Annual Report for Fiscal Year 2010 – 2011

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 2010-2011

Overview

This year resulted in expansion of staff for the occupational safety program and the environmental area as well as the ongoing transition of acquiring a new hazardous waste management area. All areas continued to provide services at an acceptable level. As new university space is added, new demands are created and new resources are needed. There

remains a need to increase funding levels when new space is added and will be the case in the next new building being constructed.

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 and Recycling. Staff assisted in the proposal and creation of the Office of Sustainability.

Staff participated in monthly campus emergency planning activities as part of on-going training for emergency response.

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.

The Department continued to provide services to Wishard Hospital for the fifteenth 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	399
Bloodborne Pathogen	2001 (includes on-line)
Laboratory Safety	740 (includes on-line)
Biosafety	136
Total	3276

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's primary responsibility is to provide professional care in all asbestos-related situations on the IUPUI Campus. The advantages of the "In-House" Program include quick response, knowledge of the buildings, systems and occupants, top professional care, and saving thousands of dollars since work can be done at cost and

without the high overhead of hiring contractors. Additionally, the Department provides Asbestos Awareness Training to maintenance, custodial and contractual workers on this campus which is an OSHA requirement in buildings constructed prior to January 1, 1981. The Department is also responsible for monitoring all asbestos-related projects, which include taking bulk and air samples while performing all necessary asbestos surveys and inspections, which is a state-requirement prior to renovation and demolition projects. This program also serves in the same capacity for Indiana University Health and Wishard Hospitals as well as several IUPUI satellite campuses.

The Asbestos Department also serves the university in a number of other areas. IUPUI Zone Maintenance, the Renovations Department, University Architects Office and individual Departments look to the Asbestos Department to provide professional mold remediation work, lead removal, industrial cleaning as well as providing basic cleaning services.

In late summer of 2010, the Asbestos Department was asked to remove over 75,000 square feet of floor tile, carpet and mastic in a matter of a few short weeks at the Lockefield Village Building. Additionally, a majority of rooms had mold issues where remediation was necessary. This department was asked to remove a majority of wall mounted cabinets as the renovation contractor was behind schedule. The same type of work was also given to this department at both Waterway Buildings. The deadlines of all of these additional renovation projects were met and all normal maintenance activities schedules were also completed as requested.

The Asbestos Program had a total of 110 projects during Fiscal Year 2010 - 2011. We had 82 Asbestos Projects, 14 Mold Remediation Projects and 5 Cleaning Projects. The asbestos projects disposed of 31.2 tons of asbestos waste.

There are a lot of changes forthcoming as the University grows with expansion. The Asbestos Department looks forward in serving the University with professional care and commitment in all its environmental needs in the future.

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 Subject Matter Expert on Biosafety for the Office of Research Compliance).
Served as the Vice Chair of the IUPUI Biohazard Committee (BHC).

Served as the Chair of the VAMC BL3 Safety Subcommittee.

Bloodborne Pathogen training was given to 1827 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 174 staff. The IUPUI Biosafety Training session was given to 136 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 2137.

Biosafety inspections were completed for 66 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 124. The total number of laboratory and IBC inspections was 190. This number is lower than the previous year as plans were developed to integrate the Biosafety Level 1 labs into the annual biosafety inspection schedule. Working with the Laboratory Safety Program, it was decided to move those labs as a distinct inspection under the Biosafety Program.

Participated in 8 biannual inspections for 4 distinct IACUCs.

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 749 research proposals or amendments were read and/or reviewed.

Was asked to continue as Chair of the Membership Committee for the American Biological Safety Association. Was also active in the Affiliate Relations Committee and was elected to serve 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 Manager reviewed and offered revisions to current protocol submission forms for the Institutional Biosafety Committee and the IUPUI Biohazard Committee. The biosafety staff developed an approval requirement for research protocols approved by the IBC. All final approvals continue to require research staff to be current with bloodborne pathogen training requirements (when applicable).

Continue to present bloodborne pathogen training to IU School of Nursing incoming students during orientation programs. Worked with the IUPUI Police training Coordinator to review the bloodborne pathogen training session presented annually to police department employees.

The Biosafety Manager received validation of CE points to maintain the CBSP and RBP credentials for another five years.

The Biosafety Manager served on the IUPUI Staff Council serving constituents within EHS and the Center for Young Children.

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

Assessment of Objectives 2010-2011

Maintain and expand as necessary all previously stated aspects of the biosafety program at IUPUI. This includes, but is not limited to, presenting Bloodborne Pathogen Training, Biosafety Training, actively serving on various committees as the Environmental Health & Safety representative for Biosafety Management, inspecting research laboratories with biocontainment of BL2 or higher, and reviewing and/or amending all printed and electronic means of communication intended for the IUPUI staff and students.

Completed and ongoing: The Biosafety Program continued its effort to be as responsive as possible to IUPUI research staff and students while ensuring compliance with all applicable regulations and statutes related to the use of biohazardous materials in research protocols. In an effort to reduce the amount of paper used; the use of electronic lab reports, inspection forms, and protocol correspondence was enhanced to meet this goal.

Consider as many possible biological events that could occur at IUPUI and develop SOPs for responding to a biological event or release on campus. This will also include pandemic influenza and emergency preparedness. This will further involve fostering lines of communication between the biosafety manager and the WMD Coordinator at the FBI Field Office in Indianapolis.

Completed and ongoing: The Biosafety Manager continues to serve as the Subject Matter Expert for the FBI in the Central Indiana area and serves as the official liaison between the Federal Bureau of Investigation and the American Biological Safety Association.

Develop training for Principal Investigators related to their specific responsibilities under the NIH Guidelines for Research Involving Recombinant DNA Molecules. This may be presented at faculty or department meetings, IBC meetings, or a combination of both.

Completed and ongoing as events warrant.

Develop communication lines with research departments that may be involved with nanotechnology and offer training and recommendations for the safe use of nanoparticles.

Ongoing and development has greater involvement with the Laboratory Safety Program. The Biosafety Program will continue to assist as needed.

Develop modifications for the IBC protocol submission form to include viral vector specifics not currently covered. The extended knowledge will allow for more comprehensive risk assessments.

Completed and possibly ongoing as needed:
Develop standards for research gloves and communicate the need for researchers to understand why examination grade is necessary over industrial grade.

Completed and information is disseminated to researchers during laboratory inspections or via email/phone conversations (when industrial grade latex gloves are present).

With the assistance of the animal committees on campus, add checklist questions dealing with animal use in labs to the biosafety annual inspection.

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

Develop and adequately supply a plan to assess the integrity and biocontainment of higher containment biological lab areas, specifically BSL3 labs through the development of air testing protocols and facility performance testing. This would also involve the creation of a BSL3 training module for staff wanting to work with Risk Group 3 agents. Enhancing oversight of BL3 lab areas on campus

Within the current Fiscal Year, there were no BL3 research protocols to initiate and further this goal. This goal will remain open and progress made when future needs require implementation.

Objectives for 2011-2012

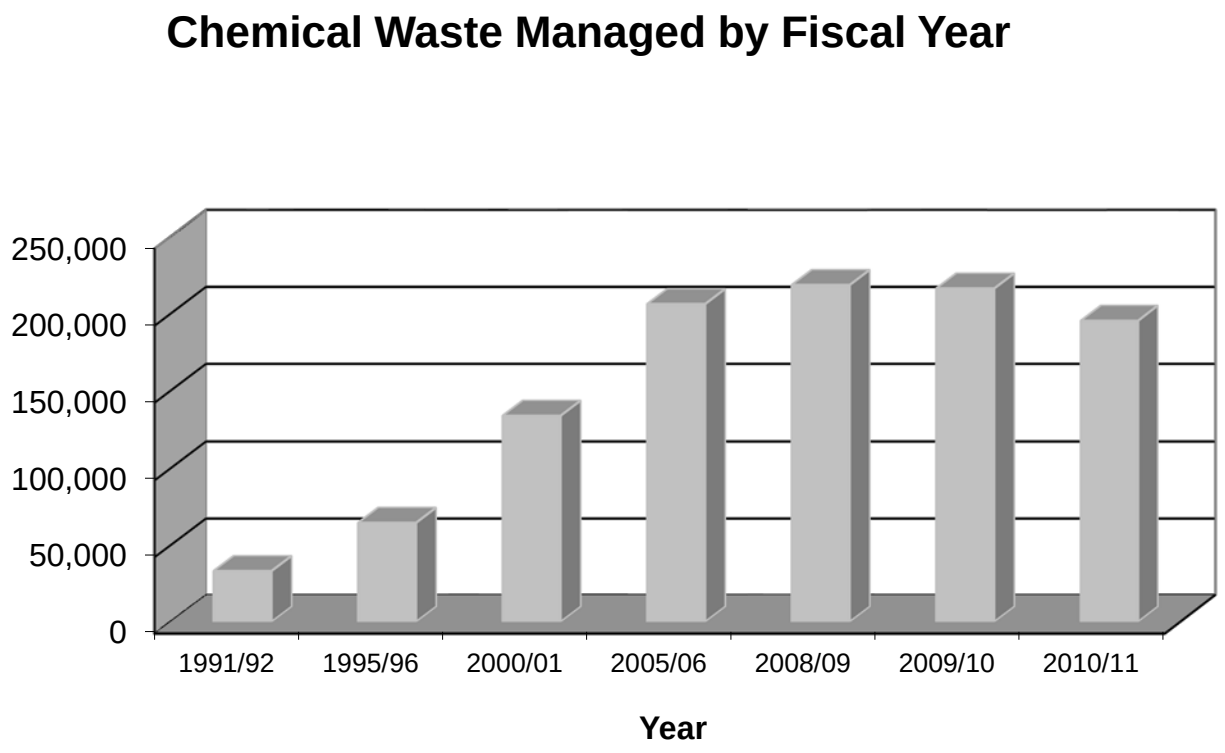
The Biosafety Manager will collaborate with the Office of Research Administration and assist with coordinating efforts for the development of an updated Memorandum of Understanding between the VAMC and the IUPUI Institutional Biosafety Program.

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.

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.

Environmental Compliance Program

Staff coordinated the collection and disposal of 195,486 pounds of chemical-related materials. The volume reflects nearly a 10% decrease in the total volume of materials collected and managed during fiscal year 2009/10.



Staff conducted a number of 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 vacated the Environmental Management Facility in response to 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 valuable campus asset.
Staff pursued efforts to renovate Campus Services Building #4 (CS 4) to serve as a permitted hazardous waste treatment, storage and disposal (TSDF) facility. Staff secured the services of a environmental consultant and began the development of a comprehensive permit to serve the CS 4 facility.

Upon the administrative decision to abandon efforts to renovate the CS 4 facility, staff abandoned efforts to complete the TSDF permit application and began efforts to retrofit the 1200 Waterway Boulevard Building to serve as an interim hazardous waste accumulation area. Staff developed specifications for a modular hazardous materials processing/storage facility to serve as the cornerstone of the 1200 Waterway chemical waste operations. Staff secured the services of a reputable contractor to design, construct and install the modular facility.

Staff successfully hosted the 2010 College and University Hazardous Waste Conference. The conference ran September 12 – 15th and was attended by 150 environmental professionals from across the country and from Canada. The conference finished fiscally in the black for only the second time in six years.

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 were identified and potential emission estimates calculated. Staff continue to monitor the addition of emission units 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. 130 University, Indiana University Health and Wishard personnel successfully completed classroom or on-line training during FY 2010/11.

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 finalized a two year extension to the existing chemical waste disposal contract. Through diligent oversight, staff have maintained hazardous disposal costs at levels significantly below that of inflation over the past 12 years.

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

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 construction project.
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 further expanded in-house segregation, packaging and shipment (lab pack) of chemical wastes generated within the University and contractual entities. 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/School of Public and Environmental Affairs 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 developed the following campus sustainability policies:

- Mercury Reduction and Elimination Policy
- Waste Minimization and Pollution Prevention Policy
- Vehicle Idling Policy

INDIANA UNIVERSITY HEALTH, INC.

Staff continued a comprehensive Pharmacy waste disposal program. 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 eleven Indiana University Health-related facilities scattered throughout Marion County.

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

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 three Wishard-related facilities, 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.

Assessment of Objectives for 2010 - 2011

Environmental Compliance

Plan and fully execute the 2010 College and University Hazardous Waste Conference.

- Completed.

Transition hazardous waste operations to interim location(s) as the Union Building and/or IB laboratory space are lost. Work with University Architect's Office to design effective space for hazardous waste operations. Secure all appropriate permitting necessary for operations.

- On-going. Staff pursued efforts to renovate Campus Services Building #4 (CS 4) to serve as a permitted hazardous waste treatment, storage and disposal (TSDF) facility. Staff secured the services of a environmental consultant and began the development of a comprehensive permit to serve the CS 4 facility.

  Upon the administrative decision to abandon efforts to renovate the CS 4 facility, staff abandoned efforts to complete the TSDF permit application and began efforts to retrofit the 1200 Waterway Boulevard Building to serve as an interim hazardous waste accumulation area. Staff developed specifications for a modular hazardous materials processing/storage facility to serve as the cornerstone of the 1200 Waterway chemical waste operations. Staff secured the services of a reputable contractor to design, construct and install the modular facility.

Secure full time Hazardous Waste Technician position.

- Completed.

Initiate discussions/work with Indiana University Health Safety and Security to secure space within Indiana University Health-controlled space to house 90-day hazardous waste accumulation area to serve University and Riley Hospitals.

- Ongoing. Lease agreement extended for space in Riley Research. Longer-term lease executed. Space needs discussed further with IU Health Staff.

Revise campus Waste Disposal Guidelines.

- Deferred to FY 2011/12 due to relocation of chemical waste operations.

Objectives for 2011 – 2012

Fully transition hazardous waste operations to 1200 Waterway Blvd Building.

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

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.

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

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 two part-time employees.

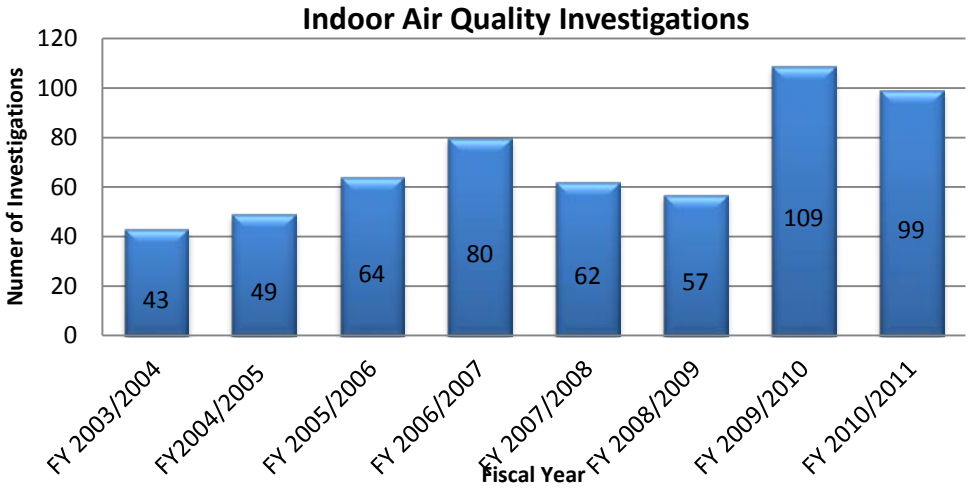
Personal Exposure Monitoring
The Industrial Hygiene staff completed eighty-one (81) personal exposure monitoring assessments for formaldehyde, glutaraldehyde, xylene, waste anesthetic gases, ethylene oxide, nitrous oxide, and/or silica dust for IUPUI, IU Health, and Wishard Health Services.

The evaluations 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.

Fifty-one employees (51) completed the online Indoor Air Quality Questionnaire. Ninety-nine (99) 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.

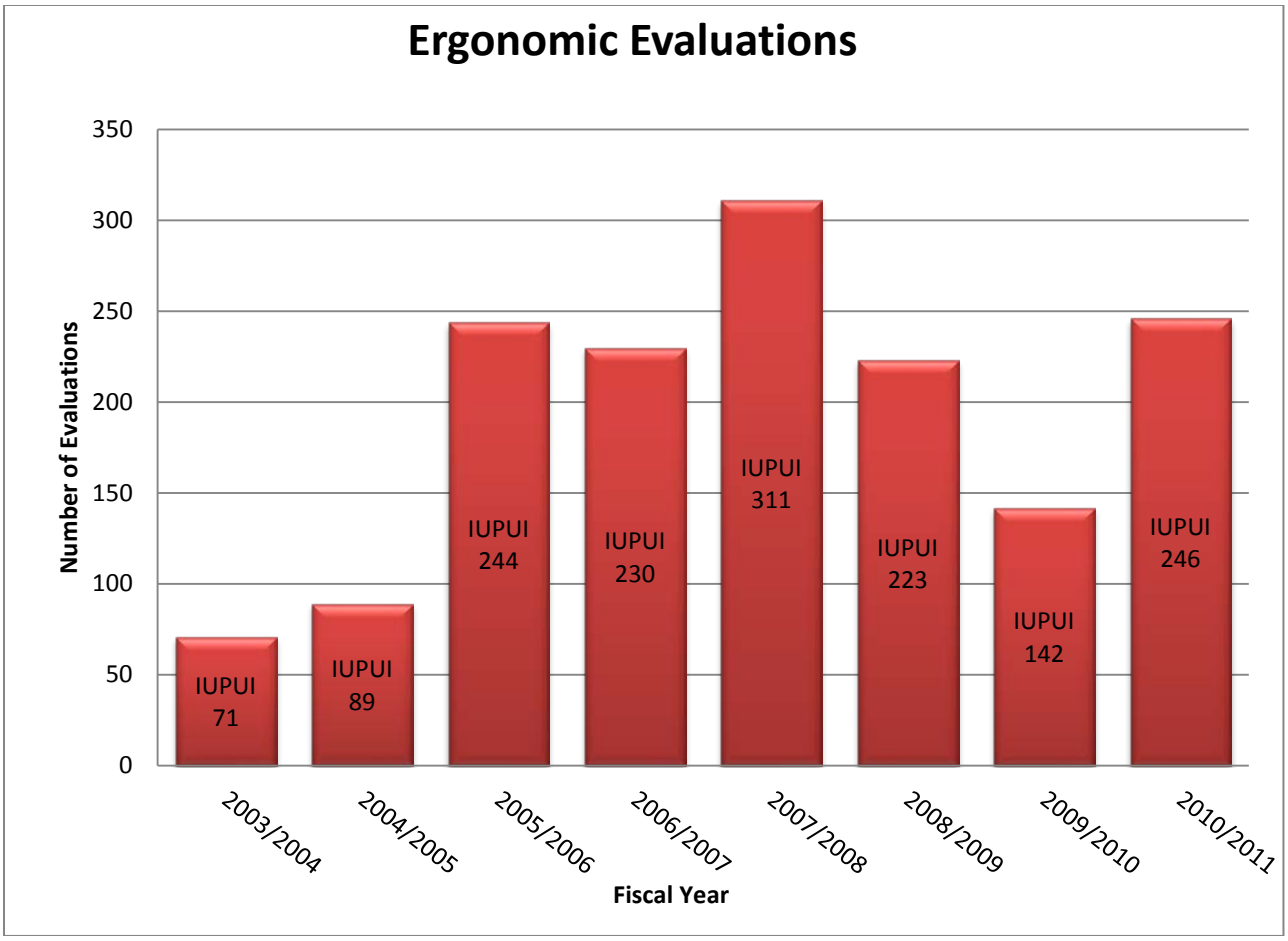


Industrial Hygiene staff provided support for twenty (20) water intrusion situations within IUPUI and IU Health. Evaluations for the extent of water damage and the need to remove materials that were wet longer than guidelines allow were made in order to minimize or prevent mold contamination within buildings. 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 two-hundred forty-six (246) 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 has grown 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

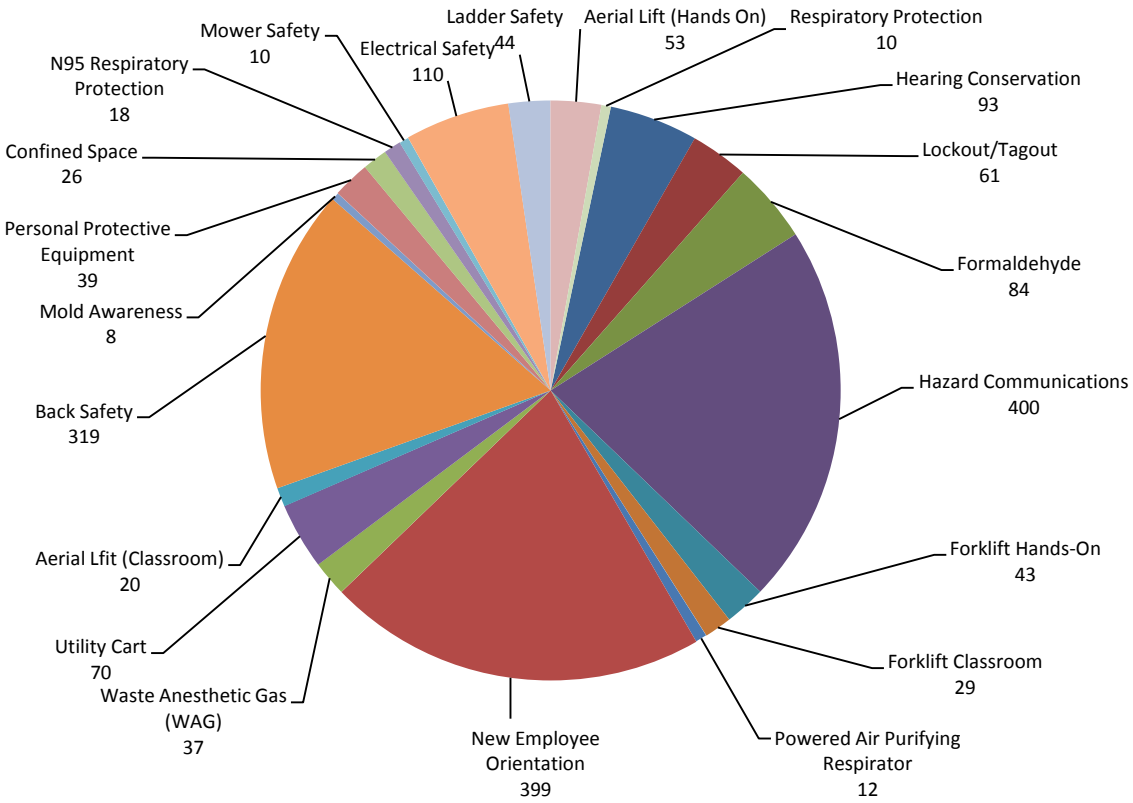
IH staff continues to develop web-based training programs. Web-based training programs are now presented through ONCOURSE. New programs for Back Safety and Slips, Trips, and Falls were added to ONCOURSE. Six-hundred sixty-two (662) training courses were taken on ONCOURSE.

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, N95 Respirators, Confined Space Entry, Lockout/Tagout, Hazard Communications, Back Safety, and

Personal Protective Equipment. One-thousand ninety-eight (1098) 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, IUPUI Police, Indiana State Department of Health, and Lab and Animal Facility (LARC) employees. Employee training/fit testing sessions were completed for two-hundred nine (209) 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 thirty-five (435) 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 eighty-six (86) of the reported incidents and recommendations were made.

Occupational Health and Safety Program
The Occupational Health and Safety Program added a second part-time staff member in June 2011. EHS conducted safety audits for the IUPU Columbus Campus, Natatorium, Parking Services, Herron, and NIFS. Deficiencies were identified and recommendations were made based on the audit.

EHS staff also worked with Campus Facility Services Building Services managers to inspect work practices at dumpster locations for each of the campus buildings. Recommendations were made to reduce musculoskeletal injuries while handling waste and to improve work practices at each location.

EHS staff conducted a site hazard assessment of the ET Machine Shops. A safety committee was formed which includes all of the technicians from the various machine shops, School of Engineering and Technology faculty, and EHS. Together the committee is developing safe work practices for the shops. Training is also being conducted which will be presented to all freshman students who will be working in the machine shops.

A complete hazard assessment for personal protective equipment was conducted for the Oral Health. 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.

EHS was involved in reviewing specifications for one-hundred thirty-five (135) CFS and UOA 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.

An Occupational Safety for Animal users sub-committee was developed from the Campus Health and Safety Committee in January 2011. The committee representing departments on campus that will be affected by the program has drafted a written program.

Assessment of Objectives 2010-2011

1. Implement and ensure compliance with newly written programs.
    a. Overhead Crane and Gantry – *In process.*
    b. Roof survey and Fall Protection – *continuing. Roof surveys have been completed. Surveying roofs of newly acquired buildings. Communicating recommendations to CFS.*

2. Develop new programs;
    a. Finalize Housekeeping program for slips/trips/falls - *Complete*
    b. Continue to develop the program for Occupational Safety Management – *On going*
    c. Animal Allergen exposures - *Complete*
    d. Medical Surveillance Program – *In process*
    e. Heat Stress Program – *Complete*

3. Develop training presentations and reference materials for OnCourse;
    a. Back Safety - *Complete*
    b. Hazard Communications – *in process*
    c. Slips and Falls – *Complete*
    d. WAG training – *Complete. Waiting to post to new training system*

4. Safety Audit for Housing – Not completed – continued to next FY.

5. Building Services – Loading Dock and Dumpster Audit - *Complete*

6. Chemical inventory update for Building Services - *Complete*

7. Add to webpage
    a. Ergo information for 2 monitors - *Complete*
    b. Ariel Lift Program - *Complete*
    c. Crane and Gantry Program - *Complete*

8. Noise levels at O Vault and PRV Station by Nursing and Riley - *Complete*

9. Training for new faculty – *not started. Discussed with Mary Fishers.*

10. 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*

Objectives 2011-2012

1. Develop new programs;
    a. Occupational Health Program for Animal Users

2. Develop training presentations and reference materials for OnCourse;
    a. Skid Steer Training

3. Safety Audit for Housing

4. Develop a schedule and/or program for periodic inspections of Crane and Hoists.

5. Continue to work with Columbus Campus Facility Services to ensure compliance with training requirements and audit findings.

6. Develop a first-aid program for campus to include first aid kit distribution and maintenance.

7. Assist Engineering Technology with a Mechanical Shop Safety Program.

8. Implement new training system and integrate EHS training into the system.

9. Continue to develop and conduct hazard assessments for Personal Protective Equipment (PPE) for various departments on campus.

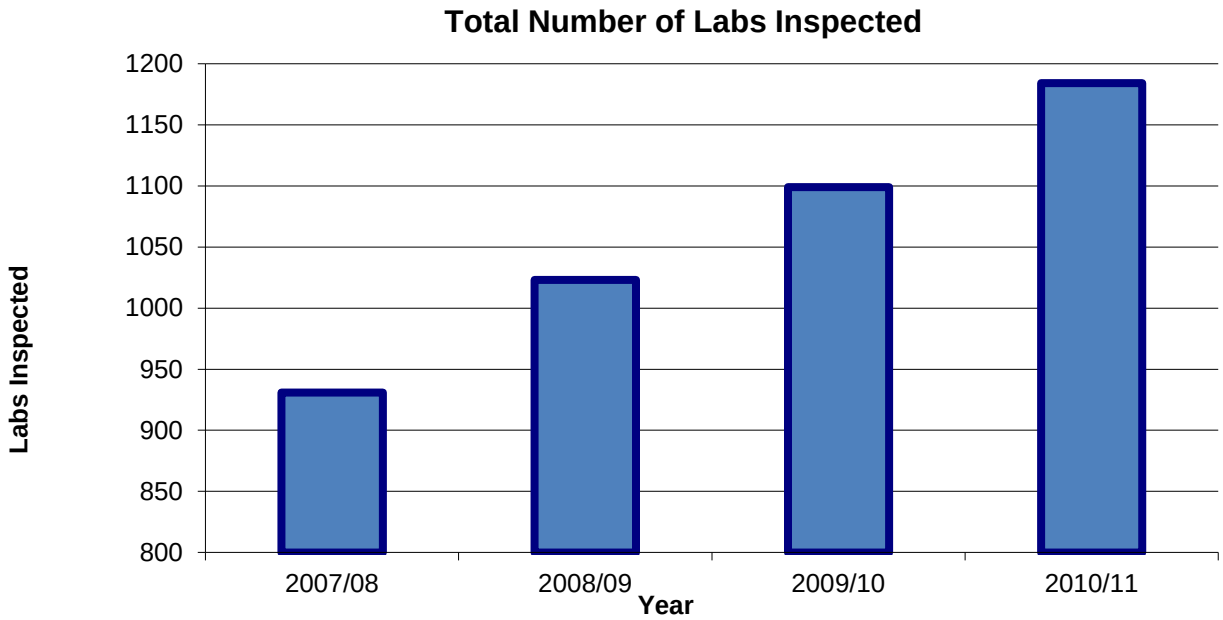
10. Conduct anesthetic gas monitoring for campus locations.

Laboratory Safety

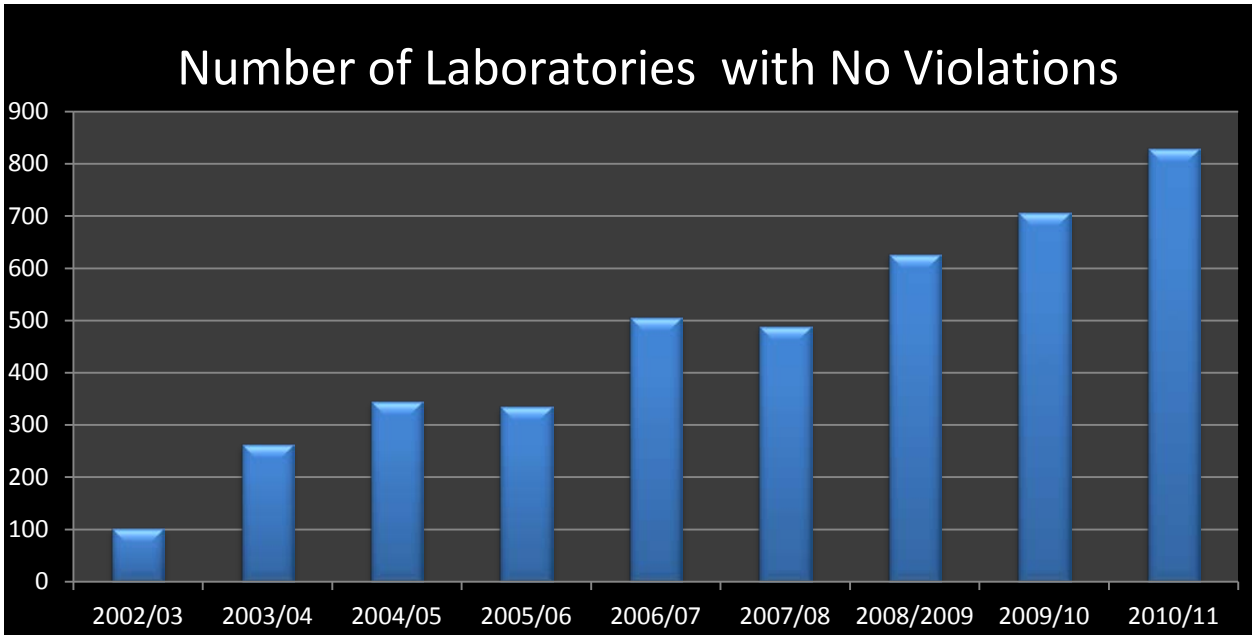
1184 labs were inspected. A total of 81% of laboratories inspected received an A grade with 70% receiving a perfect score after the inspection. Out of the 353 laboratories with noted deficiencies a follow-up inspection was performed on all of the laboratories with D or F grades and a random selection of remaining labs. There were only 4 laboratories found in such a condition to receive a D or F grade. This data is outlined in the table and chart below.

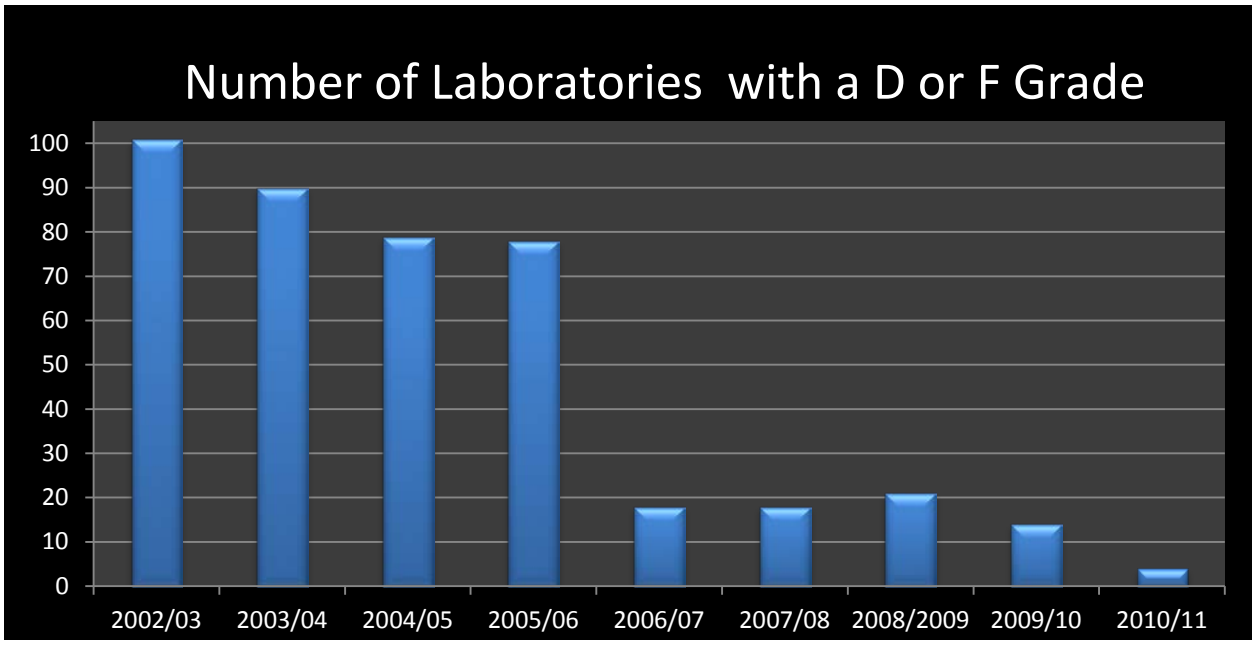
Total Number of Labs Inspected	**1184**	**100.0%**
Total A+ Grade Labs	831	70.2%
Total A Grade Labs	242	20.4%
Total B Grade Labs	87	7.3%
Total C Grade Labs	20	1.7%
Total D Grade Labs	2	0.2%
Total F Grade Labs	2	0.2%

We have seen an increase in the number of laboratories on campus as evident in the chart below. The laboratory safety staff assists the laboratory faculty and staff in correcting violations during the inspection, an inventory of reportable chemicals is submitted by the laboratory faculty and staff and is verified during the inspection process by the laboratory safety staff. The contact information and laboratory signage is also updated during the annual inspection process.



There continues to be 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 as demonstrated in the charts below which is indicative of the continuing improvement of the Laboratory Safety Program.





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 684 fume hoods. Emergency shower testing was completed for 626 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 240 new and existing laboratory employees and several new Campus Facility Services employees. Training sessions were also performed for graduate students in the School of Medicine, School of Science and School of Dentistry. 500 employees were given Laboratory Safety Training online.

Additional notable activities include:

Participated in Emergency Response training.

Edited and published the Lab Notes newsletter 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 200 IACUC amendments and protocols to ensure compliance with the Chemical Hygiene Plan.

Program Manger, 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 Second Vice President of Staff Council.

Assessment of Goals for 2010-2011:

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.
Completed

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

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

Objectives for 2011-2012:

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

Develop policy for the use of corridors and unassigned space.

Revise the IUPUI Chemical Hygiene Plan.

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

Develop Nanoparticle Safety Guidelines.

Visit IU School of Medicine Centers for Medical Education, 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 and update the Chemical Hygiene Program and Laboratory Safety Manual.

Continue to provide Laser Safety Training on-line.

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

Continue an active Laboratory Safety Committee.

Continue to manage the Laser Safety Program.