



**34th ANNUAL
HEARING CONSERVATION CONFERENCE**

Atlanta, GA

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Montgomery County Water Services

1850 Spaulding Road, Kettering, OH 45432



WATER SERVICES

- 250 staff serving 250,000 residents
- Delivering 30 MGD water
- Treating 28 MGD wastewater
- Maintaining 1,196 miles of sewer line
- Maintaining 1,334 miles of water lines
- Maintaining 11,945 fire hydrants
- Operating 24/7





WATER SERVICES

Hearing Conservation Program Players

- Upper Management (first and foremost)
- Supervisors (critical component)
- Employees (hands-on involvement)
- Safety Officer (training/knowledge/skills)
- Safety Committee (use this resource!)
- Partnership with Ohio BWC Div. Safety & Hygiene



WATER SERVICES



Key to our program: **OUR PEOPLE**

- Upper Management Commitment
- Supervisor Involvement
- Employee Ownership

...engaged in **OPEN COMMUNICATION**; tackling challenges together as a cohesive team

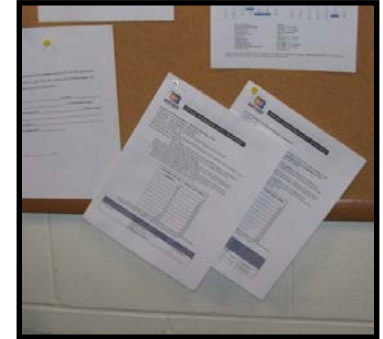


Striving for Excellence in HLPP Quantification

- Sound Level Measurements (in-house, field, heavy equipment, etc.)
- Noise Dosimetry Measurements
- “Hearing Protection Required” area maps
- Choice of HPDs
- Interface with Functional Job Analyses



Striving for Excellence in HLPP Noise Measurements



- Staff at all levels involved in noise measurement & continuous improvement
- Information freely shared on Intranet site & employee bulletin boards; and distributed/ discussed/ signed for at new hire and Hearing Conservation refresher training (accountability).

ITEM	NOISE LEVEL (dBA)	PEAK NOISE LEVEL (dBA)
Airmatic Air Gun On Metal	129.0	129.0
Air Compressor (as heard from center of shop floor)	72.9	72.9
Electric Hand Grinder on Steel & Aluminum	Steel: 104.7; Aluminum: 112.4	112.4
Backhoe from shop floor and cab of vehicle	97.6 (idle) to 104.0 (full rev) outside; 69.5 (idle) to 70.7 (full rev) inside cab.	104.0
Vactor 2100	Outside: truck idling 84.4; truck idling and jet warm up 96.0; truck idling and jet at 2,000 rpm 98.1 outside of vehicle and 87.0 inside cab. Inside Vehicle Bay With Doors Closed with truck idling and jet at 2,000 rpm: 101.2 outside cab, 79.6 inside cab. On site vacuuming rocks and mud at full 2,000 rpm: 112.6	112.6
Jet Equipment & Tools Jet Drill Press	86.4	86.4
Milwaukee Chop Saw Cutoff Saw on Aluminum & Steel	Aluminum: 107.6; Steel: 104.0.	107.6

FOR MULTIPLE PIECES OF EQUIPMENT:

Adding decibels

You can either use logarithmic calculators to add together two decibel values or you can use this table of corrections as described below. For noises that are more than 10 dB apart the addition of the lower level to the higher one will have a negligible effect on the resultant level so can be ignored. Corrections are shown for two noises up to 15 dB apart in the table below.

Difference between the two noise levels (dB)	Add this correction to the higher noise level (dB)
0	3.0
1	2.5
2	2.1
3	1.8
4	1.5
5	1.2
6	1.0
7	0.8
8	0.6
9	0.5
10	0.4
11	0.3
12	0.3
13	0.2
14	0.2
15	0.1

Example

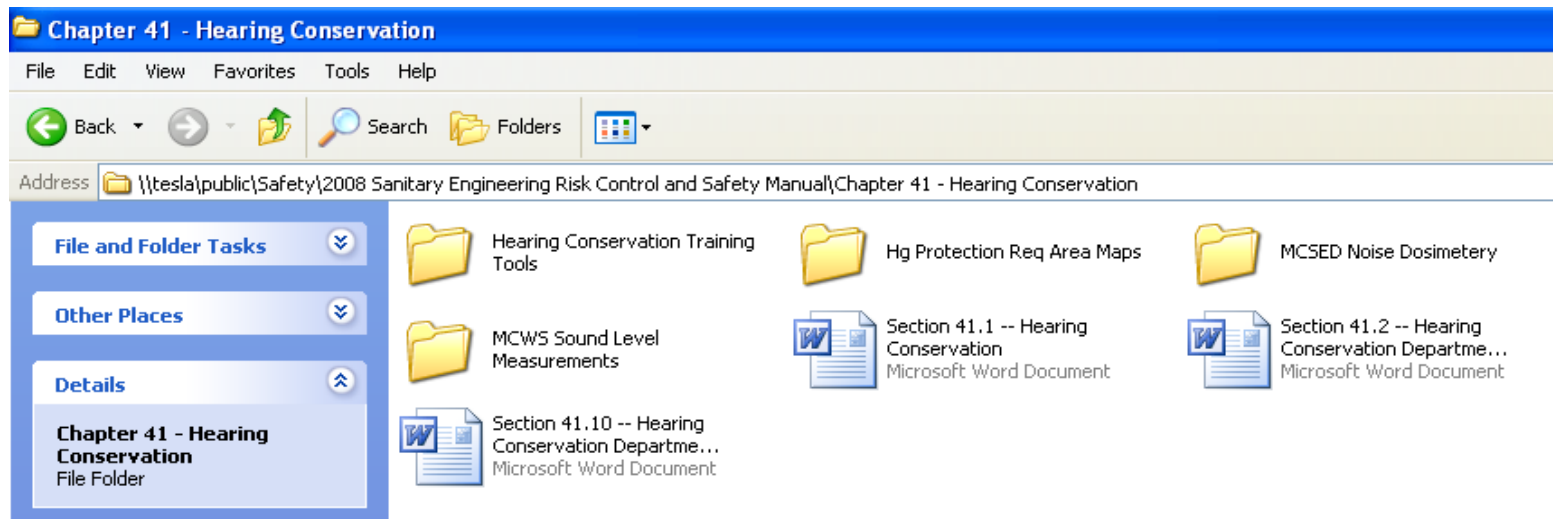
One machine on its own measures 84 dB(A) at a certain position. At the same position a second machine measures 79 dB on its own. What will the effect be of measuring both noises at the same time?

Method

Difference between the two noise levels is 5 dB so the correction from the table above is 1.2 dB. Add this to the higher noise level so the overall measured level for both machines running at the same time will be 85.2 dB.



Striving for Excellence in HLPP MCWS Safety Intranet

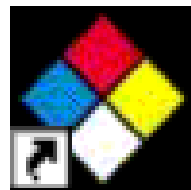


Communication and free flow of, and ready access to, information is key to program effectiveness in an industry where 24/7 operations and frequent shift/task/schedule changes are the rule. All employees have Intranet access.

- E-Scoop
- Administration
- Engineering
- Safety/Training
- Field Operations
- Customer Service
- Water Reclamation

Safety and Training

- MCWS 2008 Safety Stats
- Safety Committee Meeting Minutes
- Safety PM's
- Safety Manual
- Gas Detector 30-Day Calibration Status
- Current OEPA List of Approved Courses
- Fire Safety Maps
- Water Services Response Team (WSRT)



MSDS
Shortcut
1 KB



TrainRec
Shortcut
1 KB



Click here for
Driver
Training Program

(Your ID number is the last
4 digits of your social
security number.)

ACCIDENT REPORTING FORMS

IS-700 National Incident Management System (NIMS), An Introduction

1. Print course notes to help you pass exam:
<http://www.training.fema.gov/EMIWeb/downloads/NIMS-Self-Study%20Guide.pdf>
2. Print exam questions:
<http://www.training.fema.gov/EMIWeb/downloads/IS700FinalExam.pdf>
3. Read instructions and begin Internet course:
<http://www.training.fema.gov/EMIWeb/IS/is700.asp>

Click on "Option 1: Interactive Web-based Course - EMI learning site"

Be sure to print out certificate and submit to Safety to receive credit for course completion.



Striving for Excellence in HLPP Behavior Based Safety

- Hands-on experiential/ empirical training
- **Goal:** employee actualization of criticality of preventing hearing loss, tinnitus, related health issues/impacts to self, family, workmates, and quality of life.





What the Award means for the future of the HLPP

Improved Performance/Safer Employees

- Reinforce proactive vs. reactive activities/leading vs. lagging indicators
- Reinforce sense of employee ownership and pride enhancing employee buy-in
- Upper Management sees ROI and Safety Program gains momentum



What the Award means for the future of the HLPP

- External feedback and input fuels the continuous improvement cycle
 - NIOSH/Safe-In-Sound Team
 - HLPP Conference participants
 - Ohio BWC Div. Safety & Hygiene
 - Others we plan to share our story with



What the Award means for the future of the HLPP

Future Goals - Partner with NIOSH to:

- Identify innovative opportunities for HLPP improvements in the water industry
 - Engineering controls including Vactors
 - Making the case to manufacturers to focus on minimizing product-generated noise levels
 - Enhance behavior-based safety initiative
 - Optimize employee involvement
- Share lessons learned with our many safety and water trade organization contacts.

Thank You!

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