63.

MANAGEMENT OF CHEMICAL
REPRODUCTIVE HAZARDS IN THE
LABORATORY SETTING, INCLUDING
PREGNANCY AND LACTATION
EVALUATIONS FOR A HISTOLOGY LAB.

K. Capwell, Covance Laboratorics, Vienna, VA. Critical elements of management of reproductive hazards include: identification of reproductive hazards, hazard communication, stringent exposure control measures, creating a culture that encourages employees to report reproductive health concerns such as pregnancy, and providing industrial hygiene/occupational health consultation for individual employees. Strategies for ensuring hazard identification and communication in the lab will be presented. Criteria and tools for performing a reproductive health hazard evaluation will be discussed, including use of "occupational reproductive guidelines" and German MAK categories. Specific examples of reproductive health hazard evaluations will be presented, including pregnancy and lactation evaluations for a histology laboratory.

### 62.

SIGNIFIGANT CHARACTERISTICS OF ORGANIZATIONS OPERATING SAFELY IN HAZARDOUS ENVIRONMENTS. J.

Cocciardi, Cocciardi and Associates, Mechanicsburg, PA.

This presentation explains the process, conclusions, and recommendations of doctoral research into significant health and safety characteristics which are reducing fatal occupational injuries and illnesses in hazardous occupations. Hazardous occupations are first defined thru BLS data, and organizations operating safely in hazardous conditions are then statistically identified. Firefighters, police officers, hazardous materials workers, and workers at heights were qualified in this manner. A review of 90 Concensus National Standards applicable to these occupations (including 11 sub jobs), and the application of a statistical tool to the findings identified 22 significantly occurring characteristics, intra-occupationally. These are described and the research concludes occupations may operate safely in both the defined hazards and non-hazardous conditions through a mimicry of these characteristics. The research and presentation is novel in two manners. First, it studies positive characteristics (opposed to faults) in the occupational environment, for the purpose of accident and illness prevention. Second, it studies jobs inter- and intra-occupationally, and identifies that findings may be applied inter- and intra-occupationally as well, with an assumed equal success. The presentatiion concludes with a description for use by the learner of the 22 significantly occurring characteristics.

# UPSTREAM PREDICTIVE INDICATORS—A CRUCIAL NEED FOR YOUR BEHAVIOR-BASED SAFETY PROCESS. D. Groover, Behavioral Science Technology Inc., Ojaj, CA.

The effectiveness of the behavior-based safety methodology in reducing exposure and injuries has been researched widely. The real value behavior-based safety, and for that matter an improvement system, brings to an organization is when there are upstream indicators that statistically predict downstream results. The problem is that groups are showing anecdotal results and talking about them as though they are meaningful and predictive across a wide range of sites and industries. When this happens, the methodology and approach comes under attack and criticism, rightly so. This talk will focus on two purported predictors of injury rates, percent safe and contact rate. One can be shown to be a predictor of downstream results, the other predictive only in limited circumstances. On the surface it would appear that both of these indicators should be predictive, but put under the microscope of research it becomes quickly evident why one is a pretender.

#### 64.

BUSINESS CRISES ARE NOT FOREST FIRES. T. Hogan, B. McCracken, Hogan and Associates, Lemont, IL.

The Incident Command System, originally developed for fighting forest fires, is not an effective tool for managing all phases of a crisis. We will describe how disaster management plans often fail to address many of the issues that must be managed to minimize the impact of crises typically affecting businesses today, such as workplace fires, employee injuries and illnesses, workplace violence, and product recalls. Then we will discuss how to develop a crisis management process that complements the management style of an organization. We will explain how to conduct structured interviews of key personnel within the organization and how to use that information to prepare a short document that someone can pick up and use in the heat of a crisis. Rather than a prescriptive document, the goal of this approach is to focus experienced managers on companyspecific principles to make effective decisions to minimize the impact of the crisis on people, the environment, and the business. We will show how to provide guidance that directs the crisis manager to avoid common pitfalls for the major decisions that have to be made in four key areas: overall crisis process management, employee issues, operational issues, and communications. An outline of this process will be presented so attendees can apply this method to develop a crisis management process that fits their organization.

#### 65.

RISK MANAGEMENT: COPING WITH OFF-DUTY RISK DECISION-MAKING. J. Formisano, Navy Environmental Health Center, Portsmouth, VA.

Employers are challenged to determine what

impact off-duty activities may have on an organization's ability to provide goods or services, or reach a pre-determined goal. Recently, the Secretary of Defense instructed the Department of Defense to reduce the numbers of off-duty fatalities and serious injuries by 25% from presently observed levels. In the U.S. Navy Pacific area of operations, within the past 2 years an increasing number of off-duty injuries and fatalities had been noted among active duty service members, including a number of severe injuries and fatalities involving traffic accidents, including motorcycles. Although the military has a more structured system of discipline (rank and military protocol) and legal regulations (Uniform Code of Military Justice) than most corporations, similar problems present themselves when trying to regulate off-duty behavior. Much of the observable behavior is in parallel to the most common behaviors seen in the same age group (17-34) outside the military, which may include expressions of independence manifested as excessive risk-taking, feelings of invulnerability, and poor decisionmaking affected by alcohol or fatigue. Coordinated efforts to provide training, improve mentorship by more senior personnel, develop new methods of evaluating risk, and generally increase risk awareness, are all presently underway in an effort to reduce the number and severity of off-duty mishaps. It is proposed here that a combination of innovative and established risk communication techniques would be needed to cause an observable decrease in the number of mishaps in a given population. Confounding factors may include privacy concerns, public perception of the "legal right" of any organization (industry or government) to influence off-job behavior, and the effectiveness of media marketing techniques. It is unlikely that any single regulatory effort will have the same effect as a wide variety of training and management techniques used in concert to decrease observed mishaps.

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66.

SIZE-SELECTIVE SAMPLING USING SEVERAL IMPACTORS IN PARALLEL. S. Trakumas, P. Hall, SKC Inc., Eighty Four, PA.

Worker exposure to particulate matter is monitored using size-selective sampling resembling particle penetration through the human respiratory tract. Respirable, thoracic, or inhalable samplers should meet requirements set by ACGIH and ISO. Cyclones are the most common devices used to separate respirable and thoracic dust for collection. Unfortunately,



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