

Environment, Health, and Safety Office

Executive Summary

The [Environment, Health, and Safety Office \(EHS\)](#) strives to provide outstanding leadership, expertise, service, and support in health, safety, environmental stewardship, and sustainability while motivating and fostering a strong and innovative safety culture within the entire MIT community, including the Lincoln Laboratory, the Bates Linear Accelerator, the Haystack Observatory, and the Singapore-MIT Alliance for Research and Technology (SMART). During fiscal year 2018, EHS has redefined its areas of focus by aligning strategic priorities for the executive vice president and treasurer with corresponding departmental strategic initiatives. Specifically, EHS efforts in FY2018 were prioritized to support brand revitalization, capacity building for agility, and business process improvement.

EHS structures and programs were thoroughly evaluated in FY2018 and improvements were implemented supporting strategic departmental initiatives. The evaluation focused on MIT's safety status and EHS programs' performance. Improvements included organizational structure changes and measures and metrics revisions with a stronger focus on leading indicators related to reducing injuries and illnesses.

EHS increased its agility by proactively defining, analyzing, and addressing emerging issues. We continued to support The Engine, the Whitehead Institute for Biomedical Research, Advanced Functional Fabrics of America (AFFOA), the Draper Laboratory, and the science community in Cambridge. These efforts have improved our processes and ensured that all routine regulatory activities are completed timely and successfully.

A diverse project team representing every facet of EHS reviewed our mission, vision, and values as part of brand revitalization. We believe that these revitalized statements capture the essence of our office.

Environment, Health, and Safety by the Numbers

EHS activities over the past year include:

- 24,454 work areas analyzed
- 1,071 service tickets resolved
- 681 research registrations/authorizations/reviews completed
- 643 personalized equipment reviews completed
- 406 permits/plans/licenses completed
- 287 lab cleanouts conducted
- 200 radioactive packages received
- 105 sealed radioactive sources audited
- 29 radon analyses for the MIT community conducted

Biosafety Program

The Biosafety Program (BSP) provides comprehensive biological safety services and guidance for the MIT community to ensure the safe and responsible conduct of life sciences research. The program participates in and supports the MIT Institutional Biosafety Committee, the Committee on Animal Care, and the Committee on the Use of Humans as Experimental Subjects.

Committee on Assessment of Biohazards/Embryonic Stem Cell Research Oversight

The Committee on Assessment of Biohazards/Embryonic Stem Cell Research Oversight (CAB/ESCRO) ensures the safe and responsible conduct of biological research at MIT. The scope has changed over time to provide a more consistent and cohesive oversight process for a range of biological research and new technologies.

CAB/ESCRO registers biological research involving recombinant or synthetic DNA/RNA, pathogens, human cells and tissues, use of biological agents at biosafety level (BL) 1 or greater, nanoparticle-based gene or drug delivery systems, and biological toxins. The review and approval process is based on completion and submission of the Biological Research Registration (BRR) Form to BSP. The majority of BRRs (78%) are BL 2 or BL 2+ (highest approved containment level). This is due to the large number of laboratories that use human materials, various viral vectors, bacteria, and/or viruses for researching ways to cure or prevent human suffering.

The committee reviewed the following:

- 79 protocol rewrites
- 147 protocol amendments
- 123 protocol renewals
- 12 teaching lab protocols

Policies and Risk Assessment

Lentiviral vector testing for replication competent particles policy was updated to specify the criteria that would trigger the requirement for testing—generation of lentiviral vectors and their safety features.

CAB/ESCRO published risk assessment results on its website regarding the biological containment level required for different gene editing experiments using CRISPR/Cas9 or similar variants. This was done after reviewing current literature and consultations with MIT faculty.

Drug Enforcement Agency Controlled Substances

In the past year, the program created new online training in collaboration with Information Systems and Technology (IS&T) for researchers using Drug Enforcement Agency (DEA) controlled substances in their experiments. This updated training, which will now be required every three years for all employees working with controlled

substances, covers the requirements for ordering, storage, recordkeeping, disposal, and loss/theft of these materials. The new online web course replaces a train-the-trainer system, ensuring trainees receive consistent and complete information while receiving credit for undergoing training.

Outreach and Collaboration

The program facilitated the organization of the Global Community Bio Summit conference held in September 2017 at the MIT Media Lab. The conference was led by David Kong of the Media Lab and included a hands-on biological assay module. BSP helped the organizers find a suitable laboratory space for the experiments, assisted CAB/ESCRO with registering the event, and participated in the conference by providing biosafety training for attendees.

The Division of Comparative Medicine (DCM) is required to have its facilities and programs accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International. Accreditation demonstrates a strong commitment to responsible animal care and use. EHS has a long-standing collaborative relationship with DCM, and the services we provide contributed to a successful AAALAC visit that deemed MIT's program as exemplary.

Program Direction

- Continue work on a new general biosafety blended learning training course
- Develop new materials for bloodborne pathogen training
- Implement an online program for BSP registration systems

Environmental Management Program

The Environmental Management Program conducts services and activities designed to ensure that air, water, and waste discharge policies and procedures are protective of the environment while compliant with all environmental regulations.

Regulatory Compliance Permits and Oversight

The program provides environmental oversight, advice, consultation, and training as well as direct operational services for environmental permitting, environmental data reporting, and responses to releases (actual or potential) of hazardous materials to the environment. Due to annual requirement or construction permits submitted to state or federal regulatory agencies, a number of permits and reports were amended to include potential hazards.

- Incorporated the required additional permits for the Central Utility Plant (CUP) upgrade project and the newly commissioned MIT.nano building into the Institute's Massachusetts Department of Environmental Protection Air Quality Operating Permit.
- Submitted the biennial Massachusetts Water Resource Authority (MWRA) Wastewater Master Plan permit reapplication for various buildings and labs. Additionally, the program partnered with Department of Facilities (DoF)

Campus Construction, Systems Renewal, Maintenance and Utilities, and Engineering to submit a 90-day engineering plan for the CUP upgrade project.

- Re-certified the Institute's EPA Spill Prevention Countermeasure and Control (SPCC) Plan for the CUP upgrade project, MIT.nano, and renovations in Building 31.
- Submitted chemical reports to local fire departments and other regional and state agencies. These reports covered the Emergency Planning and Community Right-to-Know Act and Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards.
- Developed a system to meet sustainability, regulatory, and ecological stormwater and landscape goals for the MIT campus resiliency plan in collaboration with the Office of Campus Planning, the MIT Office of Sustainability (MITOS) and DoF.

Green Labs

The Green Labs program has worked not only to expand community involvement throughout the Institute but also to continually create and explore new possibilities for encouraging sustainability within the laboratory setting.

Currently, a new system is in development that will allow for a more hands-on assessment of the needs and opportunities within individual labs. The program continues to partner with the MITOS, DoF Systems Engineering, DoF Recycling & Materials Management, and research departments, labs, and centers (DLCs) to cultivate efforts providing labs with the best possible tools, resources, and information with which to promote a sustainable environment.

A particularly successful offshoot of Green Labs has been the Lab Energy Assessment Center. This effort supports the exploration of new technology and data-driven modifications that can be created and produced at MIT in order to encourage energy efficiency in research laboratories. Successfully implemented devices include plug load monitoring systems and fume hood monitoring alarms.

The 23 labs certified by the program have saved 36,000 kilowatt hours, 80,000 gallons of water, and 18,000 pounds of greenhouse gases.

Program Direction

- Provide support to MIT.nano in the areas of hazardous waste, air, and MWRA wastewater permits as new labs are created
- Continue the MWRA project focusing on wastewater permits for major and minor sources on the campus
- Investigate and assist laboratories with hazardous waste container issues
- Reorganize and revamp promotional outlets and outreach activities for the program including launching the newest version of the Green Labs certification process
- Collaborate with DoF on energy saving projects to help MIT achieve greenhouse gas reduction goals for 2030 as outlined in the Plan for Action on Climate Change

Industrial Hygiene Program

The Industrial Hygiene Program (IHP) anticipates, recognizes, evaluates, and controls workplace conditions by limiting personal exposures to chemicals. Additionally, the program addresses the control of other potential stressors in the workplace such as noise, heat, repetitive motion, and indoor air quality.

System Upgrades and Maintenance

The program provides guidance on appropriate laboratory ventilation and monitoring systems as well as annual surveys to ensure that systems are functioning properly. IHP worked on 30 projects in FY2018, such as the Building 13 toxic gas monitoring system upgrade. Building 13 contains three high-hazard labs and required an update to its gas detection system. The project included upgrading three virtual servers, custom software, firmware, the firewall, and a new supervisory control and data acquisition system. The program worked closely with the project and lab members to coordinate work, make changes to the new system, develop procedures, and review reports detailing the commissioning of the new system. We also conducted annual surveys for 72 toxic gas monitors, 1,279 special local exhaust ventilation (SLEV) systems, and 1,416 fume hoods (including Whitehead and Draper).

In order to better track special local exhaust ventilation, the program upgraded the SLEV database to ensure uniform test result collection. The upgrade enabled generation of reports and improved management.

Chemical Hygiene and Hazard Communication

To remain compliant with existing and applicable regulations, IHP updated the chemical hygiene web course (in close conjunction with MIT Lincoln Laboratory) as well as the hazard communication web course. The program also created additional guidance for special precautions related to work with pyrophoric and water-reactive materials. Eight shops and updated locations on campus that fall within the hazard communication standard were reviewed. This included collecting paper copies of safety data sheets for binders and updating standard operating procedures.

Outreach and Collaboration

IHP staff members collaborate with numerous individuals and departments around the campus, including The Engine, Lincoln Laboratory, and Beaver Works. Highlights include:

- Worked closely with Professor Rafael Jaramillo and his team in the High Hazard Chemical Vapor Deposition Lab to resolve issues with the lab's design. These efforts included using a nonhazardous tracer gas to diagnose a leak in the toxic gas monitoring system, increasing the stack height of one of the fans, and diagnosing problems with the original balancing of the lab.
- Provided guidance for an ergonomics pilot program in the Dewey Library, stand-up desk converters can be borrowed for study areas. The library also hands out an informational packet created by IHP.

- Conducted personal lead exposure monitoring at the Fort Devens shooting range for the MIT Police. The program collected air and surface samples that demonstrated the need for good housekeeping and clean hands to limit lead exposure.
- IHP was asked to evaluate arsenic exposure potential in the AFFOA facility during the clean out and removal of materials process. The study showed that AFFOA's methodology of cleaning equipment led to low arsenic exposure levels.
- The biomass torrefaction research project in Mechanical Engineering was scaled up and moved to Bates, which required a hazard and safety assessment regarding ventilation for the researcher and principal investigator (PI). IHP provided detailed recommendations that were used to design a custom vented enclosure.

Program Direction

- Update the Hearing Conservation Program to standardize reporting and clearly define procedures
- Migrate the fume hood database to a new platform to support ease of access and data analytics
- Complete testing on and begin implementation of an ergonomic reporting system
- Continue the long-term drinking water testing initiative

Radiation Protection Program

The Radiation Protection Program (RPP) provides a safe working area for radiation workers, the general public, and the environment while allowing creative and breakthrough research to continue.

Radioactive Material Authorization and Machine Registration

The program successfully renewed the Special Nuclear Materials License with the Nuclear Regulatory Commission (NRC). The license was amended to include the use of graphite pile. Currently there are 116 authorizations, with 61 renewed or amended last year, and three new applications for radioactive material use. RPP also conducted biennial audits of research projects during the authorization renewal process. In addition, the program manages, distributes, and disposes of 296 generally licensed materials. RPP manages the registration program for machines producing radiation, including the following:

- 56 X-ray machines
- 12 accelerators
- 1,500 lasers
- 32 irradiators
- 40 high-power magnets

Security of Irradiator Facilities

The program is responsible for the security of four irradiator facilities on campus. In the case of emergency response, RPP collaborates with the MIT Police, Cambridge Police (CPD), and Cambridge Fire (CFD) in annual reviews of the security program. In FY2018, a 10-year reevaluation of users' criminal background history was conducted. There are 73 approved irradiator users and 3,295 individual entries/uses.

MIT Police cars are now equipped with personal radiation detectors. RPP staff provided training to MIT Police. Additionally, the program sponsored training for the staff from the Office of Emergency Management (OEM), the Facilities Operations Center, the MIT Police, CPD, and CFD to attend DHS alarm response training in Oak Ridge, TN.

Outreach and Collaboration

RPP has a strong working relationship with the Department of Nuclear Science and Engineering (NSE). Throughout the past year, the program helped staff involved in the Soonest/Smallest Private-Funded Affordable Robust Compact Reactor (SPARC) project monitor current accelerator efforts and attend meetings with faculty to discuss safety and licensing requirements. RPP oversaw and provided guidance for NSE's celebration of the life of Enrico Fermi, which involved re-commissioning a uranium graphite pile. Each year, the NSE 22.033 Nuclear Systems Design Project course holds a competition, and this year the program staff acted as project judges, served as advisors for three of the four projects, and provided access to resources that would normally be out of reach for the students. RPP guidance ensured that students were using these resources responsibly and safely.

RPP partnered with the city of Cambridge to deliver training seminars to CFD and CPD, preparing them for potential threats to irradiator facilities. The program also developed a memorandum of agreement with the Cambridge to provide biannual training that fulfill emergency plan requirements.

Program Direction

- Continue to work with NSE faculty on the planning of SPARC
- Develop an online registration system that facilities can use for radiography projects
- Design an irradiator emergency response drill with the MIT Police and CPD/CFD
- Implement an online program for RPP registration systems

Occupational and Construction Safety Program

The responsibility of the Occupational and Construction Safety Program is to provide oversight of programs for general safety, fire prevention and protection, and construction safety while complying with all relevant regulations.

Maker Space and Machine Shop Initiatives

The program worked toward enhancing the safety of campus maker spaces and machine shops through ongoing collaborative efforts, including updating shop and maker space

standard operating guidelines (SOGs), creating a training group for shop supervisors, and implementing an incident reporting process and dashboard.

Unmanned Aircraft Systems

The Institute has enacted an SOG governing the use of unmanned aircraft systems (UASs) at MIT. The new procedures were the result of a deliberative process that brought together stakeholders from across the Institute to formulate UAS guidelines for the campus. In February 2018, the Federal Aviation Association granted MIT a certificate of waiver that allows outdoor flights on the main campus. The program developed a UAS registration process housed on Atlas and a tracking method for flights.

Emergency Preparedness Plans

The program partnered with OEM to support the emergency preparedness plans of approximately 70 DLCs. New emergency preparedness coordinators were trained on the plan, and a draft SOG defining roles and responsibilities is in progress. In addition, updated DoF evacuation route diagrams were vetted and approved as part of construction activities.

Student Projects

Student events such as MIT Residence Exploration, Campus Preview Weekend, and Rush require safety plans and oversight from the program. In FY2018, there were 3,320 events requiring minimal review (e.g., barbecues, picnics), 78 events requiring intensive review (e.g., liquid nitrogen ice cream, car smashing), and five events requiring external officials to approve plans (e.g., haunted house, hackathon, maker break, roller coaster).

Collaboration with Facilities

Outreach and interactions with DoF were expanded to review shared programs, define roles and responsibilities, and implement new initiatives. The program focused on lockout/tagout, confined spaces, fall protection, training, and inspections. Specifically, program staff reviewed and updated training groups with environment, health, and safety requirements; assisted with designing and implementing a new hire orientation; entered a new partnership with DoF Quality Assurance/Quality Control team to jointly respond to the findings of the Cambridge building inspector; and reviewed the confined space inventory in seven buildings.

Collaboration with the City of Cambridge

The Institute's permits and licenses were transferred into a new system through collaboration with the city of Cambridge. The new system brought with it a learning curve and required multiple meetings with city officials.

Gas Cylinder Management

Program staff trained DLC coordinators and EHS representatives on the use of an online Airgas inventory system. This will help them manage their cylinders more efficiently and effectively. In addition, the improved management made it easier for Airgas to pick up and drop off cylinders within labs to reduce cylinder storage in corridors.

Program Direction

- Continue to expand collaborations with DoF and other DLCs
- Survey all MIT roofs and develop roof access plans
- Audit current programs to reduce potential gaps in service or compliance
- Develop a research electrical safety program and process for approval of researcher-built or non–Nationally Recognized Testing Laboratory equipment

Improving Workplace Injury Investigation Reporting

To ensure accurate and consistent injury investigation reporting, the office developed a new online tool to collect this information. EHS staff input investigation details into a form on which the data are organized into various dashboards. The dashboards allow ease of dissemination of data so that staff can analyze and determine the cause of an incident, identify unsafe conditions or acts, and recommend corrective actions. Also, the office partnered with the Human Resources workers’ compensation division to provide training to Institute supervisors on injury reporting. Figure 1 shows Occupational Safety and Health Administration (OSHA) incident rates of total recordable injury and illness cases in 2017 along with data for the previous four years; as can be seen, the MIT incident rate for 2017 is 1.6. Please note this is a lagging key risk indicator.

Occupational Safety and Health Administration Recordable Incident Rates of Injuries and Illnesses, 2013–2017

Industry category	2013	2014	2015	2016	2017
MIT	1.8	2.1	1.8	1.5	1.6
Private industry: Education: Colleges, universities, and professional schools	2.1	1.9	1.9	1.7	1.7
Private industry: All US	3.3	3.2	3.0	2.9	2.8

Note: The incidence rate of injuries and illnesses is computed from the following formula: number of injuries and illnesses × 200,000/employee hours worked. The 200,000 hours in the formula represents the equivalent of 100 employees working 40 hours per week, 50 weeks per year, and provides the standard base for incidence rates

Source: Bureau of Labor Statistics, US Department of Labor; MIT.

MIT OSHA Injury and Illness Recordkeeping Incident Rate Initiative

EHS worked with the Office of the Vice President for Finance to strengthen our reporting methodology for OSHA recordable incident rates. An accurate representation of MIT’s annual average number of employees and total hours worked by all employees was created to make certain that the Institute’s incident rate and the OSHA log information were correct.

Safety Committee Report

EHS staff developed a new quarterly metrics report for the Safety Committee that provides information on number of injury reports, recordable (most severe) injuries, injury causes, and body parts injured.

Dashboarding and Injury Reporting

The office has been working toward the use of dashboards to make data more available and dynamic. These new tools allow users quick access to pinpoint the data they are interested in. The dashboards are a growing tool that will be rolled out to EHS coordinators. Collaboration with the Office of Insurance to include the costs of injuries has begun.

Campus Design and Construction Support

Campus Design and Construction Support provides mitigation, design review, and assistance to DoF project managers for construction and renovation projects on the MIT campus. Over the past year, staff reviewed and monitored 124 projects across 47 buildings with a total construction cost of \$1.2 billion.

Highlights

Project highlights include:

- Hazardous material testing was required for Building 13 facade power washing, and a subsequent wash water capture plan was created.
- West Garage demolition involving extensive abatement. Reviewed site traffic and logistics plans with project managers, Cambridge officials, and the contractor to ensure the effort would move forward on schedule and with minimal effects on traffic patterns and student accessibility.
- Central Utility Plant/Cogen traffic plan was devised to keep walkways open and limit traffic. We also requested police details to help guide traffic.
- In collaboration with DoF, provided a covered eyewash to improve safety conditions for repair and maintenance staff working on glycol filling stations.
- Worked with principal investigators during the lab design process to assess and improve lab safety (e.g., proposed flammable gas storage area in a basement, eliminating the accompanying plumbing and replacing with a local lab version, which resulted in time and cost savings.)
- Launched EHS thematic and lab design folders for project managers, architects, and contractors.
- Continued distribution of *Construction Connect* with topics such as integrated pest management, biosafety cabinets, lead, and asbestos.

Service Teams

The EHS service teams engage in a wide variety of initiatives and programs that involve cross-program monitoring and measurements to sustain regulatory compliance, proactively assess risks to the MIT community, and support a culture of safety. Below are some key highlights from each of the teams.

Communication

The Communication team works to promote effective and timely communications among all of the office's stakeholders across the Institute and MIT community to improve EHS performance. Highlights of the team's activities over the past year include:

- Held raffle for ISO-approved solar eclipse glasses through our @MITEHS Twitter account for the solar eclipse viewing event.
- Provided parents with information on student safety during the dean for student life parent's brunch.
- Provided guidance on living in the dorms, working in the labs, and engaging in extracurricular activities involving hazards at the student orientation fair.
- Installed three digital display screens throughout EHS that are connected to the main campus digital display systems, allowing management of content locally as well as receiving content from other DLCs.

Training

The Training team provides oversight for all EHS training needs and assists in the development of training courses. A total of 38,402 learning experiences were delivered in FY2018 through various methods: 24,165 in classrooms (63%), 11,365 through web-based courses (30%), and 2,872 other formats (7%) that encompasses medical and signature forms. Overall, 9,908 unique individuals completed EHS training.

Highlights of major FY2018 initiatives include:

- Developed and launched two web courses for the EHS representative orientation. Along with launching the new courses, the team posted additional resources (documents and web links) by creating a learning bundle in Atlas, enabling representatives to quickly access information.
- Offered a 90-minute trainer development workshop (Improve Your Presentation and Facilitation Skills) to teach attendees about improvisational techniques that would assist with presentation skills and engagement in training.
- Improved training courses on managing hazardous waste, chemical hygiene, and controlled substances in laboratory, as well as on hazard communications.

Inspection

Level II inspections are conducted twice a year in lab spaces by EHS coordinators. The checklist was updated this year to ensure consistency and accuracy across inspections. To accomplish this, more than 30 new questions were added in categories such as Chemical Storage, DEA, Chemicals, Electrical Safety, and Compressed Gas Storage and Safety. During FY2018, 2,255 issues were resolved across 453 reports encompassing 53 DLCs and 2,250 rooms.

Emergency Preparedness and Response

The Emergency Preparedness and Response team provides oversight for 24-hour emergency response services and is responsible for follow-up processes provided by EHS. We work in partnership and align with the Institute's emergency response group. The team collaborated with OEM to revise the Emergency Response Guide, updated and delivered EHS on-call refresher training, and worked with the MIT.nano coordinator to integrate the role of EHS in MIT.nano's emergency response procedure.

Information Technology

The EHS Information Technology team continued its evaluation of the Environmental Health and Safety Assistant (EHSA) software for integrating biological and radiological research registrations. Four modules were configured and tested: the Biological Research Registration Form, the Exposure Control Plan, the Radioactive Materials Authorization, and the Laser Use Authorization. Based on the outcome of the evaluation, the team decided to move forward with implementing the EHSA modules. During FY2019, a beta version of the forms will be used campus-wide. The team also evaluated and tested the chemical inventory application and piloted the module between January and June 2018. The pilot successfully grew from an initial population of 10 key labs to 23 labs representing a cross section of chemical inventory users. Overall, a total of 44 PI groups registered 41,203 chemical containers in FY2018.

Integrative Programming

Hazardous Shipping Program

The program has been focusing on updating eShipGlobal and rolling out catered enhancements for MIT functionality. Over the past year, there were a total 1,334 research material shipments consisting of 504 biological and 830 chemical shipments.

Regulated Medical Waste

The Regulated Medical Waste team eliminated the use of cardboard burn boxes and replaced them with reusable containers. A 30% lower price per container was negotiated, helping to offset the ever-increasing waste generation rate across 229 PIs. The amount of waste picked up increased 8.4%. Additional sustainability efforts saved 5.6 million gallons of water and 740,000 kilowatt-hours. Efficiency efforts eliminated 29,600 autoclave cycles and increased box collection 14% over the prior year. The team created a sustainable and efficient program that generates savings for the Institute in the amount of 4,933 hours of lab time.

Radioactive Waste

The Radiation Protection Program continued to process low-level radioactive waste collected from the radiation laboratories. All waste is segregated by half-life and is held for radiological decay or shipped for offsite processing and disposal. Approximately 99% of the waste sent offsite for thermal processing results in no offsite disposal volume for the Institute. During the past year, there were two shipments of low-level radioactive waste made up of 163 pickups and 115 cubic feet.

Hazardous Chemical Waste

The Hazardous Chemical Waste team increased safety and reduced MIT's environmental burden by disposing of expired and/or dangerous chemicals while decreasing operational costs. The table below illustrates that the amount of chemical waste picked up increased over the last year (by 10%) and the total cost decreased (by 1.4%). Costs were lowered by bringing transportation of materials and management of cleanouts in house.

Hazardous Chemical Wastes and Disposal Costs, Fiscal Years 2014–2018

Fiscal year	Pounds of waste generated	Disposal cost	Disposal cost per pound
2014	349,492	\$ 418,668	\$ 1.20
2015*	615,038	\$ 606,895	\$ 0.99
2016	443,196	\$ 507,914	\$ 1.15
2017	407,835	\$ 394,773	\$ 0.97
2018	448,421	\$ 389,125	\$ 0.87

*FY2015 totals include MIT.nano-associated waste costs and weights—12% increase in campus waste.

Awards

Departments Labs and Centers Performance Awards

At the end of the year, EHS recognizes DLCs with performance ratings above 90% for training and inspections. There are three categories based on the number of trainees in the DLC: small (1-50), medium (51-250), and large (251 or more). This year's recipients were the Biotechnology Process Engineering Center, the Department of Civil and Environmental Engineering, and the Picower Institute for Learning and Memory.

Infinite Mile Awards

The Infinite Mile Awards are intended to acknowledge exceptional efforts on behalf of service, support, and administrative staff. Award recipients in 2018 were:

- Team Award: Phyllis Carter, Mitchell Galanek, Scott McNey, Michael Dunn, Jim Doughty, Andy Kalil, Damon Baptista, and Mary Lindstrom (Mission, Vision, Value Team)
- Innovation Award: Dan Alexander, Judi Reilly, and Ryan Toolin
- Distinguished Service Award: Michael Dunn

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