CASE WESTERN RESERVE UNIVERSITY
DEPARTMENT OF OCCUPATIONAL &

SAFETY SERVICES

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, Biomedical Research Building (BRB) and Wolstein Research Building. The following premises are registered as generators of hazardous waste: DOA990, Morley, Millis, University West, Cedar Avenue Service Center, Wolstein Research Building, and West Campus (formerly Mt. Sinai).

EPA/ RCRA INSPECTION

There were no EPA/ RCRA inspections of the University during the fiscal year. On June 17, 2003, the Ohio Environmental Protection Agency (OEPA) Hazardous Waste Division inspected the facilities suggested only minor programmatic modifications and assessed no violations.

OSHA COMPLAINTS

There were no OSHA complaints at the University during the 2006/2007 fiscal years.

INFECTIOUS WASTE TREATMENT FACILITY INSPECTION – AUTOCLAVE

The Sani-
waste on site. As a result of this treatment, the resulting waste can be disposed of directly into a solid waste landfill rather then burned in an incinerator. This approach saves significant dollars over incineration as well as helps to reduce greenhouse gas emissions by not releasing the carbon bound in the waste to the atmosphere.

Part of the local EPA and City of Cleveland responsibilities, with regards to infectious waste, is to audit each treatment site. These audits did not occur over a 9-year period of time. As a result, the EPA brought the City of Cleveland Health Department to Case Western Reserve University for a comprehensive audit of all biohazardous waste activities on the campus. A series of minor paperwork and sign related issues were identified and fixed during the process. An additional item involving modification of the way the Sani-pak records times and temperatures was also noted and corrected. Since its original inspection, the City of Cleveland and EPA office returned for a second inspection. At this time some additional changes were requested that involved installation of an additional spill response kit and a first aid station in a temporary waste room. All matters identified were acted upon within in a few weeks of the inspection and the facilities were declared to be in compliance.

SAFETY SERVICES
ANNUAL REPORT 2006-2007

SAFETY SERVICES PROGRAM: RESPONSIBLE PARTIES

MANAGEMENT

Safety Services provides support for the [illegible]

Shirley Mele

HAZARD COMMUNICATION TRAINING (HAZCOM)

The Hazard Communication training, which includes University employee-specific required Right-To-Know training, addresses specific safety concerns of the target audiences. The largest groups provided HAZCOM training included Housekeeping, Dental, Nursing, Grounds, ARC, Facilities, Security, and Shipping/Mailroom. Groups receiving this training may only occasionally enter research areas, but none-the-less may encounter hazardous situations or hazardous materials exposures if not properly

rary

employees using SSOF training documents in Laboratory Safety and Bloodborne Pathogens as part of this program.

CHEMICAL SAFETY AWARENESS TRAINING

Several general awareness classes for target groups such as the Animal Resource Center (ARC) and Housekeeping were conducted. These groups may enter specialized laboratories on a daily basis and thus require specifically tailored safety training.

LABORATORY SAFETY TRAINING

Laboratory Safety Training is given to all personnel that work in laboratories. Several specialized Laboratory Safety classes for specific target groups included medical and dental students, Macromolecular Science and Chemical Engineering personnel, and the NYSP, SPUR, SURP, Upward Bound, CLIPS, and Equinox Summer Programs.

BLOODBORNE PATHOGEN TRAINING (BBP)

Materials containing and/or likely to contain Bloodborne Pathogens are widely used in CASE laboratories. BBP training included compliance awareness and implementation of required vaccination and health monitoring programs.

BSL3 TRAINING

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. One hundred fifty six individuals were trained in Vehicle Safety over the past year.

FACILITIES AND EQUIPMENT

CASE administration and the LSC ensure that all facilities, equipment, and personnel are available and adequate for the safe operation, storage, and disposal of hazardous material. The SSOF is also responsible for reviewing regulated safety infrastructure and inspection of all facilities and equipment, where chemical and biological materials are used. Facilities that are available at CASE for the use of hazardous materials include:

AW Smith	Bingham	BRB
Bishop	Bolwell	DeGrace
Glennan	Hanna Pavilion	HG Wood
Kent Hale Smith	Med East	Millis
Olin	Pathology	RBC
Rockefeller	Service	Wearn
White	Wickenden	UCRC II
VA Hospital	MetroHealth	CCF- Walker
Wood Research Tower (RT)	Wolstein Research Building (WRB)	

LABORATORIES

CASE Safety Service programs monitored approximately 1300 laboratories in 38 laboratory buildings on its 108 building campus. These laboratories are located in four hospitals, the CASE Quad and the Medical, Nursing, and Dental School facilities.

requiring use of hazardous material and specialized equipment. Protective engineering devices in laboratories typically include chemical hoods and Biosafety cabinets, eye wash stations, and safety showers (where needed). Air handling systems are generally designed to provide 8-15 changes of air per hour and recirculation of air is generally avoided in laboratories. . Laboratories are generally constructed to at least Level II containment specifications. Laboratories are required to stock needed decontamination supplies and PPE such as gloves, laboratory coats, eye protection and job-specific respiratory protective equipment.

SAFETY SERVICES OFFICE

st Floor),
Medical School (DOA990), Millis Science Center (G35) and the Wolstein Building (1103).

PROGRAM OFFICE:

Service Building (1st Floor)-Program offices & Conference Room:

State-of-the-art computer hardware and software are crucial to handle the amount of data required to ensure efficient and quick access to records in the SSOF. For example, a Smart Board System augments the in-house training program allowing our trainers to directly demonstrate the use of the on-line database and training materials. This training equipment also provides direct access to library services and campus maps during training, staff meetings and emergency responses.

INSTRUMENT CALIBRATIONS

SAFETY SERVICES
ANNUAL REPORT 2006-2007

SAFETY SERVICES PROGRAMS

SAFETY SERVICES
ANNUAL REPORT 2006-2007

Proper maintenance of equipment to prevent leaks
Periodic personnel exposure and environmental monitoring to determine the effectiveness of the overall waste anesthetic gas control program.

In support of this program, questionnaires were sent to 100 PIs using anesthetic gases to verify use and the conditions associated with use. The program is ongoing and will continue to be a special focus during the coming year. An outside contractor also independently employed to evaluate a laboratory of concern during the initial phases ofDC 0 -12.6 TD(rn)

airborne contaminants in indoor air quality testing. There was no evidence of any mold growth present in the areas.

LEAD MONITORING

Lead monitoring is addressed on a per case basis. For all projects positive for lead-based paint above EPA regulations, a request will be submitted to Customer Service or arrangements will be made by DOES to have the area remediated by an approved contractor. There were 5 cases of lead sampling for the 2006/2007 period. Overall address of IAQ issues is illustrated in Table 11 of the Appendix.

RESPIRATOR PROGRAM

The OSHA Respiratory Protection Program is designed to protect workers from airborne hazards in the absence of feasible engineering controls. Currently, experimental requirements for respiratory protection in CASE laboratories, is limited largely to biological work involving N95 respirators. Chemical protection is only required by a few laboratories. The largest portion of the respiratory protection program is aimed at less controlled areas such as those encountered by emergency response workers and Plant Services Workers. Additional respiratory protection devices are sometimes worn by workers and students on a voluntary basis in anatomy classes and by Animal Resource personnel who attend to animals in the ABSL-3 facility. In the coming year, however, this program will be significantly expanded as part of pandemic influenza planning for the University.

The Respirator Protection Plan includes:

Physical Evaluations
Respirator Training
Fit-Testing
Annual Questionnaire

An inventory of respiratory protection equipment was carried out including 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 been accepting responsibility for cartridge replacements for the Medical school personnel.

Sixty-four workers were trained and reported for Physical Evaluations. Those workers that do not report for physicals are not able to wear respirators and are actively encouraged to complete their certification. The 64 workers that were trained were also fit tested for active use. Workers who do not receive a fit test are users of powered air purifying respirators (PAPR). Use of this type of respiratory protection for this group of

HOOD CERTIFICATION PROGRAM

Security checks are carried out during the evenings and weekends by the DOES 2nd shift Specialist. Special sweeps are done during orange and red alert periods. All buildings, BSL3 facilities, and irradiators are inspected to ensure that they are secured. After-Hours Security Checks of 15 buildings on the campus are conducted every month. A total of 180 security checks were carried out during this fiscal year (Table 16 of the Appendix.) Only minor violations of required security procedures were found, which were documented and reported to the researcher to prevent occurrences in the future.

taken place at CASE, the need for full-scale emergency response compatibility is mandatory. A committee has been assembled to plan exercises leading to an emergency scenario involving CASE personnel and its City and regional partners in Police and Fire Departments, and Emergency Services. Working with Protective Services, DOES has begun to assemble a collaborative network with Cleveland Fire, Cleveland Police, University Heights Police, University Hospitals, and the County Emergency Medical Association (EMA). DOES established representation on the Lake County Emergency Preparedness Committee, the Regional Medical Response System (RMRS) Committee, and the University Hospitals Emergency Preparedness Sub-Committee of the Environment of Care Committee.

RESPONSE EQUIPMENT

A Plant Safety Manual has been compiled, published, and distributed by DOES. This

HOT WORK PERMITS

OSHA requires hot work permits for soldering, welding, and any type of heating operation. The DOES administers this program for Plant personnel and the Contractors. The permit is attained from the SSOF, after an inspection of the site, to check for adequacy, and a fire watch is established on the site. The permit is required to be posted near the site. The permit is issued for a certain time period, which is normally no more than one week.

The Hot Work and Hot Work Permitting Programs were reviewed and revised this year. The program now includes site and equipment inspection as well as training. One hundred and fifty seven short-term permits were issued. Long-term permits that extended over one month were issued that required weekly inspections. Due to the increased volume of Hot Work Permits, DOES will review only Contractor Hot Work permits in the future since the amount of campus construction will decrease during the fiscal year and the Facilities Department will oversee 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 20 of the Appendix.

CONTRACTOR OVERSIGHT

The Plant Safety Specialist carried out on-site inspections and monitoring of contractor safety practices and programs. Contractors completed more than 181 projects with oversight by a DOES representative. 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 efficinittsid1sn-3(al)6a4G the ()13(t)6s(i)5(t)-4(N-3(al)s)3(oj)-6(ec)14(A)4(pp)3(ep)3p(l)-4(n

materials associated with moves from one on-site facility to another. Disposal site waste distribution and recycling are shown in Table 21 & 22 of the Appendix.

MANAGEMENT CENTER WASTE DISTRIBUTION

MANAGEMENT CENTER	ARTS/ SCIENCE	ENGINEERING	DENTAL SCHOOL	MEDICAL SCHOOL

SAFETY SERVICES
ANNUAL REPORT 2006-2007

SUMMARY

DEPARTMENTAL STRENGTHS

The SSOF operations requires a staff with broad and diverse backgrounds that can address and resolve a wide range of issues faced in Chemical and Biological Safety at CASE. DOES has developed programs that meet or exceed regulatory requirements in all critical safety areas and proactively anticipates new safety regulations.

DEPARTMENTAL OPPORTUNITIES

Established DOES safety programs continually evolve to meet requirements of governmentally mandated safety initiatives. The DOES also continues to enjoy an excellent cooperative interaction with other University departments that are developing safety-
augmented the quality of its environmental programs.

ACCOMPLISHMENTS FOR 2006-2007

Notable new accomplishments included:

Significant attention was directed toward solidification of EPA programs for all programs with particular attention paid to simplifying waste handling in laboratories through provision of satellite containers and training of laboratory workers to utilize satellite container rules when storing waste before its disposal by the University's waste handling vendor. This program has resulted in a significant reduction in areas liable to assessment of violations by regulating authorities through mislabeling of containers and incorrect storage of chemical waste. The rest of the EPA program was also reviewed for any deficiencies and alterations in the program made wherever improvement was needed. Plant Services and the Safety Department's Waste Management Coordinator worked effectively together to ensure that waste areas and accumulation sites meet mandates of all EPA regulations on a continuing basis. A special emphasis was placed on managing DOT and IATA shipments of hazardous materials to ensure compliance in this important area of safety management.

Plant services personnel and administrators responsible for setting the schedule for laboratory moves throughout the University worked effectively together to ensure that an exceptionally large number of laboratory moves could be accomplished smoothly.

The laboratory inspection program was given special emphasis in 2006 that continues into 2007.

will form the basis of SOP review and new program development in the coming year for all safety programs with special emphasis on the laboratory safety program.
Additional training in National Incident Management Systems was obtained to better prepare DOES staff member for incident response and to improve their ability to respond to large disasters that might be imposed by events such as long term power failures and pandemic influenza.
Enhanced programs in Pipeline and Department of Transportation (DOT) and International Air Transport Authority (IATA) training and shipping were developed and implemented. This program is now the responsibility of a transportation specialist and a backup specialist who will work with all University personnel to solve shipping problems and to ensure that shipping of hazardous materials occurs in compliance with government regulations.
The process of review continued for all Safety Services programs.

GOALS FOR 2007-2008

The principal goal for 2007-2008 will be to review all programs and to re-examine or establish appropriate metrics and benchmarks for these programs. Clearly, one of the important benchmarks is established by outside regulatory agencies for Case Western Reserve University's safety programs and it is clear from Inspection results in the first part of this new fiscal year that by these metrics, our programs are performing well. Just as important, however, are benchmarks and metrics that can be provided by our "customers", students, faculty and staff of the University, and by our partners in Plant Services, Protective Services and the University Administration. In this spirit DOES will approach the following goals in 2007-2008.

DOES strives to improve both safety awareness and safety performance for the University as a whole. Success in these programs can be measured in terms of reduced numbers of accidents and fewer violations found during safety inspections throughout the University.
Procedures for the laboratory inspection program will be reviewed and the goals and benchmarks of this program will be re-evaluated during 2007-2008.
DOES provides a large number of training opportunities for University students, staff and faculty involved in laboratory research. An effort will be made during this year to evaluate the effectiveness of these training programs through questionnaires following training sessions, on-line presentations and examination of training effectiveness at the program level as indicated by the laboratory inspection program.
DOES moves into its first year of its reorganized DOT and IATA program. Special attention will be paid 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. Attempts will be made over the coming year to consolidate these efforts and to provide for continuity of planning for large emergencies at the University.
The Department as a whole will review all of its Standard Operating Procedures to provide for continuity in Departmental operations and as a basis for benchmarking of Departmental operations.
The Department will continue its efforts to work with responding agencies like fire, police and health departments off campus to ensure coordination of our safety efforts. Enhancement of National Incident Management Training for our Employees will support this effort. The University has enjoyed good relationships in its safety efforts with Case University Hospitals. The Case Western Reserve University Safety programs will continue their stewardship of these programs to ensure that safety efforts with our neighboring and collaborating Institution continue to thrive.

HOODS

LSC AUDIT COMMENT

The program was found to be in good order. However, as of the date of this audit (May 16, 2007) 370 of 715 chemical hoods and 175 of 350 biological hoods were not compliant in terms of recertification.

SSOF RESPONSE

Following the hood schedule, the data is consistent with where the hood-testing program should have been at the time of the audit. This program is audited during inspections to find hoods that might have fallen off the schedule.

An outside company tests biological safety hoods. DOES only facilitates putting the PI and the company in contact. This program is audited during inspections.

BLOODBORNE PATHOGEN PROGRAM

LSC AUDIT COMMENT

Records were in good order and easily accessible. As of the date of this audit (March 1, 2007), 32 PIs and 418 other personnel were late in meeting the annual retraining requirements.

SSOF RESPONSE

The personnel that were past due in training were contacted and training for most of these individuals was updated by the time of this report. Delinquent personnel receive reminders alerting them that their experiments in specific areas where training is incomplete in the laboratory program must be discontinued until training is updated. Further, no new animal protocols are approved until all involved personnel are up-to-date in all training areas.

INDUSTRIAL HYGIENE AND INDOOR AIR QUALITY PROGRAM

LSC AUDIT COMMENT

The program was found to be operating well, and no suggestions for improvement were made.

SSOF RESPONSE

No response required.

TRAINING

LSC AUDIT COMMENT

All employees, including faculty, are included in the program and it was found to be in good working order. A good system for identifying individuals in need of training is in operation. During the past year 4276 were trained in Laboratory Safety, 246 in Hazard Communication (Right-To-Know), and 1586 in Bloodborne Pathogen training.

SSOF RESPONSE

No response required.

RESPIRATORS

LSC AUDIT COMMENT

The respirator program was found to be a well-run program. Only one deficiency was noted involving a piece of equipment for which calibration was out of date for 2 months.

SSOF RESPONSE

The past due piece of equipment was mailed to the vendor for calibration.

HAZARDOUS MATERIALS SHIPMENT & DOT TRAINING

LSC AUDIT COMMENT

Training and record keeping within DOES are well organized. However, record keeping within individual laboratories is not always up to standard. It is suggested that individual laboratories be required to demonstrate acceptable record keeping before re-certification is granted.

SSOF RESPONSE

The DOT Specialist will concentrate more on the training of these individuals in record keeping for the laboratory safety standard programs.

SUMMARY

LSC AUDIT COMMENT

Overall, DOES oversees an extensive program covering large employee and student populations. Increased use of databases, with monthly reporting capabilities, will improve the overall efficiency of the Department.

SSOF RESPONSE

The Safety Services Office thanks the Laboratory Safety Committee for its time and helpful scrutiny.

DOES INTERNAL AUDITS

In addition to audits conducted by the Laboratory Safety Committee, the Quality Assurance Specialist reviews all programs and records on a periodic basis, and assists with resolving compliance issues in the Safety Services Office. Internal audits are conducted to support program effectiveness and efficient operation. These audits have resulted in several program enhancements.

INTERNAL AUDITS

Chemical Hygiene Plans
Training
Biohoods
Hazard Communication Plan
Indoor Air Quality
Clearances
Hazardous Waste
Website Accuracy
Research Protocols
DOT Shipments
Select Agents
Exposure Control Plans
Chemical Hoods
Bloodborne Pathogens
Industrial Hygiene
Respirators
Regulated Chemicals
Incidents
Inspection Reports
Infectious Material Shipment
Laboratory/ Waste Facility
License/ Registration

This is a multi-step process involving interactive feedback with review of materials on at least a yearly basis by the instructors, and constant updates when regulatory changes are mandated. Additionally, the format of the training is based on the media in which it is presented. For in-person training, handouts, props, and other items exhibit items are used to increase interest and retention of the material being taught. For on-line retraining, voiceovers, movies, clips, and other non-static items are increasingly being employed.

Review and follow-up to ensure up-to-date training of Safety Services personnel in Radiation, X-Ray, and Laser Safety will be carried out on a monthly basis by the SSOF to ensure that all have attended the appropriate training. The DOES Radiation Safety Group trains all users of radioactive materials, radiation producing materials and lasers at the University.

There are now several groupings of respiratory users; Plant Services, DOES, Laboratory, BSL3, and Pandemic Flu. Each of these groups has its own list of individuals that are tracked in the DOES training database.

A Construction/Plant Specialist covers the respirator use training needs of the Plant Services group, and a Specialist for the Respirator Program tracks all of the other groups using respirators on the campus. Fit testing is conducted by the Respirator Program Specialists. DOES is striving to move as much of the retraining/fit testing program as possible to a common date. At the present time, each person has a different training. This situation complicates tracking for assurance that all required training is completed within each year.

A new use group, prospective Pandemic influenza responders, has been added to the respiratory program. This involves nearly every person in the Administration. At present, physical evaluations, training, and fit testing is being conducted. The majority of these users will be completed by the end of this fiscal year.

A side benefit of the Pandemic Flu N95 training is that nearly all Administrative personnel will have completed the medical and training portions of the respiratory program. This adds flexibility to the Security and Plant groups in that only a fit test is required to fit them with additional types of respiratory protection such as half and full-face respirators.

The above listed administrative entities will be trained in groups by DOES Specialists during pre-scheduled monthly training schedules. A topic list will be developed and published each year to cover the required training sessions. Training sessions will be held at the Cedar Avenue Service Center.

Additional specialized training with smaller groups will be held on the following topics: Biowaste Handling, Select Agents, Radiological Awareness, Tow Motor, and Lift Truck.

HAZARDOUS WASTE DISPOSAL

<u>Recommendations</u>

Clarify pink sheet waste tracking form entries:

Ensure that the return date is stamped on the pink sheet
Ensure the shipped date on pink sheet is the same as on the manifest log.
Ensure that return date is on manifest log
Ensure that pink sheets are filed properly

SSOF Response

When hazardous waste is picked up from the laboratories, the pink sheets are returned to the office with all signatures in place. These sheets are given to the DOES administrative staff to be scanned into PDF format for storage on the DOES main server. Prior to scanning, the sheets are date stamped. Once the pink sheets are scanned, the sheets are bundled with the manifests that correspond to the dates of the waste picked up for disposal that is listed on the manifests. The required official records are the manifests, and the waste sheets only serve as tracking and inventory devices to ensure accuracy of the final Manifest form. This method of tracking has worked well with no errors for more than 10 years and is understood by all involved staff.

BIOHOOD PROGRAM (LCS)

Recommendations

Ensure biohoods are recertified annually
Ensure that LCS data matches the CASE log

SSOF Response

An outside certification company, ki-3(g)--cecompacompad5(de)sg13(nse)

The Liaison program is designed to allow an informal communication mechanism between DOES and the research community. Each DOES staff member is assigned to a building with laboratories. This program was established to ensure that all laboratory workers know a Safety Department member they can call for quick action if any problems arise. The recommendations above define the goals of this program and every effort will be made to make sure these expectations are met in the coming year.

In this context, a formal report of liaison activities is due ducv>co[(ev)14(o)13(r3(l)8(i)5(s))-213(f)13(r3

Ensure that researchers with regulated chemicals on chemical list receive a Regulated Chemical Questionnaire

SSOF Response

Each research group is required to update their CHP/ECP yearly. This is verified during laboratory inspections.

The content of CHP/ECP is not reviewed by DOES staff since it depends heavily on individual laboratory expertise, but it is reviewed to make sure that there is an appropriate response in each section.

When a yearly update is received, or at the time of inspection, training records for the members of a research group are verified to make sure they are current with regards to regulatory training obligations.

DOES keeps a list of all investigators. This list is used to generate a mailing list. Yearly, a questionnaire for regulated chemicals and select agents survey form is sent out to the research community. The responses are tabulated. If regulated chemicals or select agents are anticipated for use they are checked against existing databases of users. If new users are identified, they are contacted and instructed in compliance issues for these programs.

INSPECTION REPORTS

There are 45 buildings on the campus that are inspected by the DOES. Typically each building is inspected annually. However, inspections were limited to 24 buildings due to staff reduction. Of the 45 buildings, 24 were inspected either partially or completely during 2006. In 2007 DOES anticipates completion of inspection of all buildings. All areas of the building are inspected to ensure compliance with Federal, State, and Local regulations as well as CASE and the DOES guidelines.

The 24 buildings that were inspected include:
AW Smith, Bingham, Bolwell, BRB, CASC, CCSB, DeGrace Hall, FP Bolton (Nursing), Glennan, HG Wood, Lerner Tower, MacDonald, Med East (Robbins), Millis, Morley, Olin, RBC, Research Tower (RT), Sears Tower, Service Bldg., UCRC II, Univ. West (Bioenterprise), Wearn, White, & Wolstein.

The buildings that were not inspected include:
Art Studio, Bishop, CCF, Clapp, Clark, Dental, Hanna Pavilion, Health Services, Kent Hale Smith, Lowman, Mather Gym, Mather Memorial, MetroHealth, Pathology, Rad Waste Facility, Rockefeller, Sears Building, Squire Valleevue Farm, Strosacker, VA Hospital, West Quad, & Wickenden.

Correspondence is sent via email to each researcher that has not returned the inspection reports as stated in the Safety Services Internal Operating Procedure. Correspondence is sent at least three times then in the fourth correspondence the chairman is copied. In the fifth correspondence the DOES Director personally calls

delinquent researcher. In subsequent correspondence the Dean, Provost, and Vice President will be copied and requested to intervene.

By the end of 2006, the DOES inspectors had completed 2558 inspections that required procedural corrections and follow-up. By early 2007, essentially all of these issues were resolved.

Prepared by Felice Thornton-Porter on 9/21/2007.

APPENDIX

SAFETY SERVICES

Respirator	44	103	73	118	70
Vehicle Safety	156	98	128	135	
Fire Extinguisher	75	75	72	60	
Plant	70	240	280	282	
BSL3	29	38	39	49	
DOT/IATA Shipping	55	168	26	15	4

Personal Multigas Monitor				
MultiRae Personal Multigas Monitor	PGM50-5P	095-518200	Annually	3/1/2007
Rotameter	MMA-25		Annually	Out of Service
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 Technologies Sound Level Meter	2900	CDD010048	Annually	7/1/2008

TABLE 8 - Inspection Statistics

rooms, tissue culture facilities, and animal rooms. All areas are inspected to ensure proper storage and maintenance as well as to document changes in use of a room.

BUILDING NAME	ROOMS INSPECTED IN 2006/07
ART STUDIO	32
AW SMITH	125
BINGHAM	143
BISHOP	20
BOLWELL	19
BIOMEDICAL RESEARCH BLDG.	876
CLEVELAND CLINIC FOUNDATION	0
CEDAR AVENUE SERVICE CENTER	34
CLAPP	30
CLARK	0
DEGRACE (BIOLOGY)	42
DENTAL	

TABLE 9 - Inspection Results

INSPECTION FINDINGS:

CORRECTED BY LA BORATORY

Update Chemical Hygiene Plan	398
Update Exposure Control Plan	307
Improper Storage	293
Need Caution sign & Emergency Info	273
Needs Flammable Storage Cabinet	225
Update Manuals	182
Improper Storage of Flammables	145
Cylinders Found	122
Need Personal Protective Equipment (PPE)	115
Biohazards found	111
Regulated Chemicals found	107
Bloodborne Pathogens found	89
Needs Chemical Compatibility	76
Food/ Drink found	50
Sharps found	35
Need cylinder secured	30
Lasers Found	19
UV Found	17
Need cylinder capped	13
Need Respirator	7
X-Rays found	5
Need regulator on cylinder	1

CORRECTED BY DOES8.9t4(ioh)6LP]TJ-35.996 -9.1[( )-5ial13c(ibis)13(/5(ink)9( )-5(R)6(o)19(m(h)4va)4(z)7((ibis(1)1875-1483( )-4200( )-4200( )]T
Rsetf13(it)-6(y9 S)-5(P)-4fa(h)4(a)19(t)-6(y-6(Td[(S)-4o)-6w)21[seo 19

2 Tc 216.03 061d(13)Tj0 Tc 8.9 0 Td[( )-3095( )]TJ-224.93 -9.12 Td[(R)6pg)4a)-6(p(y)7(s)-5( )-767( )-4200( )-4203( )-4200( )-4200( )]TJ-0.0302 Tc 216.03 04Td(35)Tj0 Tc 8.9

TABLE 10 - Regulated Chemical Trends

REGULATED CHEMICAL	06/07	05/06	04/05
1,3 Butadiene	1	1	0
4-Dimethylaminoazobenzene	2	2	0
Acrylonitrile	1	1	1
Benzene	25	6	17
Benzidine	7	0	0
Beta-Propiolactone	1	0	0
Cadmium			

TABLE 13 - Hood Certification Statistics

ASHRAE TEST	2007	2006	2005	2004	2003	2002	2001
PASS	13	6	90	20	65	58	149
RESTRICTED	0	7	17	3	17	21	54
FAILED	0	0	0	4	16	15	17
N/A	0	0	0	0	0	0	1
TOTAL	13	13	107	27	98	95	221

VELOCITY TEST	2007	2006	2005	2004	2003	2002
SATISFACTORY	527	156	296	121	431	0
RESTRICTED	184	35	106	92	140	0
INOPERATIVE	33	6	55	39	58	1
TOTAL	744	197	457	252	629	1

TABLE 18 - Incident Trends

INCIDENTS	06/07	05/06	04/05
INDOOR AIR QUALITY	3	0	2
ODOR	54	49	107
ASBESTOS	0	38	15
MOLD/ FUNGUS	3	19	18
WATER SAMPLING	0	0	14
NOISE			

NOIS493.51TW* n BT /12 4.344 9.12 re W* 495.31 T1 8.FLOOD.7 EMC493.51TW* n BT /12 8.04 Tf .94 94.344 9.12 r57.7 495.31 T1 q 219.77 609
TW* n BT /264 94.344 9.12 re W* 534.221T1 8.OTH1.-4 Tj ET EMC532.27TW* n BT /264 8.04 Tf .94 94.344 9.12 r544 6 534.221T1 q 21
W* n BT /12 8 .344 9.12 re W* 553.5.1T1 8.FORMAL.4 6TY)-4(D.6T1.74 Td ( )Tj ET EMC551.7. W* n BT /12 8.04 Tf .94 94.344 9.12 r96.
W* n BT /T1 8 .344 9.12 re W* 572.98TT1 8.WAST 02. L2(A)-4(L.74 Td ( )Tj ET EMC578 r6 W* n BT /T1 8.04 Tf .94 94.344 9.12 206078

Foot Protection (Pair)

TABLE 21 - DISPOSAL SITE WASTE DISTRIBUTION

WASTE TYPE	ARTS/ SCIENCE	ENGINEERING	DENTAL	MEDICINE	CASC	WOLSTEIN
CONTAINERS, <1 GAL (#)	2065	2058	1181	5221	307	454
CONTAINERS, UNKNOWNS (#)	53	221	11	266	11	0
CONTAINERS (DIRECT INCINERATION) (#)	90	76	42	229	0	9
CYLINDERS (#)	7					