EPA Region 5 Records Ctr.
247830

Edie Scala-Hampson, CIH, CHMM

Industrial Hygienist

4200

AREAS OF SPECIALIZATION

- *Industrial Hygiene*
- *Risk Assessment*

EDUCATION

B.S. Biology, Loyola University of Chicago

Asbestos Project Management, 40-Hr. Certification, University of Illinois

Respiratory Protection-OSHA Training Institute, Des Plaines, Illinois

Continuing Program of Short Courses. Past courses include: Industrial Hygiene Toxicology, Ventilation Design, Noise Control, Training, Hazard Communication, Phase I Environmental Site Assessments, The SUPERFUND Process, EPA-Principles of Risk Assessment, Air Sampling-Hazardous Waste Sites, Integrated Emergency Response Planning, Air Quality, DOT-Shipping Hazardous Materials, Determining Action Levels for Hazardous Waste Sites.

Representative Experience

Serves as the Manager of Industrial Hygiene and Corporate Health and Safety Officer for STS Consultants. Responsibilities include conducting in house training in compliance with the Occupational Safety and Health Administration's Hazardous Waste Operations and Emergency Response Standard and providing technical assistance on industrial health and chemical safety for all levels of staff and management in 6 regional offices.

Duties also included development and oversight of the medical surveillance of the Environmental Sciences Group Staff.

Accountabilities included the development of comprehensive Site Safety Plans for SUPERFUND project work. Some of the contaminants in soils and groundwater which required air monitoring of personnel have included: VOCs, heavy metals, asbestos, mercury, vinyl chloride, mercury, chlorinated organics, PNAs, PCBs and BTEX constituents.

Extensive experience in design, implementation, auditing, and review of site specific safety plans.

A representative sampling of occupational and environmental health studies conducted for industrial, academic, government and commercial clients includes:

- Development of an air sampling strategy and a medical surveillance program for a paper company. Chemical and biological airborne exposures in the sludge landfill work environment were considered and monitored to define the objectives of the medical surveillance program and worker protection. Worker exposure levels were compared to Permissible Exposure Levels (PELs) from the U.S. Department of Labor, Occupational Safety and Health Administration and the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs).
- Exposure determination to respirable silica dust during mixing, compounding and packaging of refractory material containing cristobalite, tridymite and quartz.

REGISTRATION

Licensed Industrial Hygienist: Illinois

American Board of Industrial Hygiene

Certified for Comprehensive Practice in Industrial Hygiene (Certification Number: 2929)

Certified Hazardous Materials Manager - 1996

Certified by Illinois Department of Nuclear Safety for Radon Measurement

Occupational Hearing Conservationist

AFFILIATIONS

Current Chair of AIHA/ACGIH Hazardous Waste Committee

American Industrial Hygiene Association (AIHA)

American Conference of Governmental Industrial Hygienists

American Society of Safety Engineers

Air & Waste Management Association

National Safety Council

- Initiation and development of audit parameters for health and safety and environmental functions of a major computer company. Also coordination of national and international site visits, reviewing air monitoring records, medical surveillance programs and data, MSDS records, hazard communication programs, respiratory protection programs, emergency preparedness, and confined space entry procedures.
- Industrial hygiene consultation and air sampling for a magazine and book printer where benzene was found as an impurity in a commonly used film cleaning solvent. Airborne levels were above the recommended occupational health exposure standard. Medical surveillance guidelines were developed and immediate product substitution sought.
- Direction of indoor air qualities studies for grade schools, churches, real estate development offices, new construction, and commercial and industrial real estate. ASHRAE ventilation guideline deficiencies were found and excessive carbon dioxide levels determined in many cases.
- Coordination and assistance in preparation of company policies, safe work practices and on-going air sampling programs where known teratogens, mutagens or carcinogens were present in the workplace.
- Air sampling of personnel receiving and packaging animal specimens preserved in formaldehyde. Ventilation design assistance also provided.
- Development of site specific hazard communication training programs for electroplating plants, metalgood manufacturers, furniture/wood product plants, chemical and paint facilities.
- Assessment of extensive industrial hygiene situations involving all types of occupational health hazards both chemical and physical for a wide variety of industries.
- Coordination of hearing conservation programs and development of engineering controls to reduce structure born noise. Octave band analyses of noise spectra and design of acoustic enclosures for a major book and magazine publisher.

- Interpretation of the technical aspects of workplace exposures that have resulted in workers compensation occupational disease claims.
- Completion of environmental risk assessment studies for a variety of businesses, examples of which include: solvent reclaimers, treatment, storage and disposal facilities, hazardous waste landfills, small appliance manufacturers, foundries, community development centers and automotive manufacturing facilities. Methodology for known soil, groundwater, and surface impoundment contamination was developed for radioactive waste, benzidene based dyes, coal tar pitch volatiles, pentachlorophenol, creosote, and PNAs.
- Involvement in review and formulation of computerized tracking of material safety data sheet information for plant incoming raw materials.
- Health assessment on cyanide soil contamination of a site under development as a shopping/ community center.
- Administration of the industrial health/hygiene training for safety professionals involved in loss prevention functions.
- Participation in corporate committees on environmental conservation, hazardous materials, safety and loss prevention, risk assessment guidance (TACO, RAGS).
- Evaluation of potential indoor air quality concerns at a site where a new company day care facility was to be erected. Indoor radon concerns and the potential for children contacting contaminated soils were addressed by collecting samples from the footprint of the proposed building. Determination of Radium 226, RCRA metals, cyanide, pesticides, VOCs and semi-volatile VOCs concentrations were made on soil samples. The health and environmental criteria for soil constituents used were derived from EPA established chronic (and in some cases, acute) toxicity criteria for ingestion (soil and drinking water) and inhalation exposure routes. The cleanup criteria for soils addressed the increased concern for the ingestion route of surficial soil that is likely by children and also the increased risk to children of inhalation of radon. Concentrations of Radium 226 and cyanide were found in the topsoil and at varying depths. The health concerns were addressed with the client so that remediation efforts could be determined.

- Annual indoor air quality monitoring and field screening at a multi-story office built on a landfill for combustible gases, percent oxygen, hydrogen sulfide, carbon dioxide and volatile organic vapors. The purpose of the indoor air monitoring program was to evaluate the concentrations of combustible or toxic vapors that may migrate from the underlying inactive landfill.
- Complaints of indoor air quality concerns by teachers and office staff led to an evaluation of the ventilation and carbon dioxide levels in a school building. A questionnaire and interview processes was concurrently conducted along with development of an air sampling program. The malfunctioning of a make-up air unit, recent redesign and partitioning of classrooms (without consideration of ventilation needs), the sealing of windows (that previously opened) resulted in appreciably elevated carbon dioxide levels in the school by lunch time.
- Complaints of dizziness by Activity Center staff at a landmark house of worship prompted an IAQ evaluation including review of the air handling and cooling systems, identifying possible air contaminant sources (MSDS review) that could have been associated with the exterior restoration that was occurring during the time of the complaints, distributing a questionnaire to determine possible correlation of complaints of Activity Center staff, evaluating environmental air quality by measuring carbon dioxide levels, VOCs, temperature and humidity. The evaluation found that there were several compounding factors which were related to the reported illnesses; a malfunctioning air handling unit damper and a boiler cleaning activity which entrained dust in the air conditioning supply diffusers.
- Evaluation of a major department store's Indoor Air Quality by conducting an evaluation for Total Suspended Particulate, VOC determination, humidity, carbon dioxide and temperature. The indoor air quality was compared to outdoor air concentrations of the same contaminant parameters. Low humidity levels were determined to be the cause of the mucous membrane (eye and nose) irritations and the complaints by contact lens wearers.

- The construction of a restaurant was stalled due to the local fire department's concerns over correct ventilation and removal of grease laden vapors per NFPA standards. An indoor air quality study was conducted at an existing similar restaurant of the chain which had cooking at booths and tables. Ambient total suspended particulate concentrations were determined as well as the influence of the cooking source and environmental tobacco smoke (ETS) in smoking areas of the restaurant.
- A baseline environmental air quality study was conducted as part of a property transaction and Phase I evaluation of 5 office buildings with varying tenant occupancies. A protocol was developed to assess the likely indicators of acceptable Indoor Air Quality per the proposed OSHA standard and ANSI guidance.