INTRODUCTION

The National Institute for Occupational Safety and Health (NIOSH) is required under Section 20(a)7 of the Occupational Safety and Health Act of 1970 to conduct and publish industry-wide studies of the effect of chronic or low level exposure to industrial materials, processes, and stresses on the potential for illness, disease, or loss of functional capacity in aging adults.[1]

An estimated workforce of 900,000 brake mechanics and garage workers in the U.S. are potentially exposed to asbestos.[2] Therefore, NIOSH is currently conducting an industry-wide study to evaluate dust exposures resulting from brake servicing operations.

As part of this study a contract has been let to conduct (1) a feasibility study in locating a cohort of brakelining repair and maintenance workers with sufficient latency to conduct a retrospective mortality study, and (2) a cross-sectional medical study to define the current health status of workers occupationally exposed to brakelining dusts. To supplement the cross-sectional medical study, NIOSH is undertaking industrial hygiene assessments at a number of brakelining facilities.

DESCRIPTION OF FACILITY

The Allied Brake Shop is operated primarily as a commercial auto brake system maintenance and repair business, but also performs front end alignment and shock absorber replacement. The shop is located in the central business district of Cincinnati, Ohio, in a one story building with approximately 4,000 square feet of shop area. The shop has been located at this site since the business was started in 1959.

DESCRIPTION OF WORKFORCE

There are five full-time male mechanics employed at the shop that work from four service stalls 8:00am to 6:00pm six days per week and perform from 35 to 45 total brake maintenance operations per week. There is no union representation.

DESCRIPTION OF PROCESS

The brake servicing procedure was basically the same for all vehicles and consisted of the following steps. The vehicle is driven into a repair stall and one end is elevated with a hydraulic jack. The brake drums are removed and placed on the floor with the brake wear dust allowed to fall on the floor. The brakes are inspected to determine if replace-