criteria for a recommended standard . . .

# OCCUPATIONAL EXPOSURE

TO



U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Health Services and Mental Health Administration National Institute for Occupational Safety and Health

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# OCCUPATIONAL EXPOSURE TO NOISE



U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Health Services and Mental Health Administration
National Institute for Occupational Safety and Health

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#### PREFACE

The Occupational Safety and Health Act of 1970 emphasizes the need for standards to protect the health of workers exposed to an ever increasing number of potential hazards at their workplace. To provide relevant data from which valid criteria and effective standards can be deduced, the National Institute for Occupational Safety and Health has projected a formal system of research, with priorities determined on the basis of specified indices.

It is intended to present successive reports as research and epidemiologic studies are completed and sampling and analytical methods are developed.

Criteria and standards will be reviewed periodically to ensure continuing protection of the worker.

I am pleased to acknowledge the contributions to this report on noise by members of my staff and the valuable constructive comments by the Review Consultants on Noise to NIOSH, the ad-hoc committee of the American Industrial Hygiene Association, and Dr. Dixon Ward of the Committee on Hearing, Bioacoustics and Biomechanics. The NIOSH recommendations for standards are not necessarily a consensus of all the consultants and professional societies that reviewed this criteria document on noise.

A list of the Review Consultants appears on pages iii and iv.

It should be noted that the majority of the NIOSH Review Consultants recommended an 85 dBA noise limit with mandatory hearing protection and audiometric testing for the most complete protection. Data are provided in this document which indicate that approximately 14% of workers in manufacturing are exposed to noise above 90 dBA, but no data are available

relative to the number exposed to 85 dBA or to the technological feasibility of meeting the proposed 85 dBA standard in a given time period. The present recommendations defer the 85 dBA standard until after an extensive feasibility study and limit mandatory audiometric testing to new employees, with a recommendation that employers consider the merits of a full hearing conservation program. A study of the quantity and quality of the health manpower for audiometric testing is needed before further recommendations can be made.

Marcus M. Key, M.D.

Director, National Institute

for Occupational Safety and Health

The Office of Research and Standards Development,
National Institute for Occupational Safety and
Health, had primary responsibility for development
of the criteria and the recommended standard for
noise. Mr. Steven A. Coppola served as criteria
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# CRITERIA DOCUMENT: RECOMMENDATIONS FOR AN OCCUPATIONAL EXPOSURE STANDARD FOR NOISE

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