11/11/2009

CASE WESTERN RESERVE UNIVERSITY DEPARTMENT OF OCCUPATIONAL & ENVIRONMENTAL SAFETY (DOES) SAFETY SERVICE OPERATIONS ANNUAL REPORT 2008-2009

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INTRODUCTION

This report is submitted to the President and designated members of the senior administration of Case Western Reserve University, as required by the Laboratory Safety Committee (LSC) Operating Guidelines. The report summarizes the activities of the Safety Services division of the Department of Occupational & Environmental Safety (DOES) at the University. Its contents cover the period from July 1, 2008 through June 30, 2009.

SUMMARY

DEPARTMENTAL STRENGTHS

The Safety Services Office (SSOF) operations requires a staff with broad and diverse backgrounds that can address and resolve a wide range of issues faced in Chemical, Biological

DOES has been operating without a full work force for several months. New hiring will be completed for all operational areas in this coming fiscal year, with focus on recruiting an Industrial Hygienist.

DOES moves into the second year of its reorganized DOT and IATA program. Training presentations for this program will be reviewed to ensure comprehensive coverage of all issues faced during the past year. Special attention will also be paid once again in this fiscal year to ensuring that this program accomplishes its goal of ensuring that all shipping of hazardous materials from the University occurs in compliance with government regulations.

DOES has been involved in University pandemic influenza planning for the past two years and will develop a scenario for a table top exercise for the University during this fiscal year.

Updated SOPS for all of Safety Services

Started to bring Safety Services Databases over to new HPASSIST database and align data with Radiation Safety Program

Developed a novel anesthetic gas scavenging system

Started implementation of new biowaste handling system

Changed inspection system from an all year system to intensive multi week inspection system spread through the year.

GOALS FOR 2009-2010

The principal goal for 2009-2010 will be to complete review all Safety Services programs and to re-examine or establish appropriate metrics and benchmarks for these programs. Recommendations of an outside review panel will also be implemented in 2009-2010. Just as important, however, are benchmarks and metrics that can be provided by students, faculty and staff, and by our partners in Plant Services, Protective Services and the University Administration. In this spirit SSOF will approach the following goals in 2009-2010.

DOES will continue to strive to improve both safety awareness and safety performance for the University as a whole. Success in these programs will be measured in terms of reduced numbers of accidents and violations found during safety inspections throughout the University.

DOES provides a large number of train2(e)-2(r)14(i)-3(3 Tme)-21 tc--3(3 Tme)-2e tc-6us0o1(s)-.2ef

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Case Western Reserve University maintains certificates of registration through:

The Department of Transportation (DOT)
The Ohio EPA for Hazardous and Infectious Waste
The United States Department of Agriculture (USDA) & Center for Disease Control (CDC)
The Department of Commerce

REGISTRATION #	CERTIFICATE OF REGISTRATION	EXPIRATION DATE	PURPOSE
052907-551-092P	US DOT Research & Special Programs	6/30/2011	Hazardous Waste Transport
18-G-00351	OEPA Generator of Infectious Waste	12/4/2009	Infectious Waste
A20041118-0009	USDA High Consequence Agent Program and CDC Select Agent Program	2/19/2010	Animals/ Plants and Humans/ Bovine Spongiform Enchemlopathy (Prospective)
1801-0969-R00007	Ohio Department of Commerce	6/30/2010	Underground Storage Tanks

EPA & OEPA RCRA Hazardous Waste Management - 8 sites

REGISTRATION #	LOCATION	EFFECTIVE DATE
OHD987033669	DOA 990	12/9/2006
OHD000812230	Millis G35	12/9/2006
OHR000112482	Art Studio (Greenhouse)	12/9/2006
OHG00061689	Bioenterprise (UCRC I)	12/9/2006
OHR000120147	Wolstein (WRB)	12/9/2006
OHD077757425	West Quad (Mt. Sinai)	12/9/2006
OHR000129148	Squire Valleevue & Valley Ridge Farms	12/9/2006
OHD004174660	Cedar Avenue Service Center (CASC)	12/9/2006

USE AND STORAGE LOCATIONS

The following facilities are registered for use and storage of chemical, biological, and etiological agents:

Main campus of 10900 Euclid Avenue, Cleveland, OH
University Hospitals (UH), 2065 Adelbert Road, Cleveland, OH
University Circle Research Center II (UCRC II), 11001 Cedar Avenue, Cleveland, OH
Wolstein Research Building, 2103 Cornell Road, Cleveland, OH
Louis Stokes Cleveland Veterans Affairs Medical Center, 10701 Wade Park Blvd., Cleveland, OH
MetroHealth Medical Center, 2500 MetroHealth Dr., Cleveland, OH
Cleveland Clinic Foundation, 9500 Euclid Ave., Cleveland, OH
Cleveland Center for Structural Biology (CCSB) Wright Fuel Cell, 1819 E. 101 St., Cleveland, OH

The following premises are registered as generators of infectious waste:

DeGrace (Biology)	Millis	Morley
AW Smith	Rockefeller	Bingham
Glennan	Olin	White
Wickenden	Med East (Robbins)	Pathology
Nursing	Dentistry	Health Services
CCSB	Wolstein Research Building (WRB)	Biomedical Research Building (BRB)

The following premises are registered as generators of hazardous waste:

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SAFETY SERVICES PROGRAM: RESPONSIBLE PARTIES

MANAGEMENT

Safety Services provides support for the safe use of chemical, biological agents, physical, and construction concerns. The Department reviews procedures, responds to incidents involving chemicals and biological materials, and assesses the laboratory infrastructure to mitigate hazards to employees. The Department also monitors regulatory compliance through its inspection and audit activities. Departmental audits, Laboratory Safety Committee audits, and external agency audits (insurance and regulatory bodies) are used to promote compliance with Federal, State, and local regulatory programs.

LABORATORY SAFETY COMMITTEE (LSC) PURPOSE

The Case Western Reserve University LSC serves as an advisory committee to the DOES. The LSC is comprised of faculty and staff appointed by the President to guide University programs in the safe use of chemical & biological materials. The LSC advises policies on laboratory safety to ensure compliance with all pertinent regulatory bodies [OSHA, EPA (Federal, State, Medical Waste), DOT, ODH, FDA, CDC, & USDA].

LSC RESPONSIBILITIES

The Laboratory Safety Committee is responsible for:

Reviewing and recommending laboratory safety programs to comply with regulatory requirements and sound risk management practices.
Consulting with faculty on safety issues related to chemicals, pathogens, and carcinogens; and in

Assigning its members, or appropriately qualified non-members, to serve as advisors in specific chemical and biological safety areas.
Conducting audits to assess the effectiveness of DOES laboratory safety programs and procedures.
Approving DOES chemical & biological safety programs as required that are amended following audit recommendations.
Reviewing laboratory activities that may be of concern to the public.

SUBCOMMITTEES

The Laboratory Safety Committee reviews activities of five subcommittees:

Institutional Review Board for Human Studies
Institutional Biological Safety Committee (Recombinant DNA)
Institute of Animal Care & Use Committee (IACUC) (Pathogen Safety in Animals)
Carcinogen Use Committee (Carcinogen Safety in Animals)
Select Agent Use Committee (Etiological/ Animal/ Plants/ Humans)

These subcommittees review chemical, biological and exogenous substance

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SAFETY SERVICES OFFICE (SSOF)

STAFFING

The SSOF operates with the following staffing:

Director (1)	Assistant Director (1)
Department Assistant (1)	Specialist Positions (5)
2nd shift Specialist (1)	Student (1)
Quality Assurance Specialist (1)	Construction & Plant Safety Specialist (1)

flexible response to emergencies and other issues. The SSOF Staff is qualified to support and maintain the Safety Services Program.

Assis .

Avoid a Fall No Employee Wants to Take
Hand Lotions in the Lab
DOES Welcomes Many New Faces in 2008
Inspection Reports: Return Them Promptly
Quiz: Know Your Role in the Lab
Holiday Decorations: Play It Safe
Dirty Laundry? Lab Coat Laundry Service
Minors, Volunteers and Visitors in the Workplace Know the Guidelines and Procedures
Mercury-Containing Light Bulb (Lamp) Recycling
E-Waste: What You Need to Know
Compliance Issues: Reminders Fall Preparations Is Your Lab Ready for the Fall Semester?
Announcing a New Web Link on the DOES Website Construction Safety: A Necessary Precaution
Shipping Dry Ice? Training Required
Eye Injury Prevention: Knowing the Basics

The Newsletter is available to all campus faculty, staff, and students on-line and is distributed as a hardcopy to all principal investigators and new employees at orientation. The Newsletter is included on the DOES Website in digital format. The digital format helps DOES to comply with the ongoing campus green initiative and helps DOES to save money.

EMPLOYEE COMPLIANCE COMMITTEE

The Employee Compliance Committee (ECC) is comprised of representatives from departments responsible for hiring laboratory personnel (Human Resources, Kelly Temporary Services, Nursing, Dental, Engineering, Arts/Sciences, Health Services, and Medical School), The Committee was formed to improve tracking of University employees to ensure that training and safety programs were comprehensively implemented for all members of the University community. Table 5 of the Appendix illustrates compliance Issues addressed by this Committee.

ORIENTATION PROGRAM

The Orientation Program developed with Human Resources ensures that new University employees have a general awareness of services provided by DOES. This program establishes job exposure-related safety-training classes that employees are required to att

(SPUR), Summer Undergraduate Research Program (SURP), Upward Bound, Center for Layered Polymeric Systems (CLIPS), and Equinox Summer Programs.

The University
using SSOF training documents in Laboratory Safety and Bloodborne Pathogens as part of this program. During this fiscal year, Kelly Services personnel did attend DOES Training Programs while their training database was updated.

BLOODBORNE PATHOGEN TRAINING (BBP)

Materials containing and/or likely to contain Bloodborne Pathogens (HIV, Hep B) are widely used in the University laboratories. BBP training includes compliance awareness and implementation of required vaccination and health monitoring programs.

BIOLOGICAL SAFETY LEVEL 3 (BSL3) TRAINING

Extensive training is required for Select Agents used on THE University
training course was created for individuals who enter the BSL3 facility to use these agents.

DOT/IATA SHIPPING TRAINING

Personnel who prepare materials for shipment regulated by the Department of

International Air Transport Association (IATA) are trained every two years as mandated by these agencies using training materials prepared by DOES. These shipments are principally biologicals and include IATA-defined Infectious Substances.

RESPIRATOR TRAINING

Special training sessions for Facilities Services, Animal Resource Center (ARC), and BSL3 Facility employees were conducted. This training was augmented, as required by OSHA, with medical evaluations and respirator fit testing. Contractors were required to be trained by their employers before entering the BSL3 and ABSL3 facilities.

VEHICLE SAFETY TRAINING

Vehicle Safety Training is presented on an as needed basis. DOES conducted 48 Drivers Safety Training classes for THE UNIVERSITY employees and the summer help staff, training a total of 118 people.

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FIRE EXTINGUISHER TRAINING

Hands-on Fire extinguisher training using a live contained fire was provided for members of the Housing and Residence Life Staff. This training is administered by Protective Services. There were 75 students and supervisors in attendance.

FACILITIES SAFETY TRAINING

Training for Facilities Service personnel is conducted on a scheduled basis. Topics include:

Slips, Trips, and Falls/ Ladder Safety
Personal Protective Equipment
Confined Space Entry
Radiation Safety
Lockout/ Tag out
Workplace Cleanliness
Hot Work Permits
Powered Industrial Pallet Jacks
Powered Industrial Lift Truck
Hearing Conservation Training & Testing

These sessions are scheduled to accommodate all Plant Services shifts. Three training sessions were developed and offered for Plant personnel every month, training an average of 60 personnel.

CONTRACTOR TRAINING

To ensure that University Community members and Laboratory personnel are not kats exposed to hazardous conditions on the campus during construction and repair activities, a variety of training programs support construction work on the campus. Specific training includes confined space, hot work, tow motor, and ladder safety.

FACILITIES AND EQUIPMENT

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VA Hospital	MetroHealth	NASA
CCF- Walker	Wood Research Tower (RT)	CCSB
Wolstein Research Building (WRB)		

LABORATORIES

The University Safety Service programs monitored approximately 1300 laboratories in 38 laboratory buildings on campus. These laboratories are located in four hospitals, the Case Western Reserve University Quad and the Medical, Nursing, and Dental School

Repaired about 80 workstation hardware problems
Purchased and set up six new workstations
Setup Carbonite backup on second server
Restored crashed server from backup

Software Maintenance

Repaired about 500 workstation software problems
Rewrote and released departmental website
Major transition toward Onsite database

Chemical Laboratory:

Service Building (1st Floor):

The SSOF is located in the Service Building on the 1st Floor at 2220 Circle Drive. The Safety Services division of DOES operates a laboratory equipped with industrial hygiene equipment, chemical-hood sampling equipment and cylinders, mercury vacuum equipment, respirator fit-test equipment, and spill and emergency response supplies. Equipment is also available for quantification of contaminants in air samples for odor responses, EPA audits, and identification of unknown chemicals.

HAZARDOUS WASTE FACILITIES:

Facilities are located in the 1st floor parking area of the CASE School of Medicine, 1st floor of the Wolstein Research Building and the ground floor of the Millis building. All facilities contain a processing area and a storage area.

MEDICAL SCHOOL WASTE FACILITY (DOA990)

This facility has a separate office and process/storage room for chemical material and disposal activities. This room has a filtered air exhaust system. It also has a chemical and walk-in hood, air monitoring equipment, and emergency response equipment.

MILLIS WASTE FACILITY

This waste facility is located on the ground floor in Millis G35. It is directly across the hall from the Fisher Scientific Chemical Stock Room. The waste facility has an office, a processing area, and a storage area. The waste storage area has shelving and flammable storage cabinets. The processing area has a walk in hood, chemical hood,

This facility has an office and process/ storage area for hazardous material and disposal activities. This area is maintained at negative pressure relative to the adjacent hallway. The waste facility contains spill supplies and a computer. Available equipment allows access to web-based databases in the event of a chemical or biological spill. The area also contains a chemical hood, walk-in hood, and meters for environmental monitoring.

ANIMAL RESOURCE CENTERS (ARC)

Animal care facilities are located in Med East (Robbins), Wearn, and Wolstein Research buildings. Conventional animal care facilities are available in each of the Animal Resource Centers and are used by researchers to conduct animal studies with radioactive, chemical, and biologicals materials. A variety of animals (mice, rats, hamsters, rabbits, ferrets and large animals such as sheep, dogs, and pigs) are housed in one facility. The Wearn and Wolstein Facilities predominantly house mice. Contaminated items are stored in the ARC freezer until disposal. The University also maintains ABSL-3 laboratories for Select Agent research and ABSL-3 facilities for safe handling of infectious agents in both laboratory and animal research applications.

INSTRUMENT CALIBRATIONS

Properly calibrated instruments are necessary for Industrial Hygiene (IH) and hood certifications. Annual factory calibrations of 24 industrial hygiene, respirator, ventilation, noise, and lighting instruments are maintained. Table 7 of the Appendix lists instruments maintained for the Safety Service Program.

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SAFETY SERVICES PROGRAMS

GENERAL COMMITMENTS AND SERVICES

The SSOF is meeting its commitments to conduct programs in compliance with local, state, and federal regulatory programs. Regulatory compliance areas managed include DOT and IATA for transport of goods, all EPA RCRA programs for environmental chemical releases and waste disposal, and all OSHA programs for employee safety.

SAFETY SERVICE OFFICE (SSOF) AND PRINCIPAL INVESTIGATORS (PIs)

Laboratory safety is a shared responsibility between the Safety Services office and Principal Investigators. The SSOF is responsible for implementing safety programs in accordance with Federal, State, and Local regulations and sound risk management principles. Principal Investigators (PI) are responsible for monitoring safety during experiments in accordance with these established programs. Laboratories inspections carried out by DOES aid in laboratory safety program compliance.

INSPECTIONS

Laboratory Inspections are conducted to address chemical, biological, and physical concerns and to measure the progress and depth of compliance in the University laboratories. Concerns and violations are summarized on the inspection report and mailed to the researcher. Researchers are asked to address and correct their safety issues by a specified date. Some issues represent repeated items from the previous year.

CASE has more than 448 PIs authorized to use chemical and biological materials in 3851 laboratories, rooms, and facilities. Inspections include physical inspections, verification of training records, verification of correction of previous violations, and follow-up. Audits are more frequent if there are particular concerns in a laboratory.

Case Western Reserve University interacts directly with the Safety groups monitoring safety in associated Institutions that are under independent management but may provide research locations occupied by University personnel. Such research laboratories are located at Case University Hospitals, The Cleveland Clinic Foundation, Metro Hospitals, and the Cleveland VA Hospital. Where regulatory interfaces are impacted, letters of Agreement between the institutions supports these activities.

Inspections of outlying sites are carried out at University Hospitals (UH), Metro Health, Cleveland Clinic Foundation (CCF), and Veterans Administration (VA) Hospitals through cooperation of the safety office[(he)13(r)-3(4.r)7(s)-12SU-103(t)-4(he)13(s)-12(5( )-4(i)-6(n)12(st)-6(i)4(t)-4(ut)7(i)-6(o).4(pal)-57al)-57a-591quua

Cross training of Radiation Safety specialists at DOES has complemented and aided the Safety Services laboratory inspection program. Responses to the majority of inspections are received within 30 days of the inspection. Outstanding inspections are sent to the department chairperson for follow up. Programmatically, repeated issues that are not addressed by the investigator or chairperson can be referred to the Deans or Provost for further action, but these measures are rarely required. Inspection statistics for 2008

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attend initial Regulated Chemical Training and any employee using a regulated chemical must take the annual online retrain.

Agent-specific sampling plans are utilized for the medical, dental, biology, and nursing anatomy laboratories. Formaldehyde vapor samples are periodically carried out for Anatomy laboratories. The samples collected provided analysis of Short Term Exposure Limits (STEL) and Time Weighted Average Permissible Exposure Limits (TWA-PEL). Anatomy laboratories used virtual examination of the body over the past year. Therefore no formaldehyde monitoring was required in 2008-2009.

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(14) anesthetic gas setups in the laboratories were inspected and 1 researcher moved their anesthetic system to the newly reconstructed ARC facility.

ASBESTOS MONITORING

Asbestos monitoring is addressed on a per case basis. EA Group sampled 126 asbestos projects and analyzed them. All 126 requests were made for field projects. No asbestos requests were made for laboratories. For all projects positive for asbestos, a request was submitted to Customer Service or arrangements were made by DOES to

and in animal resource facilities by personnel who attend to animals in the ABSL-3 facility. The respiratory program was further expanded as part of pandemic influenza planning for the University to include Police, Security, BSL3, and Custodial.

The Respirator Protection Plan includes:

- Physical Evaluations
- Respirator Training
- Fit-Testing
- Annual Questionnaire

An inventory of respiratory protection equipment was carried out that included cartridges, filters, face pieces, wipes, and valves. All response personnel have a face piece that is used at least once per year. There are currently 2 Self-Contained Breathing Apparatuses (SCBAs) in inventory. DOES has also recently accepted responsibility for cartridge replacements for Medical school personnel. Initiated through the Liaison Program, the P100 respirator was researched and recommended for nanoparticle use with the half faced mask for one researcher who was concerned about the release of nano-sized particles into their breathing zone while conducting experiments.

average face velocity above 120% of the benchmark velocity requires additional ASHRAE follow up to assess hood performance.

Velometers with data download capabilities are used for the annual face velocity tests. Implementation of the use of acetic acid based smoke tubes and aluminum tanks for SF_6 has been effective. One hundred (100) work order requests were initiated with Facilities for chemical hoods that were performing below par and needed repair. Monitor repair is one of the biggest issues concerning the chemical hoods followed by high velocity.

Face velocity tests were conducted on 536 chemical hoods, while ASHRAE 110 tests

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INCIDENT/ INQUIRY PROGRAM

The Incident/ Inquiry Program was established to ensure that all incidents and inquiries were handled in a timely manner and appropriately documented. This record included all incidents involving Emergency Response, Indoor Air Quality, and other types of non-standard assignments (Table 14 of the Appendix.) Injury Investigation and reporting was also reestablished. Formal interviews following incidents are conducted along with

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The Hearing Conservation Audiometric Testing and Training Program is ongoing. The services of the Cleveland Clinic and a Licensed Audiometric Specialist continue to be enlisted for this program. This annual program includes approximately 150 CASE employees.

In an attempt to identify and resolve possible noise hazards on campus, sound level monitoring is addressed on a per case basis. There were no sound level assessments requested during the fiscal year.

LIGHTING PROGRAM

The Safety department, on an as needed basis, conducts primary lighting measurements to evaluate lighting in work environments for adequacy. Measurements are compared to the OSHA/ANSI Standards. Recommendations are made to improve lighting quantity and quality. No lighting assessments were conducted this year.

PLANT SAFETY

The DOES Plant Safety Specialist met monthly with the Zone Safety Committee to address unusual problems and individual problems and concerns. Several pieces of safety equipment are distributed to plant personnel as needed.

The Plant Safety Specialist is always available to plant personnel during all hours of the day or night. Means of communication include pagers, cellular phones, and radios. Mutual Training with the Cleveland Fire HAZMAT Unit was used over the past year to

protocols.

PLANT SAFETY MANUAL

A Plant Safety Manual has been compiled, published, and distributed by DOES. This manual includes safety considerations, pertinent situations and topics regularly faced by plant maintenance workers.

PROGRAMS

Job Safety Analysis allows the Plant skilled tradesmen to be more efficient and safety oriented. DOES is continually developing Standard Operating Procedures for safe operation in each relevant plant safety area.

PLANT SAFETY INFRACTIONS

Plant Safety Infractions are now documented in the incident database for such actions as lack of personal protective equipment and horseplay during task execution. Accident investigations are conducted and documented following any accidents following prescribed reporting procedures.

EXHAUST FAN MAINTENANCE

There were 21 shutdowns of the fan exhaust in Medical School, BRB, RT, Millis and WRB. All exhaust fans were monitored by the SSOF 2nd shift Specialist to ensure safe air quality for Plant personnel before maintenance and filter replacements. This operation occurs after work hours on a quarterly basis. No regulatory exposure levels were exceeded during these procedures.

CONFINED SPACE PROGRAM

Confined Space means a space that:

Is large enough and so configured that an employee can bodily enter and perform assigned work; and
Has limited or restricted means for entry or exit (for example, tanks, vessels, 7(s)-h4e3os, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
Is not de7(s)-gned for continuous employee occupancy

OSHA uses the term "confined space" to describe such spaces. In addition, there are many instances where employees who work in confined spaces face increased risk of exposure to serious hazards. In some cases, confinement itself poses entrapment hazards. In other cases, confined space work keeps employees closer to hazards, such

hundred twenty (120) permits, both long-term and short-term, were issued to CASE employees and outside contractors. Long-term permits that extended over one month were issued that required weekly inspections. DOES reviews only Contractor Hot Work permits since the amount of campus construction decreased and the Facilities Department oversees CASE maintenance projects requiring hot work permits.

CONSTRUCTION SAFETY

A DOES representative oversaw the Hazardous Materials Waste Collection Program of Construction Debris Recycling for Fluorescent Bulbs and Ballasts, conducted weekly Construction Safety Walkthrough Inspections on projects throughout campus, and participated in the Construction Managers Weekly Project Meetings on the projects listed in Table 17 of the Appendix.

CONTRACTOR OVERSIGHT

The Plant Safety Specialist conducted weekly Construction Safety walkthrough inspections on projects throughout the campus for outside contractors and CASE employee projects. Contractors utilized by the University for large projects include the Movers, Painters, Carpenters, Plumbers, Packers, Apprentices, Helpers, Drivers, Electricians, Pipe fitters, and Roofers. CASE Plant personnel respond to small projects and maintenance issues. The interface between Plant, Construction Administration, Technical Assurance, and outside contractors on safety related issues has aided in the

Overall, waste collection at CASE continued to increase during the 2008-2009 fiscal year. The ability of the Chemical Analytics contractor to perform de-activation of Peroxides, Picric acid, and Perchloric acid reduces the intrinsic cost of disposing of this material and represents a significant cost savings. Most importantly, reduction in hazard through on-site performance of waste handling complies with OSHA requirements.

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REGULATORY INTERACTIONS

EPA/ RCRA INSPECTION

The following Environmental Protections Agency/Resource Conservation & Recovery Act (EPA/RCRA) inspections took place during 2008/2009:

9/25/2008 COMPREHENSIVE QUARTERLY INSPECTION OF AUTOCLAVE UNIT

There were no violations notes during this inspection.

3/20/2009 COMPREHENSIVE QUARTERLY INSPECTION OF AUTOCLAVE UNIT

There were no violations notes during this inspection.

6/29/2009 COMPREHENSIVE QUARTERLY INSPECTION OF AUTOCLAVE UNIT

There were no violations notes during this inspection.

AUDITS

throughout the year.

AUDITS	08/09	07/08	06/07	05/06	04/05	03/04	02/03
Chemical Hygiene and E$	50.59	581.26	23.352	0			

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SSOF RESPONSE

Currently all protocols are checked for training and plan update before they are approved.

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CHEMICAL HYGIENE & EXPOSURE CONTROL PLANS

Comments

171 of 448 Exposure Control Plans are past due
163 of 448 Chemical Hygiene Plans are past due
Chemical Hygiene & Exposure Control Plans were requested for all new researchers once notified through Human Resources and annual inspections.
Training of researcher and personnel was verified once plan received.
Most plans were updated annually.
All protocols were checked to ensure both plans and training were current.

SSOF Response

No response required.

Prepared by Felice Thornton-Porter on 10/30/2009.

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APPENDIX

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TABLE 1 - Training and conferences attended in 2008-2009 included:

Industrial Hygiene Management
Rules & Regulations of Workplace Safety & OSHA Compliance
Essentials of Hazardous Materials Course
Comprehensive Industrial Hygiene
HVAC Systems and Design Course
Level B Industrial Ventilation Design Certification
ACS Safety & ACGIH Membership
Threat & Risk Assessment Certification
Emergency Response to Domestic Biological Incidents Certification
OSHA 30 hour General Industry Certification
Ohio Safety Congress Attendance in Columbus, OH
ICS-100 for Higher Education with FEMA
DOT 49 CFR
Ohio Asbestos Building Inspection Certification
Ohio Asbestos Management Planner Certification
Ohio Asbestos Project Designer Certification
NFPA Life Code Specialist for General Construction and Health Care Systems

TABLE 5 - Compliance Issues Addressed by Employee Compliance Committee (ECC)

YEAR	COMPLIANCE ISSUES
2008	New DOES Safety Inspection Enforcement Policy New DOES Policy on Minors, Volunteers, & Visitors 2008 DOES Laboratory Inspection Schedule Phase 2 Satellite CASE Facilities Kelly Services r

MultiRae Personal Multigas Monitor	PGM50-5P	095-518218	Annually	3/26/2010
MultiRae Personal Multigas Monitor	PGM50-5P	095-518200	Annually	4/30/2010
Rotameter	MMA-25		No Calibration	
Pulse Check Pump Module	710466	G1-5713-F99	Annually	Out of Service
Pulse Check Pump Module	710466	G1-5712-F99	Annually	Out of Service
Pulse Check Pump Module	710466	G8-15922-L01	Annually	Out of Service
Pulse Check Pump Module	710466	G1-5709-F99	Annually	Out of Service
Pulse Check Pump Module	710466	G1-5710-F99	Annually	Out of Service
Quest Sound Level Meter	2900	CDD010048	Annually	11/8/2009

TABLE 9 - Respirator Statistic

RESPIRATOR USE	USERS 08/09	USERS 07/08
PHYSICAL	481	388
TRAIN	440	354
FIT TEST	277	205

RESPIRATOR TYPE	USERS 08/09	USERS 07/08
PAPR	11	3
HALF FACE	1	2
FULL FACE	32	35
N95	362	234
N/A	75	114
TOTAL	481	388

DEPARTMENT	RESPIRATOR USERS 08/09	RESPIRATOR USERS 07/08
TERMINATED FROM PROGRAM	46	59
ARC	45	25
RESEARCH	47	33
CUSTODIAL	136	107
FARM	1	1
HEALTH SVCS.	18	0
SECURITY	82	68
PLANT	75	64
DOES	31	31
TOTAL	481	388

TABLE 10- Hood Certification Statistics

ASHRAE TEST	08/09	07/08	06/07	05/06	04/05	03/04	02/03	01/02	00/01
PASS	6	6	13	6	90	20	65	58	149
RESTRICTED	0	0	0	7	17	3	17	21	54
FAILED	1	1	0	0	0	4	16	15	17
N/A	0	0	0	0	0	0	0	0	1
TOTAL	7	7	13	13	107	27	98	95	221

VELOCITY TEST	08/09	07/08	06/07	05/06	04/05	03/04	02/03	01/02
SATISFACTORY	298	288	527	156	296	121	431	0
RESTRICTED	142	110	184	35	106	92	140	0
INOPERATIVE	96	16	33	6	55	39	58	1
TOTAL	536	414	744	197	457	252	629	1

TABLE 11- Clearance/ Relocation Trends

CLEARANCES	08/09	07/08	06/07	05/06	04/05	03/04	02/03	01/02
RELOCATION	337	289	177	244	245			

OTHER	69	10	35	7
TOTAL	155	104	81	54

TABLE 15 - Incident Trends

INCIDENTS	08/09	07/08

Suits (Boxes)

- Tyvek suits, white (8)
- Saranex suits (1)
- Kappler training suits, blue (3)
- Tyvek QC suits (3)
- Polycoat overalls (35)

Foot Protection (Pair)

- Tyvek polycoated booties (24)
- Tingley ER orange boots (3)
- Hazmat boots (4)
- Rainfair ER yellow boots (2)

Eye Protection (Each)

- Face shields (2)
- Safety glasses (5)
- Flexi-Filters P100 (21)

Respirator (Each)

- Full face respirator 3000 series (1)
- N95 Respirator (80-100)

TABLE 17 - Construction Projects Inspection for 2008/2009

ARC Renovation Project Phase 1, Phase 2, & Phase 2B (3 year project)
Bingham Structures Laboratory Renovation Environmental Survey & Renovation
Pathology Building Renovation and Joint Venture Project with UH Hospital
Morley Building Environmental Assessment Project
BioEnterprise Floors 1 & 4 Renovation Project
Sidewalk Replacement Campus wide
Air Handler Projects in #55 Parking Garage 2 levels (M-1, C-1, D-1, & D-2)
Boiler replacement at different buildings
Triangle Apartment Building #2 Renovation
Elevator Repair and Replacement on 4 Dorms on North Campus
Clark Tower Fire Sprinkler installation entire building
Dennison Lobby upgrade & Band Room Renovation
Parking Garage #55 Renovation
Bolton Nursing School Room NOB 080 Renovation
Robbins Room 429 & EG6 Renovation

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ELECTONIC WASTE BY MONTH	# of REQUESTS
7/2008	12
8/2008	11
9/2008	9
10/2008	10
11/2008	7
12/2008	5
1/2009	15
2/2009	7
3/2009	7
4/2009	7
5/2009	12
6/2009	16
TOTAL	118

TABLE 19- RECYCLING

WASTE TYPE	CASC (# of units)	MILLIS (# of units)	PBL (# of units)	WRB (# of units)
BALLASTS (PCB)	3627	0	0	0
BALLASTS (NON-PCB) (#)	2445	0	0	0
LAMP INCANDESCENT (#)	0	0	0	0
LAMP, MERCURY VAPOR (TUBES)	0	0	0	6
CRUSHED FLOURESCENT LAMPS	[redacted]			