



Abstracts

Session: 11

Paper Number: 105

Evaluation of Hearing Conservation Program Effectiveness - A Case study of How Safety and Health Policy and Standards are Translated into Workplace Practice

M.M. Prince (1), M.L. Colligan (1), C.M. Stephenson (1), B.J. Bischoff (2)

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The Occupational Safety and Health Administration (OSHA) Hearing Conservation Amendment (HCA) has mandated that general industry employers must establish hearing conservation programs for workers exposed to noise levels having a time-weighted average (TWA) of 85 dBA or higher (OSHA, 1983). Although specific with respect to program structure, the regulation describes the minimum framework or structure of a hearing loss prevention program and leaves employers some latitude with respect to program design, implementation and administration. The present paper describes how focus groups (comprised of line workers and supervisors) were used, in conjunction with traditional audit measures, to assess the extent to which formal hearing loss protection policies became integrated into day-to-day work practices across three organizations. Descriptive data on plant hearing conservation program practices at each plant are presented with a comparison of proactive elements of each program relative to the OSHA HCA requirement and to internal plant policy.

Study results indicate that exclusive reliance on such practices as policy review, audiometric testing audits, and noise surveillance to evaluate the effectiveness of workplace hearing conservation programs fails to capture the impact of these programs as experienced by workers at the "shop floor" and offers little insight into the reasons and potential remedies for noted deficiencies. Paper audits of programs completed by program managers were insufficient by themselves to provide a realistic picture of actual implementation of and compliance with various program components, as evidenced by the discordance between focus group reports, onsite observations, and the audit checklists. With regard to implementation of effective hearing conservation programs, the study findings indicated that: (1) employees preferred annual training in small groups or one-on-one with more information on HPD fit training, explanations of audiometric results and noise monitoring; (2) in this time of downsizing, senior peer employees (with the best training) should be cultivated as role models and champions for hearing loss prevention to newer employees; (3) a high quality audiometric test program, conducted on schedule, is perceived to correspond with positive company attitudes toward worker safety and health; The implications for both in-house and contracted programs are significant in that workers recognized that testing hearing during the work shift was a best practice that facilitated identifying early hearing damage; (4) While engineering controls is first in the hierarchy of controls, it is not prudent to neglect HPD compliance until noise monitoring assures the absence of hazardous noise. Partial engineering controls may have led to complacency, decreased HPD use where still needed, and perhaps more hearing loss than predicted.

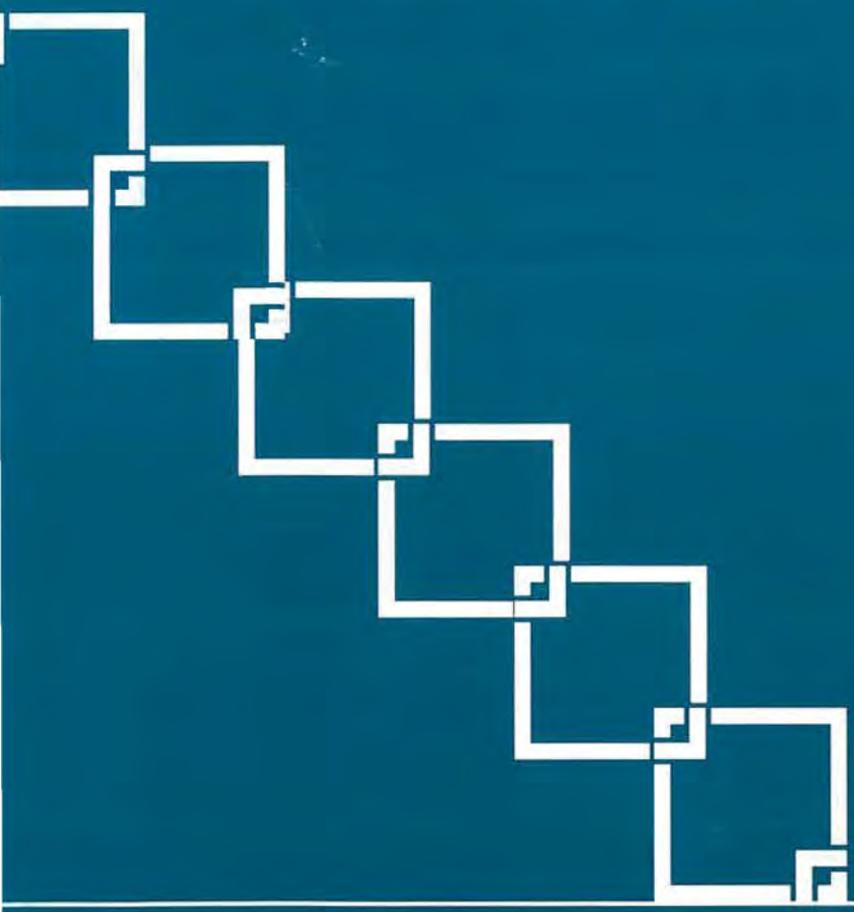
Occupational health and safety program evaluation is a process of continuous learning which provides important mechanisms by which management and employees can measure and document program successes, identify problems, and guide new interventions. While audits by management of records, policies, procedures and examination of hearing loss trends through audiometric database analysis are critical to program evaluation, companies who enrich this data with periodic focus group discussions may uncover a richer understanding of problem areas or successful strategies that can be shared within or industries.

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Mary M. Prince*, Michael L. Colligan**, Carol Merry Stephenson**, BJ Bischoff***
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FOR PUBLICATION

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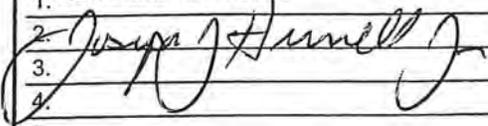
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ABSTRACT

NORA 2003: Working Partnerships
Research to Practice

TITLE: "Evaluation of hearing conservation program effectiveness – A case study of how safety and health policy and standards are translated into workplace practice."

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NORA PRIORITY AREA: Hearing Loss

ABSTRACT: (500 word limit)

The Occupational Safety and Health Administration (OSHA) Hearing Conservation Amendment (HCA) has mandated that general industry employers must establish hearing conservation programs for workers exposed to noise levels having a time-weighted average (TWA) of 85 dBA or higher (OSHA, 1983). Although specific with respect to program structure, the regulation describes the minimum framework or structure of a hearing loss prevention program and leaves employers some latitude with respect to program design, implementation and administration. The present paper describes how focus groups (comprised of line workers and supervisors) were used, in conjunction with traditional audit measures, to assess the extent to which formal hearing loss protection policies became integrated into day-today work practices across three organizations. Descriptive data on plant hearing conservation program practices at each plant are presented with a comparison of proactive elements of each program relative to the OSHA HCA requirement and to internal plant policy.

Study results indicate that exclusive reliance on such practices as policy review, audiometric testing audits, and noise surveillance to evaluate the effectiveness of workplace hearing conservation programs fails to capture the impact of these programs as experienced by workers at the "shop floor" and offers little insight into the reasons and potential remedies for noted deficiencies. Paper audits of programs completed by the HCP managers were insufficient by themselves to provide a realistic picture of actual implementation of and compliance with various program components, as evidenced by the discordance between focus group reports, onsite observations, and the audit checklists. With regard to implementation of effective hearing conservation programs, the study findings indicated that: (1) employees preferred annual training in small groups or one-on-one with more HPD fit training and explanations of audiometric results and noise monitoring; (2) in this time of downsizing, senior peer employees (with the best training) should be cultivated as role models and champions for hearing loss prevention to newer employees; (3) Quality audiometric program, conducted on schedule, is perceived to correspond with positive company attitudes toward worker safety and health; The implications for both in-house and contracted programs are significant in that workers recognized that testing hearing during the work shift was a best practice that facilitated identifying early hearing damage; (4) While engineering controls is first in the

hierarchy of controls, it is not prudent to neglect HPD compliance until noise monitoring assures the absence of hazardous noise. Partial engineering controls may have led to complacency, decreased HP use where still needed, thus, more hearing loss than predicted.

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