



UNIVERSITY OF HOUSTON
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ENVIRONMENTAL HEALTH AND RISK MANAGEMENT DEPARTMENT

ANNUAL REPORT

FISCAL YEAR 2007

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Environmental Health and Risk Management Department

ANNUAL REPORT – FISCAL YEAR 2007

MISSION STATEMENT

The primary purpose of Environmental Health and Risk Management is to support the University of Houston in its mission of higher education and research. The Department's efforts are directed at assisting the University in identifying environmental safety hazards and controlling such hazards through protective equipment, hazard mitigation methods, program development, purchase of insurance, and other risk control and risk transfer techniques.

Environmental Health and Risk Management will keep abreast of relevant regulatory requirements in the areas of environmental compliance, biological safety, radiation safety, and risk management. Regulatory compliance will be achieved through clear communication of recommendations and interpretations regarding such regulations to the appropriate administrators within the University.

ROUTINE DUTIES AND FUNCTIONS

Laboratory Safety

Comprehensive Laboratory Safety Program

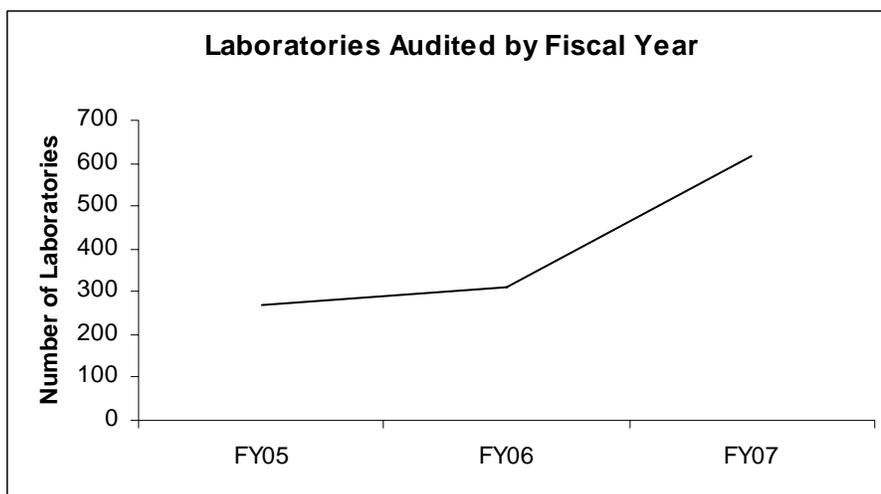
The Comprehensive Laboratory Safety Program (CLSP) combines all the technical areas and audit functions of the Department staff responsible for the safety in research and teaching laboratories. The objective of the CLSP program is to improve laboratory safety, maximize Department resources, and enhance the quality of customer service by minimizing recurring audits to laboratories. EHRM completed this objective with the full implementation of CLSP with all operational labs audited in a one year period. There was high resolution of noncompliance items with increased overall safety of lab personnel and minimum disruption of researchers. This is the first time EHRM audited all research laboratories in a single year.

The CLSP audits cover 8 areas in the labs serving 206 Principal Investigators in 16 Buildings:

- Overall Safety Assessment
- Chemical and Life Safety
- Biological Safety
- Radioactive Material Safety
- Laser Safety
- X-ray Safety
- Controlled Substances
- Laboratory Safety Equipment Inspection

615 Hazardous Laboratories & Safety Equipment on Campus:

- 456 Chemical labs and 396 chemical fume hoods
- 77 Biological labs and 47 biological safety cabinets
- 62 Radioactive material labs
- 42 Laser
- 27 X-Ray
- 19 controlled substances
- 118 safety showers
- 151 eyewashes



Laboratory Safety Officers (LSOs) trained in specific areas were essential to the inspection process. By scheduling to audit all hazards in one appointment time, the LSOs were able to minimize the disruption to the Principal Investigators (PIs) and accomplish the goal of assessing all labs on campus.

A total of 990 deficiencies were cited with 84.5% Compliance for FY07. This is an amazing compliance rate for the CLSP team. A compliance of over 90% will be achieved after the staff/students attend the additional safety training courses offered in November. This is a significant enhancement as chemical and biological deficiencies compliance was not emphasized in prior years.

Most Frequent Deficiencies	Resolutions	Current Standing
Chemical Inventory not available	Designate one person to create inventories	In progress
Staff/Students have not attended the applicable safety training course	LSO scheduled training sessions and sent reminders	In progress; EHRM created more training classes to accommodate
Incompatible chemical storage	LSO assisted in correctly storing chemicals	In progress
Lack of Hazardous Communication Signage	LSO risk assessment determines which hazard signs are needed	In progress; created by EHRM
Lack of Chemical Spill Kit available	LSO recommended chemical spill kits to purchase	In progress
Experiments with biohazards were not registered with the IBC	Safety Manager worked with PI to register protocols	In progress; resulted in 6 new MUAs
DEA or Texas DPS registration has expired	Safety Manager worked with PI to register	In progress
One of the lasers or x-ray machines listed on the sub registration was not found	Safety Manager worked with PI to register	In progress
The physical inventory of the radioactive material was not complete	LSO worked with PI to register	In progress

CLSP Successes:

- Decrease interruption to the Principal Investigators
- Significantly positive shift in safety culture and visible presence of EHRM
- Education of the Principal Investigators and laboratory personnel
- Increased compliances through signage, generating chemical inventories, identifying lab and safety equipment

CLSP Tribulations:

- Database functionality
- Training new EHRM personnel
- Obtaining chemical inventories

CLSP Program Recommendations for improvement:

- Creation of a computer based online training
- EHRM established funding of \$5,000 to maintain signage, personal protective equipment and other safety equipment
- Procure funding for higher cost lab safety items such as safety showers, eyewashes and flammable storage cabinets (totaling approximately \$40,000)

Research Support

Health Physics Services

EHRM personnel approved, received, surveyed, and distributed 63 radioisotope packages. Packages found to be contaminated above a standard limit must be disposed or returned to the manufacturer for replacement. The Radiation Safety Officer specifically approves all purchases of X-ray machines, lasers, and special radiation devices. This year EHRM personnel supported the acquisition of a larger position sealed source and the purchase of a Department of Energy uranium standard solution.

EHRM personnel inventoried and physically identified non-exempt radioactive material sealed sources semi-annually. There are currently 8 sealed sources requiring leak testing and 6 that do not. Leak testing detects contamination and determines the encapsulation integrity of the sealed sources. A total inventory of all radioactive material located on campus is performed every six months. The Radiation Safety Officer also monitored the special nuclear material inventory at the University that is listed with the Nuclear Materials Management Security System.

Forty three (43) annual survey meters calibrations were completed. Loaners are provided to the principal investigators while their meters are being calibrated or repaired. A new contract was completed this year for survey meters calibrations and repair.

Radiation badges were issued including 126 whole body badges, 114 ring badges, and 110 area/public dose monitors. Dosimetry is conducted on a quarterly basis. EHRM performs dose assessments on lost badges and review quarterly reports for overexposures. Exposures are required to be kept "As Low as Reasonably Achievable" (ALARA) even with safe occupational limits.

A total of 256 radioactive material laboratory surveys and wipe tests were performed on active principal investigators laboratories on a quarterly schedule. Only minimal contamination was found, which is consistent with the findings from the reviews of monthly radioactive material laboratory surveys and wipe tests performed by the active principal investigators.

Consultative and Technical Support

EHRM provided consultative support to assist new principal investigators with orientation and lab setups. Technical support was also provided for various research projects and experimental operations of radiation principal investigators. One project was the upgrade of an alarm monitor for the 1.7 MeV accelerators in the Houston Science Center building. The Radiation Safety Program also includes a fully equipped radiation safety laboratory. EHRM supports research personnel who often utilize the counters and meters available in the radiation safety laboratory.

Special research involving the use of radiation sources and devices was conducted by University faculty and students at national laboratories and international facilities/sites. The Radiation Safety Officer provided specific authorizations and support for the researchers as requested by these institutions.

This year EHRM helped principal investigators dispose of 10 obsolete or nonfunctional lasers. Lasers are routinely found moved which requires EHRM personnel to continually find the lasers and document the changes for the principal investigators.

Controlled Substances and Dangerous Drugs

The Health Center Pharmacy and 25 principal investigators are authorized by the United States Drug Enforcement Agency and the Texas Department of Public Safety to order clinical and non-clinical Controlled Substances and Dangerous Drugs. EHRM personnel approved, received, logged, and distributed all non-clinical purchases of Controlled Substances and Dangerous Drugs for a total of 16 orders. Controlled Substances and Dangerous Drugs were inventoried every six months. Expired Controlled Substances and Dangerous Drugs are returned to the manufacturers or periodically destroyed under the review of the University Of Houston Department Of Public Safety. This year the Radiation Safety Officer worked with the United States Drug Enforcement Agency on the establishment of the School of Pharmacy in the Texas Medical Center as a registered site, but without a change to the central shipping address.

Regulatory Affairs

Regulatory Reports

Environmental Protection

A number of required reports were submitted on behalf of the University. These were as follows:

- Stage II Vapor Recovery Exemption Report filed in January 2007. The University can claim an exemption from vapor controls on the gasoline pump itself (known as Stage II Vapor Control) if less than 10,000 gallons is pumped per month.
- Texas Tier II report filed in January 2007. This is an inventory of hazardous chemicals for emergency planning purposes.
- Annual Waste Summary for the main campus and the College of Pharmacy (TMC) filed in January 2007. This is a summary of regulated waste generated at both locations.
- Underground Storage Tank Registration & Self Certification form filed in February 2007. This is an annual report for underground storage tanks at General Services and Police.
- The Nitrogen Oxides (NO_x) Cap and Trade report filed in March 2007. This is a summary of NO_x emissions from the main campus.
- Pollution Prevention Progress Report filed in July 2007. This is required for the main campus due to our large quantity generator of hazardous waste status.

Regulatory Licenses, Registrations, and Permits

Radiation Safety

The Radiation Safety Officer maintains the Radioactive Material Broad License, the X-ray Registration, and the Laser Registration with the Texas Department of State Health Services for the University. This year the 2 years administrative renewal date was removed from them to relieve the unnecessary burden of two renewal dates. All three require a periodic technical review/renewal and this year the X-ray Registration was renewed for another 8 years. Amendments must be submitted to Texas Department of State Health Services to make technical, procedural and administrative changes. This year two amendments were approved which included facilitating a multifaceted collaborative superconducting research study.

Regulatory Changes

Biological Safety

Recent media attention has placed a spot light on the use on biohazard research leading to the NIH to issue a second notice of guidance on Institutional Biosafety Committee (IBC) minute records. The University of Houston's IBC has reacted positively to this guidance. The Biological Safety Officer (BSO) attended an NIH sponsored training discussing the requirements of an IBC. To increase compliance, the

BSO developed and trained the IBC members as well as developed training for the PIs, posted the required notification of public meetings and made available incident reporting forms for any incident involving rDNA.

Radiation Safety

The Texas Department of State Health Services routinely makes changes to the radiation regulations. These changes impact the Radiation Safety Program administratively, operationally, and procedurally. The Radiation Safety Officer attends stakeholders meetings and makes comments for the University on significant proposed legislation of radiation regulations. This year the Radiation Safety Officer attended a regulatory conference held by the Texas Department of State Health Services, Texas Commission on Environmental Quality, and the South Texas Chapter of the Health Physics Society which addressed Increased Controls of Radioactive Material of Concern including fingerprinting of personnel. The Radiation Safety Officer also receives confidential notices from the Nuclear Regulatory Commission prompted by Homeland Security on the security of radiation sources and devices.

Environmental Protection

The City of Houston is the regulatory agency for the University's grease, lint, and grit traps on campus. In July 2007, the City issued a new ordinance that now requires an annual registration for grease, lint and grit traps, along with a minimum clean out schedule. In response to this new ordinance, the group reviewed the current status of all previously listed grease, lint and grit traps on campus. We identified 3 traps, two grit and one lint, which were no longer active, and requested that these be de-listed from the University's account. Fortunately, we already had a regular pump out schedule that met the City of Houston requirement, so the impact of the new rules, aside from the \$50 annual registration fee, should be minimal to our grease and lint trap users.

The Houston-Galveston-Brazoria County area is a non attainment zone for ground level ozone per the current EPA rules. The consensus is that the release of nitrogen oxides (NOx) and volatile organic compounds (VOCs) into the atmosphere along with heat and sunlight lead to the formation of ground level ozone. The TCEQ has multiple proposals which they submitted to the EPA as part of the state implementation plan (SIP) to reduce the formation of ozone. In response to these upcoming rule changes, the environmental protection manager attended several training classes as noted above and also contracted with ERM Southwest to review the University's current emissions and offer an opinion of the future rule change impacts. This project culminated in a report to senior members of Plant Operations and the importance of taking proactive steps in reducing NOx emissions from the main campus became apparent. This led to discussions about replacing the aging power plant boilers with new ultra low NOX boilers and addressing boilers in new buildings. This issue will continue on into FY 08 and the group will continue to provide management with support information to assist in decision making about future growth.

Regulatory Recordkeeping

EHRM maintains regulatory records for all disciplines and areas of the Department. The records are indexed and organized by topic, building, or discipline. This year student workers scanned many file cabinets of asbestos files for archiving. EHRM specifically maintains principal investigators files which contain all applications, amendments, associated documents, and audits. This year the Authorization Permits for all radiation principal investigators were updated to include the changes resulting from the CLSP. In addition, the CLSP audit files were centralized and setup by fiscal years. Many operational records like the health physics records are required by law to be maintained for a specified period of time and subject to state inspection. Therefore, all such records must be kept up to date, accurate, complete, and inspection-ready without exception. Medical, workers' compensation, and controlled substances files are confidential and must be kept locked from unauthorized access.

Regulatory Inspections

A state inspection of the Radioactive Material Broad License was performed by the Texas Department of State Health Services in FY07. No deficiencies were cited during the inspection. This is a major accomplishment for an institution holding a Broad License. A state inspection is performed approximately every two years of the Broad License and several inspections have now passed without any deficiencies. The state inspection process has changed to more performance based interviews and less thorough records review.

Institutional Committees

Radiation Safety Committee

The Radiation Safety Committee, the Radiation Safety Officer, and the Vice President of Research (Administration) work together as required by the Texas Department of State Health Services to oversee and manage the Radiation Safety Program. The Committee must meet a minimum of five times each year. As part of the annual review of the Radiation Safety Program, The Radiation Safety Officer reports about special projects, radiation incidents, and highlights of routine radiation safety activities to the Committee. The Radiation Safety Officer drafts the regulatory required annual report of the Committee that must be reviewed by senior university administration.

Approved radioactive material research includes using superconducting material doped with enriched or depleted uranium that is then irradiated at a reactor to produce fission products which enhances the properties of the material. Other unique research includes climate studies with sealed sources in Antarctica. Approved uses of the x-ray machines include their medical and veterinarian applications. There is also x-ray research performed on patients in Health and Human Performance. Approved use of lasers includes their research use on animals and medical applications on patients at the College of Optometry.

Radiation Safety Committee approvals:

Discipline	Applications	Amendments
Radioactive Material	1	68
X-ray	0	26
Laser	2	72

Radiation Safety Program Scope:

Discipline	PIs	AUs	Labs	Machines
Radioactive Material	31	68	72	N/A
X-ray	19	95	26	38
Laser	32	46	51	106

(Principal Investigators = PIs & Authorized Users = AUs)

Institutional Biosafety Committee

The National Institutes of Health (NIH), through the Office of Biotechnology Activities, regulates the use of recombinant DNA molecules in research. Universities receiving NIH funding are required to have a registered Institutional Biosafety Committee (IBC) to comply with NIH requirements. The current IBC Committee roster now has representatives from the Department of Biology and Biochemistry, Department of Health and Human Performance, College of Pharmacy in the Texas Medical Center, College of Optometry, and the University of Houston Downtown.

The Institutional Biosafety Committee met three times to discuss and approve 39 Memorandums of Understanding and Agreement (MUAs). Fourteen (14) of these MUAs were new submissions and 25 were renewals. The program currently has 36 registered principal investigators and a total of 48 active

projects of which 23 are at Biosafety Level 1 (BSL-1), and 25 are at Biosafety Level 2 (BSL-2). This is the third year of the current structure of the Biosafety Program.

Institutional Animal Care and Use Committee

The Biological and Chemical Safety Manager participates in the Institutional Animal Care and Use Committee (IACUC) to provide expertise in the risk assessment of all safety aspects. The Manager attended monthly meetings and two semi-annual inspections of the animal facility and animal research laboratories. The Biological and Chemical Program has partnered with the IACUC in providing training, written safety recommendations for specific procedures, and monitoring of programs for compliance.

Institutional Compliance Committee

The Institutional Compliance Committee meets quarterly to discuss calls made to the University's confidential reporting hotline and help the committee members stay focused on their regular tasks of updating their risk matrices and implementing effective control measures.

Hazardous Waste Management

The Environmental Protection Agency (EPA) is the federal agency that establishes minimum regulations for waste, and the state agency, Texas Commission on Environmental Quality (TCEQ), both regulate the disposal of waste generated at the University. Depending on the classification of the waste, there are significant requirements that must be met to maintain compliance. The University continues to expand its research and teaching activities which leads to the generation of increased waste material.

The Environmental Health and Risk Management Department (EHRM) completed the following waste pick ups from the main campus and the College of Pharmacy located in the Texas Medical Center:

- 362 total chemical waste pick-ups including 24 second attempts
- 152 pick-ups, including 7 second attempts of biological waste
- 58 radioactive waste pick-ups including 3 second attempts
- 567 total pick-ups for FY07 which is an increase of ~10% from the 516 pick-ups for FY06

Aside from the requested pick ups, the group also performed additional waste activities. Three acid neutralization tank pump outs were coordinated the group located at the Fleming building. Also three laboratory cleanouts in the Fleming Building and Science and Research I were handled by the group.

In addition to the chemical and biological waste, 80 grease and lint trap pump-outs were conducted throughout the main campus. The total amount of waste material was approximately 123,538 gallons. This is an increase from last year's total of 76,000 gallons of waste of approximately 60%. There were several additional pump outs at the Oberholtzer Hall grease trap and a new 9,000 gallon trap was installed at the Parking Garage. Grease and lint trap wastes are regulated as a "special waste" by the City of Houston.

The Texas Department of State Health Services regulates radioactive waste handling and disposal methods on campus. The Department of Transportation regulates all radioactive waste shipments. The Texas Commission on Environmental Quality regulates radioactive waste disposal in Texas and either the Nuclear Regulatory Commission or a state agency regulates radioactive waste disposal out of state. Approximately 15 drums of dry solid and glass waste, 38 carboys of aqueous liquid, and five sharps containers were disposed through regulatory approved methods of radioactive decay, sanitary sewer, incineration, and deregulation. No radioactive waste was shipped for disposal in FY07 evidencing efficient management of radioactive waste (typically by decay on-site). Surplus lead was recycled through the Solid Waste and Recycling Shop in Plant Operations.

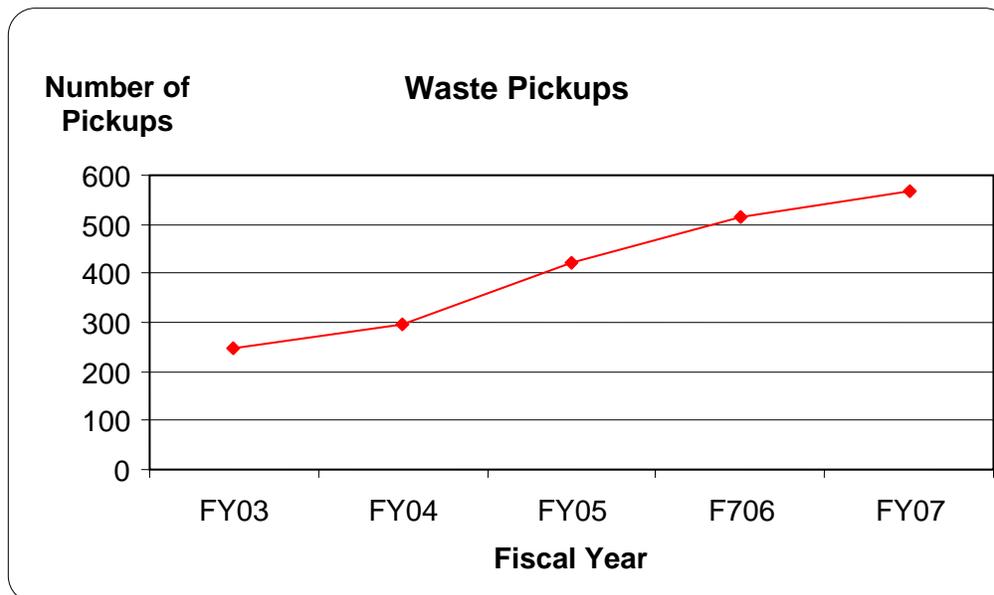
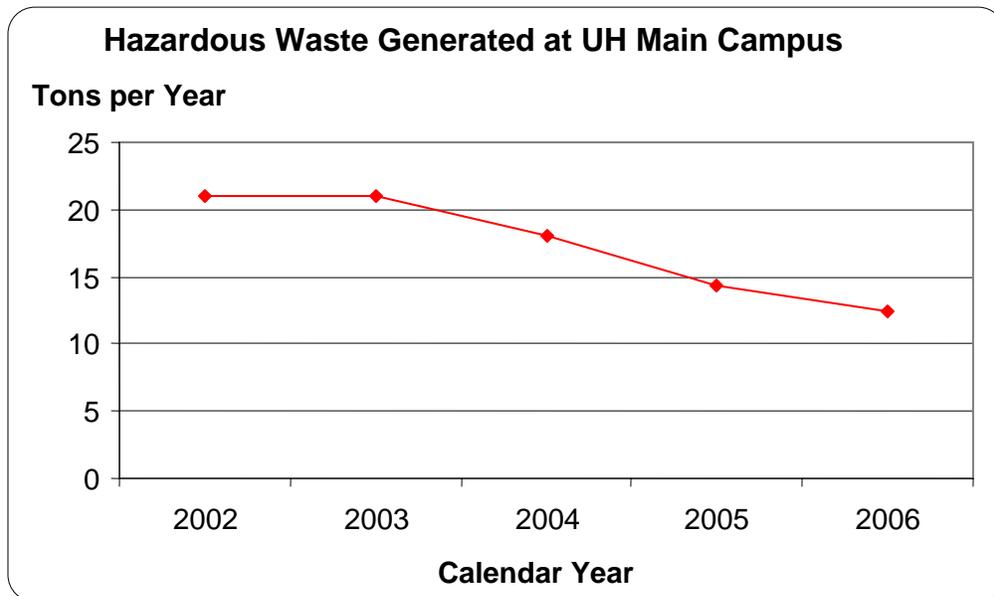
EHRM maintains two buildings for the storage and disposal of waste, the Hazardous Waste Building and the Radioactive Waste Building. Checklists are reviewed monthly for equipment maintenance and

regulatory requirements. EHRM must continually handle, repackage, and reorganize waste along with maintaining adequate supplies for campus support. The Hazardous Waste Building was recently upgraded and the floor was sealed to minimize spills.

Environmental Protection

Pollution Prevention Activities

The University continues to generate a significant amount of hazardous waste per the TCEQ regulations and is classified as a large quantity generator. As a result of our large quantity generator status we are required to submit a Pollution Prevention (P2) Plan covering a five consecutive year period. Currently we are in our P2 Plan that covers the calendar years 2006 – 2010. The first graph below shows the amount of hazardous waste shipped off-site as reported to the TCEQ for calendar years 2002 through 2006. It is important to note that decrease in the amount of hazardous waste shipped off site for disposal also corresponds with a steady increase in the number of waste pick up requests as the University has grown. The second graph below shows the number of pickups performed by the group for the 5 most recent fiscal years.



Two specific pollution prevention projects have contributed heavily to our success. The first is the increase in bulking compatible chemical wastes into a single drum and thereby reducing laboratory over pack waste drums. Laboratory over pack drums consist of individual containers (bottles) packed in absorbent media within the drum. As we have continued with the bulking project, we have also tried to reduce the amount of compatible chemical waste by increased visibility of our chemical exchange or CHEM SWAP program. The goal of the CHEM SWAP program is to share new (unused) or reusable chemical compounds within the University community, rather than discarding them. We therefore added a CHEM SWAP button to the EHRM web site homepage.

The other major success story in our P2 efforts is the installation of a silver recovery system for photographic fixer waste from the College of Art. In FY07 we added a further refinement of this system by adding a larger storage reservoir in the front of the system. The original system has a 5 gallon reservoir and when it reached a full point would then cycle through a batch. Jeremiah Diaz led a group effort to add an additional front end tank which would allow the fixer waste to flow by gravity to the original 5 gallon reservoir. This allowed for the Art Department to pour approximately 20 gallons of fixer waste in the front end tank and then have the silver recovery system go through multiple 5 gallon process cycles.

Spill Response and Clean-Up

In FY07 the group responded to 9 gasoline spills from vehicles around the campus. In addition, there were responses to chemical spills in the Fleming building, S&R1, College of Pharmacy at the Texas Medical Center and the Engineering I building. We also responded to two acid spills at the Campus Recreation and Wellness Center, with one spill that included the Houston Fire Department's Hazardous Materials Response Unit. This brings the total to 15 spill responses as well as addressing multiple requests for emergency grease trap pump outs and several incidents of biological waste bags appearing in the general trash dumpster at the Houston Science Center building.

Service to UH & System Components

The Environmental Compliance Manager continued to serve on the Commissioning & Project Standards Committee and the Design Guidelines & Standards Review team, which is a sub committee of the Commissioning & Project Standards Committee in FY07. He also attended meeting on the new Loft Apartment Project, reviewed plans, identified potential compliance concerns and presented these to the project team. In addition he represented EHRM during the build out phase of the clean rooms in the SERCC building. He also assisted with the UH Sugar Land new building addition. This involved attending meetings, reviewing plans, identifying compliance concerns and presenting options to the project management team. Several property issues arose at UH Downtown during the past year and he assisted as requested.

Plant Operations Indoor Air Quality (IAQ) Team Support

IAQ complaints comprise the bulk of incident investigations performed by EHRM. The Plant Operations IAQ Team tries to address the root causes of re-occurring IAQ problems. The Feet Coordinator is a member of the team and he leads the department's efforts in addressing IAQ problems that arise. The Fleet Coordinator assisted in performing 10 IAQ surveys around the campus. These involved multiple buildings and a range of University faculty and staff members. The Fleet Coordinator was able to deal effectively with sometimes agitated individuals and had some success in addressing their IAQ concerns. He also assisted in specialized surveys for the Charter School located in Melcher Gym that were undertaken to assess chlorine levels in the vicinity of the pool in FY07. The results showed the levels of chlorine to be less than the instrument's detection limits.

Incident Response

There were 73 total incidents entered into the Facility Focus that were directed to the EHRM. The majority (55) were indoor air quality (IAQ) related. The other incidents consisted of spills and gas odors that were routed to the Plumbing shop when possible.

Fleet Management

Federal Compliance

The Department of Energy requires that 75% of all new light-duty vehicles purchased by the University have the capability of using an alternative fuel. Vehicles purchased in FY 07 met this requirement as they have for the past several years.

State Compliance

Fleet Management worked closely with the State Office of Vehicle Fleet Management (OVFM) to ensure that all required data was entered into the Fleet Focus system in a timely manner.

Fleet Vehicle Inspections

Fleet Management and the University Auto Shop worked closely to ensure that all of the University's fleet was brought in for preventative maintenance and visual inspection on a quarterly basis. This ensures vehicles are maintained in a safe and reliable condition.

Motor Vehicle Record Evaluation

Currently, EHRM has approximately 898 approved drivers on file. Each department maintains a spreadsheet of its approved drivers, which can be merged with the form sent to the state to request the motor vehicle evaluation (MVR). This reduces the duplication of effort when manually filling out the forms. The Fleet Coordinator schedules annual evaluations for all University drivers, rotating different departments each month.

Risk Management

Insurance Management

In November 2006 The University of Houston entered into contract with Willis of Texas Inc. for insurance brokerage services. This change was due to the continuing service issues encountered with the prior broker. The transition was efficient and plans were initiated to change the renewal date for the insurance program to a common March 1st date for the primary purpose of removing the property insurance negotiations out of the hurricane season. With 22 property and casualty and over 100 National Flood Insurance Policies the change was significant. Due to our desire to minimize cancellation penalties and underwriter preferences, some policies were cancelled and re-written, some were left in place and re-written with 18 month terms and some were endorsed with 6 month extensions. The result will be common renewal dates by March 2009 but it involved much more administrative time than normal during the fiscal year.

Hurricanes Katrina and Rita in 2005 had a major impact of increasing insurance cost and limiting capacity of high coverage limits. To keep insurance cost for the UH System approximately \$4 million, hurricane limits had to be reduced to \$50 million. This is well below the maximum probable hurricane loss but there are other large university systems with gulf coast exposure with less coverage. Medical professional liability coverage also increased somewhat but most other policies remained static.

As part of the property renewal all the UH System component campuses were visited physically by the Risk Management Administrator. Deficiencies were noted on several campuses, but most were minor in nature and related to inspection issues. The total insured values for all the campuses increased to 1.6 billion for FY 07. The revised property values were attributed to the campus visits and a better understanding of the exposures. A HUB broker was retained this year to maintain the flood program and seven buildings were added to the flood insurance program. Also some discounts were achieved through obtaining elevation certificates that minimized the overall premium but the total flood premium increased to over \$300,000.

General Liability Claim Investigations

Three (3) premises liability investigations occurred; one was a fall and the others were premises liability claims of damaged equipment or failure to maintain equipment. Two of the claims were paid (\$213.80). There were 13 claims alleging University damage to others property. Most of these claims were caused by maintenance problems in our parking lots or our Grounds department throwing stones from lawn mowers or string trimmers that broke car windows. Ten (10) of the claims were paid, costing \$6,318.69.

Automobile Liability Claim Investigations

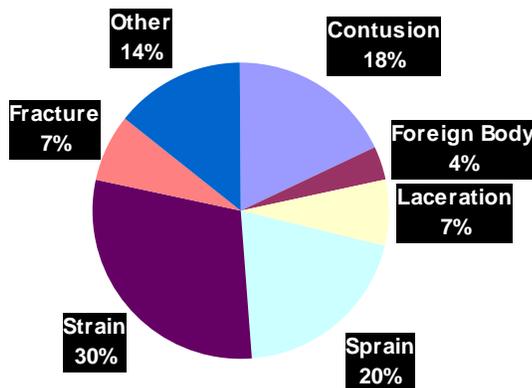
There were 6 automobile liability damage claims filed against the University. One (1) claim was denied because the University was not liable for the accident and one case is still pending. The total dollar amount paid by the University was \$15,597.15. With the addition of higher deductibles and having departments pay a portion of the deductible out of their operating budgets, there has been a slight reduction in the number of accidents. Three automobile liability damage claims were filed by the University against the insured driver. The total dollar amount EHRM collected for the University was \$3,079.65.

Workers' Compensation Claim Management

One hundred nineteen (119) workers' compensation claims were made. Five (5) were denied, 84 resulted in lost time, and 35 were resolved without lost time. From the claims resulting in lost time, five currently continue to be off work. The Department continues to manage and monitor these claims due to the continuing financial obligation under the law, and strives to work with the adjusters to close these claims as it becomes possible. The total claim cost was \$409,894.74.

The Claims Coordinator attended two Benefit Review Conferences and Contested Case Hearings to review individual workers' compensation cases.

The most frequent types of injuries have been strains and sprains. This has consistently been the case over the past several years. The breakout of claims types is below:



Return-to-Work Program

The Return-to-Work Program was implemented several years ago and has continued to be successful. It was designed to assist employees sustaining compensable injuries to transition back to full-time employment. Of the 119 injury claims filed, 55 involved return-to-work coordination. Several departments benefited from this program as well as the injured employee. When the employee returns to work in this program, he or she draws their regular rate of pay for the number of hours worked instead of the reduced workers compensation benefit. In addition, the employee performs productive work for the University. Studies have demonstrated that return-to-work programs reduce recovery times and overall claims expenses. Light-duty service was provided to several departments including

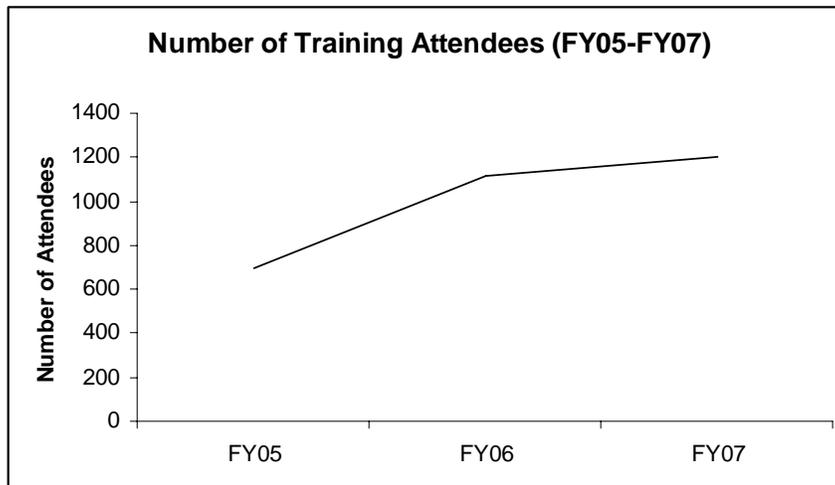
Environmental Health and Risk Management, Postal Services, Grounds, Auto Shop, Building Maintenance, and the Lock Shop.

Training of University Community

Training of the University's faculty, students and staff is a key responsibility of the Department. In recent years the Department has increased the number of courses offered and sessions presented, resulting in a dramatic increase in total number of people trained during the past two years. The classes offered and number of people trained is as follows:

Class	People Trained
General Laboratory Safety	268
Radioactive Material Safety	41
Radioactive Material Safety Refresher	97
Laser Safety	58
X-Ray Safety	35
Biological Safety	100
Blood borne Pathogens	376
Hazard Communications	83
Respiratory Protection	1
Asbestos and Environmental Awareness	10
Hazardous Waste Procedures	27
Forklift Safety	14
High Profile Vehicle/Van Safety	10
Workers Compensation	70
UH System Insurance Program	15
TOTAL	1,205

Last year there was a very significant increase of people trained from prior years. This trend is continuing as is evidenced from the following graph:



Professional Development of EHRM Staff

Since environmental health is a highly regulated technical area, professional development of staff is a priority of the department. As such, 35 % of the department's operational budget is dedicated to professional development and all technical members of the department participate in formal professional development. The formal training programs the department's staff participated in are as follows:

- Campus Safety, Health, and Environmental Managers Association (CSHEMA) conference - Boston
- Air Quality Permitting in Texas - Houston.
- Texas Commission on Environmental Quality Environmental Trade Fair & Conference- Austin.
- 40 hour Asbestos Abatement Contractor/Supervisor course - Houston
- 8 hour Hazardous Waste Operations and Emergency Response - Houston (11 staff members).
- Hazardous Waste - Houston
- College & University Hazardous Waste Conference - Ithaca, New York
- Three day Hazardous Materials Management Overview - Houston
- North American Fleet Administrators Fleet Management Expo - Houston
- 2007 Houston Auto Show.
- Controlling Infectious Diseases in the Workplace - Las Vegas
- Compliance with the Sarbanes-Oxley Act - Las Vegas
- Building Safety into Design - Las Vegas
- University Risk and Insurance Management Association Conference – San Antonio
- Institutional Compliance Conference – Austin
- American Biological Safety Association Conference – Boston (2 employees)
- Transport of Diagnostic and Infectious Substance Shipping - Boston
- American Society of Safety Engineers Professional Development Conference – Orlando
- Institutional Animal Care and Use – Austin
- UH Administration and Finance Business Management Institute
- Laser Institute of America Laser Safety Officer with Hazards Analysis Course - Boston
- Texas Safety Conference - Houston
- Chemical and Hazardous Materials Management - Houston (led to professional certification)
- Annual Meeting of the Health Physics Society - Portland, Oregon

In-Services

The Environmental Health and Risk Management Department has always required staff to present training on departmental procedures, special topics of interest, and topics within their areas of expertise. This has provided cross training between areas, understanding of each others jobs, and proven to be beneficial for the whole department. In addition, all staff members relate their immediate duties and focus during the in-services, which brings a cohesion to the Department, allows for sharing of information, and lets everyone appreciate what the others are doing. This year a new directive was received from the AVP of Plant Operations stating that all staff attending major conferences and training will present a topic to the department. This has increased the number of in-services significantly and is being used for professional development.

ADDITIONAL ACCOMPLISHMENTS AND ACHIEVEMENTS

Department Organizational and Staff Changes

The Radiation Safety Manager and the Chemical and Biological Safety Manager were given dual supervisory responsibility within their programs. The four personnel reporting to the Managers are now all titled Laboratory Safety Officers. All four Laboratory Safety Officers will still maintain their areas of specialization but share duties within the Comprehensive Laboratory Safety Program. This year there were personnel changes in both of the radiation safety specialty positions, as well as a new Chemical and Biological Safety Manager. There was a replacement in the Environmental Safety Technician position because the previous staff member was promoted to a Laboratory Safety Officer position. The secretary to the Director was promoted to another position on campus and had to be replaced. This turn over in staff is the most the department has seen in several years. There was also a turn over in two student worker positions.

Biological Safety Cabinet Contract

A contract for the certification of biosafety cabinets (BSC) was successfully negotiated with a local vendor to provide reduced pricing of BSC certifications and associated repairs. EHRM is the point of contact for both parties and is processing the call centers to reflect the service that is provided to the Investigators. This project was implemented to increase compliance with annual BSC certifications which are either mandatory or recommended for BSL-2 research, reduce the burden on the Investigator and to create a standard level of safety across all departments.

Radiation Safety Program Improvement Projects

In an effort to improve the Radiation Safety Program, the Radiation Safety Officer generated a running list of varying size projects that add value to all aspects of the program. Five (5) projects were completed. The following three are the most significant:

- Revised radiation safety training examinations.
- Radiation principal investigators Authorization Permits updated.
- Archived radiation badge participants files re-organized.

Audit of Grounds Department for Pesticide Practices

At the request of the Director of Custodial & Grounds Services an audit of the pesticide practices within the grounds department was conducted. The use of pesticides is regulated by the Texas Structural Pest Control Board. The audit consisted of a review of the Grounds Department records and practices, along with several interviews with the staff. The results were summarized in a memo and presented to the director.

Above-Ground Storage Tank Registration Project

As a result of conversations with members of the TCEQ at their annual trade show and conference, the environmental protection manager was able to seek clarification on several compliance issues. Among them was a clarification that the definition of an above ground storage (AST) included all tanks that held a petroleum product (oil, gas, diesel) regardless if there were attached to a piece of equipment such as an emergency power generator. In response to this clarification EHRM reviewed all the larger generators on campus and submitted the required documents to have them registered.

Vehicle Policy

Due to the continued growth of the campus a need was identified for a standardized vehicle safety policy. The Fleet Coordinator developed a Vehicle Safety Policy to ensure the safety of both vehicle operators and members of the University community. This policy outlines the basic requirements and expectations for employees who operate fleet vehicles.

Vehicle Mileage Booklet

Historically the State of Texas supplied fleet vehicle mileage log booklets to state agencies such as the University. In FY 07 they ceased production of the booklets thereby forcing state agencies to create their

own logs. The Fleet Coordinator worked with Printing Services and developed a log booklet for University vehicles. The new booklets are currently available by request from Printing Services.

Honors

Mark O'Riley was recognized with Administration and Finance's Rock Soup Award for his successful implementation of pollution prevention and hazardous waste minimization efforts.

Jeremiah Diaz was awarded Plant Operations Employee of the Month in January 2007 for his efforts to improve the silver recovery system in the Department of Fine Art.

Jeremiah Diaz achieved the professional designation of Certified Hazardous Materials Manager (CHMM).

FISCAL YEAR 2008 GOALS

The most substantial goal of the year is to transform most of the department's instructor-led training courses to web-based courses. When completed, this will improve the efficiency of the department and provide the university community with a more convenient method of training.

Improve participation in facility planning projects and the compliance with air emission, asbestos and storm water regulations by standardizing the procedures and improving methods of staff training.

Increase the availability of pool vehicles for passenger transport thereby, saving the University money otherwise spent on employee mileage reimbursement or rental vehicles.

Complete the collection and organization of chemical inventories throughout the University. Compare the UH chemical inventories with the Department of Homeland Security Chemical Facility Rule Appendix A (upon its release) and perform the top screen as recommended.

Revise the Radiation Safety Manual and Operation Radiation Safety Manual to include regulatory changes and changes due to the development of the Comprehensive Laboratory Safety Program.

Environmental Health and Risk Management Department

Staff

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Director

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Biological and Chemical Safety Manager

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EMMETT C. SULLIVAN
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Secretary II

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Laboratory Safety Officer

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Environmental Safety Technician

CALLISTUS C. NNABUIFE
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