



HARVARD
Campus Services

Environmental Health & Safety
Annual Report
FY18

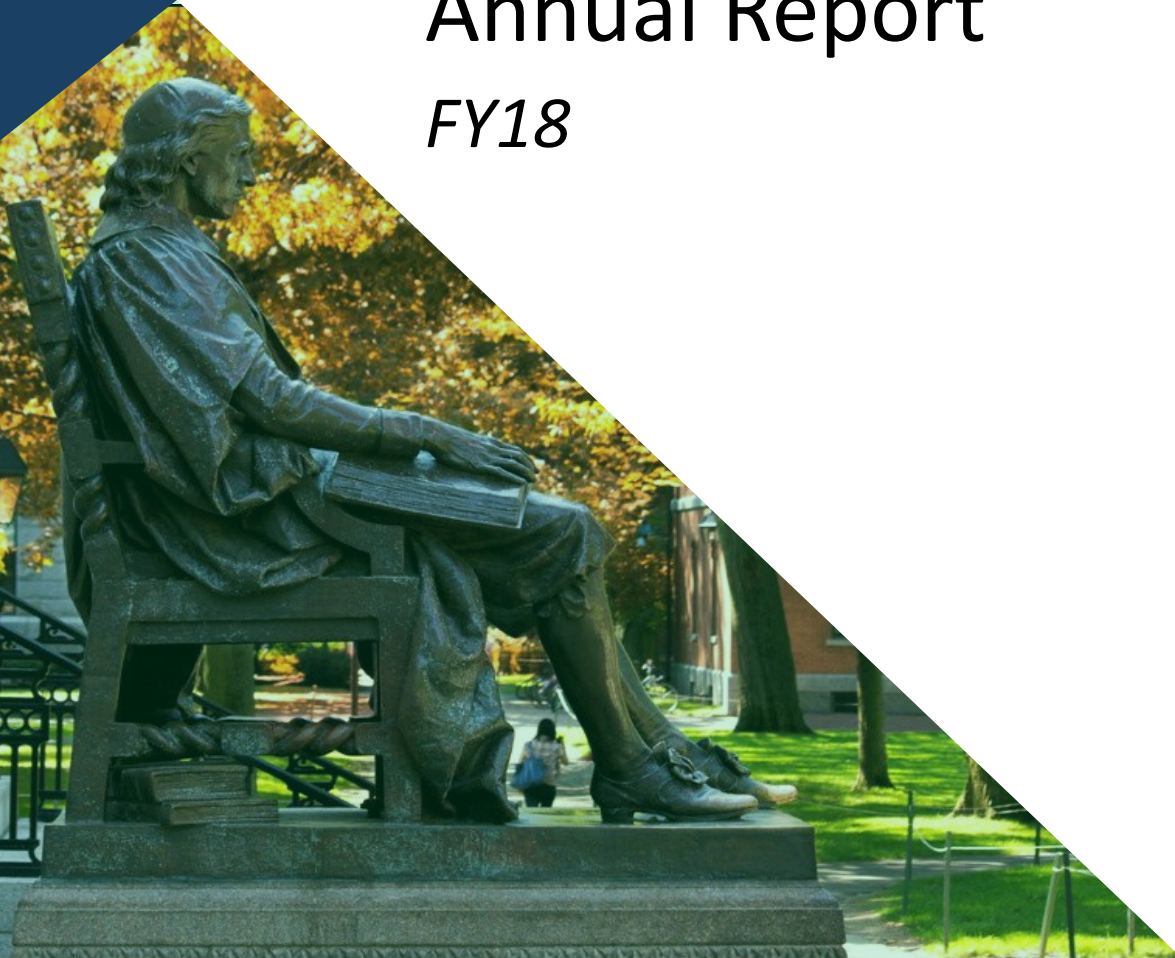


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A Message from the Managing Director

Welcome to our FY18 Environmental Health & Safety Annual Report.

Inside you'll find how Harvard's Environmental Health & Safety (EH&S) office helps foster safety, health, and environmentally responsible campuses for the University. As part of Campus Services, EH&S provides stewardship, strategies, and services that enable our schools and administrative units to effectively execute their missions with a high degree of safety and environmental excellence, and be better prepared for emergencies and business interruptions.

EH&S acts in the best interest of the University to provide collaborative institutional oversight while enabling local control and solutions to safety, health, environmental, emergency management, and business continuity issues. EH&S also operates University programs for regulatory training, internal assessments, reporting of regulatory and permit-required data on behalf of Harvard, regulatory representation and assistance, promotion of a strong culture of safety and compliance, and assists schools and administrative offices to prepare for and respond to emergencies.

We hope this report gives you a look into the many programs EH&S offers and the many shared accomplishments with our school and unit partners that assure a safe, healthy, and legally compliant University. If you have any need for more information or support from EH&S please don't hesitate to contact us.

Best Regards,

Bill VanSchalkwyk
Managing Director

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Supporting Key University Projects - Allston

The growing Allston campus represents a future filled with countless opportunities to advance Harvard's mission of teaching and research. Over the past fiscal year, EH&S has implemented a number of different initiatives and programs to support this growth.

Greening Up Allston

Our Project Support Services (PSS) team is helping lead the effort to "green" up the Allston campus. Historical industrial uses on the land required remediation of soil and groundwater to ensure suitability for future institutional use. PSS supported Allston project teams by overseeing remediation investigations, analysis, and remedial designs. Thanks to these collaborative efforts, many new buildings, including the new District Energy Facility (DEF), will not require costly mitigation systems.



Reducing Energy Use in Harvard's Newest Labs

Laboratories use lots of energy due in large part to a historically one size fits all approach to ventilation. Through a research project funded by Eversource, FAS, SEAS, and Harvard Capital Projects, EH&S is developing a pilot program to assess the impacts of the volatile chemicals utilized by Harvard scientists. Once specific ventilation requirements are identified, exhaust set-points can be customized, often leading to significantly reduced energy use. The pilot is underway and once it's validated the plan is to implement the strategy at the Science & Engineering Complex in Allston and other labs across Harvard.

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Reducing Risk by Planning for Emergencies

The Emergency Management team works with faculty and staff across the University to coordinate resources and develop comprehensive emergency and business continuity plans. These services ensure our complex and diverse campuses are able to respond to and manage various emergencies. This year, our Emergency Management team:

- Led severe weather monitoring for winter storms and Commencement
- Coordinated response efforts for mumps cases within the Harvard community
- Provided assistance to Harvard affiliates displaced due to building fires

Business Continuity Success Stories

Financial Administration (FAD) and Transportation Services made significant progress in their business continuity planning. FAD became the first unit within the Central Administration to complete a business impact analysis for all of the departments they support. Transportation Services became the first department to complete their business continuity plan, which features comprehensive severe weather protocols.

Emergency Planning In Action

The EH&S Emergency Management team and Harvard's Local Emergency Management Teams (LEMTs) conducted a number of simulation exercises in FY18 to foster critical thinking and ultimately deliver improved responses to incidents on campus. Exercises included:

- Simulated shelter activation for the Harvard Law School
- Response to a missing student abroad for Global Support Services
- Cascading international crises for the Harvard Business School
- Weather-related facilities emergency for the Harvard Kennedy School



Creating a Safer & Healthier Campus Environment

From major construction projects and routine building maintenance to pest control and food safety, EH&S works to ensure the campus is safe and healthy for everyone to enjoy.

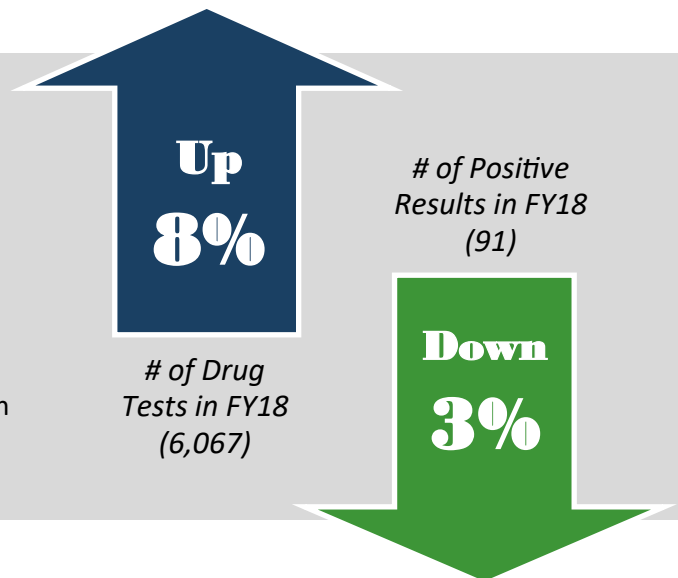
Preventing Rooftop Falls

Falling from a rooftop is a serious hazard for many workers charged with servicing and constructing buildings on campus. Over the past year, our EH&S Safety team collaborated with facility and building managers to install over thirty rooftop fall protection systems across the University. Additional fall protection systems have been budgeted and are planned for installation in the coming year.



Expanded Screenings for Opiates

Improvements to the Substance Abuse Prevention Program (SAPP) are making construction sites on campus safer. Project Support Services and the Office of Labor Relations worked closely to have the drug Fentanyl added to the SAPP, which further expands testing for opioids. Testing for Fentanyl will now be part of the routine screening of contractors who work on Harvard projects.



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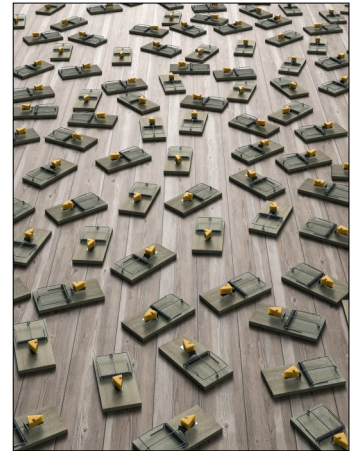




Creating a Safer & Healthier Campus Environment

Thinking Beyond the Mousetrap

This year, Environmental Public Health (EPH) teamed up with the City of Cambridge and building managers to adopt a new, more environmentally friendly pest management strategy for the abatement of rodents. This includes prevention strategies such as altering landscapes to make areas less attractive for burrowing, keeping trash more secure, and sealing seams and small openings in the interiors of rooms and the exteriors of buildings. The new methods are practical, cost effective and pose less risk to the community.



A Safety Plan for Success

In 2015, our EH&S Safety team began collaborating with Energy & Facilities (E&F) to establish a Safety and Compliance Management Plan for E&F. The approach has proven so successful that this year our Safety team began taking this model University-wide. The plan identifies safety/compliance requirements, key personnel responsibilities, training needs, communication pathways, and establishes an operational scope of services and schedule for EH&S support. The result is significantly improved communication and compliance with far fewer safety risks.



Managing Injuries & Illness

A collaborative effort has reshaped the way workplace injuries/illnesses are managed. EH&S, Harvard Human Resources, and local human resources groups have implemented the new PMA portal allowing reporting of injuries and illnesses 24 hours a day online or by phone. Once reported, EH&S is immediately notified electronically and a coordinated investigation with Designated Safety Officers (DSO), Lab Safety Advisors (LSA), and local HR departments begins. This more efficient system allows EH&S to collaboratively investigate workplace injuries/illnesses with a Harvard-wide eye towards identifying root causes, taking corrective actions, and improving our culture of safety.





Enhancing Safety in Labs & Research

Expanding the University's capacity to safely conduct research is a key priority for EH&S. We work collaboratively with faculty, staff, scientists, and students to better understand and mitigate the hazards and risks encountered in laboratories.

A Clever Approach to Tracking Chemicals

EH&S was awarded the President's Administrative Innovation Fund to pilot a new chemical inventory system. The goal is to improve safety and compliance while streamlining the chemical management process. EH&S formed the Clever Chemical Team along with SEAS Science Operations, Harvard University Information Technology, Central Procurement, and laboratory staff to develop criteria and evaluate available inventory systems. After a comprehensive review, the team chose Chematix and began piloting the system in select SEAS and Wyss Institute labs. This pilot is underway and will continue into the fall!



Improving the Radiation User Experience

The newest module in the online Radiation Management System now provides a seamless user interface for those managing radioactive materials, X-ray devices, lasers, and other non-ionizing radiation sources. The module introduces multiple features and enhancements including increased user control over radioactive materials, options to track inventory and waste disposal, accessibility by tablet or smartphone, a new and improved web interface, and the ability to request changes online and view the status of requests.



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Enhancing Safety in Labs & Research

New Contract Leads to Increased Efficiency

Radiation Services developed and executed a University-wide waste contract to provide consistent pricing and improved waste management/disposal services to our Longwood and Cambridge campus customers. This comprehensive contract provides stability to our on campus waste management procedures, allows for more accurate and timely financial planning/budgeting for our customers, and enables the Radiation Services team to operate the waste program in a smaller footprint saving valuable building space.



Biosafety Levels Up

To support the Committee on Microbiological Safety (COMS), the Biosafety team worked collaboratively to review and update multiple COMS policies. These updates, slated to be released in FY19, will streamline biosafety level assignments while providing more straightforward instructions for biosafety level requirements. The project also includes the creation of standardized safety profiles for various microorganisms to improve consistency in risk assessment and mitigation.

Better Processes for Controlled Substances

This year, EH&S developed several new tools to help researchers manage controlled substances including a new training course, usage logbooks, and a controlled substance audit program which will be implemented in FY19.



Supporting Students & the Broader Community

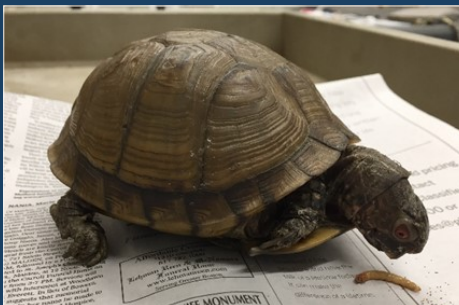
Spreading the Word about Needle Safety

Many new and returning students have medical conditions such as diabetes that require the use of needles, but they don't always know how or where to dispose of their "sharps." Since the needles are often used just before mealtime, improper disposal poses a serious risk to dining hall workers if the sharps are simply left on dining trays. To mitigate the problem, Environmental Public Health partnered with Harvard University Dining Services and the College to distribute signage and educational materials along with sharps disposal containers to prevent anyone from accidentally being pricked. The result has been a safer environment for everybody.



Getting Hands On

Harvard's Museum of Natural History provides hands-on, educational classes for children to learn about reptiles and amphibians. One challenge is that these animals can carry Salmonella and other pathogenic organisms. The museum worked with EH&S to develop and implement procedures for hand washing and sanitizing, timing and location for eating snacks, as well as parent/teacher education. This helps ensure a fun yet safe experience for the young visitors.



Way Off Campus

To help reduce the risks of tick-borne infections to students who participate in University-sponsored outdoor events, Environmental Public Health and the FAS-Freshmen Outdoors Program developed a strategy and plan to pre-treat hundreds of clothing outfits with residual tick repellents. This effort helped to reduce opportunities for tick feeding and the associated risks of tick-borne disease.





EH&S Tools & Resources

Below are just a few of the useful tools and resources you can access 24/7 through our website.

www.ehs.harvard.edu



Harvard Training Portal



Emergency Evacuation Trifolds



Harvard Contractor Safety Assessment Program (CSAP)



Chemical Waste Labeling Tool



Lab Personal Protective Equipment (PPE) Assessment Tool



Radioactive Waste Pickup Application



Computer Workstation Self-Assessment



Safety Data Sheets (SDS)



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