

Annual Report for Fiscal Year 2011 – 2012

ENVIRONMENTAL HEALTH & SAFETY

Introduction

The Office of Environmental Health and Safety was created in 1987 to consolidate related program areas. The Department is responsible for meeting the requirements of several regulatory agencies and for ensuring a safe work environment for all University staff, students, faculty and visitors. The Department serves as resource center for other departments regarding regulatory requirements and as liaison with regulatory agencies.

Mission

The Service Mission of the Office of Environmental Health and Safety is to provide to our customers: services that are courteous, high quality and expeditious.

The Department is dedicated to preserving and protecting the health and safety of students, faculty, staff and visitors as well as the assets of the University. The Department is dedicated to preserving the overall environment by minimizing the impact the University has on the external environment while enhancing the quality of the University's environment.

Vision

Our vision at IUPUI is to be recognized as one of the nation's best urban universities. IUPUI will not be recognized as such, unless the University demonstrates a strong commitment to protecting the health and safety of employees, students and the public as well as protecting the environment. Our goals are to have a workplace free of injuries and hazardous exposures, to prevent or minimize any adverse impact to the environment, to provide services of the highest quality to all associated institutions and to be recognized as leaders in the areas of environmental protection, health, safety and fire protection.

Strategy

The mission is accomplished by departmental staff providing technical guidance, compliance assistance, quality assurance, remediation oversight, and training to the campus community, associated institutions and the general public when appropriate. Departmental staff strives to manage environmental, health, and safety issues by giving them the highest priority, utilizing best management practices and adhering to departmental values.

Department Values

Staff will practice their profession by following recognized scientific principles and management practices, factually informing affected parties of their findings in an honest, straightforward manner, exhibiting the highest level of integrity, honesty and empathy, while never compromising the public's welfare. Staff will strive to be involved in continual education and professional development, to provide superior customer service in all areas, to perform service only in the areas of their competence and maintain information as confidential when appropriate.

Department responsibilities include:

Chemical waste management

Infectious waste management

Community right-to-know

Emergency response for hazardous materials releases

Management of asbestos

Compliance with environmental regulations

Biological Safety

Laboratory safety

Worker's health and safety

Hazardous material spill cleanup

Investigation of complaints regarding building air quality

Wishard Hospital compliance

Clarian Health Partners, Inc. compliance

Summary of Activities for 2011-2012

Overview

All areas continue to provide services at an acceptable level. As new university space is added, new demands are created and new resources are needed. A process is in place to fund additional services to meet the growing needs.

The Department web page continues to be updated and improved to provide campus personnel easy access to information.

Staff served on the campus Sustainability Advisory Committee as Co-chair and three subcommittee co-chairs: Land Air and Water, Public Health, Transportation and Waste Minimization and Recycling.

For the last fourteen years, the Department has provided services to Indiana University Health Partners through a contract. Most services this department previously provided to University and Riley Hospitals are now provided to University, Riley and Methodist Hospitals, IU Health Beltway facilities and other clinics and hospitals as requested. The contract has been successful for both IUPUI and Indiana University Health and is expected to continue.

Fiscal Year 2011-2012

The Department continued to provide services to Wishard Hospital for the sixteenth year under a contractual agreement.

The Department continued to provide services to IU Emerging Technology Center for the 3rd year under a contractual agreement.

During this year, staff attended various training seminars and conferences to advance their technical knowledge and continued leadership roles in professional organizations.

Department staff provided regularly scheduled training in: New Employee Safety Orientation (weekly), Bloodborne Pathogen (bi-weekly), Laboratory Safety (monthly) and Biosafety (monthly). Number of employees trained by class:

New Employee Orientation	337
Bloodborne Pathogen	1953 (includes on-line)
Laboratory Safety	600 (includes on-line)
Biosafety	106
Shipment of Biological Materials	132 (includes on-line)
Total	2711

Several other training courses were conducted throughout the year. The class type and quantity of people trained are listed in the appropriate program.

Asbestos Management

The Asbestos Department is primarily responsible for ensuring that both safety and environmental compliance is maintained during all maintenance, renovation and demolition activities. Additionally the department provides Asbestos Awareness Training to both contractors and CFS maintenance workers. The department consists of a manager, 2 asbestos full-time workers, and normally, at least 1 hourly asbestos worker. More workers are added based on the size, type of material and number of projects that are in progress, as well as to meet completion deadlines that have been established. Having the In-House program provides immediate and professional response in emergency situations.

Assessment of Objectives for Fiscal Year 2011-2012

The Department continued to provide complete asbestos-related services for IUPUI and IU Columbus, as well as some other IU campuses during Fiscal year 2011-2012. The Asbestos Program completed 84 asbestos removal projects and 29 mold remediation projects. The program also completed 5 cable-running projects for UITS, performed 2 major industrial cleaning and oil removal/disposal projects as well as responding to and completing environmental spill projects. The department provides immediate asbestos and mold-related response to both IU Health and Wishard Health Services.

The program conducted 272 air monitoring samples and generated over 10 tons of asbestos waste during fiscal year 2011-2012.

Biosafety Management

Maintained and further developed the IUPUI Biosafety Program into a respected and widely available resource (e.g., EHS Biosafety representation on 15 committees and the Biosafety Manager serves as Subject Matter Expert on Biosafety for the Office of Research Compliance) as well as the Indianapolis FBI Field Office.

Served as the Chair of the VAMC BL3 Safety Subcommittee.

Bloodborne Pathogen training was given to 1953 new and existing IUPUI employees. This included staff participation in the online Bloodborne Pathogen Training module and represents a small decrease of trainees over last year. Training sessions were scheduled twice per month and were also presented at other sites by request. Specialized Bloodborne Pathogen Training for CFS was presented to 50 staff. The IUPUI Biosafety Training session was given to 106 IUPUI employees which is a decrease from the past year. This may be attributed to the lack of an annual refresher requirement. The total number of IUPUI employees trained this year was 2109.

Biosafety inspections were completed for 106 laboratories awaiting final approval for Institutional Biosafety Committee submissions. These were performed to ascertain compliance of NIH Biosafety Level 2, 2+ BL3 precautions, or 3 compliance guidelines. On an annual basis, IUPUI's annual biosafety lab inspections continued as planned and the Inspection Summary Reports were again utilized. A database listing the laboratories using biological materials was maintained. Laboratories were characterized as Biosafety Level 1, 2, or 3. The number of laboratories inspected this year was 193. The total number of laboratory and IBC inspections was 299. This number is lower than the number of labs as the Biosafety Technician (hired during this reporting period) was trained in biosafety inspections and questionnaires were developed to include the Biosafety Level 1 labs into the annual biosafety inspection schedule and database. Now that the Biosafety Technician is completely involved in laboratory inspections, the Biosafety program is on track to include 100% of the labs on campus.

The Biosafety Program Staff engaged as active voting members of the Institutional Biosafety Committee, the VAMC Research Safety Committee, the VAMC Research and

Development Service Safety Subcommittee, the VAMC BL3 subcommittee (Chair), the School of Medicine Institutional Animal Care and Use Committee (IACUC), the School of Science IACUC, the Dental School IACUC, The Methodist Research Institute Animal Research Committee, the Biohazard Compliance Committee, the IUSOM Security Planning Committee, the Methodist Research Institute Institutional Biosafety Committee, the IUPUI Laboratory Safety Committee, and as a staff of three Biosafety Professionals 638 research proposals or amendments were read and/or reviewed.

The Biosafety Manager was asked to continue as Chair of the Membership Committee for the American Biological Safety Association and was also active in the Affiliate Relations Committee and served on the ABSA Nominating Committee for 2012.

Maintained communication with the Special Agent at the Indianapolis Field Office acting as the WMD Coordinator as well as several counter-intelligence analysts. Discussions involved how biosafety and federal agents can develop communication lines enabling faster responses to biological emergencies. The Biosafety Manager continued to serve as the Subject Matter Expert for the FBI in the Central Indiana area. Further developed the formation of an alliance between the Federal Bureau of Investigation and the American Biological Safety Association and serves as the official liaison between the two organizations.

Working with the Office of Research Compliance, the Biosafety Program reviewed and offered revisions to current protocol submission forms for the Institutional Biosafety Committee and the IUPUI Biohazard Committee.

Continue to present bloodborne pathogen training to IU School of Nursing incoming students during orientation programs.

The Biosafety Manager was elected to serve as the First Vice President on the IUPUI Staff Council Executive Committee.

The Biosafety Manager served on the IUPUI Staff Council serving constituents within EHS and the Child Care Center.

The biosafety staff wrote and published an article for the quarterly Lab Notes distributed to the IUPUI research community.

Assessment of Objectives for Fiscal Year 2011-2012

The Biosafety Manager will collaborate with the Office of Research Administration and assist with coordinating efforts for the development of an updated Memorandum of Understanding between the VAMC and the IUPUI Institutional Biosafety Program.

Completed and may continue to remain ongoing as future needs arise.

The Biosafety Program will work closely with the Office of Research Administration to develop a better means of tracking Bloodborne Pathogen Training compliance utilizing a web based tracking system.

Ongoing as the database development has not been finalized yet.

Further refine and develop the integration of the Biosafety Level 1 labs into the annual inspection schedule. This will involve utilizing the findings from the internal audit performed during the summer of 2011.

Completed and may continue to remain ongoing as future needs arise.

Objectives for 2012-2013

The Biosafety Program will be revising and updating the IUPUI Biosafety Manual.

The Biosafety Program will create and promote the following university wide training modules for E-Train: Bloodborne Pathogens for Research and Clinical Staff, Bloodborne Pathogen Training for Non-Laboratory Staff, Institutional Biosafety Committee Training for Principal Investigators and Research Staff, and a refresher module for Biological Safety Training.

Develop a Memorandum of Understanding between the RLR VA medical Center and the IUPUI Biosafety Program.

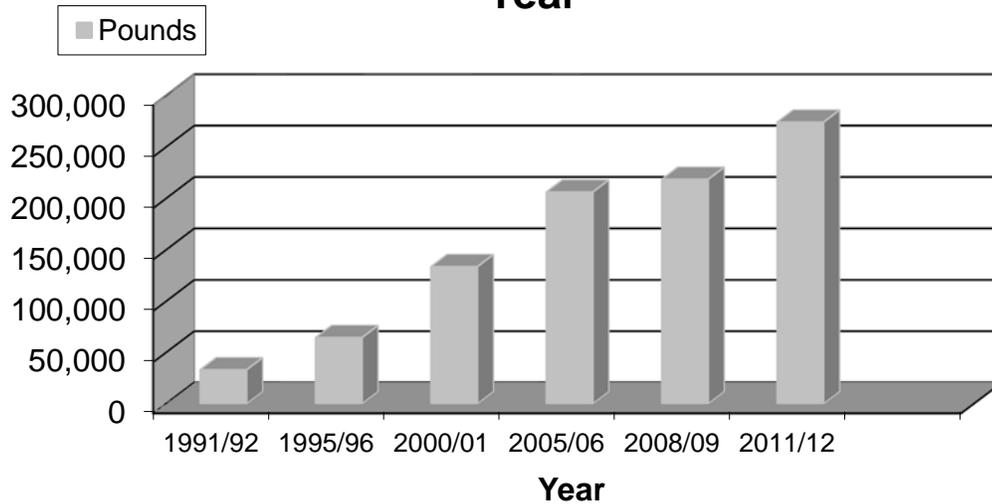
Investigate available or IUPUI developed database(s) that allow for more interactive and user-friendly processes. The database would contain data such as Principal Investigator names, labs, biosafety levels, biohazards, etc. The spreadsheet currently in use is quite large and can be cumbersome to update and maintain.

Environmental Compliance Program

Environmental Compliance Program

Staff coordinated the collection and disposal of 274,318 pounds of chemical-related materials.

Figure 1 Chemical Waste Managed by Fiscal Year



Staff conducted numerous field investigations, including response to chemical spills, for the University, Indiana University Health Inc. and Wishard Hospital.

Staff pursued a broad-based environmental compliance program. The program strives to ensure continued compliance with federal, state and local regulations in the following areas:

- Air pollution compliance
- Biomedical waste management
- Chemical waste disposal
- Environmental health compliance
- Emergency planning for hazardous materials releases
- Emergency response for hazardous materials releases
- Hazardous materials transportation compliance
- Municipal solid waste
- PCB compliance
- Storm and wastewater compliance
- Underground and aboveground storage tank compliance
- Wellfield Protection

IUPUI

Staff relocated the main campus hazardous waste accumulation/processing operations for the second time in two years. This action was necessitated by the loss of campus Environmental Management Facility as a result of the Wishard land exchange. Staff secured two interim locations for the management of campus chemical wastes and modified campus chemical waste operations in response to the loss of this campus asset.

Staff undertook measures to retrofit the 1200 Waterway Boulevard Building to serve as the primary interim campus hazardous waste accumulation area. Staff secured the

services of a reputable contractor to construct and install the modular processing/storage facility. Staff facilitated additional upgrades to the Waterway facility to provide for an appropriate level of safety, security and environmental protection.

Staff served as the 2011 President of the University Hazardous Waste Conference following hosting the conference in 2011. Staff assisted the 2011 host as requested or needed.

Staff maintained a comprehensive air pollution permit for the campus. The permit replaces expired permits for air pollution sources on campus. All sources of air pollution associated with campus activities are identified and potential emission estimates calculated and updated annually. Staff continues to monitor the addition of emission units on campus and will upgrade the permit as appropriate.

Staff fully implemented an in-house biological shipment training program for campus personnel involved in the shipment of infectious substances and other biological materials. Staff fully implemented an on-line refresher training program for those employees previously completing classroom training. 132 University, Indiana University Health and Wishard personnel successfully completed classroom or on-line training during FY 2011/12.

Staff worked with IU Real Estate, Risk Management and Campus Facility Services in the evaluation and on-going compliance monitoring of a semi-public swimming pool located at the Chancellor's residence on Sunset Lane; a historic but antiquated swimming pool.

Staff ensured environmental compliance services for the Columbus Campus by providing biannual waste chemical disposal services and consultation as needed.

Staff assisted the University of Southern Indiana (USI) in addressing hazardous waste compliance deficiencies which had a direct effect on IU School of Medicine facilities/operations located on the USI Campus. Staff facilitated the removal of chemical wastes from School of Medicine laboratories.

Staff provided support services for campus expansion and renovation projects. Staff facilitated chemical cleanouts of abandoned laboratories scheduled for renovation, and the move of laboratory chemical inventories to newly completed or renovated research buildings on campus.

Staff provided technical consultative services related to the Glick Eye Institute and Stark Neurosciences construction projects.

Staff trained, instructed and otherwise provided guidance to campus personnel on the proper handling, transportation and disposal of biohazardous, chemical reagent and chemical wastes.

Staff coordinated campus Phase II Stormwater compliance efforts and reporting for the IUPUI campus.

Staff continually monitored campus special events for compliance with the campus Food Service Policy including student fund raiser events involving the sale of food on campus.

Staff maintained an active, participating-role with the Marion County Hazardous Materials Planning Committee (MCHMPC). Staff served on the Metalworking Lubricants Odor Workgroups of the MCHMPC.

Staff continued the complete computerized management of chemical wastes derived from contractual entities which provides the ability to track each chemical waste item throughout the disposal process. Staff secured a mobile device to further facilitate the electronic management of chemical wastes.

Staff utilized the services of two School of Public Health students during the review period. The students were provided comprehensive training on the transportation and the management of hazardous materials as well as other campus safety considerations. The students were afforded internship opportunities.

Staff provided services as requested for the Indiana University Emerging Technologies.

Staff continued implementation of the campus Mercury Elimination policy for the campus formally adopted at the June 2006 meeting of the Laboratory Safety Committee and began full implementation on December 31, 2007. Staff continued the evaluation of requests for exceptions to the policy.

Staff continued co-chairmanship of the Sustainability Subcommittee on Air, Land and Water and reactivated the subcommittee.

Staff facilitated a Phase I/Phase II environmental assessment of the Mid-Continent Food Tech property located at 1430 Indiana Ave.

INDIANA UNIVERSITY HEALTH, INC.

Staff further refined a system-wide comprehensive Pharmacy waste disposal program for the Indiana University Health system. Staff continues to work with Indiana University Health to achieve an appropriate level of compliance within the various Indiana University Health facilities served by EHS.

Staff assisted Indiana University Health in the evaluation of a groundwater contamination problem discovered to the northeast and potentially affecting the Indiana University Health Pathology Laboratory Building on West 11th Street.

Staff responded to chemical spills, performed other emergency response operations, investigated chemical odor complaints, and performed other general environmental investigations as needed.

Staff managed hazardous chemical waste from multiple off-campus Indiana University Health-related facilities scattered throughout Marion County.

Staff served on the Environment of Care (EOC) Hazardous Materials and Waste Subcommittee.

Staff developed a system-wide fluorescent lamp/ballast and battery disposal protocol/policy.

WISHARD HEALTH SERVICES, INC.

Staff responded to chemical spills, performed other emergency response operations, investigated chemical odor complaints, and performed other general environmental investigations as needed.

Staff managed hazardous chemical waste from multiple Wishard-related facilities throughout Marion County, including the main campus.

Staff trained Wishard Pathology personnel in the proper shipment of infectious substances and diagnostic specimens.

Staff served on the Environment of Care (EOC) Hazardous Materials and Waste Subcommittee.

Staff participated in a hazardous materials training with Wishard ER personnel involved in the decontamination of patients.

Staff provided technical assistance to Wishard Pathology personnel in preparation for a Pathology Department accreditation inspection.

Staff assisted in the development of a comprehensive air pollution permit necessary for the current and new Wishard campuses.

Staff represented Wishard during a comprehensive hazardous waste inspection during the reporting period. Two minor deficiencies were noted with EHS operations. Both were immediately corrected.

Staff participated in the hospital's triennial Joint Commission on Accreditation of Healthcare Organizations providing representation for inquiries regarding chemical waste management and hazardous materials emergency response.

Assessment of Objectives for Fiscal Year 2011 - 2012

Environmental Compliance

Fully transition hazardous waste operations to 1200 Waterway Blvd Building.

- On-going/complete. Staff pursued measures to retrofit the 1200 Waterway Boulevard Building to serve as the primary campus interim hazardous waste accumulation area. Staff secured the services of a reputable contractor to

construct and install the modular facility. Staff facilitated several upgrades to the Waterway facility to provide for an appropriate level of safety, security and environmental protection.

Begin air pollution permitting in preparation of campus acquiring the existing Wishard campus and its various air pollution sources.

- Ongoing. Campus air pollution emission inventory updated. Inquiries made of IU Real Estate as to the future of the Wishard Campus. To date, EHS has been provided with little insight as to the future use of the various buildings which comprise the Wishard campus.

Tightness test existing underground storage tanks located at the University Place Hotel, the Natatorium, the Education/Social Work and the Medical Research and Library complexes. Meet with Campus Facility Services and begin discussions regarding the retrofitting of tanks installed prior to 1990.

- Ongoing. Discussions are ongoing with Campus Facility Services regarding the need to retrofit the existing tanks. CFS is currently exploring funding opportunities. EHS/CFS met with a reputable tank contractor to provide budgeting estimates for the retrofit projects.

Revise Campus Waste Disposal Guidelines

- Tabled. Revisions to the campus waste disposal guidelines were tabled due to staffing issues and other priorities during the fiscal year.

Conduct quarterly meetings of the Land, Air and Water Subcommittee of the campus Sustainability Committee. Develop policies, educational materials, etc. as appropriate.

- Ongoing. Staff coordinated two meetings during the fiscal year and participated on the campus Sustainability Steering Committee as needed during this review period.

Objectives for 2012 – 2013

Incorporate service needs of the IU Health Saxony facility.

Continue the evaluation of the campus air permitting needs in preparation of the campus acquiring the existing Wishard campus and its various air pollution sources.

Continue to pursue funding for tank retrofit projects for the ES, PE and IP facilities.

Revise Campus Waste Disposal Guidelines.

Develop ground and stormwater components for Departmental website under the Environmental Management section.

Conduct quarterly meetings at a minimum of the Land, Air and Water Subcommittee of the campus Sustainability Committee. Develop policies, educational materials, etc. as appropriate.

Facilitate system-wide training of IU Health maintenance personnel on new Lamp/Ballast/Battery disposal protocol/policy.

Industrial Hygiene/Occupational Health and Safety Program

Industrial Hygiene is the science of anticipating, recognizing, evaluating, and controlling workplace conditions that may cause workers' injury or illness. Industrial hygienists use environmental monitoring and analytical methods to detect the extent of employee exposure and employ engineering, work practice controls, and other methods to control potential health hazards.

The IUPUI Industrial Hygiene/Occupational Health and Safety program can be categorized into the following areas; personal exposure monitoring, indoor air quality, ergonomics, noise monitoring, air monitoring for known and unknown contaminants, respirator fit testing, hearing conservation, safety audits, construction safety, and training. Industrial hygiene/occupational health and safety staff includes a manager, one full-time employee and three part-time employees.

PERSONAL EXPOSURE MONITORING

The Industrial Hygiene staff completed sixty-one (61) personal exposure monitoring assessments for formaldehyde, glutaraldehyde, xylene, waste anesthetic gases, ethylene oxide, nitrous oxide, and/or silica dust for IUPUI, IU Health, and Wishard Health Services.

The evaluations and monitoring were completed to ensure compliance with federal regulations and consensus standards.

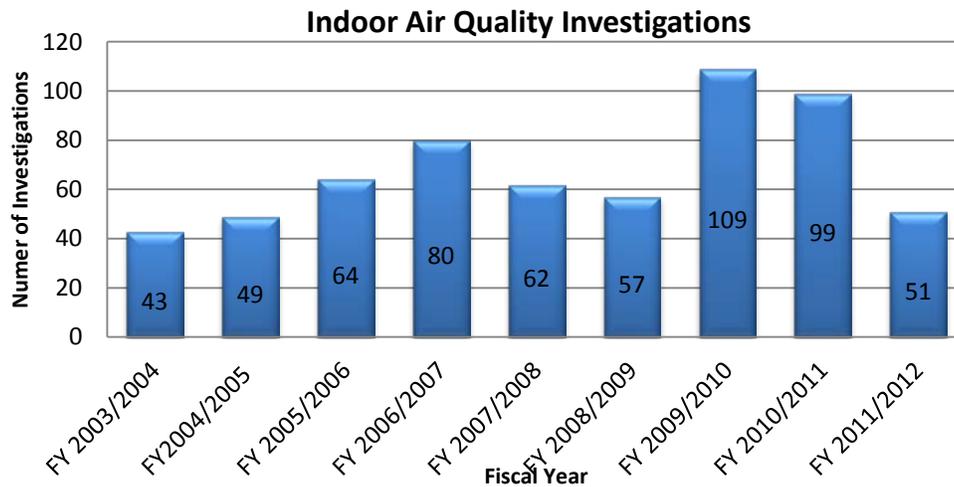
INDOOR AIR QUALITY

Indoor air pollution is caused by an accumulation of contaminants that come primarily from inside the building, although some originate outdoors. These pollutants may be generated by a specific, limited source or several sources over a wide area, and may be generated periodically or continuously. Common sources of indoor air pollution include tobacco smoke, biological organisms, building materials and furnishings, cleaning agents, copy machines, and pesticides.

Thirty-two employees (32) completed the online Indoor Air Quality Questionnaire. Fifty-one (51) indoor air quality investigations were conducted within IUPUI, IU Health, and Wishard Health Services.

Methods of gathering information included employee questionnaires, interviews, air monitoring, and ventilation testing. Air monitoring included bioaerosol, carbon dioxide, temperature, relative humidity, particulate, and volatile organic compounds.

Recommendations for improving air quality were made to those affected and to Campus Facility Services, IU Health Facilities or Wishard Hospital Facilities personnel.

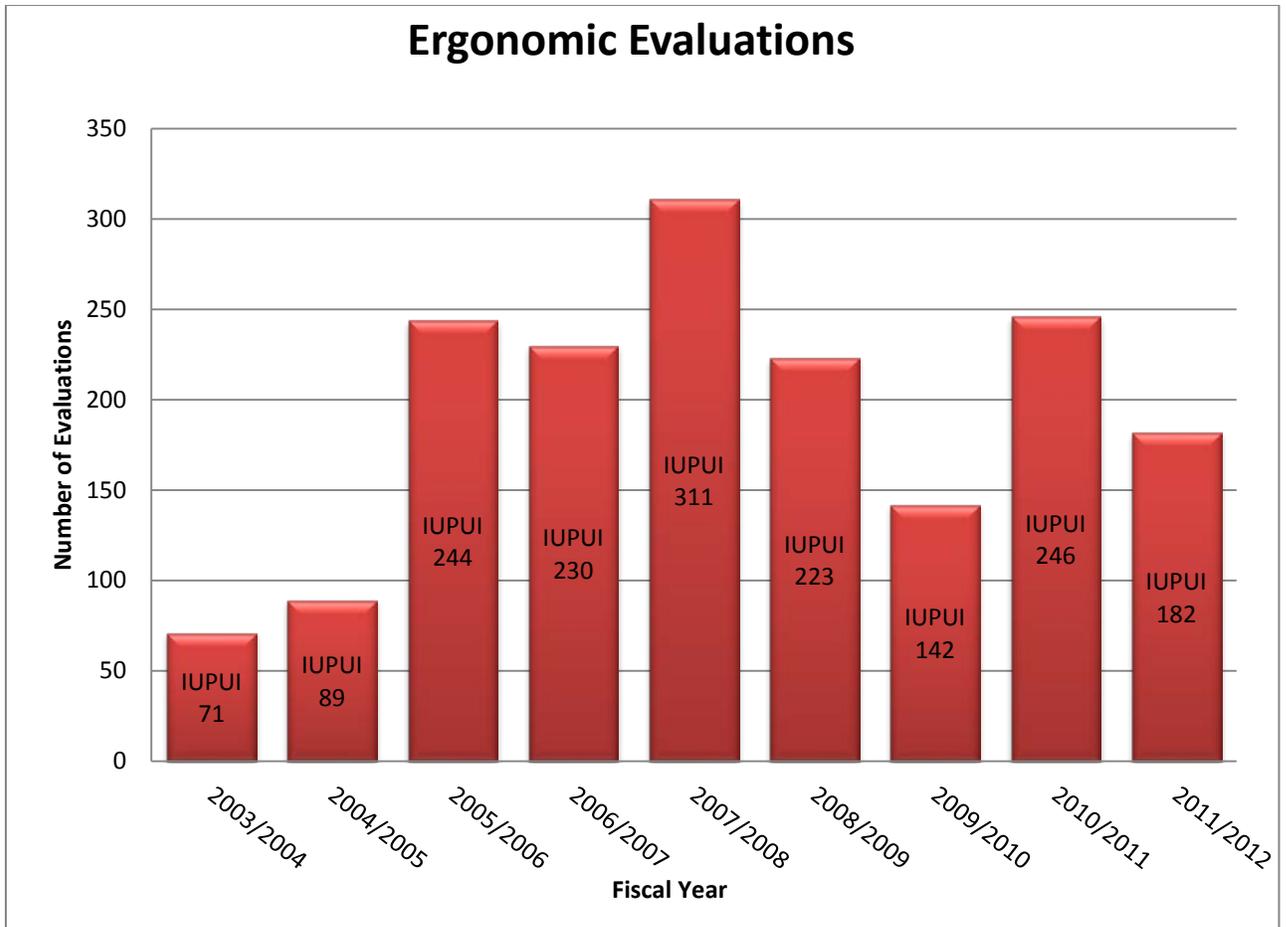


Industrial Hygiene staff provided support for approximately twenty (20) water intrusion situations within IUPUI and IU Health. Evaluations for the extent of water damage and the need to remove materials that were wet longer than guidelines allow were made in order to minimize or prevent mold contamination within buildings. Visual evaluations, moisture meter testing, and infrared camera readings were involved in these determinations. In some cases, air samples were collected to determine the presence of airborne mold contamination in the area.

The Indoor Air Quality Committee continued to meet monthly to discuss indoor air quality issues as they arise in buildings and how to best remediate those issues. Members of the committee include EHS, Campus Facilities Services and the School of Medicine.

ERGONOMICS

Ergonomic evaluations, including computer workstation and laboratory evaluations, and material handling/lifting were conducted and recommendations were made to limit ergonomic stressors for one-hundred eighty-two (182) reported instances. Devices for lifting and computer use were recommended. Training was also provided to the employees during the evaluations.



EHS continues to discuss ergonomics during New Employee Orientation. Employees are given the tools to assess their computer workstation. If needed, they are asked to contact EHS for assistance. EHS also received requests to conduct ergonomic assessments for entire departments as a proactive approach to ergonomics within the department.

The EHS ergonomic display room continues to grow and allows employees to view twenty (20) different chairs prior to purchasing. Examples of keyboard trays, monitor arms, and height adjustable workstations are also available in the display room.

TRAINING

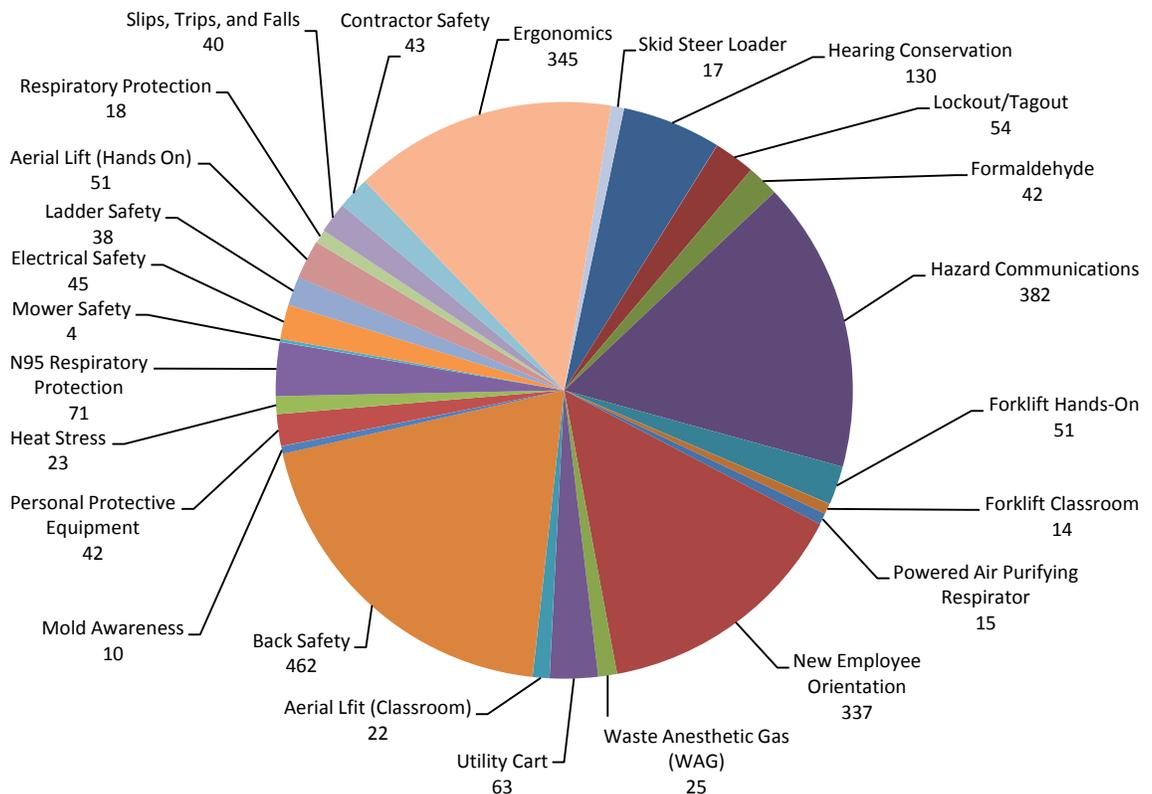
During FY 2011-2012, IH staff began to work with the Office of the Executive Vice President for University Regional Affairs, Planning, and Policy to implement the web-based training program;

E-Train. A part-time staff member was hired to assist with the development of the E-Train site for EHS and convert all EHS web-based training programs to Captivate. Approximately ten (10) training programs were reviewed and updated to Captivate. New programs for Hazard Communications, Pyrophoric Safety, Hydrogen Safety, and Nanoparticles have been developed for E-Train. During this process, EHS continues to provide training through ONCOURSE. One thousand sixty-two (1062) training courses were taken on ONCOURSE during FY 2011-2012.

Industrial Hygiene staff conducted classroom training for Hearing Conservation, General Safety, Ergonomics, Forklifts (Classroom and Hands-On sessions), Aerial Lifts (Classroom and Hands-On sessions), Air-Purifying Respirators, Asbestos Awareness, N95 Respirators, Confined Space Entry, Lockout/Tagout, Hazard Communications, Back Safety, and Personal Protective Equipment. Two thousand three-hundred (2344) employees were trained during classroom sessions.

EHS staff continues to participate in the Campus Facilities Services New Employee Orientation Training Program. Training is conducted on a monthly basis for all new employees. Current employees attend as a refresher for topics which include general safety training, hazard communications, lockout/tagout, personal protective equipment, asbestos, bloodborne pathogens, back safety, and laboratory safety.

EHS continues to participate in the weekly IUPUI Benefits New Employee Orientation training. All new employees are trained on the services provided by EHS, ergonomics, back safety, emergency procedures, hazard communications, accident and injury procedures, and campus safety policies.



RESPIRATOR FIT TESTING

Respirator training and fit testing was completed for IU Health, EHS, Campus Facilities Services, Researchers, Indiana State Department of Health, and Lab and Animal Facility (LARC) employees. Employee training/fit testing sessions were completed for

approximately two-hundred (200) employees from IUPUI and IU Health. EHS staff assisted in fit testing residents and School of Medicine students for IUPUI Health Services.

INJURY AND ILLNESS REPORTING

Industrial Hygiene staff reviewed approximately four-hundred and sixty (460) Illness/Injury Reports provided by IUPUI Health Services to determine if there were health and safety issues to be addressed. An investigation was conducted for seventy-eight (78) of the reported incidents and recommendations were made.

OCCUPATIONAL HEALTH AND SAFETY PROGRAM

IH staff conducted safety audits for the IUPU Columbus Campus, Housing, Herron, and NIFS. Deficiencies were identified and recommendations were made based on the audit.

IH staff, with the assistance of the Occupational Safety and Health for Animal Users Committee, completed the written program and web-based system for collected of data.

A complete hazard assessment for personal protective equipment was conducted for the Herron School of Art. The hazard assessments were conducted to identify personal protective equipment requirements for all job tasks within those departments. Hazard assessments were reviewed and updated as necessary for CFS Building Services, CFS Maintenance, and Dental School.

CONSTRUCTION SAFETY

EHS was involved in reviewing specifications for one-hundred thirty (130) CFS and UAO construction projects. EHS is attending construction project kick-off meetings and is actively conducting walk-throughs of construction sites during the project.

CAMPUS HEALTH AND SAFETY COMMITTEE

The Campus Health and Safety Committee continued to meet and address campus wide health and safety issues.

Assessment of Objectives for Fiscal Year 2011 - 2012

1. Develop new programs;
 - a. Occupational Health Program for Animal Users – *Completed and on-going*
2. Develop training presentations and reference materials for OnCourse;
 - a. Skid Steer Training – *Completed*
3. Safety Audit for Housing – *Completed*
4. Develop training presentations and reference materials for OnCourse;
 - a. Hazard Communications – *Complete*
5. Continue to develop and conduct hazard assessments for Personal Protective Equipment (PPE) for various departments on campus.
 - a. Oral Health - *Complete*
 - b. Fire Protection Services – *in process*
 - c. Herron – *in process*
6. Develop a schedule and/or program for periodic inspections of Crane and Hoists. – *Not Completed*
7. Continue to work with Columbus Campus Facility Services to ensure compliance with training requirements and audit findings. – *Completed and on-going*
8. Develop a first-aid program for campus to include first aid kit distribution and maintenance. – *Completed and on-going*
9. Assist Engineering Technology with a Mechanical Shop Safety Program. - *Completed*
10. Implement new training system and integrate EHS training into the system. – *In process*
11. Continue to develop and conduct hazard assessments for Personal Protective Equipment (PPE) for various departments on campus. – *On going*
12. Conduct anesthetic gas monitoring for campus locations. – *In process and On going*

GOALS 2012-2012

1. New training for E-Train
 - a. PPE
 - b. Cold Stress
 - c. Heat Stress (to include Sun Exposure)
 - d. Asbestos

- e. Hearing Conservation Specific for Police
- f. Cryogenics Training

2. Develop an Accident Investigation and Near Miss Program
3. Establish acceptable noise levels for outdoor events, develop a written program, and implement.
4. Develop a Program for the Safe Handling and use of cryogenics.
5. Update current hazard communication program to be consistent with Global Harmonization System (GHS).
6. Train all required staff of the new hazard communication program by 12-1-2013.
7. Conduct Audits of the Campus Facility Services maintenance shops.
8. Continue to work with Columbus Campus Facility Services to ensure compliance with training requirements and audit findings.
9. Conduct anesthetic gas monitoring for campus locations.
10. Implement EHS training into the E-Train system and begin to use the system.
11. Continue to develop and conduct hazard assessments for Personal Protective Equipment (PPE) for various departments on campus.
12. Conduct a safety audit for Parking Services Booths and Booth Attendants.

Laboratory Safety Annual Report 2011

1157 labs were inspected. Over 93% of laboratories inspected received an A grade or better with 78% receiving a perfect score after the inspection. Out of the 353 laboratories with noted deficiencies a follow-up inspection was performed on all of the laboratories with D or F grades and a random selection of remaining labs. There were only 2 laboratories found in such a condition to receive a D or F grade. This data is outlined in the table and chart below.

2011 Summary	
A+ Grade Labs	78.0%
A Grade Labs	15.6%
B Grade Labs	4.7%
C Grade Labs	1.6%
D Grade Labs	0.2%
F Grade Labs	0.0%

We have seen a continual increase in the number of labs with no violations after inspection and a continual decrease in the number of poor labs that received a D or F grade which is indicative of the continuing improvement of the Laboratory Safety Program. Only 2 labs this year received a D grade with this being the first year that no laboratory received an F.

A license was continued through MSDS online which provides access to MSDS sheets for all workers on campus

Fume hood testing and certification was completed for 681 fume hoods. Emergency shower testing was completed for 634 emergency showers which were flushed and certified by the Laboratory Safety staff. Deficiencies were reported to the laboratory contacts and/or Campus Facility Services.

Lab Safety training was provided to 183 new and existing employees. Training sessions were also performed for graduate students in the School of Medicine, School of Science, School of Dentistry and occupants in the Indiana University Innovation Center. Over 400 employees were given Laboratory Safety Training online.

A visit was made to the School of Medicine laboratories located on the South Bend, Evansville, Fort Wayne, Northwest and Terre Haute campuses. Over 90 School of Medicine laboratories were inspected during these visits.

Additional training was developed for the new E-train program. These trainings include Hydrogen Safety, Working Safely with Pyrophorics and Nanoparticle Safety training.

The IUPUI Chemical Hygiene Plan was revised. This new revision contains over 100 new pages of text that provide guidance to our laboratory personnel on how to work with hazardous chemicals safely.

Participated in Emergency Response training.

The Lab Notes newsletter was revised to include links to recent laboratory safety articles and events. Lab Notes was published quarterly.

Reviewed architectural plans for construction and renovation of laboratory facilities.

Reviewed Department of Defense grant applications and inspected labs to ensure environmental compliance.

Completed the Facility Safety Plan Status Report Annual Update for the Department of Defense.

Reviewed the Chemical Hygiene Plan and the Laboratory Safety Handbook.

Participated in biannual inspections for The School of Medicine IACUC and reviewed over 250 IACUC amendments and protocols to ensure compliance with the Chemical Hygiene Plan.

Program Manager, Lee Stone served as Chair of the Laboratory Safety Committee, served on the School of Medicine IACUC, the Campus Safety Committee, the Land Air and Water sustainability committee, the Energy sustainability committee, the IUPUI Staff Council and IUPUI Executive Council and was appointed as Chairman of the Membership Committee and elected as President of the IUPUI Staff Council.

Assessment of Objectives for Fiscal Year 2011 - 2012

Continue to manage the laboratory signage program.

Completed

Continue the expanded laboratory inspection process.

Completed

Renew an annual campus-wide license through MSDS online.

Completed

Develop additional on-line training.

Completed-Developed on-line training for CFS.

Develop a laboratory safety refresher course and online training for facilities.

In Progress.

Assist the laboratories in manifesting expired and unused chemicals.

Completed

Continue to actively serve on various committees as the Environmental Health & Safety representative.

Completed

Write, edit and publish the quarterly Lab Notes laboratory safety newsletter.

Completed

Provide lab inspections for all laboratories on campus and perform follow-up for the labs with the most safety violations.

Completed

Complete fume hood certification for all locations on campus.

Completed

Inspect and flush all emergency showers on campus.

Completed

Make additional lab safety information available on the departmental website.

Present Lab Safety Training to new and existing IUPUI employees in accordance with OSHA regulations.

Review and update the Chemical Hygiene Program and Laboratory Safety Manual.

Completed

Continue to provide Laser Safety Training on-line.

Completed

Establish a method for tracking new employees on campus and ensuring they are being provided the appropriate training.

This is a 3-5 year goal that is currently in progress.

Continue an active Laboratory Safety Committee.

Completed

Continue to manage the Laser Safety Program.

Completed

Develop additional laboratory safety training for faculty, staff and students.

Completed

Develop policy for the use of corridors and unassigned space.

In the draft phase for the IUPUI Campus Safety Committee

Revise the IUPUI Chemical Hygiene Plan.

Completed

Revise the format for Lab Notes and continue to distribute quarterly.

Completed

Develop Nanoparticle Safety Guidelines.

Completed. Included in the Revised Chemical Hygiene Plan

Visit IU School of Medicine off campus laboratories to verify compliance.

Completed

Completed

Goals for 2012-2013:

New Initiatives

Develop additional laboratory safety training for faculty, staff and students.

Develop policy for the use of corridors and unassigned space.

Revise the IUPUI Laboratory Safety Handbook.

Create a building inspection team with monthly building walkthroughs.

Establish a method for tracking new employees on campus and ensuring they are being provided the appropriate training.

Ongoing from Current Year

Edit Lab Notes and continue to distribute quarterly.

Continue communications with IU School of Medicine off campus laboratories to verify compliance.

Continue the expanded laboratory inspection process.

Renew an annual campus-wide license through MSDS online.

Assist the laboratories in manifesting expired and unused chemicals.

Continue to actively serve on various committees as the Environmental Health & Safety representative.

Provide lab inspections for all laboratories on campus and perform follow-up for the labs with the most safety violations.

Complete fume hood certification for all locations on campus.

Inspect and flush all emergency showers on campus.

Make additional lab safety information available on the departmental website.

Present Lab Safety Training to new and existing IUPUI employees in accordance with OSHA regulations.

Review the Chemical Hygiene Plan.

Continue to provide Laser Safety Training on-line.

Continue an active Laboratory Safety Committee.

Continue to manage the Laser Safety Program.