



ANNUAL REPORT 2015

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MESSAGE FROM THE EXECUTIVE DIRECTOR

Welcome to the Department of Environmental Safety, Sustainability & Risk Annual Report for 2015. This was a very productive year for ESSR filled with accomplishments, challenges, and some particularly noteworthy changes for our department and our staff.

The department experienced a change in leadership in the fall when Director Russell Furr left the university and Associate Director Scott Lupin was named Interim Director. We wish Russell all the best in his new endeavor!

Also in the fall, the Department of Environmental Safety (DES) became the Department of Environmental Safety, Sustainability & Risk (ESSR). The change in name highlights the three major disciplines of the department each with very specialized areas as you will see in the report. Environmental Safety, Sustainability and Risk Management are also very connected in many aspects and this provides many opportunities for existing and future collaboration.

Within the department, we have an Office of Research Safety, Office of Risk Management, Fire Marshal's Office, Office of Sustainability, Environmental Affairs, Emergency Management and our Business and Financial Services group. This report has been developed to provide an insight into the work we do, how we do it, and the results we have had. We hope you enjoy reading about our accomplishments.

Since this is a report for 2015, I won't get into too much detail about 2016 except to say that there are even more changes ahead for ESSR. One change that is in the works is a relocation of our offices to the Seneca Building, expected to be sometime in June. Stay tuned for more details.

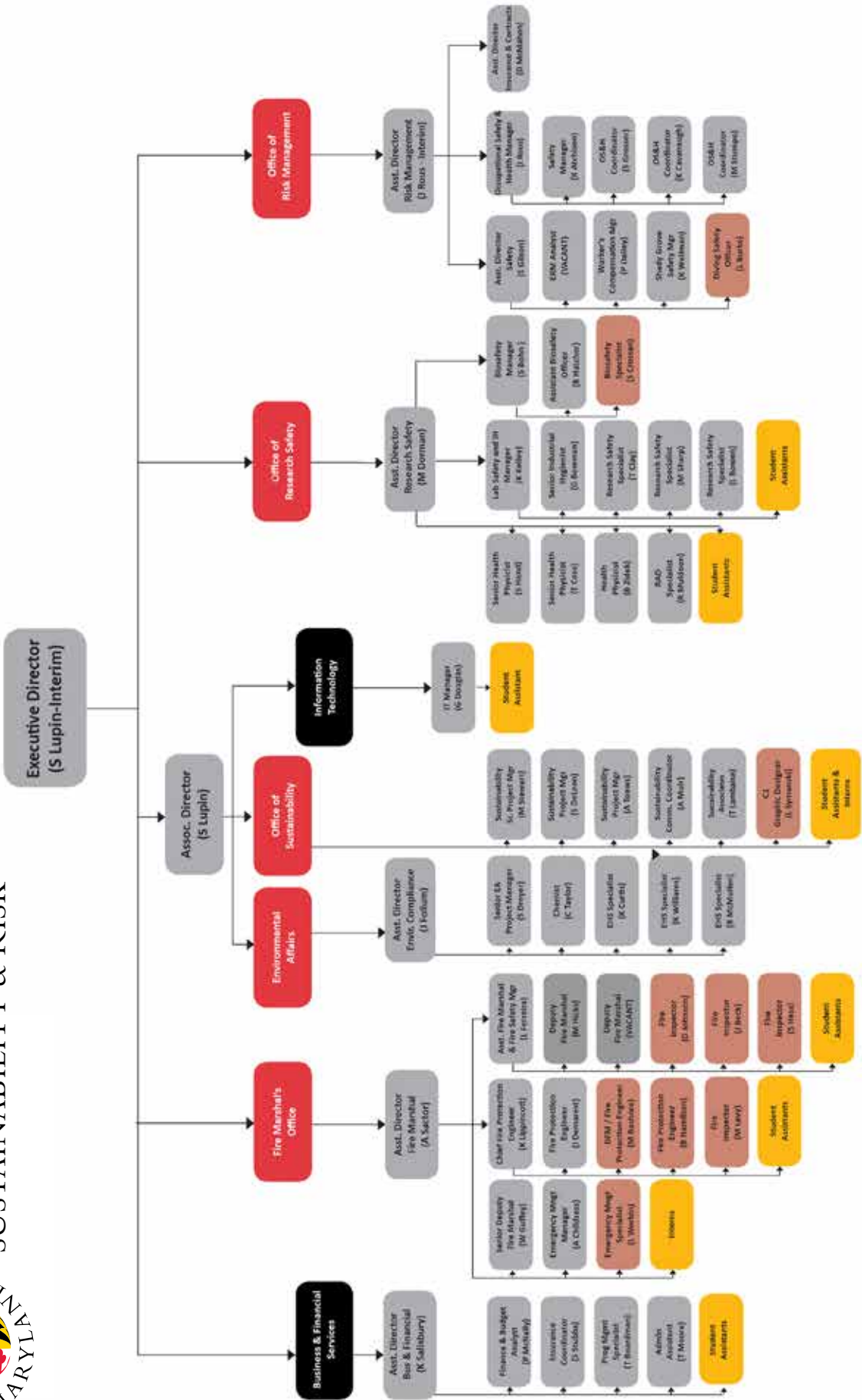
As 2016 progresses, we are looking ahead while learning from our past experiences to develop even better resources and services to support the university community. We are not only striving to meet the university's goal of "equal to the best," but also looking to become "best in class, second to none." With the dedicated people we have in ESSR, I believe we are well on our way to that goal.

Thank you for taking time to review this report. We look forward to working with you and the entire campus community and hope you will let us know how we can help.

With regards,
Maureen Kotlas
Executive Director
www.essr.umd.edu



DEPARTMENT OF ENVIRONMENTAL SAFETY, SUSTAINABILITY & RISK



DEPARTMENT OF ENVIRONMENTAL SAFETY, SUSTAINABILITY & RISK

Our Vision

Our vision is a campus where safety and sustainability are core values at every level of the university.

Our Mission

Our mission is to provide leadership in the identification and management of safety and environmental risks and to foster excellence in safety and sustainability through our technical expertise, our quality of work, and our professional integrity.

Our Values

The Department of Environmental Safety, Sustainability & Risk (ESSR) holds these values as intrinsic to our mission —

Protect People and the Environment

We put the highest priority in returning people home the same or better than they arrived. Through education, training, and knowledge sharing, we promote a culture of safety and sustainability.

Excellence

We expect state-of-the-art competencies of ourselves and others in all areas of workplace safety, environmental management, and sustainability. We deliver critical, high quality programs and services to the campus community.

Leadership

Our people at all levels, have ownership and take initiative in their areas of responsibility, and demonstrate the safe, sustainable, and environmentally friendly behaviors we expect of others.

Service

We provide professional services to the University of Maryland community. We are a resource for those we support and we follow through on our commitments in a timely manner.

Diversity

We acknowledge and honor the fundamental value and dignity of all individuals. We are committed to inclusiveness and actively seeking and encouraging discussion and participation from a diverse group with different perspectives and experiences.

Collaboration

We are committed to building partnerships and working together to find the best solutions to collectively achieve our goals. We are open to new ideas and creative solutions. We seek to engage and motivate the campus community to accept ownership of the university's safety and sustainability culture.

UMD Emergency Management (EM), led by the Emergency Manager in the Fire Marshal’s Office (FMO), plays a critical role in supporting the university’s mission. EM promotes a culture of resiliency to ensure that the university and campus community maintain essential functions before, during, and after an incident or emergency. Efforts during 2015 included conducting emergency preparedness outreach and education, facilitating training and exercises, plan support, and enhancing a strong cross-divisional structure.

Emergency Management Working Group

The Emergency Management Working Group (EMWG) is a group of cross-divisional representatives from various critical functions that work together to support the emergency management and resilience goals. This group began meeting in Fall 2015 to conduct a risk assessment of the campus functional areas. Future projects that the EMWG will work on include the revision of the university emergency operations plan and the development of a multi-year training and exercise calendar.



EMWG members regularly meet to discuss campus risks, issues, and emergency management goals.

Plan Development

The EM program assists departments and offices in developing and reviewing emergency plans. The goal is for all departments and offices to have emergency plans with the necessary content to know how the department or office will coordinate and communicate during an incident or emergency.

Training & Exercises

Training, exercising, and evaluating are core to the EM mission. During 2015, the university experienced a campuswide power outage (April) and a stadium evacuation during a football game (September). These types of incidents allow the university to exercise and evaluate its functional capabilities. In addition to these



UMD staff members participate in the Great ShakeOut Earthquake Drill.

incidents, the university participated in planned exercise opportunities such as the Great ShakeOut Earthquake Drill and the Alerting Anxiety Drill, which supports testing the alerts and notifications system.

In July 2015, EM participated in the university’s first UMD Essentials training offered by University Human Resources (UHR) where UMD staff received emergency preparedness and active shooter training. EM will continue to work with UHR to ensure that this type of training is available to all faculty and staff. UMD faculty and staff can contact EM to coordinate training for their respective departments and offices.

Community Outreach & Education

It is important for the UMD community to be able to access and share preparedness tips and best practices. The EM team participates in several events throughout the year in effort to reach a broad representation of



The “Emergency Preparedness Pocket Guide” (2nd edition) includes emergency information, general tips, and a reusable coupon to Looney’s Pub and Mulligan’s Pub and Grill.

the campus community. This is the second year that the program has offered the “Emergency Preparedness Pocket Guide.” The 2015 edition featured two of our local partners, Mulligan’s Pub & Grill and Looney’s Pub in College Park. UMD students, faculty, and staff can receive pocket guides at campus events or contact EM.

Internships

Students have the opportunity to gain real world experience in the growing and diversified field of emergency management through internships with EM. During the Fall 2015 semester, Communications majors Sarah Rudkin and Mara Dworkin used their education and skills to increase the awareness of the EM program through social media, writing the EM program blog, marketing to potential vendors for the “Emergency Preparedness Pocket Guide” and developing emergency preparedness videos which connect EM with the entire campus community.

Game Day Operations Center

This was the second year the university opened the Game Day Operations Center (GDOC) for its home football games. The GDOC fosters quick and timely communication and coordination between participating departments and agencies.



UMD departments and local agencies in the GDOC.

First Aid/CPR/AED

The demand for First Aid/CPR/AED instruction continues to grow. Training was provided to 144 people in the Division of Administration and Finance, as well as to other members of the community. In 2015, for the first time, ESSR staff conducted training at three of the Research and Education Centers (Wye REC, Western Maryland REC, and Central Maryland REC – Clarksville). In addition, we trained 53 AGNR – University of Maryland Extension and Agricultural Experiment Station faculty and staff from the seven REC locations (Central Maryland REC – Beltsville, Clarksville, and Upper Marlboro, Western Maryland REC, Wye REC, and Lower Eastern Shore REC – Poplar Hill and Salisbury).

During 2015, the University Health Center (UHC) turned over the university’s Public Access Automated External Defibrillator (AED) Program to the FMO. Efforts have been initiated to enhance the program over the next year to meet and exceed the requirements set forth by the State of Maryland’s Public Access AED Program. This will include features of the AED program detailed through the ESSR web site, a list and map of the locations of current AEDs on campus, and a list of on-site coordinators who have been trained in the use of the AED as well as CPR. Plans are being developed to increase the number of AEDs available on campus.



Deputy Fire Marshal Matt Hicks conducts training at the Central Maryland REC - Clarksville facility.

Web site and Social Media

EM has a new web site and web site address — www.prepare.umd.edu. Users can find a variety of resources including plan support, protective actions, weather emergency information, campus and off-campus resources, preparedness tips via social media, and more.

Environmental Affairs (EA) facilitates compliance with federal and state environmental regulations. EA manages environmental risk by developing policies, procedures, training, and consulting. EA supports faculty, staff and students in labs, offices, and maintenance shops. EA manages the university's compliance programs in the following environmental regulatory arenas: regulated waste management, air quality (Title V) permits, fuel and oil storage tank management, water quality permits, environmental assessments, and real estate initiatives.

Surface Water Quality and Storm Water Management

Storm water protection continued to be a regulatory focus for both the Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE). EA currently maintains compliance with two National Pollutant Discharge Elimination System (NPDES) permits for the university: an Individual Industrial Permit which is specifically tailored to controlling the university's discharge of wastewater to surrounding surface waters (State Discharge Permit No. 01-DP-2618) and a NPDES Phase II General Permit which covers the discharge of storm water run-off from land, pavement, building rooftops and construction sites on campus (General Discharge Permit No. 05-SF-5501).

These permits require the university to meet certain discharge limitations and ensure Best Management Practices in controlling storm water run-off. During the past year, EA was focused on working with other university departments in meeting new copper discharge limits. Studies were undertaken to identify equipment that are contributing sources of copper. These efforts will enable the university to prioritize remediation efforts and protect surface water quality.

Emergency Spill Response & Scheduled Remediation Projects

Clean up and spill response for all HAZMAT incidents including oil spills and environmental concerns on campus are a primary focus for EA.



Environmental Health and Safety Specialist Robert McMullen responds to a spill on campus.

The goals of preventing and mitigating any potential hazards to human health or environment are paramount. To accomplish this, EA collaborates closely with other ESSR units and emergency response units, including but not limited to the University of Maryland Police Department (UMPD) and Prince George's County Fire/EMS Department. EA personnel responded to 22 spills or incidents in 2015. For situations that require more resources, EA is the primary point of contact with UMD's emergency response contractor. EA maintains communications throughout the clean up activities to ensure that potential hazards are mitigated.

Air Quality Permitting and Reporting

UMD is subject to the requirements of the Clean Air Act and is considered a major source of nitrogen oxide (NO_x) emissions. EA received a renewed Title V Air Quality Permit in 2015 from MDE. Permit tasks include:

Reporting Requirements – EA collects, analyzes, and submits emission and compliance certification reports to MDE and EPA.

Testing Fuel Burning Equipment – EA oversees the annual testing of the exhaust gases from registered fuel burning equipment.

Permitting of Fuel Burning Equipment – EA prepares and submits permit applications and notifications to MDE, Maryland Public Service Commission and the local electrical distributor, PEPSCO.



Monitoring emissions from UMD fuel burning equipment.

Greenhouse Gas (GHG) Monitoring – Federal regulations require the university to monitor GHG emissions data from fuel burning equipment on campus and the Central Heating Plant. EA collaborates with other departments on campus to ensure that these requirements are being met.

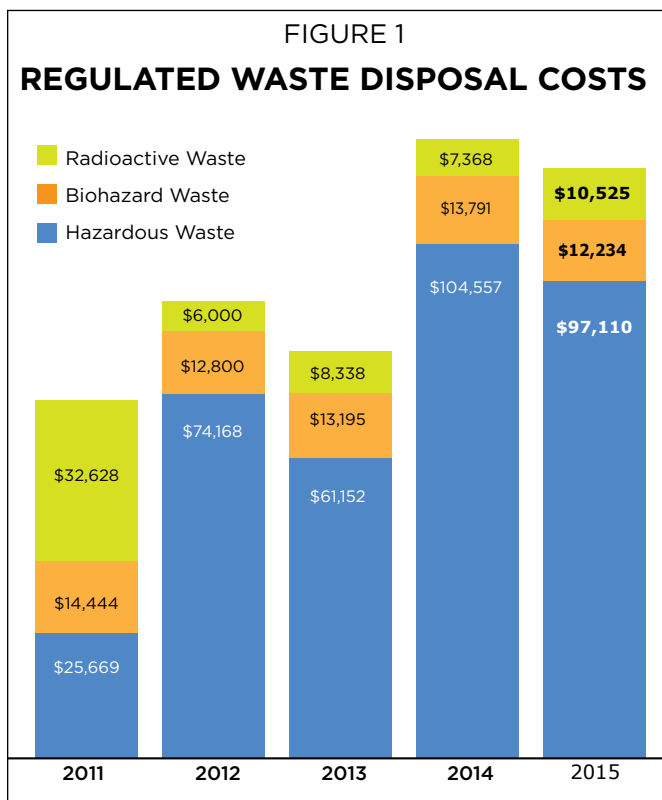
Regulated and Universal Waste Management Programs

The regulated waste program pertains to the management and disposal of all chemical, biological, and radioactive waste generated at UMD and its satellite facilities. The program has been scrutinized

by both federal and state environmental regulatory agencies. EA operates one of only two fully permitted treatment, storage and disposal facilities at a Maryland college or university. The UMD facility, originally constructed in 1981, was recently renovated to include upgrades that better incorporate safe practices for the handling of regulated waste, as well as to address deficiencies in the building site design.

In 2015 EA processed over 8,500 containers of hazardous, radioactive, and biological waste at a total cost of \$120,000. The majority of that cost is related to the disposal of hazardous waste, as shown in Figure 1.

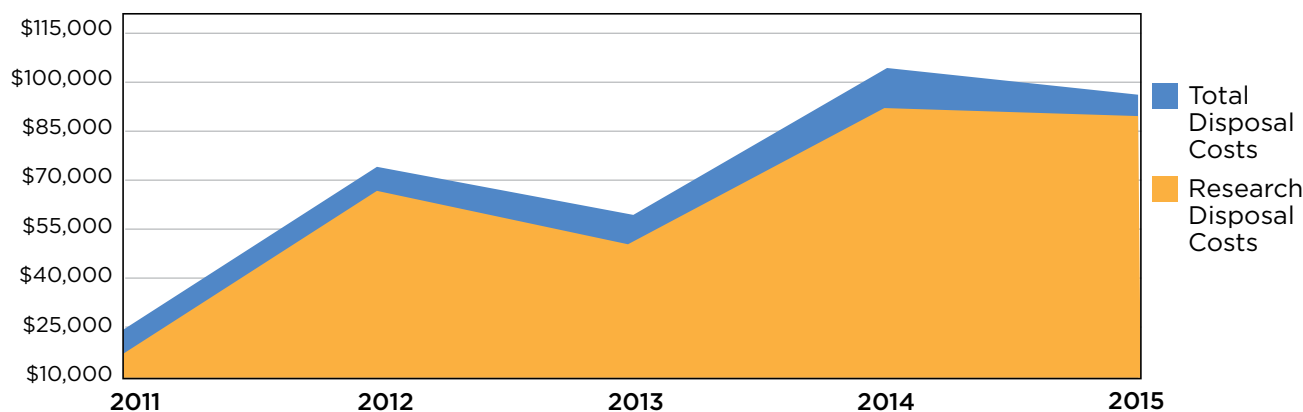
Hazardous waste constitutes the majority of regulated waste (cost and number of containers) on campus. As shown in Figure 2, UMD’s research enterprise contributes approximately 85-90% of the materials and associated disposal costs to the university.



Fuel and Oil Storage Tank Program and Training

Under the federal Clean Water Act, EA has developed and maintains a “Spill Prevention Control and Countermeasure” (SPCC) Plan to prevent and clean up oil spills on campus and maintains two Oil Operations Permits with MDE. EA is responsible for tank and piping testing, monthly tank inspections, SPCC plan revisions and permit renewals, personnel training, and above ground fuel storage tank projects. EA trained 134 people in three separate SPCC classroom training sessions during 2015. This included special classes held for HVAC, Landscape Services and Facilities Management (FM). The online training course was taken by 57 people from various departments.

**FIGURE 2
HAZARDOUS WASTE DISPOSAL COSTS**



The Fire Marshal's Office (FMO) works to preserve and protect life and property from fire, explosion, and natural hazards. This is accomplished through enforcement of the State Fire Prevention Code, fire protection engineering, training, public education, fire investigation, and emergency response and preparedness. FMO is the Authority Having Jurisdiction (AHJ) for the University of Maryland. Fire Marshals are delegated legal authority by the Maryland State Fire Marshal.

Fire Inspections

Fire Marshals annually inspect hundreds of university facilities in College Park and throughout the state in order to identify hazardous conditions and practices that could cause a loss due to fire or explosion. Residential occupancies — the places where people live and sleep — are always a primary concern. Over 10,000 rooms in 156 residence halls, apartment buildings, and fraternity and sorority houses were inspected. Greek houses affiliated with UMD that are located off-campus are also inspected in accordance with a memorandum of understanding with the City of College Park and Prince George's County.

During 2015, Fire Marshal staff performed 583 laboratory inspections, which is 60 more than last year. The laboratory fire inspection program continues to provide the benefit of improved communication between the FMO and laboratory staff. In addition to on-campus laboratories, the FMO inspected 67 buildings located at research farms throughout the state.

Overall, FMO performed 1,528 fire inspections and re-inspections of UMD facilities.

Plan Review and Construction

Fire protection engineers in the FMO review plans, conduct inspections, and provide occupancy approval for capital, campus, and department construction projects. Through the UMD Service Center, this AHJ service is provided for capital projects at other University System of Maryland institutions including Salisbury University, Frostburg State University, University of Maryland Eastern Shore, and Bowie State University. The FMO is also the AHJ for University of Maryland University College. In 2015, there were 91 plans reviewed and 78 inspections performed for capital projects. The total value of capital projects worked on was in excess of \$1.2 billion. Many smaller campus projects (value less than \$1 million) were also reviewed and inspected.

Event Management

Fire Marshals plan for, and stand-by at, all major events to assure that life safety objectives are met and to function as part of the emergency management leadership.

There were 127 events worked in 2015 accounting for 2,043 work hours, a 14% increase from 2014. Fire Marshals often work at night, on weekends, and during holidays to provide this service.

Events during 2015 included the "Brit" Kirwan Retirement gala at Xfinity Center, Bitcamp, a 76 hour continuous "hack-a-thon" at Cole Field House with 1,200 participants, and the NextNOW Festival at the Clarice Performing Arts Center.



Chief Fire Protection Engineer Keith Lippincott meets with contractors at A. James Clark Hall.



Pyrotechnics are set up on the roof of McKeldin Library for the Homecoming fireworks-laser show.



Homecoming fireworks-laser show at McKeldin Mall.

Photo credit: Edwin Remsberg

Pyrotechnics

As a part of Event Management, the FMO is involved in the planning and implementation of the indoor use of pyrotechnics and special effects as well as outdoor fireworks displays. As the AHJ, the FMO provides site approvals and coordinates the application process for pyrotechnics permits issued by the Office of the State Fire Marshal.

For the 2015 Homecoming Carnival on McKeldin Mall, organizers followed recommendations from

the FMO and utilized a proximate fireworks display combined with lasers and music for an impressive show.

Evening Shift

The FMO continues to staff an evening shift during the week. The evening Fire Marshal conducts fire inspections, provides assistance with fire alarm and sprinkler issues, inspects events and other evening operations, responds to fire and hazardous materials incidents, and is the point of contact for all safety related concerns.



Shawn and Alvaro are an inspiring example of how two college students overcame all odds to recover from their injuries, return to school and rebuild their lives.

After the Fire

In recognition of Fire Prevention Week, the FMO and the Department of Resident Life co-sponsored a lecture and documentary featuring two survivors of the Seton Hall University fire of 2000 that killed three students and injured 58 others. Freshman roommates Shawn Simmons and Alvaro Llanos were both critically injured in a fire set by fellow students as a prank. They shared their struggles with recovering from their burn injuries and discussed how their relationships with family and friends changed. The documentary also examined how the fire was set and spread throughout the building, and how those responsible for setting it were brought to justice.

The Office of Research Safety (ORS) was formed to bring together the Biosafety, Laboratory Safety, and Radiation Safety groups. ORS supports the UMD research community by helping researchers manage the inherent risks of their research. Research often involves multiple health and safety concerns and regulatory and compliance requirements. By combining the efforts and expertise of the Research Safety team members, we have created a seamless and comprehensive resource for researchers, enabling them to achieve their goals in a safe manner.

Streamlining Inspections

In 2015, the Office of Research Safety purchased and began the implementation of the BioRAFT web-based laboratory inspection module. This new system will improve the efficiency of laboratory inspections for ESSR staff and the research community. Beginning in 2016, all laboratory safety inspections including laboratory, biological, radiation, and fire, will be scheduled and conducted using BioRAFT. Principal investigators will have a single interface to view inspection reports and communicate completion of corrective actions. ESSR will be able to track trends, which will help us to identify areas where additional resources may be needed. Once the inspection module is fully implemented, we will add the training module which will help principal investigators identify required training and track the training records for their groups. Together, the two modules will provide an easily accessible compliance snapshot for each laboratory.

Biosafety Outreach

UMD Biosafety continues to support campus research in the biological and life sciences, assisting with registrations, trainings and risk assessments related to infectious agents, recombinant and synthetic nucleic acids, bloodborne pathogens and more.

In 2015, Biosafety focused much effort on growing and strengthening the UMD Institutional Biosafety Committee (IBC) in order to meet growing research demands and government regulation. Additional



The UMD IBC celebrated its 20th anniversary in 2015.

members were added from the Institutional Animal Care and Use Committee, UHC, Export Control, and the local community. The IBC celebrated its 20th anniversary as a UMD committee in December, and processed over 80 registrations this year!

Additionally, Biosafety is also an active participant in outreach and policy development. In February, ESSR Biosafety Officer Dr. Sherry Bohn was part of a UMD team that met with a delegation from the African Biosafety Network of Expertise during a tour of the Insect Transformation Facility at the Institute for Bioscience and Biotechnology Research (IBBR) in Shady Grove. She also participated in a National Academies of Sciences, Engineering, and Medicine visit to IBBR in October while they worked to gather input for its report “Gene Drive Research in Non-Human Organisms: Recommendations for Responsible Conduct” due to be released in 2016.

Ongoing Support to the Maryland University Training Reactor

A primary objective of Radiation Safety is to ensure the research community can achieve their research goals safely and in a regulatory compliant manner. In 2015, the Maryland University Training Reactor (MUTR) acquired and successfully made functional a new neutron imaging station. Neutron imaging is a nondestructive way to investigate samples that will enhance the MUTR’s capabilities, having applications in a wide range of fields from the study of material properties to the study of ancient artifacts and fossils. To support the installation and safe operation of the new neutron imaging station, Radiation Safety provided radiation monitoring, occupational and public dose assessments, guidance and resources. Also in 2015, additional support was provided to the MUTR in the area of radiological emergency preparedness. Together with MUTR staff and UMPD, Radiation Safety participated in a federally funded radiation emergency response training program. The knowledge gained and program elements implemented after training augments and strengthens the safety and security at the MUTR.



Mary Dorman, UMD Radiation Safety Officer, (right) supports Mimi Heibert (left), a MSE Graduate Student performing neutron imaging at the Maryland University Training Reactor (MUTR).

Laboratory Safety to evaluate the incident events, to identify factors leading up to and following the events, and to determine the best practices in order to control similar events in the future. Transferring ownership of the root cause analysis and preventative measures to UMD research personnel will hopefully generate a more thorough understanding of the processes and controls that contribute to research safety and integrity.

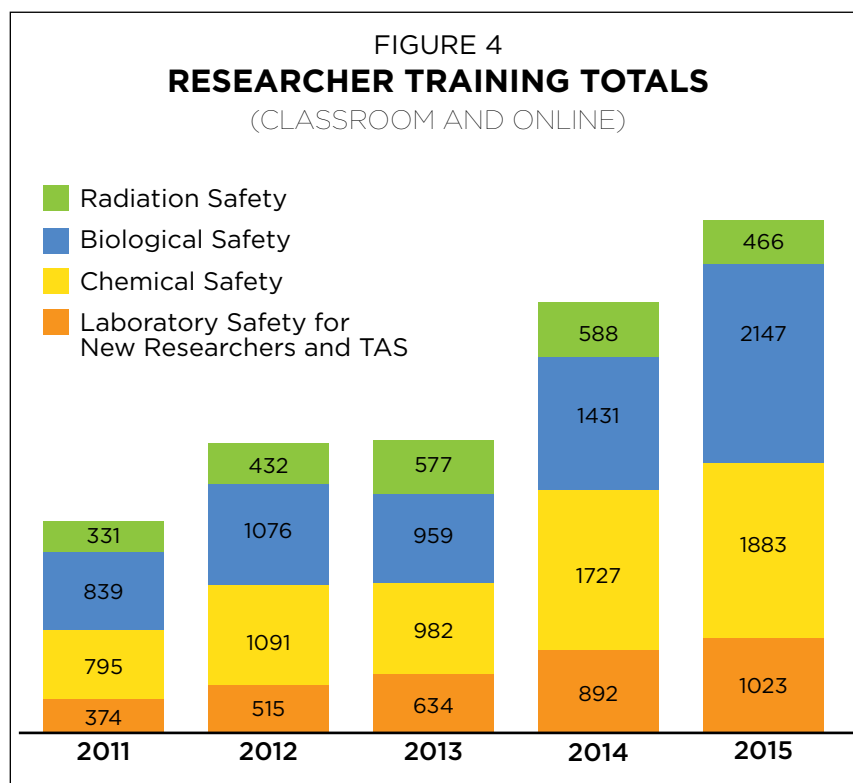
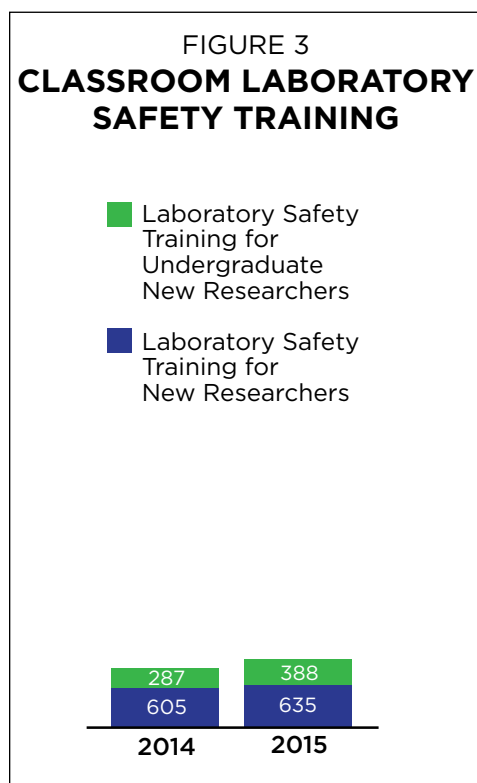
Training Improvements

The Office of Research Safety provides a number of classroom and online training programs to prepare students, faculty, and research staff for working safely in a research environment. As shown below in Figures 3 and 4, the number of faculty, staff and students trained has steadily increased over the past five years. This trend reflects the greater outreach efforts by ORS as well as the expansion of UMD research endeavors.

A key focus of the ORS outreach efforts has been structured undergraduate research programs. In 2015, Laboratory Safety and Biosafety personnel provided training for the new FIRE initiative (First Year Innovation and Research Experience) and continued to provide safety training for the Gemstone Honors program. The training introduces students to good laboratory safety practices which will prepare them as they take on greater roles in research labs.

Changes in Incident Investigation

Occasionally accidents or incidents occur in laboratory settings. Determining the contributing factors of these events are critical to identifying measures that can lessen the likelihood of similar future accidents. In 2015, Laboratory Safety implemented a collaborative approach to investigating laboratory accidents and incidents. Research faculty, staff and students are nominated to a review panel and are then coached by



The Office of Risk Management (ORM) provides support and consultation regarding the risk naturally encountered in the course of research, service, and the teaching mission of the university. The ORM works to reduce the chance and severity of loss to the university's financial and reputational assets, and physical and human resources through identification of these hazards and development of controls. Both traditional and progressive programs are utilized by Occupational Safety and Health (OSH), Diving Safety, Workers' Compensation, and Risk Management to accomplish this goal.

Workers' Compensation Improvement

ESSR initiated a cross-departmental effort to foster collaboration and improve the Workers' Compensation program. The group is working on strategies to provide prompt, quality care for our workers while managing costs. Participants include key personnel from FM, Dining Services, UHC, Human Resources, Public Safety, Residential Facilities, Workers' Compensation/Risk Management, and the Injured Workers' Insurance Fund (IWIF) claim management team.

The first objective was to have nearly all claims reported to IWIF within three days. The claim reporting process was modified to have UMD's four major claim generating departments now report their claims directly to IWIF. Direct reporting has resulted in quicker adjuster involvement and faster compensability decisions and authorizations for treatment. Employees can get the care and treatment they need to be on the road to a recovery and return to work. Between May and December, UMD saw a 12% increase in the number of claims reported within three days.

Ergonomics

Ergonomics emphasizes the importance of designing workstations (i.e., office furniture or industrial work areas) so the workstation fits the individual. The objective is to "design out" as many risk factors as



Effective solution for reaching blackboards.

possible to reduce musculoskeletal disorders (MSDs). ESSR's ergonomic program objectives are to reduce MSDs and decrease worker discomfort. An added benefit of the ergonomic education, evaluations and worksite modifications is increased employee morale, performance, and productivity. ESSR's OSH group offers ergonomic and back safety training. Additionally, office and physical work environment evaluations can be conducted to identify tools or modifications to reduce hazards. Recently the OSH group conducted an evaluation of blackboard cleaning and identified tools to allow housekeeping staff to reach the full blackboard without overextending.

Hazard Abatement

OSH continues to work to improve safety at UMD and collaborated with members of FM and University Recreation and Wellness to repair several identified deficiencies on campus. In the Golf Course machine shop, new metal supports, nozzle, and a backflow valve were installed on the power washer. Electrical repairs were also made to the power washer conduit and a ground fault circuit interrupter was placed on the nearby ceiling outlet. Guardrails and/or other fall protection were installed for roof maintenance employees in Animal Science, Art/Sociology Building,



Passive fall protection at Animal Science.

Chemical Nuclear Engineering, and Gudelsky (Vet Med). A platform was installed in Animal Science to facilitate fume hood maintenance. If you see a hazard that needs correcting, please report it to your supervisor or contact the OSH office.

FM Safety Committee

ESSR has been supporting and providing assistance to UMD departments who are working to engage all levels of their respective organizations in safety efforts and strengthen their safety management systems. The FM Safety Committee Structure was expanded to include a Job Hazard Analysis (JHA) Team, an Incident Investigation Team and a Training Team. In 2015, these employee/management groups have made significant progress toward achieving their respective goals.

The Incident Investigation Team instituted a formal Incident Investigation Procedure and Training Program. Team members have become more proficient in the investigation process through on the job training. The joint FM and ESSR Training Team trained 83 FM Managers during the year on the Incident Investigation process. The Training Team provided professional development, courtesy of UHR Learning & Talent Development, to the Safety Representatives to help develop their presentation skills. The JHA Team has identified a pilot work group and has begun evaluating their tasks. The team has also developed JHAs for specific tasks as requested by FM personnel.

The increased involvement and focus by all levels of the organization has led to a reduction in FM's recordable injury rate from an average of 9.1 in 2014 to 6.3 in 2015.

Insurance & Contracts

ORM administers various insurance programs for the university that are purchased on behalf of state agencies by the Maryland State Treasurer's Office. These programs include General Liability, Property Insurance, Automobile Insurance, Workers' Compensation, Professional Liability, Student Professional Liability, and Fine Art On-Loan. Through commercial insurance, the university transfers certain loss exposures to commercial insurance companies. Commercial insurance programs administered by ORM include Employers' Liability Insurance, Crop Insurance, Defense Base Act Insurance, and Media Liability Insurance. ORM is working with the Office of International Affairs in developing International Travel Health Insurance for Faculty and Staff.

Community Outreach

ORM chairs the annual University Risk Management and Insurance Association Mid-Atlantic Regional Risk Management Conference in Baltimore. This conference draws risk management professionals from educational institutions all over the mid-Atlantic region. ORM also administers the criminal background check program for personnel working with minors at over 50 summer camps and other youth program events.

Ongoing Needs and Challenges

Student Activity Risk Management: ORM continues to review and conduct risk assessments of over 300 student activities every year. Increases in experiential learning and a more engaged student population continues to change UMD's risk profile and risk management challenges.

Injury Prevention and Return to Work: UMD continues to work to eliminate hazards and prevent workplace injuries. Efforts continue to expand support for employees with injuries returning to work.

The Office of Sustainability (OS) is responsible for facilitating campus-wide sustainability initiatives in support of the President’s Climate Commitment, environmental performance, and the university’s strategic commitment to become a model of a green university.

OS educates, provides tools, and facilitates action involving a range of stakeholders including students, staff, and faculty. The unit partners with operating units such as FM, Resident Life, and Dining Services on the design, implementation, and marketing of campus-wide sustainability focused programs.

OS develops programs that encourage greater awareness of sustainability issues, supports behavior change that improves campus performance, and communicates sustainability matters via print and electronic formats.

University Sustainability Council

UMD established the University Sustainability Council in 2009 to advise the president on sustainability policy and performance. The Director of OS serves as a permanent member and the Office serves as staff to the Council. In 2015, the Council focused its efforts on the following projects:

Carbon Offset Work Group – The Council created the Carbon Offset Work Group to investigate the potential use of carbon offsets as part of the university’s carbon reduction strategy and Climate Action Plan. They began meeting in early 2015 and presented their recommendations to the Council in December.

Sustainability Progress Report – This report was presented to the Council in Fall 2015. Highlights from the report include:

- Five years ahead of schedule, Dining Services met their goal of serving 20% sustainable food (locally grown or produced, certified Organic, Certified Humane or certified Fair Trade) in Dining Halls by 2020.
- Campus carbon footprint has been reduced 25% compared to 2005.
- UMD was named a gold-level Bicycle Friendly University, the highest recognition that the League of American Bicyclists has given to any college or university in the Mid Atlantic. Bike registration was at an all-time high on campus in 2014.
- The Partnership for Action Learning in Sustainability (PALS) offered 26 courses and enrolled 567 students to work with the City of Frederick on advancing local sustainability efforts.

Climate Action Plan revisions (CAP 2.0) – OS staff began revising its existing Climate Action Plan with the following objectives:

- Update and clarify strategies to meet 2020 (50% reduction) and 2025 (60% reduction) goals.
- Prioritize strategies to determine the most cost-effective path to achieving our goals.
- Identify stakeholders responsible for implementing each strategy.
- Create a mechanism for tracking stakeholder progress.
- Clarify funding sources and savings potential.

The University Sustainability Council approved the disbursement of \$297,706 from the **University Sustainability Fund** by the end of December 2015. OS administers the fund and works with students to review and recommend proposals to the Council for funding. In 2015, they recommended the following notable projects:

- **Bolstering Organics Collection Infrastructure** - \$50,400. FM will improve the quality of organics collection from



UMD students work with the City of Frederick on advancing local sustainability efforts.

dining halls, Stamp Student Union, and select administrative buildings on campus. The grant will pay for a compactor, toters, and a toter tipper.

Real-time UMD Campus Energy Water Monitoring, Mapping, and Management -

\$20,100. Mechanical Engineering faculty received funding for the installation of occupancy sensors that will collect data on water and energy use in buildings. This project will cut costs through the reduction of water and energy consumption, and contribute to the President's Energy Initiatives goal of reducing energy consumption on campus 20% by 2020.

Transforming Student Culture Through Green Housing Programs -

\$112,458. The Departments of Resident Life and Fraternity and Sorority Life received funding to hire a staff person to develop a Green Rooms and Green Chapters program and to support materials and supplies for these programs for a two-year pilot.

Outreach & Communications

On-campus outreach includes participating in special events such as Maryland Day, Earth Day, First Look Fair and Stamp Fest. OS also deploys the LEAF Outreach Team, a group of trained and dedicated students who support and reward sustainable actions at events, gatherings, residence and dining halls. The OS communications team profiles and promotes campus initiatives and success stories via print and social media vehicles including:

- University sustainability web site
- Sustainability newsletters
- *SustainableUMD Magazine*
- Facebook, Twitter, Instagram and YouTube (search SustainableUMD).



LEAF Outreach Team member shares food miles information at Farmers Market.

OS also plans and hosts the Smart and Sustainable Campuses Conference. This professional development event was held in March 2015 and drew over 300 college and university professionals from across North America.

Program Development

To further sustainable practices and behaviors on campus, OS develops and manages initiatives including:

The Chesapeake Project – Now in its eighth year, this two-day workshop has introduced sustainability issues to 164 professors in each of the university's 13 colleges/schools. Professors have integrated sustainability into more than 170 courses across the curriculum.

Sustainability Advisors

– Also in its eighth year, this program trains students to teach a one-hour lesson on sustainability in freshmen seminar classes. Advisors introduced sustainability to roughly 2,400 students in Fall 2015.

The Green Office Program

– This program guides offices interested in changing personal behaviors and integrating sustainability into the workplace. To date, nearly 150 offices and more than 2,300 staff and faculty participate. 2015 saw nine offices achieve Gold-level status.



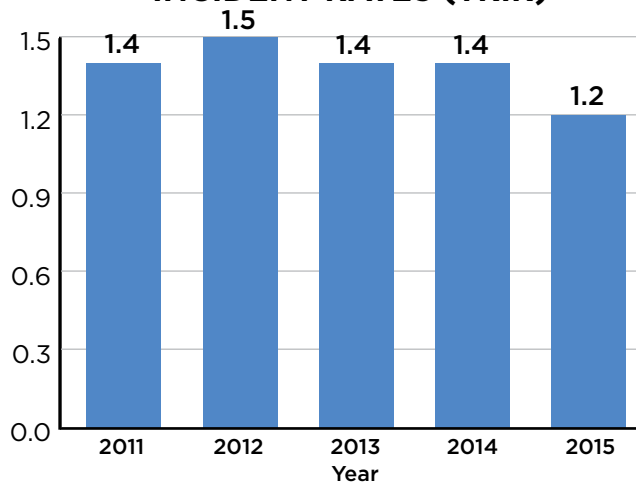
Sustainability Advisor teaches a one hour lesson on sustainability.

Measurement & Performance

OS is responsible for conducting the annual campus greenhouse gas inventory; establishing and measuring annual performance metrics and reporting campus performance to external rating organizations including the Princeton Review, Sierra Club and the Association for the Advancement of Sustainability in Higher Education. OS also prepares the sustainability progress report annually and reassesses the university's performance under the national Sustainability Tracking, Assessment, and Rating System (STARS) every other year.

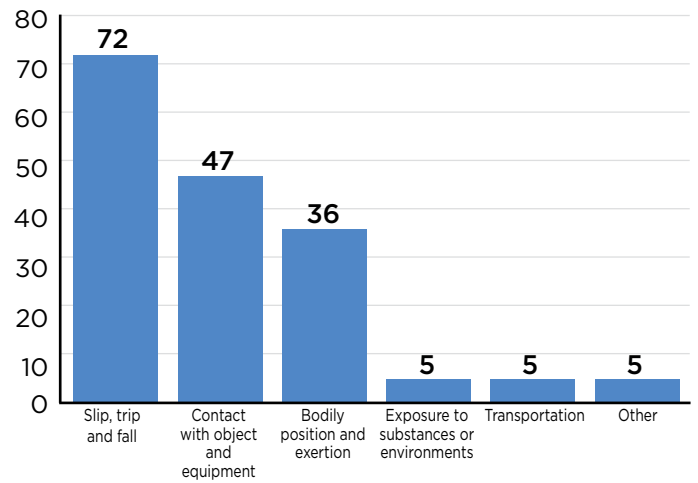
UMD LOSSES AND INCIDENT RATES

OSHA TOTAL RECORDABLE INCIDENT RATES (TRIR)



TRIR = # of injuries x 200,000 ÷ total # hours worked.
The TRIR for colleges and universities in 2014 was 1.9, according to the US Department of Labor, Bureau of Labor Statistics.

2015 UMD RECORDABLE INJURIES AND ILLNESSES BY INCIDENT/EVENT



2015 PROPERTY CLAIMS

Type of Claim	Number of Claims	Damages
Broken Pipes – Flood	31	\$205,812
Explosion or Fire Damage	6	\$1,215
Contractor-related Damage	2	\$3,024
Other Property Damage	7	\$1,200
Electrical Damage	5	\$34,893
Weather-related Damage	7	\$3,990
Totals	58	\$250,134

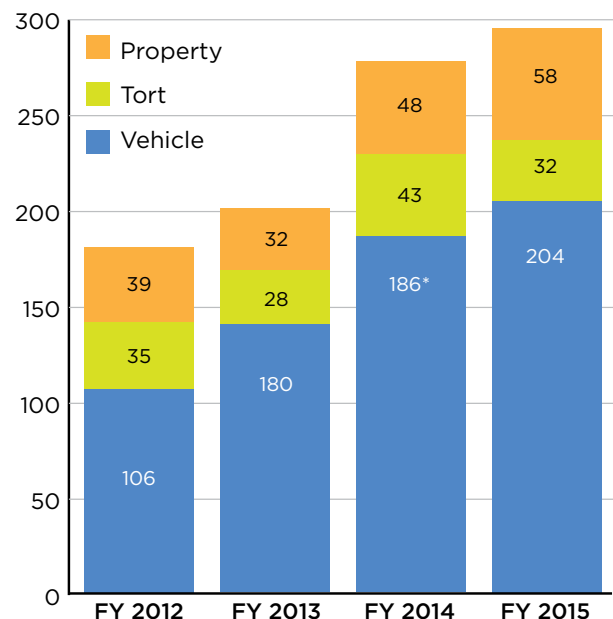
2015 GENERAL LIABILITY

Type of Claim	Number of Claims
Vehicle Damage	14
Slip and Falls (Non-employee)	9
Property Damage	6
Totals	29

2015 STATE VEHICLE CLAIMS

Type of Claim	Number of Claims
Not at Fault Accidents	66
Struck Another Vehicle	72
Struck Fixed Object	23
Rental Vehicle	3
REVERSING ACCIDENTS	20
Other Vehicle Accidents	5
Totals	189

INSURANCE PROCESSING CLAIMS Total Claims: FY12-FY15



*Beginning in FY14, incidents that were less than the \$1,000 deductible have been included in the total number of vehicle claims.

TRAINING

ESSR offers over 70 training classes in the classroom and online. Our training is free to all UMD faculty, staff, and students. The table below provides a broad summary of people we trained in 2015. For a complete listing of the classes we offer, visit our web site at www.essr.umd.edu.

PEOPLE TRAINED IN CLASSROOM AND ONLINE		
Type of Training	Number of People Trained in Classroom	Number of People Trained Online
PHYSICAL AND ELECTRICAL Electrical Safety; Ergonomics; Slips, Trips and Falls; Fall Protection; Hearing Conservation	932	51
CHEMICAL HAZARDS Hazard Communication; Lead and Asbestos Awareness; Laboratory Safety; New Researcher Training; Chemical Hygiene	2,471	1,862
OPERATIONAL SAFETY PPE; Respiratory Protection; OSHA 10-Hour; Forklift and Ladder Safety	368	79
ENVIRONMENTAL PROTECTION SPCC; Chemical, Radioactive and Universal Waste Generator; Sustainability	159	1789
RADIATION Radiation Safety; Laser Safety	118	355
INFECTIOUS MATERIALS Biosafety; Bloodborne Pathogens	693	2292
FIRE AND LIFE SAFETY First Aid/CPR/AED; Crowd Manager; Floor Marshal; Cooking/Kitchen Safety; Resident Assistant/Fire Emergencies; New Employee Orientation	914	
TOTAL PEOPLE TRAINED	5,655	6,428

INSPECTIONS

INTERNAL INSPECTIONS	
Type of Inspection	Number of Inspections
Environmental Affairs	1008
Fire Safety	1620
Research Safety	537

INSPECTIONS AND AUDITS FROM EXTERNAL AGENCIES	
Type of Inspection	Number of Inspections
Nuclear Regulatory Commission and MDE Radioactive Material Inspections	2
Radiation Producing Machine State Inspections	3
USM Internal Audit of UMD Camp Programs	3



DEPARTMENT OF ENVIRONMENTAL
SAFETY, SUSTAINABILITY & RISK

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