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Area: [Laboratory-Safety](#)
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Applicability: All Beaumont Hospitals

Laboratory Noise Protection Guidelines

Document Type: Guidelines

I. PURPOSE AND OBJECTIVE:

The Laboratory Noise Protection Guideline outlines the steps to evaluate noise level before and after a laboratory section is constructed and equipped with instrumentation and guidelines for staff to follow when there is a noise level concern.

II. GUIDELINES:

A. Permissible Noise Exposure

1. Laboratory departments with large automation systems, multiple analyzers or processing devices with moving mechanical parts may generate higher than average noise levels. Permissible noise exposures are based on duration of hours per day and decibel level. Generally, the ambient noise level in an employee work area should not exceed an 8-hour time-weighted average of 85 decibels (dB). This level of noise requires shouting to be heard in conversation for a prolonged period.

B. Laboratory Work Space Design

1. Preferably, before the laboratory purchases new equipment or designs a new work space, an evaluation of the potential noise level will be conducted by laboratory management and, when necessary, include the equipment vendor, the Director of Hospital Safety, Facilities Management and the Laboratory Safety Officer.
2. Consideration for creating a low noise level work area will be given with the design layout and the type of equipment purchased. Screens, barriers or walls can be placed between the source of the noise and the employees to stop or reduce the direct sound. Increasing the distance between a person and the noise source can reduce noise exposure.

C. Laboratory Employees

1. Upon concern about a potential high level of noise in any laboratory area that may have a negative effect on hearing normal levels of conversation, the employee shall be responsible for notifying the department manager of any symptoms and/or concerns.

D. Laboratory Department Managers

1. Upon receiving noise level concern:
 - a. Contact the Director of Environment and Life Safety (corporate hospital safety) and campus

Laboratory Safety Officer to evaluate if a noise measurement is necessary.

- i. If a noise measurement is deemed necessary, then contact the campus Facilities Management (if they have a dosimeter) to arrange a date and time for the measurement.
- ii. Upon receiving the results of the noise measurement, if the dosimeter noise reading is at 85 dB or higher or if the employees are uncomfortable with the current noise level (lower than 85 dB), laboratory management will determine how to improve or adjust the work space to lower the noise level or if the employees need hearing protection equipment.
 - a. If the dosimeter result is 85 dB or higher, consideration for hiring an outside vendor to perform a professional noise assessment will be determined by laboratory management.

E. Laboratory Safety Officers or Designee

1. Upon receiving a noise measurement request:
 - a. Review the Svantek SV104A Dosimeter user manual, Dosimeter Quick View Job Aid, and Dosimeter Worksheet.
 - b. Arrange a date/time with the department manager and selected employee to wear the dosimeter during their shift while performing normal job duties.
 - c. Upon completion of the noise measurement session, download the dosimeter data into the Svantek Supervisor Lite software (only hospital Information Technology department can install the Svantek software).
 - i. Generate a measurement result report in the Svantek software and complete the Dosimeter Worksheet.
 - a. Email both documents to the requesting laboratory department manager, site laboratory director and the Director of Environment and Life Safety.
 - b. Retain a copy of both documents on a share drive (i.e., Sharepoint, S drive, Cloud network).

III. REFERENCES:

- A. [MIOSHA Part 380 Occupational Noise Exposure in General Industry](#)
- B. [Hospital Safety policy: Personal Protective Equipment-MIOSHA](#)
- C. College of American Pathologists Laboratory General Checklist, GEN.77300 - Excessive Noise

Attachments

[Svantek SV104A Dosimeter Quick View Job Aid](#)
[Svantek SV104A Dosimeter Time Display Job Aid](#)
[Svantek SV104A Dosimeter Worksheet](#)

Approval Signatures

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Applicability

Dearborn, Farmington Hills, Grosse Pointe, Royal Oak, Taylor, Trenton, Troy, Wayne