



ANNUAL REPORT 2013

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DEPARTMENT OF ENVIRONMENTAL SAFETY

Our Vision

Our Vision is a campus where safety and sustainability are core values at every level of the institution and DES is a critical asset in the management of university risks through our technical expertise, our quality of work, and our professional integrity.

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 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.

University of Maryland Emergency Management (UMD EM) is a joint effort with the University of Maryland Police Department (UMPD). Working together, the Emergency Management Team is developing a comprehensive emergency management program. Alisha Childress became the university's first full time emergency management coordinator. Working out of the Fire Marshal's Office, she coordinates preparation, mitigation, response, and recovery programs necessary for the university to be prepared for emergencies.

Exercises

The emergency management team has facilitated and evaluated exercises to help UMD departments and offices, as well as external partners, identify strengths and areas for improvement when planning and responding to emergencies. The exercises have focused on providing participants the opportunity to: review and discuss emergency response plans, policies, and procedures; review and discuss the decision-making process; identify resource and facility access limitations; increase the understanding of the interrelatedness and dependencies between university departments and external partners; and to identify and make suggestions to improve and perceived shortfalls during the exercises. Exercises during the 2013 year included the Eppley Recreation Center (ERC) Active Shooter Tabletop Exercise (TTX) and the Great ShakeOut Earthquake Drill.

This was the first year UMD participated in the world's largest earthquake drill, the Great ShakeOut. The Great ShakeOut offered an opportunity to test the UMD Alerts system and to educate the UMD community on protective actions to take in the event of an earthquake. It helped students, faculty, and staff learn how to stay safe while providing feedback to university administrators on the strengths and areas for improvement of the UMD Alerts system.



Students drop, cover, and hold on in the Stamp Student Union during the "Great ShakeOut."

Community Outreach & Education

It is important for our community to be able to access and share preparedness tips and best practices. The Emergency Management Team participates in several events throughout the year in effort to reach a broad representation of the campus community.

The Protect Your Shell Fair and the First Look Fair provide opportunities to reach students,



Grant funded UMD backpack emergency kits are popular prizes at event raffles.



Emergency Management Specialist Ren Werbin provides information at the School of Public Health Fair.

while the Benefits Fair and the School of Public Health Fair help reach faculty, staff, and the general community. In addition to the various fairs, the Emergency Management Team provided educational meetings on emergency management, such as “What is Emergency Management?” and “Active Shooter Presentations.”

In 2013, the Emergency Management Program was rewarded a total of \$2000.00 from the Pepsi Co. Fund Grant. One of the granted programs includes creating emergency TerpKits — UMD backpacks filled with emergency supplies — to raffle at Maryland Day, as well as handing out educational materials on how to prepare and plan for emergencies. The other will facilitate a dialog in the campus community to communicate diversities, perceptions and experiences in relation to disasters.

Internships

Emergency management interns are competitively selected to assist with the functions of UMD Emergency Management. Internships not only benefit the program, they also provide an opportunity for the students to gain real world experience in the growing field of emergency management.

Social Media

During 2013, the UMD Emergency Management Program launched its first newsletter and blog, and created Facebook and Twitter accounts. Social media will be used for marketing, education, emergency event information sharing, and as an aid to situational awareness.

Facebook: www.facebook.com/UMDemergencypreparedness

Twitter: @PreparednessUMD

Tumblr (Blog): www.tumblr.com/blog/preparednessumd

Academic Support

Dr. Pat Cleveland, a professor and retired Dean of Undergraduate Education in the Smith School of Business, is a strong proponent of mandatory coursework in crisis management for business students. Dr. Cleveland invited the Emergency Management Team to develop and present a workshop on incident management for her course: BMGT468, X-Treme Management — Managing in Times of Crisis, Risk Analysis & Emergency Management. Participation in the workshop, which was a simulated incident exercise using the Incident Command System (ICS), accounted for 10 percent of the student’s overall grade. The workshop was well received by the students who found it to be a challenging, realistic experience. One student commented that it was “possibly one of the coolest projects I have done in my college career.”

First Aid/CPR/AED

The demand for First Aid/CPR/AED instruction continues to grow. Training was provided to 112 people in the Division of Administration and Finance, as well as other members of the community. DES provides campus-wide consultation on the State’s public access AED program and associated regulations, as well the purchasing and maintenance of AEDs.



Deputy Fire Marshal Matt Hicks, DES lead instructor, watches as Facilities Management staff practices during a CPR class.

The Environmental Affairs (EA) section is responsible for facilitating compliance with federal and State environmental regulations and the management of environmental risk through the development of policies and procedures, permitting, training, internal monitoring, studies and consultation. EA supports faculty, staff, and students in laboratory/clinical areas, general workplace settings (e.g., dining services, dormitories and residences, athletics), and Facilities Management (FM) shops and planning offices. EA has the oversight and development for the university’s environmental permitting and compliance programs, such as regulated and universal waste management, air quality (Title V) permits, fuel and oil storage tank management, water quality (NPDES) permits, environmental assessments, and real estate initiatives.

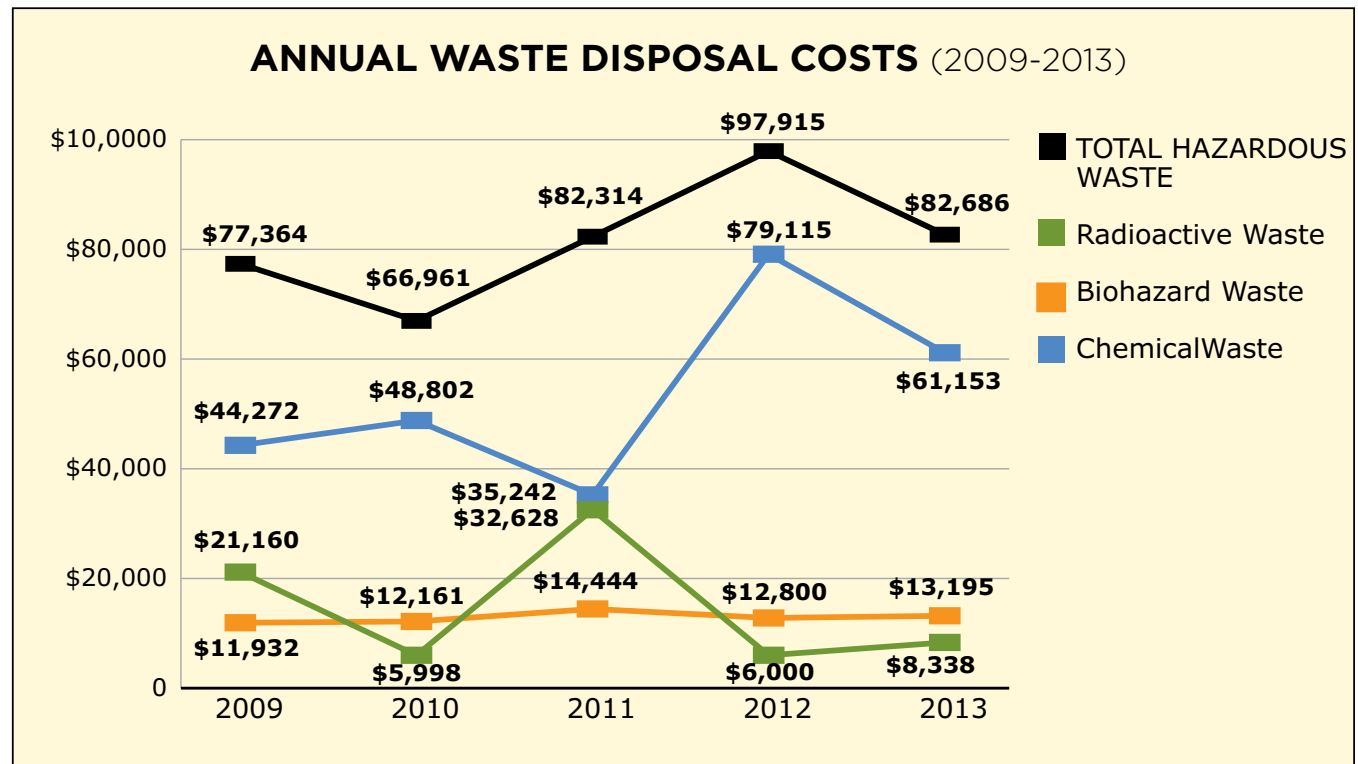
Regulated and Universal Waste Management Programs

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 without any Notice of Violations and monetary fines issued.

EA operates one of only two fully permitted treatment, storage, disposal, facilities (TSDF) at a Maryland College or university. The UMD building was designed in 1981 and is currently being renovated and upgraded to better reflect safe practices for the handling of regulated waste as well as to address deficiencies in the in the building site design.

- **Regulated Waste** - EA processed 8,211 Regulated Waste containers in 2013, equating to 90,528 pounds of regulated waste and total disposal costs of \$82,686

- **Universal Waste** - EA, UMD’s Recycling and Solid Waste Management group, and the Office of Terrapin Trader and Surplus Property continue to collect and recycle various batteries, electronic waste (televisions, computers, and computer monitors) and spent intact fluorescent light tubes. DES periodically audits recyclers who process the university’s Universal Waste for compliance.



Air Quality Permitting and Reporting

UMD is subject to the requirements of the Clean Air Act and considered a major source of emissions primarily due to nitrogen oxide (NO_x) emissions from the Central Heating Plant. The Maryland Public Service Commission has issued a Certificate of Public Convenience and Necessity (CPCN) authorizing and imposing operating conditions at the Central Heat Plant. For the past 11 years, EA has been the primary unit responsible for Title V permit and CPCN operational requirements at UMD. EA collaborates with other departments on campus to ensure that these requirements are being met and is expecting to receive a new Title V Permit in the spring of 2014.



not limited to the UM Police Department and Prince George's Fire/EMS Department, to accomplish this role. EA responded to 29 spills or incidents in 2013.

For situations that require more resources, EA is the primary point of contact with the university's Emergency Response Contractor. EA will coordinate all activities to ensure that potential hazards to human health and the environment are mitigated.

Fuel and Oil Storage Program

UMD maintains 72 fuel storage tanks and approximately 250 pieces of equipment containing various petroleum products, having a total combined storage capacity of approximately 720,000 gallons. Since 1997, EA managed the removal of over 60 underground fuel storage tanks (USTs) from the campus and removed the last two USTs in the spring of 2013.

Under the federal Clean Water Act, EA has developed and implemented a "Spill Prevention Control and Countermeasure Plan" (SPCC) to prevent and clean-up oil spills on campus and maintains two Oil Operations Permits with the 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.

Emergency Spill Response & Scheduled Remediation Projects

EA has the responsibility to respond to all HAZMAT incidents, oil spills, and environmental concerns on campus. The primary role of EA involving an incident is to mitigate any potential hazards to human health or the environment. EA collaborates closely with other DES units and emergency response units, including but

Surface Water Quality and Storm Water Management

To protect surface water quality and to ensure compliance with federal and State regulations, EA administers the Storm Water Management Program (SWMP). Storm water and wastewater discharges are generated at UMD through a number of point sources and could ultimately enter "waters of the United States." These discharges could affect the quality of the receiving water and are therefore controlled and regulated under the federal Clean Water Act (CWA) — National Pollutant Discharge Elimination System (NPDES) Program, promulgated by EPA and MDE. Under the NPDES Program, facilities which discharge pollutants from any point source into waters of the United States are required to obtain a permit.

EA currently maintains two 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).

EA facilitated a service fraternity clean-up for Campus Creek with over 50 volunteer participants on September 13, 2013.

The UMD Fire Marshal's Office (FMO) is the Authority Having Jurisdiction (AHJ) responsible for fire prevention and fire safety through enforcement of the State Fire Prevention Code, review and approval of building construction, providing training and public education, and investigating fires. 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. More than 10,000 rooms in 156 residence halls, apartment buildings, and fraternity and sorority houses were inspected.

During 2013, 544 laboratory inspections were performed. That is 434 more than last year when the laboratory fire inspection program was started. The program has provided the additional benefit of improved communication between the FMO and laboratory staff. Researchers are now more inclined to ask for assistance when planning work involving hazardous materials and processes.

Overall, FMO performed 1,380 fire inspections and re-inspections of UMD facilities.

Plan Review and Construction

Fire protection engineers in the Fire Marshal's Office 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 USM institutions including Salisbury University, Frostburg State University, UMES, and Bowie State University. The FMO is also the AHJ for University of Maryland University College. In 2013, 270 plans were reviewed and 214 inspections were performed. The total value of projects worked on was in excess of \$1 billion.



Chief Fire Protection Engineer Keith Lippincott at the new Physical Sciences Complex.

The Physical Sciences Complex (Phase 1), a major project completed in 2013, presented fire protection challenges from the time of initial design. The 160,000 square foot facility with a cost of \$120 million would be designed for technical research with demanding tolerances. In order to minimize vibrations, laboratories had to be located on two levels below ground where the use of highly flammable liquids is strictly regulated by the State Fire Prevention Code. FMO Chief Fire Protection Engineer Keith Lippincott evaluated proposals by the building designers that would minimize the risks associated with the use of highly flammable liquids. He eventually approved an engineered solution that was acceptable within code equivalency provisions. The engineering controls, along with operational limitations worked out with other FMO staff and ORS staff, will allow use of the materials necessary to support the intended research by UMD, Joint Quantum Institute (JQI), and National Institute of Standards and Technology (NIST) scientists.

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Deputy Fire Marshal Matthew Hicks greets the Dalai Lama.



Fire Marshals at the UMD sponsored bonfire celebrating a win over Duke Men's Basketball.

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 101 events worked in 2013 accounting for 1,536 work hours, a 25% increase from 2012. Fire Marshals often work at night, on weekends, and during holidays to provide this service.

The university hosted several high profile visitors during 2013. His holiness the Dalai Lama of Tibet delivered the Anwar Sadat Lecture for Peace in May, First Lady Michele Obama was the Commencement speaker for Bowie State University in a ceremony held

on campus, and President Barack Obama and his family attended a Men's Basketball game in November. These types of events involve many hours of planning and preparation with federal agencies such as the U.S. Secret Service and U.S. State Department. FMO coordinates fire, EMS, and hazardous materials response.

As UMD Intercollegiate Athletics (ICA) leaves the Atlantic Coast Conference and joins the Big 10, traditional rivalries faced final matchups. The last Maryland Men's Basketball vs. Duke played in College Park was widely anticipated. The Fire Marshal's Office worked proactively with ICA, UMPD, FM, and the City of College Park to plan a celebratory bonfire on campus, avoiding major civil disturbances that marred previous victories.



Deputy Fire Marshal Doug Gazzale prepares for the evening shift

Fire Marshal Evening Shift

An evening shift was implemented in 2012 to enhance service to the campus community. The shift provides a greater presence during the evening hours. The Fire Marshal working the evening shift 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.

The Office of Research Safety (ORS) merges the experience and expertise of Biological Safety, Laboratory Safety and Industrial Hygiene, and Radiation Safety. A principal goal of the Office of Research Safety is to work collaboratively with the University of Maryland research community to help manage the risks associated with their research and allow them to achieve their goals in a safe manner. Research often involves multiple hazards, and Research Safety team members often work together and with other units in DES to be a comprehensive resource for researchers.

Helium Recovery

Helium is a non-renewable resource with a growing demand. The increase in demand has resulted in an increase in cost making research that uses cryogenic helium much more expensive. Under routine cryogenic cooling, helium is lost. However, it is possible to recover helium and reprocess it for continual use. Helium recovery has two significant benefits, lowering the cost of conducting research and conserving a limited resource.

The Physics Department contacted DES to evaluate a helium recovery system they are proposing to install to capture and liquefy the helium gas that is currently lost when a superconducting magnet system and several bolometers are cooled to operating temperatures. Laboratory Safety staff met with representatives from the Physics Department to review the plans, inspect the proposed locations for the helium recovery system, and provide recommendations to address the safety concerns involved with the storage of a large volume of helium gas and subsequent pressurization of the gas to the liquid state. Recommendations included facility redesign options to minimize the potential for hazardous atmospheric conditions, confined spaces and complex egress issues. Laboratory Safety consulted with the Fire Marshal group and the Occupational Safety and Health group during this evaluation to ensure that all potential hazards were identified and addressed.

Involving DES early in the design of the helium recovery system provided the Physics Department with the information necessary to move forward with the helium recovery process in a safe manner. The evaluation of this project has allowed DES to gain knowledge and experience that will help other research departments that are considering similar systems.

Additional Provisions for Information Security

The Biosafety staff worked with the Department of Veterinary Medicine, University OIT and the DES IT Analyst to implement new security provisions of the federal Select Agent regulations, which became effective in April, 2013. The revisions strengthened all aspects of information security, requiring the university to implement measures to ensure that only authorized users are granted access to sensitive select agent information, ensure controls are in place to prevent malicious code from compromising the integrity of electronic systems and ensure the security of hardware and paper documents. The Biosafety group worked with the Department of Veterinary Medicine to strengthen security of the server where select agent information is stored, and provided required training to research personnel.



Assistant Biosafety Officer Andrea Ferrero-Perez (right) works with a graduate student to implement new security provisions of the federal Select Agent regulations.

Fire Protection Engineering Research Project

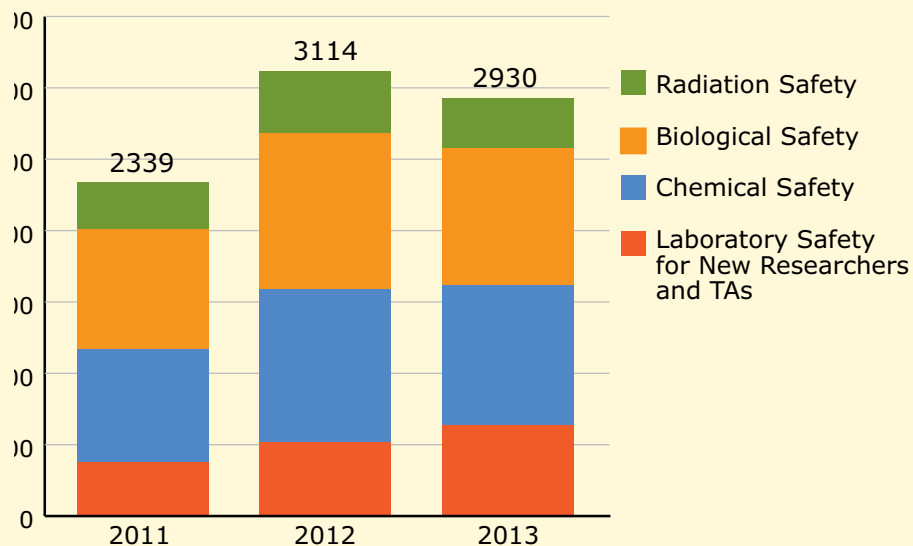
The Fire Protection Engineering Department and MFRI were awarded a contract to test the flammability of two refrigerants, R32 and R410a, which are not currently used in the United States. The health, safety and environmental concerns associated with this project include the highly flammable nature of one of the refrigerants, hazardous thermal decomposition products, which include carbon monoxide, hydrogen fluoride and carbonyl fluoride, and the high Greenhouse Warming Potentials of the gases. The laboratory for this project was designed to recreate a typical hotel room and the tests consisted of releasing a quantity of one of the gases into the room to assess the potential for ignition from the room's HVAC unit. The review of this project involved a joint effort by Research Safety, the Fire Marshal and Environmental Affairs. DES staff met with the researchers to discuss the project's potential health and safety hazards as well as any conflicts with the University's Clean Air Act permit. With DES assistance, the researchers were able to move forward with their research safely and in compliance with environmental regulations.

Hazard Evaluation and Risk Assessment

ORS routinely provides hazard evaluation and risk assessment assistance to the research community. In addition to the examples above, Research Safety staff conducted exposure monitoring for lead dust while a researcher used a micro-ablative blaster to mill ceramic sheets containing lead, evaluated the risks associated with the use of the chemical trizol at a university farm that does not have a fume hood and performed exposure monitoring for isoflurane during ferret surgeries.

Research Safety staff quantified the concentration of Argon-41 in air, conducted shielding assessments at new experimental ports, performed an illumination survey of the research reactor work areas, and evaluated occupational and public exposures in support of the research reactor operations.

TOTAL RESEARCHERS TRAINED (2011-2013)



Undergraduate Research Safety Training

UMD actively encourages undergraduate student involvement in research laboratories. While this provides students with a tremendous learning opportunity, it presents a challenge to DES to prepare the students for the rigors of safe laboratory practice in the research setting early in their academic careers.

Research Safety staff worked with the Gemstone program to develop a new laboratory safety training program specifically for undergraduate students. The training introduces students to good laboratory safety practices and teaches them how to recognize and work safety with or around the many types of hazards found in research laboratories.

Additions to the Office of Research Safety

In 2013, ORS added two new members to its team, Andrea Ferrero-Perez, Assistant Biosafety Officer in the Biological Safety group, and Glynnis Bowman, Senior Industrial Hygienist in the Laboratory Safety and Industrial Hygiene group.

The Office of Risk Management (ORM) provides support and consultation regarding the risk naturally encountered in the course of the research, service and 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 both traditional and progressive forms of risk management.

Risk Transfer – Insurance and Contracts

Property and liability coverage for UMD is provided primarily through the State's self-insurance and administered by the State Treasurer's Office. In 2013, a total of 244 claims were processed. This included 173 vehicle, 34 tort, and 37 property claims. Forty-three (43%) percent of all property claims were related to flooding due to pipe leaks or sprinklers.

Commercial policies purchased by the State Treasurer's Office purchases but managed by ORM include Fine Art on Loan (30 art loans in 2013), General and Professional Liability for MFRI, Student Professional Liability, and Customs Bond Insurance. ORM also manages several commercial policies purchased separately from the State including professional liability, defense base act insurance, employers' liability, and crop insurance. In 2013, ORM processed over 75 certificates of insurance, and reviewed more than 50 contracts, agreements, MOUs or waivers for contract and lease language.

Risk Reviews – International Travel and Campus Events

In 2013, ORM reviewed more than 300 proposed student activities and conducted risk assessments of numerous education abroad, alternative break and community learning proposals. We continue to work with Education Abroad to ensure adequate support for the university's internationalization efforts.

ORM works with departments and colleges in coordinating the criminal background check program for personnel working with minors at camps and other campus events. In 2013 the University System of Maryland's Internal Audit group conducted an audit of sports camps and UMD-owned camps and programs.

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Campus-Wide Facilities Improvements “OSH Modification”

The Occupational Safety & Health (OSH) group worked closely with FM to complete a range of facility improvement projects including panic hardware and exit and emergency lighting in 17 mechanical rooms; installation of emergency showers and eye washes in four buildings; providing permanent sets of stairs to the roof of the Severn Building; design and installation of smoke detectors and fire door closure systems at IBBR; safety upgrades to a propane tank at MFRI Eastern Shore and correcting the elevation of concrete landing on the exterior of the Dairy entrance to prevent slipping or tripping.



Building Services van refitted to enable safer offloading of equipment. FM Manager Keith Neal said, “It was quite a task getting equipment on and off the vehicle, impossible for someone of my stature... The lift gate is going to help a lot.”

Training

ORM provides training on numerous topics for the purposes of awareness, competency, and compliance. In 2013 a new Incident Investigation training was rolled out and the OSH group completed a campus wide effort to train employees on the new Globally Harmonized System for Hazard Communication. As part of our ongoing outreach and staff development efforts, ORM also planned and chaired a regional conference for the University Risk Management and Insurance Association (URMIA). Over 100 risk management professionals from the Mid-Atlantic region attended.

Worker's Compensation

In 2013, 458 Worker's Compensation claims were processed and managed, 195 of them OSHA recordable. This is an improvement over the 229 recordable injuries last year. We are analyzing the claim data to identify the most common causes of these injuries or accidents and will continue to use this information to focus risk reduction efforts with client populations.



Deborah Slosberg, Coordinator for Local Community Service-Learning, said, "Since I followed your suggestions and got a different computer chair and monitor, I haven't taken a single sick day for my headaches."

Targeted Loss Control

As a result of the claim analysis conducted last year, we have begun to problem-solve, in conjunction with campus work groups, to mitigate hazards identified in the analysis. We have begun training OSH personnel to conduct job safety analyses (JSAs) and have initiated the process of performing JSAs with employee groups.

Incident Investigation

ORM developed an Incident Reporting system and Incident Investigation mechanism to improve the notification and follow up process for incidents that occur on campus. Importantly, the reporting form can be used for incidents involving students and non-employees that were not captured in the Worker's Compensation claim system. Implementation of this program has begun via the compliance officer program and through training of major campus work groups.

Electrical Safety

In cooperation with FM, the OSH group initiated an effort to develop equipment specific lockout-tag out procedures to use when performing maintenance work on equipment with multiple energy sources. In addition to the compliance aspect, the procedures offer an opportunity to reinforce requirements and provide a tool to train new employees. Ten procedures were developed in 2013.

Ongoing Needs and Challenges

Support for Travel Abroad and Experiential Learning efforts: The continued growth of UMD's international character and global connections as well as the increase in experiential learning changes the nature of UMD's risk profile. Going forward this will require ORM to reevaluate and refocus services to meet the changing needs of the campus community.

Incident Reporting and Investigation: A major focus area for 2013 will be the implementation of the Incident Investigation program introduced during the past year. This effort focuses on learning from incidents that occur – determining causal factors and completing corrective actions as a way to continuously improve our safety systems.

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, Residential Facilities, Dining Services, Athletics and the Stamp Student Union on the design, implementation and marketing of campus-wide sustainability focused programs. OS develops programs that encourage greater awareness of sustainability issues, support behavior change that improve campus performance, and communicate sustainability matters via print and electronic formats. OS also serves as a member of and provides staffing to the University Sustainability Council and administers the University Sustainability Fund.

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 2013, three Council work groups concluded work, including:

- **Sustainable Buildings and Energy Sources Work Group** – Upon receiving the Work Group's recommendations, Dr. Loh announced that two new presidential initiatives will launch in 2014. These include the President's Carbon Neutral New Development Initiative, which creates a cap on greenhouse gas emissions from campus operations, and the President's Energy Conservation Initiative, which sets a campus goal to reduce energy consumption 20% by 2020.
- **Watershed and Water Use Work Group** – This group, chaired by DES Director Russell Furr, presented its final report to the Council in fall 2013. Recommendations include developing a new water capture, treatment, and reuse system for the campus and reducing use of purchased potable water 20% by 2020.
- **Education for Sustainability Work Group** – This group completed its work in December 2013 and will present its report and recommendations to the Council in 2014. It will recommend several initiatives to broadly integrate sustainability across the university's curriculum.

The Council also approved the disbursement of \$250,000 from the University Sustainability Fund in early 2013 and approved an additional \$218,600 in December 2013 to support campus sustainability projects. OS works with project leaders to develop proposals and find partners to ensure project success. The Office administers the University Sustainability Fund and works with students to review and recommend proposals to the Council for funding.

Projects that received funding in December 2013 include:

- **Terp Farm - \$124,400** – Dining Services and the College of Agriculture and Natural Resources propose to build and operate a sustainable farm pilot project in Prince George's County that will produce fruits, vegetables and herbs for use in campus dining halls and donate to needy members of the local community.
- **Green Projects at Edward St. John Learning and Teaching Center - \$50,000** – FM received this grant to help construct a teaching green roof and/or a stormwater capture and reuse system at the forthcoming Learning and Teaching Center.
- **Terps Heart the Tap II - \$44,200** – The Office of Sustainability will continue the rollout of the Terps Heart the Tap program by installing an additional 36 water bottle filling stations in select buildings on campus.

Outreach & Communications

OS works with individuals, clubs, and organizations to incorporate the principles of sustainability into everyday life. By informing and mobilizing students, staff, and faculty to think and act more sustainably, OS helps build sustainability skills and knowledge through attendance at special events such as Maryland Day



Student members of the LEAF Outreach Team.



Chesapeake Project faculty discussing ways of integrating sustainability in the curriculum.



Green Office Representatives attend bi-annual meeting.

and First Look Fair. In 2013, OS developed the Lead, Educate, Act and Facilitate (LEAF) Outreach Team made up of dedicated students who encourage and reward sustainable action. The Office also profiled and promoted campus initiatives and success via print and social media vehicles including:

- University sustainability website (www.sustainability.umd.edu);
- Sustainability newsletters (www.sustainability.umd.edu/content/resources/listserv.php);
- SustainableUMD magazine (http://issuu.com/umaryland/docs/sustainableumd_fn2); and,
- Facebook, Twitter and YouTube.

OS also plans and hosts the national Smart and Sustainable Campuses Conference. This professional development event was held in April 2013 and drew over 300 college and university professionals from across North America.

Program Development

To further sustainable practices and behaviors on campus, OS continues to develop and manage initiatives including:

- **The Chesapeake Project** – Now in its sixth year, this two-day workshop has introduced sustainability issues to 115 professors in each of the

university’s 13 colleges/schools. These professors have integrated sustainability into more than 120 courses across the curriculum.

- **Sustainability Advisors** – Also in its sixth year, this program trains students to teach a one-hour lesson on sustainability in freshmen seminar classes. The Sustainability Advisors introduced sustainability to roughly 1,700 students (half of the freshmen class) in fall 2013.
- **The Green Office Program** – A voluntary effort that recognizes and rewards offices for “going green.” The program provides training, 3 levels of certification, incentives and tools for participating offices. To date, nearly 150 offices are program participants.
- **Development of a “Smart Labs” Program** – Modeled after the Green Office program, OS, in partnership with Research Safety and a campus-wide workgroup, are developing a certification program that promotes sustainable practices within laboratories.

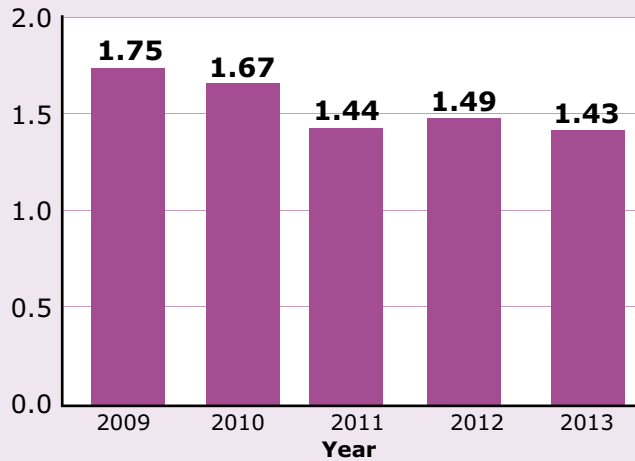
Measurement & Performance

A key function of OS is measuring and reporting on UMD’s environmental performance. OS is responsible for conducting the annual campus greenhouse gas inventory; establishing and measuring annual performance metrics and reporting campus performance internally and to external rating organizations including the Princeton Review, Sierra Club and the Association for the Advancement of Sustainability in Higher Education. In fall 2013, OS issued the 2013 Sustainability Progress Report (www.sustainability.umd.edu/documents/Reports/Sustainability%20Progress%20Report2013_web.pdf). In addition, the Office undertook an analysis of the university’s performance under the national Sustainability Tracking, Assessment, and Rating System (STARS), a sustainability performance rating system for higher education.



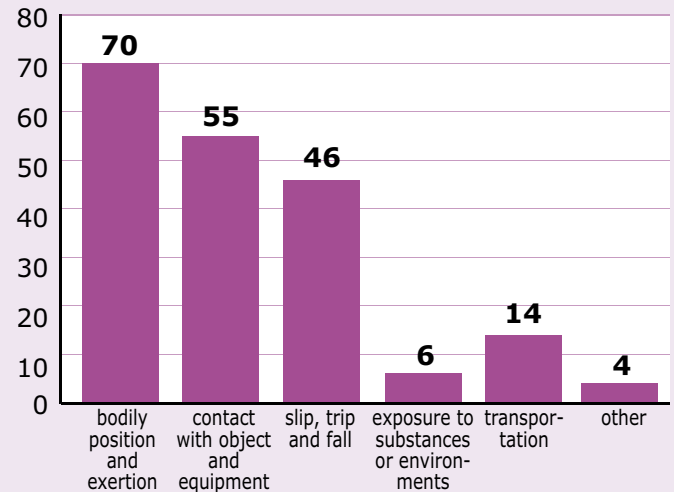
Conference attendees speak with Van Jones, the 2013 Smart and Sustainable Campuses Conference keynote speaker.

2013 OSHA TOTAL RECORDABLE INCIDENT RATES (TRIR)



TRIR = # of injuries x 200,000 ÷ total # hours worked.
The TRIR for colleges and universities in 2012 was 2.8, according to the US Department of Labor, Bureau of Labor Statistics.

2013 UMD RECORDABLE INJURIES AND ILLNESSES BY INCIDENT/EVENT



INTERNAL INSPECTIONS

Type of Inspection	Number of Inspections
Asbestos Re-inspections (whole building)	2
Biosafety (BSL1, BSL2 and BSL3)	50
Electrical/Mechanical Inspections	40
Initial Fire inspections Total	1,026
Events	167
Laboratory	550
Regular	299
Complaint	9
License	1
Fire Re-inspections	549
Laboratory Safety Inspections	179
National Pollutant Discharge Elimination System (NPDES) Inspections	12
Plan Review and Construction - Site Inspection/Testing	11
Safety & Compliance Audit Class 3b or Class 4 Laser	1
Safety & Compliance Audit Radioactive Material	441
Safety & Compliance Audit Radiation Producing Machines	5
Spill Prevention, Control, and Countermeasure (SPCC) Tank Inspections	806

EXTERNAL INSPECTIONS AND AUDITS FROM EXTERNAL AGENCIES

Type of Inspection	Number of Inspections
Fire Inspections - Off-Campus Greek Houses	14
Radiation Producing Machine State Inspections	41
USDA/Animal and Plant Health Inspection Services (APHIS)	1
USM Internal Audit of UMD Camp Programs	8

LIVE TRAINING

	Employees Trained
Adult and Child CPR/AED/First Aid	113
Asbestos Awareness	493
Aerial Scissors Lift	50
Blood Born Pathogens (BBP)	785
BBP Awareness	66
Biosafety Level 3 (BSL3)	34
Center for Young Children "Sparky Talk"	100
Chesapeake Project Faculty Development	25
Cooking Fire Safety	50
Confined Space Awareness	23
Crowd Manager	60
Electrical Safety Initial	17
Electrical Safety Refresher	104
Environmental Affairs Annual Refresher	5
Ergonomics - Workstation	31
Fall Protection Awareness	150
Fire Safety for Resident Assistants	181
Fire Safety/Hot Works/Fire Extinguisher	10
Forklift	55
Green Office Rep	65
Hazard Communication	488
Hearing Conservation	83
Lab Safety Awareness for FM	91
Laboratory Fire Safety	20
Laboratory Safety	107
Ladder Safety	150
Leaf Outreach Team	7
Lead Awareness	492
Lockout/Tagout	120
New Lab Researcher Training	229
OSHA 10 Hour	9
Personal Protective Equipment	173
Plan Review and Construction - Site Inspection/Testing	11
Police Academy Hazardous Materials and Fire Safety	12
Radiation Safety Awareness for Support Staff	191
Radiation Safety (Basic) Part 2	122
Safety Awareness and Sustainability	245
Safety Orientation for GA & TA	273
Select Agent Tabletop	19
Shipping Infectious Substances & Dry Ice	8
Spill Prevention Control and Countermeasures	140
Sustainability Advisors	12
TA Roles and Responsibilities	25
Waste Disposal	65
X-Ray Radiation Safety Part 2	80
TOTAL	5589

ONLINE TRAINING

	Employees Trained
BBP CRS	160
BBP Initial for Researchers	204
BBP Refresher for Researchers	149
BBP UMPD	11
Biological Waste	28
Biosafety Practices	282
Chemical Hygiene	827
Chemical Waste Generator	880
Cryogenic Liquids	100
Dual Use	57
Hazardous Materials Handling - Pressurized Cylinders	55
Laser Safety	108
NIH Guidelines	92
Particle Accelerator	15
Pressurized Cylinders	55
Radiation Safety (Basic) Part 1	122
RAM Refresher	30
Receiving Hazardous Materials Awareness	26
Respiratory Protection	90
Universal Waste	223
Working Safely with Lab Animals	86
X-Ray Radiation Safety Part 1	80
TOTAL	3680



DEPARTMENT OF ENVIRONMENTAL SAFETY

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