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From the Director's Desk

NIOSH Recognizes Teamwork that Reduced Employee Back Injuries in Nursing Homes

NIOSH over the last seven years has engaged more than 500 partner organizations in developing the National Occupational Research Agenda (NORA). The NORA Partnering Award for Worker Safety and Health recognizes organizations participating in NORA-related collaborative research partnerships which lead to the reduction in hazardous exposures and/or adverse outcomes in order to protect workers.



The 2003 winning partnership project is "Evaluation of a Best Practices Back Injury Prevention Program in Nursing Homes." This collaborative effort, consisting of both laboratory and field study components, was designed to develop and evaluate the effectiveness of a "best practices" injury prevention program for reducing the incidence, severity, and cost of low back and other musculoskeletal injuries to workers in nursing homes. Program components included use of mechanical patient lifting devices, worker trainings on how to use the devices, a zero-lift policy prohibiting manual lifting of non-weight bearing patients, and medical management of injured workers. The results are quite impressive-57% reduction in injury frequency, 58% reduction in injury rates, and a 71% reduction in workers' compensation medical and indemnity expenses related to patient lifting and transferring injuries among nursing staff.

The project partners, BJC Health Care, BJC Occupational Health Nurse Council, Washington University, West Virginia University, Arjo Inc., EZ Way Inc. received the award during the NORA Symposium 2003, sponsored by NIOSH and the American Public Health Association (APHA) on June 23-24 in Arlington. For more information on NORA, visit the website <http://www2.cdc.gov/NORA/default.html>.

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Team Effort Accelerates Dust Monitor Research

NIOSH is teaming with the Mine Safety and Health Administration (MSHA), industry, and labor to accelerate testing and validation of new personal dust monitors to measure individual miners' exposures to coal dust in underground coal mines. "These Personal Dust Monitors appear to hold the key to achieving renewed progress in the battle against Black Lung," U.S. Mine Safety and Health Administrator Dave Lauriski said June 24.

Following successful laboratory tests, NIOSH and MSHA will complete in-mine tests of prototype dust monitors at mines in Pennsylvania, West Virginia, Alabama, and Utah over the next several months. Contingent on a positive NIOSH and MSHA assessment of those tests, the agencies will commit \$150,000 each toward the purchase of production prototype monitors, and then will work with the manufacturer, the coal industry, and miners' representatives to use the production prototypes at coal mining operations throughout the U.S. This teamwork with NIOSH and others will help MSHA formulate new requirements for monitoring dust exposures in order to prevent coal workers' pneumoconiosis (black lung disease). "NIOSH is pleased to be a part of this effort that advances 21st Century technology to protect miners from devastating black lung disease," said NIOSH Director John Howard. More information about NIOSH mining safety and health research is available on the NIOSH web page at <http://www.cdc.gov/niosh/mining/default.htm>.

NIOSH Funded Study Simulates Hospital Room to Test UV System for Employee TB Protection

With funding from NIOSH, researchers in the engineering department of the University of Colorado, Boulder, recreated a hospital setting to investigate the effectiveness of ultraviolet light as a key component of controls used to reduce healthcare employees' exposure to TB.

In the replicated hospital setting, the study investigated the effectiveness of ultraviolet germicidal irradiation (UVGI) to kill or inactivate two different TB-like bacteria that were released into the room air. The study looked at environmental factors that could either enhance or diminish the effectiveness of UVGI, such as high versus low levels of relative humidity, high versus moderate ventilation in the room, and air-mixing effects, as well as the actual UV levels coming from the UVGI lamps. The researchers also examined UVGI effectiveness when the lamps were placed at different locations within the room.

The study clearly demonstrated that increasing the irradiance level of the UVGI lamps increased the effectiveness of inactivating the TB-like bacteria. The relationship was linear up to a certain level. Further, increasing the irradiance above this high level resulted in little increase in the activation of the airborne TB-like bacteria.

NIOSH is assessing the findings from this six-year study to help develop up-to-date recommendations on the ability of UVGI systems to help protect health-care employees from TB. The findings are being evaluated for inclusion in subsequent updates to the CDC guidelines on controlling TB transmission. They are also being used to develop a comprehensive NIOSH technical report on the application of UVGI systems.

For additional findings and further information about this study visit the NIOSH Updates website at <http://www.cdc.gov/niosh/uvsysfortb.html>.

NIOSH Recognized at the National Skill Standards Board Meeting

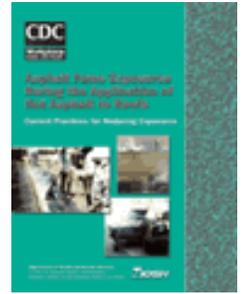
The National Skill Standards Board (NSSB), a federally-created-and-funded Board, has recognized NIOSH for its involvement in the development of national skill standards. The NSSB Skill Standards System contains skill standards, assessments, and certification designed to allow the worker to understand the degree of skill and knowledge needed to perform job duties. NIOSH has been involved in the development of the last three national skill standards, covering the manufacturing, sales and service, and education and training workplaces, by providing reviews and comments for occupational safety and health competencies for the workplace and frontline workers. NIOSH will also participate in the review of the fourth set of draft standards covering the information, communication and technology workplace. For more information on the National Skill Standards Board, visit the website <http://www.nssb.org>.

Operation 'Roar': NIOSH Marshals Science, Legwork to Prevent Job-Related Asthma

In workplaces as diverse as industrial plants and school buildings, using techniques that range from traditional "shoe leather epidemiology" to high-tech laboratory sciences, NIOSH is pursuing studies that will help prevent work-related asthma. The efforts are part of a strategic research program, "Research on Occupational Asthma Reduction" or ROAR, in which NIOSH is coordinating and synthesizing its field and laboratory investigations to better recognize, evaluate, control, and monitor work-related risk factors that can cause or exacerbate asthma.

The current phase of NIOSH research under "ROAR" focuses on three areas where new data will help scientists better determine the prevalence and severity of occupational asthma, and better define exposure-response relationships in workplaces—critical steps for designing good preventive measures: understanding workplace exacerbation of asthma, investigating asthma in the non-industrial work environment, and advancing medical monitoring for workers exposed to diisocyanates. For more information on preventing work-related asthma and COPD, visit the NORA website at <http://www2.cdc.gov/NORA/noratopictemp.asp?rscharea=acopd>.

Asphalt Fume Exposure During the Application of Hot Asphalt to Roofs



This document represents a collaborative effort between NIOSH, the National Roofing Contractors Association (NRCA), the Asphalt Roofing Manufacturers Association (ARMA), the Asphalt Institute (AI), and the United Union of Roofers, Waterproofers, and Allied Workers (UURWAW). The purpose of the document is to reduce worker exposures to asphalt fumes during the application of hot asphalt to roofs. The document describes the application of hot asphalt to roofs, identifies steps in the process that may involve worker exposure to asphalt fumes, and identifies current engineering controls and work practices used to reduce exposures. Visit the NIOSH website <http://www.cdc.gov/niosh/docs/2003-112/2003-112.html> for more information on this document.

Your Safety First



Your Safety First is a collaborative effort between NIOSH, the Federal Railroad Administration, and Operation Lifesaver, Inc (OLI) to prevent fatalities and serious injuries among emergency responders, specifically, fire fighters. The brochure provides practical safety guidance on crossing railroad tracks to prevent collisions with oncoming trains while responding to emergencies. It is essential for emergency responders to consider their own safety first and realize they will not be able to provide aid or assistance to others if they themselves are not safe. For more information on this brochure, visit the NIOSH website <http://www.cdc.gov/niosh/firehome.html>.

NIOSH Videos on the web

NIOSH has posted videos showcasing the NIOSH Mining training and education video programs. This resource is designed to be a working accessory for employers, human resource managers, occupational health and safety professionals, workers, educators and others. These programs combine authoritative information with an easy-to-understand, viewer friendly presentation. Videos are available in two formats: a downloadable Flash Video and RealMedia Streaming Video. For more information on these NIOSH videos, visit the NIOSH website <http://www.cdc.gov/niosh/docs/video/>.

NORA Update



For those wishing to learn more about the National Occupational Research Agenda (NORA), the 2003 NORA Update is now available. The NORA Update provides the latest on NORA-related research efforts including a timeline of NORA events, newly published documents related to the NORA priority areas, upcoming NORA workshops and special NORA research initiatives. Additionally, highlights from the NORA Intramural and Extramural projects and a comprehensive list of the 2001 through 2003 Awardees are included. For more information on NORA, visit the NIOSH website <http://www2.cdc.gov/nora/default.html>. To access the online version of the NORA Update, visit the website <http://www.cdc.gov/niosh/docs/2003-148>.

NORA Compendium of Research

This Compendium released at the NORA 2003 Symposium contains summaries of current research projects conducted or supported by NIOSH under the NORA program. For convenience, 448 projects are classified by NORA priority area. Contact information is provided for easy inquiry. To access the online version, visit the NIOSH website <http://www.cdc.gov/niosh/docs/2003-143>.

Upcoming Events

Control Technologies for Diesel Vehicles in Coal Mines Workshop

NIOSH will hold a workshop on July 30, 2003 at the Galt House Hotel in Louisville, Kentucky to discuss control technologies for reducing miners' exposures to particulate matter and gaseous emissions from the exhaust of diesel-powered vehicles in underground coal mines. The workshop is designed to help managers, maintenance personnel, safety and health professionals, and ventilation engineers in selecting and applying diesel particulate filters and other control technologies in their mines. For more information on the workshop, contact Rose Ann Crotsley, NIOSH Pittsburgh Research Laboratory, at rkc6@cdc.gov.

International Fishing Industry Safety and Health Conference (IFISH II)

The second International Fishing Industry Safety and Health Conference (IFISH) will be held in Sitka, Alaska on September 22-24, 2003. IFISH is an opportunity to learn the latest developments in commercial fishing safety and injury prevention research, help build an international fishing safety coalition and promote action to prevent injury in the commercial fishing industry. A stimulating program will include keynote speakers, the presentation of scientific papers and posters, and workshops. To learn about the conference, visit the IFISH II website <http://www.uaf.edu/seagrant/amsea/ifish/>.

NIOSH, in association with its public and private sector partners, will host the third National Occupational Injury Research Symposium (NOIRS) on October 28-30, 2003 in Pittsburgh, Pennsylvania. This symposium is a means of implementing the National Occupational Research Agenda for traumatic occupational injuries. Additionally, NOIRS will be a great source for developing collaborations, identifying best practices, and sharing innovative technological approaches to injury research and prevention. The symposium will consist of contributed oral presentations in concurrent sessions, organized sessions around topics of special interest, and poster presentations. For more information on NOIRS 2003, visit the NIOSH website <http://www.cdc.gov/niosh/noirs/noirsmain.html>.

National Chronic Obstructive Pulmonary Disease (COPD) Conference

The first National Chronic Obstructive Pulmonary Disease (COPD) Conference will be held in November 13-15, 2003 in Arlington, Virginia. The goal of the conference is to provide scientific and societal background concerning COPD to further education, awareness, and improved care in the United States. The conference will provide an opportunity to meet and to actively participate in state-of-the-art workshops, lectures, and meetings. For more information, visit the conference website http://www.uscopd.com/index_confer.html.

To receive NIOSH documents or more information about occupational safety and health topics, contact NIOSH:

1-800-35-NIOSH

Fax: (513) 533-8573

Email: pubstaff@cdc.gov

or visit the NIOSH Web site at www.cdc.gov/niosh

Around NIOSH

NIOSH Diversity Program

NIOSH recently invited all employees to participate in designing the logo for the NIOSH Diversity Program. The winner was chosen by an all-hands vote and is displayed to the right. The winning entry was submitted by Thomas Ziegler. The NIOSH vision for diversity is to enhance our ability to attract, recruit, hire, develop, retain, and serve a diverse population by fostering an inclusive environment that embraces, values and respects all individuals. NIOSH is committed to a workplace in which all people are respected as individuals and are valued for their contributions to accomplishing its mission.



STARS Conference

On May 21-22, the State-of-the-Art (STAR) Symposium focusing on work-related musculoskeletal disorders (MSD) was held on the campus of The Ohio State

University. The meeting was co-sponsored by NIOSH, the Institute for Ergonomics at The Ohio State University, and the National Occupational Research Agenda Musculoskeletal Disorders team. The symposium provided an opportunity for researchers to discuss multi-disciplinary perspectives on the causes of MSD, review and discuss the pathways to MSD causation, and to review the research gaps and identify future areas of study. Several of the slide presentations can be viewed at <http://osuergo.eng.ohio-state.edu/Institute/symposium.htm>.

Division of Applied Research Technology (DART)

Kevin Ashley, Ph.D., a DART research chemist, recently received the 2003 Award of Merit and the accompanying title of fellow from the American Society of Testing and Materials (ASTM). Kevin was honored for his exemplary service, leadership and personal dedication to the development and promotion of voluntary standards for identification, reduction, and elimination of hazards associated with lead in paint, dust, soil, and airborne particulates found in and around buildings.

Division of Respiratory Disease Studies (DRDS)

Nine DRDS employees were recently honored by CDC Director, Dr. Julie Gerberding, for their contributions to the joint NIOSH/MSHA Miners' Choice Health Screening Pilot Program (MCP). This pilot program stems from the existing Coal Workers' Health Surveillance Program (CWHSP). MCP adds surface miners to the list of miners who are eligible for chest x-rays and screenings. As a result, dramatic increases in the number of miners served have occurred.

Division of Surveillance, Hazard Evaluations and Field Studies (DSHEFS)

Several DSHEFS employees are providing support for efforts on controlling the SARS (Severe Acute Respiratory Syndrome) outbreak. Max Kiefer is assisting the evaluation of 12 hospitals as part of an audit of hospitals throughout Taiwan. Ken Martinez is working closely with a team from Health Canada (Winnipeg) to assess ventilation and to conduct environmental sampling at a North York Hospital, where approximately 45 health care workers have developed SARS. Marilyn Radke assisted the CDC Emergency Operations Center. Marilyn is part of the Surveillance/Epidemiology Team taking SARS case reports from the State Health Departments. These case reports are used to develop the SARS database and to alert the Quarantine Team of potential response needs.

Division of Safety Research (DSR)

Congratulations to Doug Cantis, a Physical Science Technician in the DSR Protective Technology Branch, for receiving the Department of Health and Human Services Secretary's Employee of the Month Award for June. Doug was recognized by Secretary Tommy Thompson for "consistently exceptional service, initiative, and professionalism in facilitating NIOSH test and evaluation projects to protect American workers."

Education and Information Division (EID)

EID, in collaboration with the National Personal Protective Technology Laboratory (NPPTL), has developed a webpage providing information on filtering facepieces. The website, http://www.cdc.gov/niosh/npptl/respirators/disp_part/particlist.html, provides information on the nine types of disposable particulate respirators. Workers can wear any one of these nine respirators for protection against diseases spread through the air if they are NIOSH approved and if they have been properly fit-tested and maintained.

Health Effects Laboratory Division (HELD)

HELD researchers Larry Lee, Jennifer Hornsby Myers, Mike Flemmer, and Sid Soderholm, along with Ramesh Gali (West Virginia University), won a “Best of Session” award in the Exposure Assessment Section at the American Industrial Hygiene Conference and Exposition (AIHce) in Dallas, Texas, for their poster, “Initial Field Testing of a System Using GPS and Near-Real-Time Monitors for Exposure Assessment”

National Personal Protective Technology Laboratory (NPPTL)

The Chemical, Biological, Radiological and Nuclear (CBRN) Respirator Research and Development Test Program provides access to chemical agent testing and increases the ability for manufactures to perform trial and error type research and development testing to prove the effectiveness of respirator materials, surfaces and designs before submitting the product for NIOSH CBRN certification testing. This new program provides the same access to chemical agent testing as the flexible CBRN SCBA Program that was initiated in December 2001.

This Research and Development Test Program is limited to applicants with a quality control plan evaluated as acceptable by NIOSH. The program is applicable for both CBRN SCBA (open circuit) testing and CBRN APR (tight fitting, full face) testing. Testing will occur up to three consecutive days in the chemical test laboratory at Soldier Biological Chemical Command (SBCCOM). To participate in the NIOSH CBRN Respirator Research and Development Test Program the applicant is required to submit a letter of application to NIOSH containing a brief description of the respirator to be tested and the tests desired to be performed. For more information on this program, visit the NIOSH National Personal Protective Technology Laboratory (NPPTL) website <http://www.cdc.gov/niosh/npptl/default.html>.

Pittsburgh Research Laboratory (PRL)

Analysis of Roof Bolt Systems (ARBS) is a computer program for the selection of roof bolts for primary support in underground coal mines. Using ARBS, a mine planner can rapidly assess the effects of intersection span, bolt length, bolt capacity and bolt pattern on the overall performance of the roof bolt system. For more information on this program or to install ARBS, visit the ARBS website at <http://www.cdc.gov/niosh/mining/groundcontrol/arbs/arbs.html>.

Spokane Research Laboratory (SRL)

Spokane Research Laboratory and SRL Technical Data Specialist Elaine Cullen

recently received the film and video industry's Telly Award for the mine safety training and documentary video "You Are My Sunshine." "You Are My Sunshine" describes the events surrounding the 1972 Sunshine Mine disaster, which was the catalyst for the 1977 Mine Safety and Health Act. More information on this and other NIOSH mine safety training videos is available at <http://www.cdc.gov/niosh/mining/training/videos.html>.

