

ENVIRONMENTAL HEALTH AND SAFETY

Case Western Reserve University, Department of Environmental Health and Safety
Annual Report 2019-2020

*Annual Report
2020-2021*

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Mission Statement

Case Western Reserve University Department of Environmental Health and Safety

We protect the Environment and the university by acting in a regulatory responsible manner that both respects personnel and the research objectives of the community

We protect the Health and Safety of the CWRU community by providing the support and knowledge required to maintain a healthy and safe workplace

Notable Accomplishments 2020-2021

ACCOMPLISHMENTS

Completed full inventory and roll out of lockout tag out on campus
Completed full cataloging of all lab spaces on campus
Enhanced Integrity of EHS Training Database
Enhanced Training Notification Program
Completed Policy Review of All EHS Documents and Policies
Finished Beta of Electronic Portal for PIs
Completed Beta of Electronic CHP/ECP and Chemical Inventory

PROGRAM CHANGES:

Moved all course to online in response to COVID19

AGENCY INSPECTIONS

CDC BSL3/ABSL3: No Issues

NEORSD Mercury Program: No Issues

BUSTER-Underground Storage Tank inspection: No issues

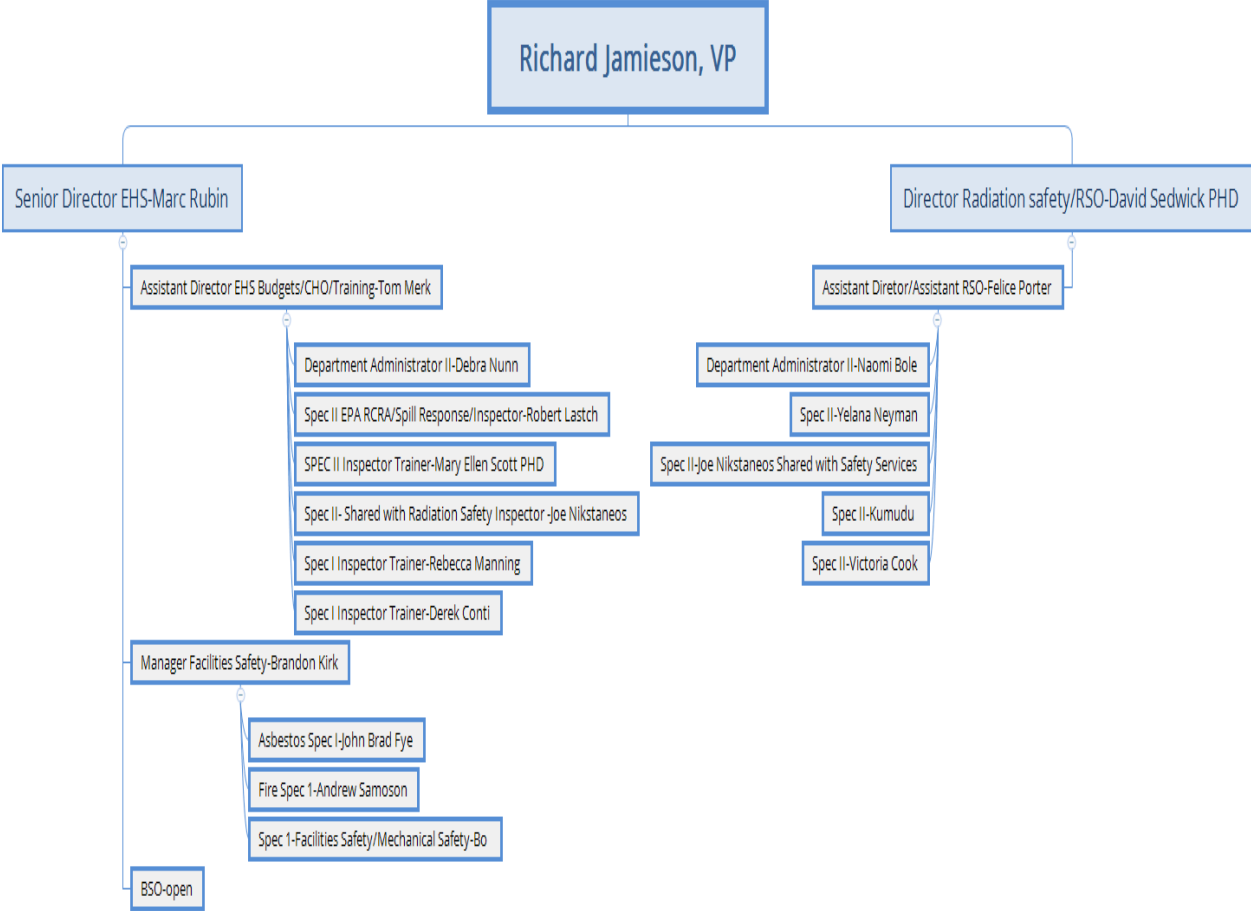
OSHA: No issues

OBJECTIVES 2020-2021

EHS Objectives: Each year EHS strives to develop a portion of the many programs for which it has responsibility. The follow global objectives are set for the calendar year 2020-2021

- 1) Maintain Regulatory Compliance
- 2) Enhance Training enforcement
- 3) Continue Summary Reporting to Pls, Chairs, and Deans
- 4) Continue Laboratory Inspection program
- 5) Implement electronic CHP/ECP and Chemical Inventory documents

Organizational Chart 2020-2021



DEPARTMENT DESCRIPTION

The Department of Environmental Health and Safety is charged with maintaining a safe work environment for more than 6,000 employees and 10,000 undergraduate and graduate students who work and/or live in over 100 buildings at CWRU and at 5 other major Northeastern Ohio research locations. In addition to the Ohio-based research, EHS shares safety responsibility for its personnel in locations worldwide.

EHS works to balance federal, state and local safety regulations with the requirements of research. At times, these tasks appear to conflict with each other and require innovation to achieve the needs of both a safe work environment and productive research community. EHS's customer service approach distinguishes its activities from the strict regulator approaches of yesteryear.

Dissemination of safety information is accomplished through cooperative interactions with its customers (faculty, staff and students) through, formal training, consultation, and safety document creation and maintenance, inspection and oversight activities that are encompassed in the activities of the EHS department. Audit through inspection acts as the feedback mechanism used to measure the level of compliance and the level of community understanding achieved through departmental education and consult efforts.

In a complex environment, however, accidents sometimes occur. In these cases, EHS is called upon for emergency response, mitigation of hazardous situations and forward planning where possible to avoid similar future incidents. Departmental services in and following emergencies include in house hazmat response as well as planning with external agencies for larger emergency situations. EHS works closely with internal emergency management, plant, police and security departments as well as with external agencies to generate cooperative plans and responses. Part of this effort with external agencies is directed toward familiarizing governmental regulatory and response organizations with our institutional resources and response workers. This effort provides needed groundwork for synergistic responses during emergencies.

EHS is staffed by three main sub-groups that encompass Biological/Chemical safety, Facilities/Fire/Life Safety/Construction, and Radiation safety concerns.

Biological Safety

The Biosafety program at CWRU employs a multifaceted approach to ensure safe and responsible laboratory practices while maintaining compliance with the various Regulatory agencies to whom we are responsible. The program consists of the following areas:

Maintain compliance with NIH, OSHA, CDC, USDA, DOT, FAA, DHS and DEA regulations as they pertain to training, handling, transporting, storage, and shipping biological materials and DEA Controlled Substances.

Work with laboratories to prepare for USDA and CDC permitting inspections

Review of Exposure Control Plans, IBC protocols and IACUC protocols for the use of biohazardous materials and to ensure proper controls and procedures are in place to protect researchers as well as the greater University community.

Educate investigators on the biological hazards in their laboratories, current Best Practices, post exposure measures and changing Regulations.

Collaborate with University Health Services to provide a robust Occupation Health Monitoring program including recommended prophylaxis and post-exposure treatments based on specific biohazards.

Provide personal consultations on best work practices, engineering controls and personal protective equipment based on specific biological hazards.

Ensure proper function of and decommissioning of the High Containment (BSL-3) Laboratories on Campus.

Maintain an up-to-date inventory of the Biohazardous Materials on the CWRU campus.

Provide specific training and work practice recommendations to the Animal Resource Center staff who will come in contact with contaminated materials.

Develop written policies on the handling of specific Biohazardous materials

Goals achieved

- ECP has been converted to an electronic format for Onsite but needs implementation
- Prepared safety guidance for SARS2/COVID19 research

Goals for 20/21

- Review and update online annual training
- Complete assessments of biomedical laboratories for compliance with the CDC BSL2 checklist
- Prepare the high containment laboratory space in the vivarium for SARS2 experiments

Inspection-Laboratory

A physical inventory of all SOM buildings was conducted to obtain an accurate room count and type count. This was used as the basis of the inspection schedule for 2020-2021.

COVID slowed but did not stop the 2020-2021 inspections. Inspections were completed in March 2021 rather than December 2020.

Goals achieved

- All laboratory containing buildings on the Case Quad have been inventoried for room type and location. EHS now has an accurate count of actual laboratory and work space, as well as total number of rooms.
- A thorough assessment of these spaces was completed and inspection reports written for laboratory and work spaces.

Goals for 21/22

- Complete assessments of biomedical laboratories for compliance with the CDC BSL2 checklist in addition to the standard EHS checklist.
- Hire in new Biological Safety Officer
- Update Biosafety Training
- Separate NIH and OSHA section of Biosafety Training.

Infectious Waste Program

Infectious waste transport is regulated by DOT as a Hazardous Material. Infectious Waste collection, treatment, and disposal is regulated by local and state regulations. Custodial Building Service Workers (BSWs) collect the bulk of infectious waste. A special group of BSW's are trained to collect and remove these waste. Regular BSW's receive training in Infectious waste collection and removal as well as the OSHA blood borne pathogens standard. CWRU registers with the State of Ohio as a Generator, Transporter or Treatment, Storage & Disposal, (TSDF) of infectious waste. The CWRU infectious waste permit allows the University to Generate, Store, Treat and Transport infectious Waste.

CWRUs current infectious waste disposal vendor is MedWaste Ohio. MedWaste Ohio transports containers of collected infectious waste to their facility where they are combined with other waste and transferred to Daniels Incineration in Michigan for final disposal.

The Infectious Waste Areas are inspected once every 7 days.

A copy of the Facility Management Plan which includes; Copies of the Ohio Infectious Waste Regulations, Spill Procedure, Contingency Plan, Infectious Waste Permit and Emergency Phone Numbers. The Facility management Plan is kept in the EHS offices.

Chemical Safety

CHP Program

The Chemical Hygiene Plan is a required OSHA document that describes the specifics of requirements for safety in each laboratory. This document is required by law to be specific to the work conducted in each laboratory. The contents of CHP must be available to all workers in each laboratory and training must be held with each worker upon starting work in the laboratory or upon a change in the plan.

The CHP must be reviewed on an annual basis or upon a change in the plan. Changes to the plan must be communicated immediately to all laboratory workers. Documentation of the laboratory specific training must be kept along with an outline of the training. Typically this is accomplished with a sign in sheet acknowledging the training and an outline of the training.

EHS is moving to an electronic system to track and store as well as share the CHP. Historically the CHP has been paper based. As part of this move, an in-depth review of the individual components within the Chemical Hygiene Plan is being conducted by EHS to assure the suitability of the electronic template.

Chemical Fume Hood Program

In compliance with OSHA's Laboratory standard (29 CFR 1910.1450), fume hoods must be maintained and function properly when used, EHS annually tests existing hoods and provides ASHRAE [NJA1] testing for new fume hoods through our Chemical Hood Program. Additionally, the program offers hands-on guidance for correct fume hood use by demonstrating the proper sash operating level, making sure that the air gauge indicates that the airflow is within the required range and guidance for correct placement of items into the workspace. This process ensures adequate airflow, containment, and energy savings. Through testing and hood inspection, EHS works with Facilities [NJA2] ensuring that fume hoods and other protective ventilation equipment are functioning correctly.

CWRU has close to 700 fume hoods in the research facilities across campus, all of which were tested as scheduled, including the ASHRAE certification for new hoods until school closure during the 2019-2020 year.

Fume hoods are often the primary control device for protecting laboratory workers and are energy hungry. EHS, along with many other universities, has implemented "Shut the Sash" programs which have been effective in lowering energy costs and increasing safety. EHS and the Facilities continue to work together in using these innovations in fume hood technology and design work to reduce airflow through fume hoods while maintaining safety [NJA3]

From 2015 until now, EHS has provided a detailed report that details the status of a fume hood and associated system. This generates valuable data for Facilities on needed repairs and systems deficiencies.

Hazardous Materials Shipping Program

The Department of Transportation (DOT) and the International Air Transport Association (IATA) established the regulations for the shipping of hazardous materials or dangerous goods. To comply with the regulations, EHS provides in-class hazardous materials shipper's training so that Case employees are certified to ship hazardous materials. A certificate is provided, which is valid for two years. Our training covers classification, packaging, labeling, and preparing shipping documents for domestic and international shipments. Additionally, EHS offers online training for shippers who ship materials not regulated by DOT or IATA on dry ice.

Our program also coordinates with the University's Compliance program. Before shipping abroad, the shipper must determine if a Material Transfer Agreement (MTA) is required. As needed, EHS will match the requested shipment with the signed MTA and determine if the shipment is international. Visual compliance is a web-based tool that EHS currently uses to conduct a Restricted Party and Specially Designated Nationals Screening. EHS analyzes the shipment in light of the export regulations and determines whether the shipment can proceed immediately, or whether federal pre-authorization is required. As needed, permits and customs protocols are obtained, and shipping documents are prepared using FedEx as the CWRU approved operator, although other operators are used if required.

Upgrades planned for the program are to develop snapshots of shipping procedures for materials most often shipped, including exempt materials, excepted materials, de-minimis quantities, and guidelines on materials transported by hand.

Ergonomics program:

The field of ergonomics is defined as an applied science concerned with the design and arrangement of work environments in order to mitigate the possibility of hurt in the workplace. The goal of ergonomics here on campus focuses the implementation of administrative and engineering controls to prevent physical discomfort for Case Western Reserve University faculty, staff, and students.

A new ergonomics assessment protocol focusing primarily on how risk factors can be avoided in the workplace has been established. Risk factors are consistent modes of work that lead to strain. These can include: repetition, static work postures, and over extension. The current ergonomics assessment includes a risk factor assessment, which is completed by the CWRU member in order to gauge specific risk factors associated with the employee's work environment. In addition, the risk factor assessment offers the requester an opportunity to be hands-on in documenting their pains and discomforts.

Research is completed to determine what recommendations are required. Recommendations can include office supplies or equipment, desk stretches, or desk organization modifications. A post-assessment summary provides suggestions to improve the ergonomics of the workstation, follow-up scheduling, and goals to complete before the next follow-up. The requester's supervisor receives the post-assessment, along with a detailed email explaining why each item is recommended. EHS recommends every employee consultant their personal physician about reported issues.

Due to the repetitious nature of various positions on campus, aches and pains can arise gradually from everyday work practices. The ergonomics assessment program is a fundamental resource available to the CWRU community, serving as an educational tool as well as a standard for identifying potential work risks.

Goals accomplished 2020-2021

Updated previous Faculty Departure Appendix C: Wet Research Lab/Hazardous Materials/Biological Samples Created & Organized [excel spreadsheet of PI's](#) that have left the university or relocated
Created standard general clearance, cold room repair, and laboratory relocation procedures
Completed conference calls with MouseTrapper and Ergotron to obtain discounted pricing on ergonomics products for CWRU faculty and staff

Respiratory protection

EHS works closely with various departments to develop or maintain respiratory protection programs in compliance with current OSHA regulations. An understanding of the hazard, job requirements, and potential exposure is evaluated to ensure that the appropriate regulatory standard is followed. The department provides training, medical evaluations and respirator fit testing for personnel who require respirators during their work. We have also worked closely with various departments to evaluate the risks and potential exposures to employees.

The department continues to provide medical evaluations, training, and fit testing of medical students who are required to wear N95 respirators during their away rotations, typically in the third year. EHS also continues to support the excellent respirator program in place for the Animal Resource Center personnel, including researchers using the BSL3 facilities. The department works closely with researchers and ARC staff to determine the appropriate level of respiratory protection based on a review of potential hazards, job responsibilities, and working conditions. Additional respirator programs have been established in 2020 for the Dental School and University Health Services for protection against potential exposures to COVID 19.

Due to the global pandemic, EHS has indefinitely moved all respirator training to online format. This decision was made to accommodate the predicted, major influx of 400-500 new respirator users that will be entering the OSHA respirator program due to job hazards associated with COVID-19 as well as to maximize social distancing. Procedural changes were also made to the fit testing protocol in effort to eliminate potential exposures from fit-testing equipment.

EHS worked closely with Procurement and Distribution Services to convert the university from 3M N95 respirators to Moldex N95 respirators. This change was necessary to ensure that the university would be able to maintain a supply of N95 respirators as hospitals and first responders were prioritized over research institutions for distribution of 3M branded respirators. The university has been able to maintain a sufficient supply of N95 respirators since the conversion was made.

Goals accomplished 2020-2021:

- Accommodate the large influx of respirator users
- Changed certification process to ensure medical clearance, training, and fit testing are done in chronological order.
- Move all training to Canvas to allow more time to fit test individuals and maintain social distancing
- Switch from 3M N95 Respirators to Moldex N95 respirators
- Procedural changes to fit-testing protocol to aide in sanitary piece of mind
- Improved record keeping by scanning all fit test forms and filing them by date on U-Drive
- Increased user base due to COVID to over 400
- Implemented a large scale Voluntary User program

Goals for 2021-2022

- Continue to support COVID operations and N95 use in Dental and UHC
- Assist with satellite respirator programs in Houston and Washington DC anesthesia programs
- Expand capabilities and buy more equipment to adjust program to new larger size.

Hazardous Chemical Waste

There are over 1500 locations around campus that generate chemical wastes.

Chemical waste collection can be subdivided into several types of chemical waste, "Hazardous Waste", Hazardous Chemical Wastes, Non-Hazardous Chemical Wastes, Fluorescent lamps, used oil and Polychlorinated Biphenyl, (PCB), wastes.

Government agencies that oversee Chemical Wastes for disposal and removal include; OSHA, EPA, TSCA, ODH, DOT, IATA, FAA, EAR, ITAR, DHS, DEA, DOD, NFPA, USCG, as well as local and state agencies.

Chemical wastes are collected Research Laboratories, Plant Services, Custodial Services, Contractor Generated Wastes, Hospital Clinical Laboratories and Incubator Companies on Campus. Turnaround time is to have chemicals removed within one week of the request.

The Bi-annual Generators reports was submitted to Ohio EPA before the February 29, 2020 deadline for 2019. The next report will be due February 29, 2022 for the 2021 year.

Campus personnel are introduced to chemical waste disposal systems as a part of general safety programs such as Laboratory Safety, Biosafety and Hazard Communication.

Custodial Services receives annual training on dealing with chemical wastes.

Chemical Waste Disposal consists of the following sequence, the lab requests chemical waste removal and a Vendor is used to collect and pack chemical wastes for shipment within one week of the request.

Special projects will happen when a lab leaves, an area undergoes renovation or an unusual event occurs. Nine special projects were initiated and completed this year.

Goals for 2020 were met with chemical wastes being collected and removed from areas within one week of notification to EHS. Chemical wastes were packed and shipped off campus about every 6 weeks.

Goals for 2021-2022

- Continue chemical waste collection and removal in a timely manner.
- Continue to work with Schools to combine wastes for lower pricing
- Work with vendor to establish lower pricing
- Hire new Hazardous Waste specialist (old one is retiring)
- Start looking at electronic order system

Facilities/Fire/Construction Safety Programs

Facilities Safety

The facilities safety program at CWRU is responsible for the health and safety of all plant and maintenance staff members. The facility safety program must ensure those members are in compliance with local, state, and federal health and safety standards while performing their daily work tasks. This program includes:

- Providing OSHA, EPA, DOT, and other training as required by law. This includes right to know, confined space entry, drivers training, lock-out tag-out, fall protection, injury prevention, and many other topics annually.
- Provides lift truck and powered industrial equipment training.
- Provide training in hazardous materials handling such as asbestos, lead, mold, and chemical waste.
- Conducts inspection and remediation for lead, asbestos, and mold.
- Conducts Job Safety Analysis of all facilities worker functions.
- Providing in-the-field assistance to all maintenance personnel regularly as well as when a safety concern arises.
- Conducts accident and injury investigations and performs root cause analysis to prevent reoccurrence of the incident.
- Provide respiratory and hearing protection training and equipment selection.
- Supervises the entry of facilities personnel into confined spaces.
- Reviews MSDS sheets of materials used on campus for safe application.
- Conducts crane inspection and foundry inspection annually to maintain compliance with the OSHA crane and hoist standard.

Goals Achieved Fiscal Year 2020

- Restarted our in-person monthly safety meetings.
- Reimplemented the Safety “Shoemobile” program. We will have a shoe truck on campus annually so that the maintenance workers can easily access new working shoes.
- Conducted our annual specific training Lock-out Tag-out for all authorized employees. This consisted of a 90-minute classroom session and a 90 minutes field session. In the field, each authorized employee demonstrated competence on our Lock-Out Tag-Out procedures.
- Updated the Facilities Safety written programs in accordance with OSHA standards.
- Completed the annual hearing conservation audiograms for the affected 120 employees.

Goals for Fiscal Year 2021-2022

- Complete Maintenance Zone chemical inventories.
- Upload all the Facilities Safety written programs to the EHS website.
- Conduct Mock OSHA audits for all maintenance zones.
- Review the LOTO procedures created in 2019.
- Continue to provide in-the-field consultation to all maintenance personnel regularly as well as when a safety concern arises.

Fire Safety

The Fire and Life Safety Program at CWRU is tasked with the following:

- Hot Work Inspections: brazing, cutting, grinding, soldering, torch applied roofing, welding, etc.)
- Red Tag: anytime fire protection equipment is taken out of services for any reason a red tag permit must first be issued by the Fire and Life Safety Specialist
- Fire Safety Training: All Resident Advisors go through a fire prevention safety course
- Fire Extinguisher Training: Training is available free of charge for any university employee. All maintenance workers are required to attend once per year
- Fire Drills: Four fire drills occur yearly for all resident halls and Greek Life houses. During the summer semester a variety of campus academic buildings will also have a fire drill
- Cleary Act Reporting: The Fire and Life Safety Specialist is responsible for all Cleary reporting on the CWRU Campus in the fields of arson and fires that occur in resident areas. The Cleary Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime and safety practices on and near their respective campuses
- Fire Inspections: All resident halls and Greek Life houses common areas are inspected two times per year for fire code violations by the Fire and Life Safety Specialist. All other University buildings are inspected on rotation. Any time a member from FM Global, the University insurer carrier, or a member of the Fire Department wishes to inspect a building the Fire and Life Safety Specialist will accompany them
- Special Events: Any time a special event is planned on campus that requires a building to change its everyday floor layout/occupancy, when outdoor tents are being used, or hazardous materials (propane for grilling/heat, fireworks, etc.), the Fire and Life Safety Specialist is involved in the planning process

Construction Safety

The construction safety program at CWRU focuses on keeping all employees safe while construction projects occur on campus. The principal responsibility of this program is to monitor construction sites and contractors to ensure compliance with state and federal regulations pertaining to health and safety standards in the workplace. This objective is achieved by using the following disciplines:

- Provide regulatory support and assistance for the control of hazards on the job site that might affect the CWRU community.
- Provide the removal, to the extent possible, of hazards prior to handing over job sites to contractors except as detailed in contract agreements.
- Ensure workers from both the host and contract employer are informed about the hazards present at the worksite and the hazards that work of the contract employer may create on site.
- Organize, schedule, and perform required right-to-know safety training for all contractors prior to working on campus.
- Ensure all contract employers coordinate on work planning and scheduling to identify and resolve any time issues that could impact safety or health.
- Provide support to the project by maintaining a visible presence in the field and to have continued availability to assist the project manager with safety related issues.
- Communicate and assist the project managers to ensure all safety expectations are understood and met.
- Regularly review and be familiar with all applicable legislation and standards to ensure compliance.
- Participate in the investigation of incidents on campus to determine root cause, and to put effective actions in place to help ensure repeated incidents do not occur.

Goals achieved fiscal year 2020-2021:

**Laboratory Safety Committee Audits
Safety Services Laboratory Programs
2020-2021**

LSC Audits were not conducted for this period due to the COVID-19 Shutdown of Campus and resulting remote operations challenges.

EHS METRIC 2020-2021

<u>COMMITTEE AUDITS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Radiation Safety Committee Audits</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>20</u>	<u>50</u>
<u>Laboratory Safety Committee Audits</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>IACUC Audits - New Protocols</u>	<u>26</u>	<u>7</u>	<u>9</u>	<u>16</u>	<u>58</u>
<u>IACUC Audits - Continuing reviews</u>	<u>35</u>	<u>11</u>	<u>22</u>	<u>12</u>	<u>80</u>
<u>IACUC Audits - Addenda</u>	<u>12</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>16</u>
<u>IBC Audits</u>	<u>22</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>22</u>

<u>CHP/ECP SUBMITTED-data incomplete</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>CHP</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>ECP</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>TOTAL</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

<u>ORIENTATION</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>New Employees</u>	<u>60</u>	<u>45</u>	<u>18</u>	<u>55</u>	<u>178</u>
<u>New Faculty</u>	<u>9</u>	<u>4</u>	<u>8</u>	<u>25</u>	<u>46</u>
<u>Total</u>	<u>69</u>	<u>49</u>	<u>26</u>	<u>80</u>	<u>224</u>

<u>ANESTHETIC GASES/VAPORS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Isoflurane</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>2</u>

<u>TRAINING</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>	Ca
<u>Laboratory Safety/Regulated Chemicals</u>	<u>716</u>	<u>406</u>	<u>399</u>	<u>647</u>	<u>2168</u>	
<u>Hazard Communication</u>	<u>367</u>	<u>228</u>	<u>192</u>	<u>236</u>	<u>1023</u>	
<u>ARC Safety Training</u>	<u>38</u>	<u>18</u>	<u>0</u>	<u>1</u>	<u>57</u>	
<u>Formaldehyde</u>	<u>53</u>	<u>34</u>	<u>24</u>	<u>25</u>	<u>136</u>	
<u>Biohazard Training with Bloodborne Pathogens</u>	<u>684</u>	<u>450</u>	<u>389</u>	<u>776</u>	<u>2299</u>	
<u>Respirator (Training only)</u>	<u>419</u>	<u>191</u>	<u>92</u>	<u>220</u>	<u>922</u>	
<u>Vehicle Safety</u>	<u>4</u>	<u>10</u>	<u>12</u>	<u>15</u>	<u>41</u>	
<u>Fire Safety Only</u>	<u>10</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>10</u>	
<u>Fire Extinguisher/Fire Safety</u>	<u>10</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>14</u>	
<u>Plant (Hearing Conservation, etc.) (Hazcom/Bio/Rad added in Hazard Communication)</u>	<u>0</u>	<u>6</u>	<u>0</u>	<u>210</u>	<u>216</u>	
<u>BSL 3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
<u>DOT/IATA Shipping</u>	<u>40</u>	<u>32</u>	<u>24</u>	<u>48</u>	<u>144</u>	
<u>Contractor</u>	<u>0</u>	<u>11</u>	<u>6</u>	<u>9</u>	<u>26</u>	
<u>Special Classes</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
<u>Scissor Lift</u>	<u>0</u>	<u>-</u>	<u>0</u>	<u>0</u>	<u>0</u>	
<u>Fork Lift</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>7</u>	<u>11</u>	
<u>Other</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
<u>TOTAL</u>	<u>2341</u>	<u>1390</u>	<u>1138</u>	<u>2198</u>	<u>7067</u>	

ROOM INSPECTIONS (Inspections run from January to December)

Building Name	-	-	-	-	Total
	July- September	October- December	January-March	April-June	-
Art Studio	-	-	-	25	25
A.W. Smith	9	-	4	132	145
Bingham	-	-	-	4	4
Bioenterprise (UCRC I, University West)	-	98	-	-	98
Bishop	-	-	-	-	0
Bolwell	-	-	-	-	0
Biomedical Research Bldg.	2	-	30	-	32
Cleveland Clinic Foundation	-	-	-	-	0
Clapp	-	-	-	27	27
Coroner's Office (UCRC II)	-	-	-	-	0
DeGrace (Biology)	2	-	1	56	59
Dental	-	-	1	-	1
Farm	1	-	-	-	-
Glennan	1	-	-	171	172
Kent Hale Smith	13	-	-	193	206
Lerner UH	-	-	-	-	0
Lowman	-	-	-	-	0
MacDonald	-	-	-	-	0
MetroHealth	-	-	-	-	0
Millis	21	-	5	190	216
NASA	-	-	-	-	0
Nursing	-	-	-	-	0
Olin	-	-	-	94	94
Pathology	-	25	1	-	26
RAD Waste Facility	-	-	-	-	0

<u>RB&C</u>	-	-	-	-	<u>0</u>
<u>Research Tower</u>	-	-	-	-	<u>0</u>
<u>Robbins (MED East)</u>	<u>30</u>	<u>48</u>	<u>4</u>	-	<u>82</u>
<u>Rockefeller</u>	-	-	-	<u>116</u>	<u>116</u>
<u>Sears Building</u>	-	-	-	<u>4</u>	-
<u>Sears Tower</u>	-	-	-	-	<u>0</u>
<u>Service Bldg.</u>	-	-	-	<u>2</u>	<u>2</u>
<u>Simulation Center (Mt. Sinai)</u>	-	-	-	-	<u>0</u>
<u>Strosacker</u>	-	-	-	<u>12</u>	<u>12</u>
<u>VA Hospital</u>	-	-	-	-	<u>0</u>
<u>Walker</u>	-	-	-	-	<u>0</u>
<u>Wearn</u>	-	-	-	-	<u>0</u>
<u>West Quad (Mt. Sinai) (CCMSB)</u>	-	-	-	-	<u>0</u>
<u>White</u>	-	-	-	<u>70</u>	<u>70</u>
<u>Wickenden</u>	-	-	-	-	<u>0</u>
<u>Wolstein Research Bldg.</u>	-	<u>132</u>	<u>55</u>	-	<u>187</u>
<u>Wood</u>	<u>83</u>	<u>1</u>	<u>15</u>	-	<u>99</u>
<u>TOTAL</u>	<u>162</u>	<u>304</u>	<u>116</u>	<u>1096</u>	<u>1678</u>

<u>CRANE INSPECTIONS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Sears Tower</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>2</u>
<u>Biomedical Research Building</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>
<u>Cedar Ave Service Center</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>5</u>
<u>AW Smith</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>
<u>Rockefeller</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>6</u>
<u>Olin</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>
<u>White</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>3</u>
<u>Maltz Performing Arts</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>
<u>Bingham</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>6</u>
<u>Total</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>26</u>	<u>26</u>

<u>RESPIRATOR USE (From FileMaker)</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Physical</u>	<u>322</u>	<u>196</u>	<u>Health Services</u>		<u>518</u>
<u>Train (In Person)</u>	<u>315</u>	<u>142</u>	<u>92</u>	<u>160</u>	<u>709</u>
<u>Fit Test</u>	<u>290</u>	<u>120</u>	<u>102</u>	<u>123</u>	<u>635</u>

<u>BIOHOOD REPORTS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Recertify</u>	<u>84</u>	<u>211</u>	<u>57</u>	<u>88</u>	<u>440</u>
<u>Repair</u>	<u>30</u>	<u>27</u>	<u>18</u>	<u>21</u>	<u>96</u>
<u>Total</u>	<u>114</u>	<u>238</u>	<u>75</u>	<u>109</u>	<u>536</u>

<u>ASHRAE TEST-non required</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Pass</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Restricted</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Fail</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>TOTAL</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

<u>FUME VELOCITY HOOD TESTING</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Pass</u>	<u>64</u>	<u>187</u>	<u>18</u>	<u>18</u>	<u>287</u>
<u>Restricted</u>	<u>5</u>	<u>9</u>	<u>3</u>	<u>3</u>	<u>20</u>
<u>Failed</u>	<u>10</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>14</u>
<u>TOTAL</u>	<u>79</u>	<u>198</u>	<u>22</u>	<u>22</u>	<u>321</u>

<u>CLEARANCES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Relocation</u>	<u>502</u>	<u>282</u>	<u>58</u>	<u>29</u>	<u>871</u>
<u>Repairs</u>	<u>13</u>	<u>14</u>	<u>11</u>	<u>12</u>	<u>50</u>
<u>Disposal</u>	<u>150</u>	<u>95</u>	<u>358</u>	<u>206</u>	<u>809</u>
<u>Demolition</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Equipment Fabrication (OLIN)</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>4</u>
<u>Renovation</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>2</u>
<u>Relocation to Storage</u>	<u>15</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>18</u>
<u>Termination</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Clean</u>	<u>0</u>	<u>0</u>	<u>8</u>	<u>2</u>	<u>10</u>
<u>Return to Vendor</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>2</u>
<u>Cold Room Repairs</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>12</u>
<u>Decommission</u>	<u>11</u>	<u>6</u>	<u>5</u>	<u>5</u>	<u>27</u>
<u>TOTAL</u>	<u>698</u>	<u>401</u>	<u>445</u>	<u>261</u>	<u>1805</u>

<u>ERGONOMICS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Ergonomics Assessment</u>	<u>1</u>	<u>3</u>	<u>0</u>	<u>3</u>	<u>7</u>
<u>Follow-ups</u>	<u>5</u>	<u>11</u>	<u>4</u>	<u>21</u>	<u>41</u>

<u>CHEMICAL PURCHASE APPROVALS</u>					<u>0</u>
<u>Purchase Approvals</u>	<u>229</u>	<u>156</u>	<u>180</u>	<u>210</u>	<u>775</u>

HAZARDS MATERIALS SHIPPING

<u>DOT/IATA SHIPPING</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Aviation Regulated Liquid (Formalin)</u>	-	-	<u>0</u>	-	<u>0</u>
<u>Biological Category B</u>	-	-	<u>0</u>	-	<u>0</u>
<u>Corrosive</u>	-	-	<u>0</u>	-	<u>0</u>
<u>DOT/IATA¹</u>	<u>15</u>	<u>10</u>	<u>10</u>	<u>20</u>	<u>55</u>
<u>Dry Ice</u>	<u>5</u>	<u>6</u>	<u>2</u>	<u>4</u>	<u>17</u>
<u>Exempt</u>	<u>5</u>	<u>6</u>	<u>2</u>	<u>4</u>	<u>17</u>
<u>Infectious¹</u>	<u>15</u>	<u>10</u>	<u>10</u>	<u>20</u>	<u>55</u>
<u>TOTAL</u>	<u>40</u>	<u>32</u>	<u>24</u>	<u>48</u>	<u>144</u>

TYPES OF INJURIES

<u>INJURY TYPES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Needlestick</u>	<u>0</u>	<u>11</u>	<u>5</u>	<u>2</u>	<u>18</u>
<u>Splash</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>3</u>
<u>Burn</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>2</u>
<u>Concussion/Contusion</u>	<u>3</u>	<u>0</u>	<u>4</u>	<u>1</u>	<u>8</u>
<u>Laceration</u>	<u>1</u>	<u>1</u>	<u>6</u>	<u>4</u>	<u>12</u>
<u>Strain/Sprain</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>5</u>	<u>10</u>
<u>Slip/Fall</u>	<u>2</u>	<u>2</u>	<u>10</u>	<u>5</u>	<u>19</u>
<u>Inhalation/Exposure</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>5</u>
<u>Bite/Sting</u>	<u>2</u>	<u>3</u>	<u>0</u>	<u>1</u>	<u>6</u>
<u>TOTAL</u>	<u>12</u>	<u>18</u>	<u>31</u>	<u>22</u>	<u>83</u>

<u>INCIDENTS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Explosion/Fire</u>	<u>1</u>	-	-	<u>1</u>	<u>2</u>
<u>Food in Lab</u>	-	-	-	-	<u>0</u>
<u>SHARPS waste</u>	-	-	-	<u>1</u>	<u>1</u>
<u>Suspicious Substance</u>	-	-	-	-	<u>0</u>
<u>Unsafe Conditions</u>	-	-	-	-	<u>0</u>
<u>Odor</u>	<u>3</u>	<u>3</u>	<u>1</u>	<u>3</u>	<u>10</u>
<u>Spills/Leaks (chemical, compressed gas)</u>	<u>3</u>	<u>2</u>	<u>5</u>	<u>2</u>	<u>12</u>
<u>Alarms</u>	<u>6</u>	<u>1</u>	-	-	<u>7</u>
<u>Waste Issue</u>	-	<u>1</u>	<u>1</u>	-	<u>2</u>
<u>Gas Alarm</u>	-	<u>1</u>	<u>2</u>	-	<u>3</u>
<u>Other (Housekeeping)</u>	-	-	-	-	<u>0</u>
<u>Equipment Alarm</u>	-	-	-	-	<u>0</u>
<u>Hood Repair</u>	<u>2</u>	-	-	-	<u>2</u>
<u>Flood</u>	-	-	-	<u>2</u>	<u>2</u>
<u>Leak (Water)</u>	-	-	-	-	<u>0</u>
<u>Mercury</u>	<u>1</u>	<u>2</u>	-	-	<u>3</u>
<u>IAQ</u>	-	-	-	<u>1</u>	<u>1</u>
TOTAL	<u>16</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>45</u>

<u>REPORTED FIRES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
<u>Residence Halls</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Non-Residence Halls</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTALS	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

<u>FIRE SAFETY REPORTS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
Fire Alarms	<u>28</u>	<u>29</u>	<u>57</u>	<u>41</u>	<u>114</u>
Hot Work Permits	<u>41</u>	<u>11</u>	<u>21</u>	<u>7</u>	<u>73</u>
Red Tag	<u>2</u>	<u>0</u>	<u>3</u>	<u>2</u>	<u>5</u>
Fire Drills	<u>44</u>	<u>37</u>	<u>37</u>	<u>37</u>	<u>118</u>
Fire Inspection, Complete Bldg.	<u>35</u>	<u>11</u>	<u>20</u>	<u>0</u>	<u>66</u>
TOTAL	<u>150</u>	<u>88</u>	<u>138</u>	<u>87</u>	<u>463</u>

<u>ASBESTOS AND LEAD ISSUES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
Abatements	<u>19</u>	<u>27</u>	<u>7</u>	<u>12</u>	<u>65</u>
Surveys	<u>24</u>	<u>20</u>	<u>9</u>	<u>8</u>	<u>61</u>
Mold Issues	<u>13</u>	<u>5</u>	<u>3</u>	<u>5</u>	<u>26</u>
Lead	<u>2</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>11</u>
TOTAL	<u>58</u>	<u>57</u>	<u>21</u>	<u>27</u>	<u>163</u>

<u>OTHER MONITORING</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
Formaldehyde Monitoring	<u>0</u>	<u>0</u>	<u>0</u>	<u>-</u>	<u>0</u>
Preventative Maintenance Confined Space Shutdowns	<u>14</u>	<u>8</u>	<u>19</u>	<u>11</u>	<u>52</u>
Indoor Air Quality Studies	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	<u>14</u>	<u>8</u>	<u>19</u>	<u>11</u>	<u>52</u>

<u>ENTRANCE CAUTION SIGNS</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>	<u>Total</u>
Signs	<u>69</u>	<u>113</u>	<u>60</u>	<u>86</u>	<u>328</u>