements

Supervisor talking points for Toolbox Talks
- Noise-related conversations in departmental safety meetings
P&W Intranet (mysite) articles:

First Cell in Module Centers & Operations Removed from Hearing Conservation Program PPE Requirements

By Elliot Okrent
Communications Manager, Turbines and Specialty Manufacturing

Following a successful noise abatement effort, the first cell in Module Centers & Operations (MC&O) has been removed from Hearing Conservation Program (HCP) requirements.

Turbine Module Center (TMC) Military Blades Cell 1, an ACE Silver Cell led by Business Unit Manager Ryan Boulter, reduced noise levels below Occupational Safety and Health Administration (OSHA) exposure limits. As a result, no hearing protection is required for employees and visitors in this area during normal operations.

The TMC has invested close to $900,000 in hearing conservation projects over the last few months with the support of Dave Russell, director, Facilities & Services. The process has been a challenge from both a cost perspective and the learning curve required to manage hearing conservation projects.

![Image of noise level meters and workers discussing](image1.jpg)

MC&O and GSP Making Strides Toward Vision of a Quiet Factory

Noise induced hearing loss is preventable, and both Module Centers & Operations (MC&O), along with Global Service Partners (GSP) are committed to reducing noise in the manufacturing environment to improve employee safety.

“We are committed to real noise reduction within the manufacturing work environment. The implementation of noise abatement opportunities identified during our stand down is a top priority,” said Mike Picholinski, vice president, East Hartford Operations & Specialty Manufacturing.

During a recent safety stand down, more than 600 noise abatement opportunities were identified. Over the last month, aggressive actions have taken place across the manufacturing environment to eliminate the root cause of hearing injuries. MC&O and GSP employees, including line supervisors, Facilities & Services and EH&S professionals, along with six contract companies were focused and dedicated to the implementation of noise elimination projects.

![Image of noise level meter and workers discussing](image2.jpg)

Sound dampening blankets installed around Stokes vacuum pump at the Turbine Module Center have reduced the noise level by over 10 decibels.

“The cross-functional teams addressing the hearing conservation projects have come up with solutions that are user friendly for operators and allow the MTS team to maintain our equipment,” said Kip Wyman, general manager, Turbine Module Center.

Hear The Difference? EHRO Noise Reduction Initiatives Succeed

When East Hartford (Conn.) Repair Operations (EHRO) employees voiced concerns about noise levels during the safety stand down last year, they were heard loud and clear. Noise reduction initiatives began immediately, targeting the top noise areas in EHRO.

The EHRO noise reduction team, led by Craig Thompson and Don Chiu, focused on reducing noise levels to 82 dBA. Three water jet booths, six plasma spray operations, six plant-wide stokes pumps and a plasma spray dust collector and downdraft booth were the top priorities, as each contributed to noise in excess of the Occupational Safety and Health Administration (OSHA) action standard of 95 dBA. OSHA requires a hearing conservation program for employees exposed to an eight-hour, time-weighted average of 85 dBA. 214 EHRO employees were in such a program.

![Image of noise level meter and workers discussing](image3.jpg)

Noise is monitored throughout EHRO, with 14 meters connected to signs that light up when noise exceeds 82 dBA.
• Each organization in East Hartford cataloged and categorized processes with noise levels above 85dBA

• Unique Risk Matrix utilized to prioritize noise reduction projects
“DIVE” Process used to determine Root Cause & Corrective Actions for Identified Noisy Processes

**Tools and Methodology**

**Define**
Jan 1, 2008: UTC requirement of 85 dB or less for all manufacturing processes (time weighted average)

92 dBA

**Investigate**
- Mapped shop floor noise level
- Identified noisy equipment/processes
- Verified employee exposure level
- Prioritized noise control projects
- Developed abatement strategy
- Tracked projects to completion

ENSAFE Study
137 machines at 90+ dBA

**Ensure**
92 to 80 dB

**Verify**
82 to 79 dB

2008 Pratt & Whitney Leadership Awards
HCP Standard Work: Noise Abatement

Chemical Tank Blowers
12 Units Abated

93 dBA → 80 dBA

Dust Collectors
45 Units Abated

85 dBA → 80 dBA

SWECO bowls
5 Units Abated

94 dBA → 82 dBA

HYDRO FLOWS
8 Units Abated

Before

92 dBA

After

80 dBA
HCP Standard Work: Noise Abatement

Power Press
Before: 92 dBA  3 Units Abated
After: 78 dBA

Turbo Tip Plating Line
Before: 83 dBA
After: 72 dBA

Enclosures for Hand Tools
Before: 108 dBA
After: 82 dBA

Vacuum Pumps
Before: 85.5 dBA
After: 78 dBA
Employees reap the rewards…

• Custom fit PPE ….or NONE!
• Less stress on the job
• Many projects done “in-house”
• More quiet work area
Future Pratt & Whitney East Hartford Facility Hearing Conservation Program:

• Continue to focus on Engineering Controls to eliminate the need for a Hearing Conservation program at P&W East Hartford

• Serve as a benchmark and share best practices with other Pratt & Whitney & United Technologies facilities.