

OCCUPATIONAL AND ENVIRONMENTAL SAFETY

Annual Report

July 2024 — June 2025



Executive Summary

Occupational and Environmental Safety (OES) had another productive and innovative year supporting Clemson's mission of research, teaching and service. As a department, we completed 13 Strategic Objectives that aligned with the Division of Finance and Operations Strategic Plan and Clemson Elevate. We also managed our resources responsibly and met our financial and budget obligations. The following bullets highlight the Strategic Objectives we accomplished:

Health and Safety

- Established an enterprise-wide 3D Printer registry in SciShield
 - ♦ Added required training resulting in lower risks of injury
- Completed an ADA digital accessibility compliance review & developed an implementation plan (working with <u>Digital Accessibility</u> office & <u>MARCOM</u>)
- Completed an OSHA 10-hour program for Performing Arts graduate students
- Developed a formalized incident-based safety training protocol resulting in increased participant engagement
- Partnered with <u>Business Intelligence (BI)</u> team for several projects:
 - ♦ Create an Injury Experience Safety Dashboard utilizing Incident Report Module data
 - ♦ Link SciShield Incident Report Module to the Medical Surveillance Program Module

Research Safety

- Systematic surveying of university research laboratories for EPA Methylene Chloride compliance:
 - Determined extent of methylene chloride usage
 - ♦ Completed air monitoring surveys
 - ♦ Developed a Workplace Chemical Protection Program
- Added Radiation Safety staffing support utilizing a CECAS graduate assistant

Environmental Compliance

- Trained two staff members to provide required trainings / certifications for shippers & users of eShipGlobal
- Completed a building blitz of hazardous waste assessments in core research facilities

Asbestos and Lead

- Updated the Asbestos Management Plan resulting in improved process adoption
- Partnered with BI team to create an Asbestos Work Order Tracking Dashboard

Low Country Safety

- Developed a Greenhouse Safety program
 - ♦ Implemented at Coastal and Edisto Research Education Centers



University Mission and OES's Role

Clemson University Mission Statement

Clemson University was established to fulfill our founder's vision of "a high seminary of learning" to develop "the material resources of the State" for the people of South Carolina. Nurtured by an abiding land grant commitment, Clemson has emerged as a research university with a global vision. Our primary purpose is educating undergraduate and graduate students to think deeply about and engage in the social, scientific, economic, and professional challenges of our times. The foundation of this mission is the generation, preservation, communication, and application of knowledge. The University also is committed to the personal growth of the individual and promotes an environment of good decision making, healthy and ethical lifestyles, and tolerance and respect for others. Our distinctive character is shaped by a legacy of service, collaboration, and fellowship forged from and renewed by the spirit of Thomas Green Clemson's covenant.

OES Mission

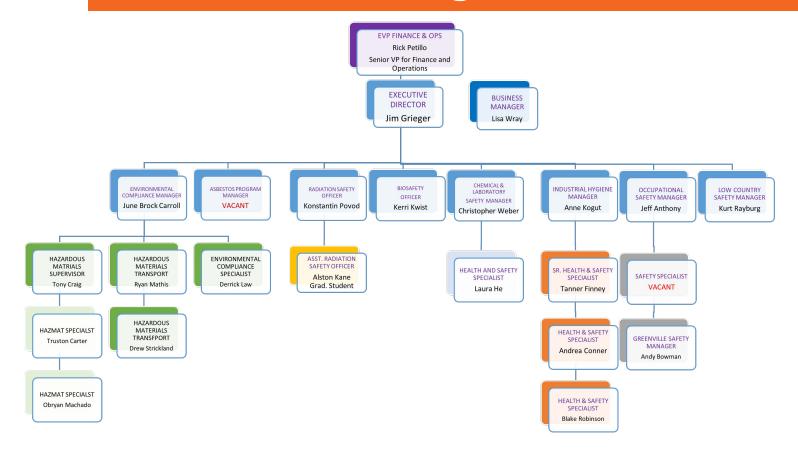
Occupational and Environmental Safety (OES) is a team of **21** dedicated professionals charged with protecting **6,639** employees throughout the state of SC who support **29,077** enrolled students. We provide safety and compliance services to support Clemson University's core mission statement seen in three areas: research, teaching and public service. OES supports **16** facilities, covering **33,000** acres statewide. We accomplish this through collaboration and partnerships with the Clemson community and are committed to continuous improvement and exceptional customer service.

OES Vision

To be a high performing and valued OES organization where safety and environmental protection are core values in the day-to-day operations of the university and integrated into the educational experience of our students.



OES Organizational Chart



Key Performance Indicators

KPI #1 Injuries/Illnesses

External Injury/Illness Internal Injury/Illness

KPI #3 Finances

Management of Expenditure/ Revenue Internal Cost Savings

KPI #2 Compliance

With external agency assessments
With internal assessments

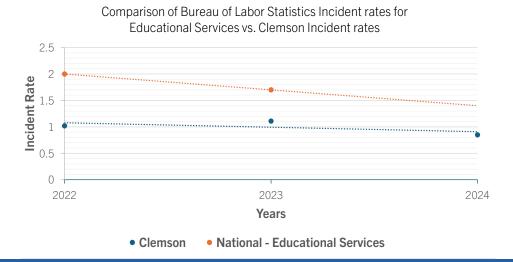
KPI #4 Client Satisfaction

External clients served Internal department staff



KPI #1 - Injuries / Illnesses

- External Reportable Injuries:
 - ♦ 3 OSHA reportable injuries
- Internal Injuries/Illnesses:
 - ♦ 218 incidents reported in SciShield:
 - * 210 incident reports 43.1% (more reporting with an online system)
 - **★** 8 near miss reports **▲** 12.5%



KPI #2 - Compliance

External Agencies:

- SCDES Radioactive Materials Inspection
- ADA Digital Accessibility Compliance Review April 2026 deadline

Internal Agencies:

Total Assessments: 2,429

250	Laboratory	7	Radiation Safety
95	Non-Laboratory	1,897	Environmental Compliance
129	Occupational Safety	51	Institutional Biosafety Committee (IBC) Reviews



KPI #3 - Finances

OES had a successful fiscal year for 2024-2025 with the 5th straight year in the black & Performance Credits with 10,161 completing SciShield online compliance safety training at a cost of \$1.88/participant.

Through direct actions by OES staff we saved \$295,915-\$315,750 in 2024-2025:

- Saved over \$1.8M (an average of \$128,000/yr) over the past 8 years through strategic radioactive waste management practices (on-going)
- Saved \$18,866-\$38,701 in contractor costs by conducting 25 small spill cleanups
- Saved \$24,290 by testing & certifying 347 fume hoods vs. hiring a contractor testing service
- Saved \$69,600 (\$240/fit test) by conducting 290 respirator quantitative fit tests vs.
 hiring a contractor
- Saved \$18,869 by hosting a 3-day regulatory compliance training for 20 Clemson staff
- Saved \$28,439 by purchasing waste drums from the McManus Drum Company rather than using our contract pricing & supplies from our waste vendor Clean Harbors
- Saved \$7,851 by managing our battery waste through Powerhouse vs. using contract pricing & service from our vendor Clean Harbors

KPI #4 - Client Satisifaction

External clients served:

 Results of client satisifaction survey of Public Safety and College of Agriculture Forestery and Life Sciences (CAFLS) staff:

"We have had several very positive experiences with OES this past year. Most of what we need is handled quickly. They have gone out of their way to help us on several occasions."

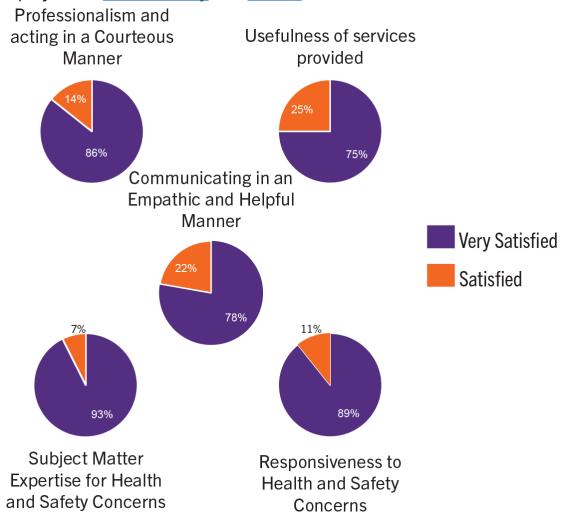
Internal department staff professional development activities:

- Courses to learn essentials of Industrial Hygiene
- CPR/AED/Wilderness First Aid Training
- Continued education events
- Attendance of Soteria Li⁺ Battery Conference
- Attendance of SEURSO (Southeastern University Radiation Safety Officer Society) roundtable

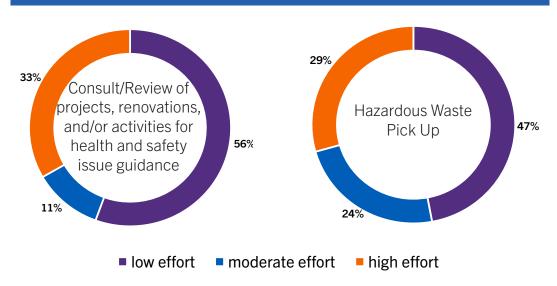


Client Satisfaction Survey

Results are from employees of Public Safety and CAFLS:



Level of Effort to utilize OES Service:





Year in Review



Welcomed Andy Bowman; OES Safety Specialist for faculty, staff, & students in the Greater Greenville area campuses and sites.



Jim Grieger and Laura He representing OES at the Research Symposium.



In May, Andrea Conner, graduated from Clemson University with a PhD in Chemistry.

11,097

Students and staff trained (online and in-person)



Second Cohort of ClemsonLIFE students to complete OSHA 10-hr course.



Health and Safety



1,698 Online Occupational Safety (OS)Training participants

4,105 Online Industrial Hygiene (IH) Training participants

▲ 21%

15 Live IH Training programs

▲ 13%

227 OS Workplace Assessments ▲ 110%

41 IH Assessments



- Ergonomic Assessments What to Expect

 Introductions with O£S Staff

 Visual Inspection

 Workstation and Work Practices

 Use of Neutral Postures

 PE

 Measurements

 Immediate Adjustments

 Ergo Equipment Tests & Follow-Up

 Official Report
 - 73 Incident reports filed and review
 - Total Indoor Air Quality (IAQ)Investigation

▲ 24%

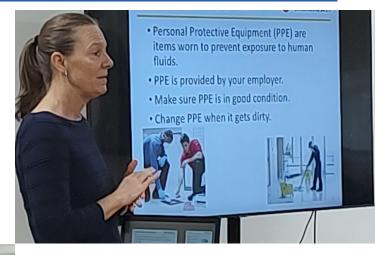
For more information, please follow our link to the <u>Occupational Safety (OS) Summary</u>
Report and the <u>Industrial Hygiene (IH) Summary</u> Report.



Research Safety

1,857 Biosafety Online Training Participants

215 Biosafety Training Live, Initial Training Participants



962 Lab Safety Online Training Participants



269 Lab Safety Live Training Participants

Annual Lab Safety Assessments:

- 250 Biosafety & Lab Safety
 Assessments
 - 7 Radiation Safety Assess-
 - 51 Institute Biosafety Committee (IBC) Reviews



- 20 Active Radioactive Material (RAM) Projects
 - 8 Active Radiation Producing Equipment (RPE) Projects

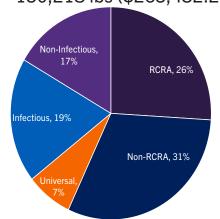
For more information, please follow our link to the <u>Lab Safety Summary</u> Report, <u>Biosafety Summary</u> Report, and the <u>Radiation Safety Summary</u> Report.

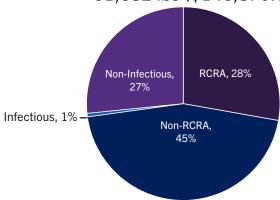


Environmental Compliance

Waste managed on Main Campus: 150,218 lbs (\$265,432.20)

Waste managed on Satellite Campuses: 61,682 lbs (\$146,870.62)







- 1,128 Hazardous Waste Online Training Participants
- 14,897 Total Waste containers removed by OES
 - 87 HazMat Transport request (799 items transported, 119 Ethanol) **32**%
 - 32 Lab Clean-outs ▲ 78%
 - 76 Satellite Accumulation Area (SAA) Assessments
 - 1,821 SPCC Assessments & Reviews
 - 25 Small Spill Response Cleanups **▼ 20**%

For more information, please follow our link to the <u>Environmental Compliance Summary</u> Report.



Asbestos and Lead

- 33 Asbestos Abatements
- 19 Asbestos Abatement Audits
- 78 Lead-Based Paint Testing and Reports
- 18 Air sampling report reviews

For more information, please follow our link to the Asbestos Summary Report.

Low Country Safety



108 Trainings (all forms)

24 Surveys

8 Audits

41 Consultations



For more information, please follow our link to the **Low Country Summary** Report.



Planning for the Year Ahead

For FY 2025-2026 OES has developed 11 Strategic Objectives that align and advance Clemson Elevate, the Division of Finance and Operations Strategic Plan and OES. We will also continue to support the new College of Veterinary Medicine, recommendations from the 2024 Occupational Health review and the ClemsonLIFE Hospitality Program safety partnership.





















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