



ETSU's Department of Environmental Health & Safety (EH&S) is responsible for development, oversight, and management of environmental health and safety programs that protect the environment, provide safe and healthy conditions for work and study, and comply with applicable laws and regulations. Our office provides fire & life safety support, educational programs, technical assistance, and health and safety services to the university community. The office also functions as a consultant to deans, directors, and heads of academic and administrative units, other staff members, and students in all areas of environmental health and safety. EH&S is also responsible for pest management of all ETSU Facilities.

The department is administered by the Facilities Management Division and reports to the Associate Vice President of Facilities Management, Planning and Construction.

Staffing:

- Director
- Fire Protection Manager
- Fire Safety Technician
- Environmental Compliance Manager
- Health & Safety Specialist
- Radiation Safety Officer
- Health & Safety Technician
- Pest Management Specialist

Emergency Preparedness

EH&S directed the university's preparedness efforts until 2012. EH&S continues to maintain the university's mass notification systems and continues to support preparedness efforts as directed by the current director for emergency preparedness, Kathy Kelley. EH&S continues to maintain and develop the campus' ["Staying Safe On Campus"](#) website, which is a clearinghouse for the campus community to educate themselves on all policies and programs related to safety and security on campus.



Committees

EH&S continues to volunteer on numerous short and long-term committees. Current ongoing committees are:

1. Sustainability Tracking, Assessment & Rating System (STARS) Subcommittee (Waste & Water)
2. Emergency Preparedness Committee
3. Wellness Committee
4. Clery Act Committee
5. Radiation Safety Committee
6. Biosafety Committee
7. Veterans Affairs Safety Research Subcommittee
8. Campus Safety Committee
9. Security Camera Committee



Environmental Compliance

1. Air Pollution Control Management Program

- Guided by Title V Major Source Operating Permit due to volatile organic compounds (VOCs) and Hazardous Air Pollutants (HAPs) emitted from ETSU power plant.
- Permit outlines specific emission standards, operating limitations, monitoring, recordkeeping and reporting requirements for three coal fired boilers and two natural gas/oil fired boilers that produce hot water and steam.
- Permit fulfills the requirements of Title V of the federal Clean Air Act and the federal regulations promulgated at 40 CFR Part 70.
- Submit to Technical Secretary of the Tennessee Department of Environmental & Conservation (TDEC) as well as EPA Region IV annual and semi-annual compliance certifications with terms and conditions contained within the permit including emission limitations, standards and work practices.
- Submit annual Allowable Emission Fee Report to Division of Air Pollution Control that is based on maximum allowable emissions.
- Emitted the following pollutant emissions in 2013:
 1. Particulate matter = 0.17 tons (Allowable Emission Rate = 128 tons)
 2. Nitrogen oxide = 5.9 tons (Allowable Emission Rate = 47 tons)
 3. VOC's = 0.74 tons (Allowable Emission Rate = 7.0 tons)
 4. Carbon monoxide = 7.9 tons (Allowable Emission Rate = 48 tons)
 5. Sulfur dioxide = 8.9 tons (Allowable Emission Rate = 175 tons)



- Goals for Program:
 1. Keep within our allowable emission rates for all air pollutants. Achieved.
 2. Have no violations during our annual compliance inspection from TDEC. One minor NOV in the last five years (2012 inspection had one minor “language violation” in Annual Compliance Report. Corrected and in full compliance).

2. Refrigerant Management Program

- Guided by 40 CFR Part 82 of the Clean Air Act and the Protection of Stratospheric Ozone & Refrigerant Recycling regulations. Enforced by EPA.
- Refrigerant Management Compliance Program Policy authored, implemented & training conducted.
- Recovery and disposal logs and work orders completed and submitted monthly to EH&S.
- Compliant with Clean Air Act requirements of 40 CFR and National Recycling and Emission Reduction Program regulations.
- Goals for Program:
 1. Remain in compliance with federal regulations found in 40 CFR Part 82.
 2. Repair all refrigerant leaks and maintain preventive maintenance program.

3. Spill Prevention, Control & Countermeasures Program

- Required per 40 CFR Part 112. Also referred to as RCRA or Resource Conservation and Recovery Act.
- Focal point of plan is to protect navigable waters of the U.S. from oil derived pollutants and to protect Tennessee waterways.
- ETSU campus contains more than 1,320 gallons of above ground oil storage.
- Campus utilizes diesel, gasoline, cooking oil, motor oil and hydraulic oil.



- Training conducted annually in accordance with SPCC regulations found in 40 CFR 112.7(f).
- Spill action plan and response team developed to respond to releases.
- Quarterly SPCC inspections implemented March 2009. Inspection report created.
- Goals for Program:
 1. Maintain training requirements to ensure readiness if a spill occurs.
 2. Maintain inspection records and spill response equipment.
 3. Keep SPCC Plan current.
- 4. Hazardous Waste Management Program
 - Guided by TDEC Division of Solid & Hazardous Waste Management regulations as well as federal regulations found in 40 CFR Parts 260-275.
 - RCRA, authorizes EPA to regulate the waste management and disposal activities of industrial and municipal waste generators; treatment, storage, and disposal facilities (TSDFs); and waste transporters.
 - Submit annual reports to both TDEC and EPA for main campus and College of Health Sciences:
 1. Hazardous Waste Remedial Action Fee Report
 2. Hazardous Waste Stream Reports
 3. Hazardous Waste Offsite Shipping Report
 4. Hazardous Waste Generation Fee Determination Report
 5. Hazardous Waste Registration and Notification Report



- Prepared the following hazardous waste streams for shipment in 2013:
 1. Waste photographic fixer = 925 lbs
 2. Lab pack chemicals = 2,710 lbs
 3. Waste paint related material = 1,100
 4. Waste spent solvents = 1,210 lbs
 5. Lead waste = 900 lbs
 6. Waste Mercury = 65 lbs
 7. Waste Aerosols = 25 lbs
 - Hazardous Waste Minimization Policy developed and maintained to meet the requirements of the Tennessee Hazardous Waste Reduction Act.
 1. Provide annual training in accordance with 40 CFR Part 265.16(a)(3).
 - Goals for Program:
 1. Reduce the amount of hazardous waste generated at all ETSU facilities.
 2. Submit all reports before deadline.
 3. Have no violations when inspected by TDEC Division of Hazardous Waste. One minor violation in the past five years (2010 TDEC inspection found improperly labeled universal waste fluorescent light bulbs – corrected onsite and noted by inspector).
5. Stormwater Management
- As instructed by the TDEC Division of Water Pollution Control's Phase II Stormwater Permit Notice of Coverage, ETSU is responsible for screening, tracking, as well as developing policies and procedures addressing illicit stormwater discharge detection and elimination.



- ETSU and the City of Johnson City have agreed to co-permit since all applicable stormwater from the main campus discharges into those streams encompassed by the existing Johnson City stormwater permit. In accordance with the co-permit, ETSU will be liable for permit compliance for discharges within its legal jurisdiction.
- Perform monthly compliance inspections at construction sites.
- Contracted with Littlejohn Engineering to GIS map ETSU storm sewer system.
- Successfully completed TDEC Level 1 Training in “Fundamentals of Erosion Prevention and Sediment Control for Construction Sites”.
- Hosted and completed Northeast Tennessee Stormwater Planning group training in May for over 100 participants.
- Implemented stormwater management website on EH&S homepage. Website offers information on stormwater regulations, University stormwater management practices and ways to prevent stormwater pollution on campus.
- Working with WETS radio station to air stormwater public service announcement.
- Goals for the Program:
 1. To comply with the City of Johnson City Illicit Discharge Ordinance No. 4063-04.
 2. To improve the quality of surface water and ground water within the watershed areas owned and maintained by ETSU by preventing illicit discharges and connections.
 3. To prevent the discharge of contaminated stormwater runoff from ETSU properties and operations into the storm drainage system and natural waters within the ETSU campus.
 4. To comply with the requirements of ETSU’s stormwater permit requirements as set forth by TDEC & EPA.

6. Laboratory Safety Inspection Program

- Program was developed and implemented in 2006
- Program is intended to assist ETSU employees in regulatory compliance as well as provide the safest possible work environment in laboratory, clinic and studio settings.
- Main element of program is an annual inspection of all laboratories on the ETSU, College of Health Sciences, Kingsport and Valleybrook facilities.
- Involves 33 departments and hundreds of individual laboratories.
- Conduct follow-up inspections to verify corrective actions.
- Primary goal of the safety inspection program is to minimize the risk of injury or illness to laboratory workers by ensuring that they have the training, information, support and equipment needed to work safely in the laboratory.
- With the growing number of incidents in academia, our focus in 2012 will be training compliance.

7. Underground Storage Tank Program

- Guided by TDEC Division of Underground Storage Tank.
- ETSU has six UST's that are inspected by TDEC.
- March 2013 TDEC inspection was in full compliance. No violations of the Tennessee Petroleum Underground Storage Tank regulations were discovered.
- Cathodic Protection Test performed every three years for tanks and piping.
- Line/Leak Detection test performed annually.
- Annual fee payments submitted to TDEC for each UST.
- Recordkeeping such as (a) Quarterly Inspection Log, (b) Monthly Spill Bucket Inspection Logs and (c) Continuous Statistical Leak Detection (Veeder Root System) reports are maintained by EHS.



- Manager is level A, B and C Operator certified and four other facilities' personnel have achieved level C certification.
- Program goals:
 1. Continued full compliance with TDEC underground storage tank regulations.

8. Other Responsibilities

- Manage biohazard waste program. Involves training and facilitating waste packaging and disposal operations.
- Manage the Emergency Generator Inspection and Maintenance program. ETSU maintains 28 generators including offsite locations.
- Manage the water quality program ensuring potable water in all facilities.
- Manage boiler inspection program per State of TN Department of Labor requirements. 108 boilers located in ETSU Facilities.



Environmental Compliance Report Calendar

Month	Name of Report	Due Date
January	• Weekly Hazardous Waste Storage Check	Weekly
	• Quarterly UST Dispenser Inspection (Motor Pool)	January 1st
	• UST Veeder Root Report	January 30th
	• UST Monthly Spill Bucket Inspection	January 30th
	• Refrigerant Management Inventory	January 30th
	• Monthly Title V Data	January 30th
February	• Weekly Hazardous Waste Storage Check	Weekly
	• RCRA & HAZMAT DOT Training	February 2nd
	• UST Veeder Root Report	February 27th
	• UST Monthly Spill Bucket Inspection	February 27th
	• Monthly Title V Data	February 27th
	• Refrigerant Management Inventory	February 27th
March	• Weekly Hazardous Waste Storage Check	Weekly
	• Tier II Report (SARA Title III)	March 1st
	• TDEC Hazardous Waste Generators Report	March 1st
	• Hazardous Waste Reduction Plan	March 1st
	• UST Monthly Spill Bucket Inspection	March 30th
	• UST Veeder Root Report	March 30th
	• SPCC Quarterly Inspections	March 31st
	• Refrigerant Management Inventory	March 31st
	• Monthly Title V Data	March 31st
April	• Weekly Hazardous Waste Storage Check	Weekly
	• Quarterly UST Dispenser Inspection (Motor Pool)	April 1st
	• UST Annual Permits Due	April 1st
	• UST Monthly Spill Bucket Inspection	April 30th
	• UST Veeder Root Report	April 30th
	• Monthly Title V Data	April 30th
	• Refrigerant Management Inventory	April 30th



Environmental Compliance Report Calendar – cont.

Month	Name of Report	Due Date
May	• Weekly Hazardous Waste Storage Check	Weekly
	• APC Annual Emissions Inventory	May 1st
	• TAPCD Title V Semiannual Report (Oct-March)	May 30th
	• UST Veeder Root Report	May 30th
	• UST Monthly Spill Bucket Inspection	May 30th
	• TAPCD Title V Annual Compliance Report	May 30th
	• Monthly Title V Data	May 30th
	• Refrigerant Management Inventory	May 30th
June	• Weekly Hazardous Waste Storage Check	Weekly
	• UST Veeder Root Report	June 30th
	• UST Monthly Spill Bucket Inspection	June 30th
	• SPCC Quarterly Inspections	June 30th
	• Monthly Title V Data	June 30th
	• Refrigerant Management Inventory	June 30th
July	• Weekly Hazardous Waste Storage Check	Weekly
	• Start Chemical Hood Re-Certifications	July 1st
	• Quarterly UST Dispenser Inspection (Motor Pool)	July 1st
	• TAPCD Title V Allowable Emission Fee	July 1st
	• UST Monthly Spill Bucket Inspection	July 31st
	• UST Veeder Root Report	July 31st
	• Monthly Title V Data	July 31st
	• Refrigerant Management Inventory	July 31st
August	• Weekly Hazardous Waste Storage Check	Weekly
	• UST Line Tightness Test (Motor Pool)	August 1st
	• UST Veeder Root Report	August 31st
	• UST Monthly Spill Bucket Inspection	August 31st
	• Monthly Title V Data	August 31st
	• Refrigerant Management Inventory	August 31st
September	• Weekly Hazardous Waste Storage Check	Weekly
	• UST Veeder Root Report	September 30th
	• UST Monthly Spill Bucket Inspection	September 30th
	• SPCC Quarterly Inspections	September 30th
	• Monthly Title V Data	September 30th
	• Refrigerant Management Inventory	September 30th



Environmental Compliance Report Calendar – cont.

Month	Name of Report	Due Date
October	• Weekly Hazardous Waste Storage Check	Weekly
	• Quarterly UST Dispenser Inspection (Motor Pool)	October 1st
	• UST Veeder Root Report	October 31st
	• UST Monthly Spill Bucket Inspection	October 31st
	• Monthly Title V Data	October 31st
	• Refrigerant Management Inventory	October 31st
November	• Weekly Hazardous Waste Storage Check	Weekly
	• Valleybrook Annual Emission Fee Due	November 1st
	• UST Veeder Root Report	November 30th
	• UST Monthly Spill Bucket Inspection	November 30th
	• TAPCD Semiannual Report (April-Sept)	November 30th
	• Monthly Title V Data	November 30th
	• Refrigerant Management Inventory	November 30th
December	• Weekly Hazardous Waste Storage Check	Weekly
	• UST Veeder Root Report	December 31st
	• UST Monthly Spill Bucket Inspection	December 31st
	• SPCC Quarterly Inspections	December 31st
	• Monthly Title V Data	December 31st
	• Refrigerant Management Inventory	December 31st

Notes

UST Cathodic (Corrosion) Protection Testing Performed on 3 Year Cycle at Clinical Education



Radiation Safety

ETSU applied for and received a Radioactive Material License on October 9, 1984 from the TDEC, Division of Radiological Health.

An inspection occurring in March 2007 resulted in citations from the TDEC, Division of Radiological Health identifying 18 items of noncompliance. Numerous deficiencies under each item indicated careless disregard for the radiation safety rules and regulations. Many of the deficiencies were identified in earlier inspections occurring in 1988, 1994 and 2000. ETSU was given 90 days to bring the radiation safety program into full compliance or risk losing the license. Loss of the radioactive material license threatened ETSU's ability to conduct research and meet contractual requirements per the various grants.

Corrective actions consisted of the removal of the Radiation Safety Program from the Director of Research and Sponsored Programs and moved to EH&S. The Radiation Safety Officer (RSO) responsible for implementing the radiation safety program, at the time of the inspection, failed to meet the responsibilities of the program which resulted in his resignation. Dan O'Brien assumed the position of Interim RSO in October 2007 and by January 2008 all deficiencies were corrected. TDEC acknowledged full compliance with ETSU's efforts and the license remained active. In April 2008 a new RSO was hired. TDEC reviewed and approved the RSO's credentials.

In June 2008 ETSU applied for a Broad Scope License to replace our current license, which contained 63 different amendments. The Broad Scope License was granted in January 2009 and is active till January 2019. Per our license requirements, the license is audited annually in its entirety by an outside contractor.

The broad scope license recognizes the Radiation Safety Committee (RSC) as the licensing and regulatory authority on campus that is responsible to the President. The RSO is responsible to execute the decisions of the committee and to enforce the regulations of the Broad Scope License. The RSC was established by the Executive Management Committee under the authority of President Stanton. The RSC and RSO are authorized by the President to limit or revoke an individual's authority to use radioactive material or sources of ionizing radiation if it presents a hazard to individuals or violates health and safety rules. The RSC meets quarterly or more often as deemed necessary. The committee is chaired by Dr. Phil Scheuerman from the Department of Environmental Health. The committee also includes:

- Dr. Jane Jones (President's Office)
- Dan O'Brien (EH&S)
- Dr. Doug Thewke (Biochemistry)
- Dr. Charles Stuart (Internal Medicine)
- Janice Lyles (RSO)



The duties and responsibilities of the RSC consist of:

- Assist in the implementation of a radiation safety policy.
- Review audits, inspections, radiation incident summaries and annual reviews required by our license.
- Review uses and locations of radionuclides.
- Review occupational radiation exposure records.
- Review and approve all applicants and amendments for the use of radioactive material.

Radioactive waste disposal is conducted annually or more often as necessary. Radiation safety training is given annually to new users of radioactive material with refresher training required every 2 years. Currently there are 162 trained individuals. Ancillary training is provided annually to public safety officers, central receiving personnel, contractors and custodians. The safety training modules were completely revised in 2011 to more accurately reflect our current license conditions.

There are approximately 21 registered x-ray machines across the campus. Each unit is registered with the TDEC Department of Radiological Health and is inspected on a scheduled frequency. X-Ray training is required for all new users and refresher training is required every 2 years.

The radiation safety web site was revised in its entirety in 2011. The website contains radiation safety operating procedures as well as various forms, room maps, radiation decay calculator and a link to the universities radioactive materials license. Currently we have:

- 16 authorized users of radioactive material
- 20 radiological labs surveyed for contamination monthly by authorized user and quarterly by RSO.
- 27 radiological survey meters requiring annual calibration
- 6 radioactive sealed sources
- 140 dosimeters which monitor radiation exposure to personnel. Workers are notified electronically of their exposures in quarterly reports.



Goals of the Radiation Safety Program:

- Ensure compliance with the rules and regulations of the Broad Scope License.
- Keep radiation exposure to university personnel, members of the public and the environment as Low as Reasonably Achievable.
- Assist in the safe acquisition, handling and disposal of radiation sources.



Radiation Safety Compliance Report Calendar

Month	Compliance Report	Due Date
January	<ul style="list-style-type: none"> Quarterly Low Level Waste Report Annual Dose to the Public Monthly Radiation Instrument Calibration Monthly LSC Calibration Quarterly Sealed Source Inventory (ETSU Heart) X-Ray Inspections Semi-Annual Sealed Source Inventory Quarterly RSO Meeting 	January 1st January 1st January 1st January 1st January 1st January 6, 16 & 27 January 15th January 20th
February	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration X-Ray Inspection Annual ALARA Report 	February 1st February 1st February 4th February 28th
March	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration Quarterly Swipe Tests 	March 1st March 1st March 30th
April	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration Quarterly Low Level Waste Report Annual Dose Calibrator Work Sheet (ETSU Heart) Quarterly Sealed Source Inventory (ETSU Heart) Semi-Annual Leak Test Hutcheson Lab Quarterly RSO Meeting 	April 1st April 1st April 1st April 1st April 1st April 1st April 20th
May	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration 	May 1st May 1st
June	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration ETSU Heart Semi-Annual Leak Test Quarterly Swipe Tests 	June 1st June 1st June 1st June 30th



Radiation Safety Compliance Report Calendar – cont.

Month	Compliance Report	Due Date
July	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration Quarterly Low Level Waste Report Quarterly Sealed Source Inventory (ETSU Heart) Semi Annual Sealed Source Inventory Quarterly RSO Meeting 	July 1st July 1st July 1st July 1st July 15th July 20th
August	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration Annual Radiation Safety Audit Annual Ancillary Radiation Safety Training 	August 1st August 1st August 30th August 30th
September	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration Annual Radiation Safety Audit (ETSU Heart) Annual LSC Calibration Perkin Elmer Quarterly Swipe Tests 	September 1st September 1st September 30th September 30th September 30th
October	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration Quarterly Low Level Waste Report Semi-Annual Leak Test Hutcheson Lab Quarterly Sealed Source Inventory (ETSU Heart) Quarterly RSO Meeting 	October 1st October 1st October 1st October 1st October 1st October 20th
November	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration 	November 1st November 1st
December	<ul style="list-style-type: none"> Monthly Radiation Instrument Calibration Monthly LSC Calibration ETSU Heart Semi-Annual Leak Test X-Ray Inspections Quarterly Swipe Tests 	December 1st December 1st December 1st Dec. 12 and 17th December 30th



Health & Safety

Training Overview		
<u>2011-2012</u>	<u>2012-2013</u>	<u>2013-2014</u>
209 Facilities personnel trained in a total of 18 TOSHA/TDEC requirements	Over 100 ETSU personnel received live EHS training	471 ETSU personnel received live EHS training
1,212 Faculty, Staff & Students have completed at least 1 On-line Safety Training Module from the EH&S website	~3,500 Faculty, Staff & Students have completed at least 1 On-line Safety Training Module from the EH&S website	~2,621 Faculty, Staff & Students have completed at least 1 On-line Safety Training Module from the EH&S website
33 graduate level students completed in-class lab safety training	35 graduate level students completed in-class lab safety training	45 graduate level students completed in-class lab safety training
Investigations & Sampling		
23 Indoor Air Quality Investigations	31 Indoor Air Quality Investigations	27 Indoor Air Quality Investigations
Conducted 23 Environmental samples relating to Mold or Asbestos	Conducted 40 Environmental samples relating to Mold or Asbestos	Conducted 34 Environmental samples relating to Mold or Asbestos
AEDS		
Maintained 34 Automated External Defibrillators	Maintained 52 Automated External Defibrillators	Maintain 51 Automated External Defibrillators

OSHA Training Requirements

- 1910.1020- Access to Medical Records - Initial & Annual, New Hire Orientation for Facilities Personnel, Training Faculty & Student Workers with HAZCOM Online Training Module
- 1910.25;1910.26;1926.1053-Portable Ladders – Initial & Toolbox for Facilities Personnel
- 1910.38- Emergency Action Plans and Fire Prevention Plan - Initial New Hire Orientation, Annual Fire Drills (Fire Protection Manager) for all Facilities, Campus Safety Web Page (Siren locations, Evacuation Information & GoldAlert)



- 1926.556-Aerial Lifts/Scaffolds & 1910.66-Powered Platforms - Initially by Most Qualified Supervisor, Hands on Course w/Checklist (1926.503-Fall Protection Included)
- 1910.95-Hearing Conservation – Annual Audiogram for At-Risk Personnel, Training in New Hire Orientation & Toolbox Refresher Training
- 1910.120-HAZWOPER – EH&S Staff Only – Annual Training by Contract Company
- 1910.132-Personal Protective Equipment (PPE) - New Hire Orientation, When PPE Changes, Facilities Responsible to Provide PPE, Included in Online Lab Safety Training for Students and Faculty
- 1910.134-Respiratory Protection - After medical clearance, Healthcare Provider to Review Medical History, Annual Refresher & Fit-Test
- 1910.146-Confined Spaces - Initial & Annual (Non-entry Retrieval)
- 1910.147-Lockout/Tagout - New Hire Orientation, Authorized by Job Assignment, Change in Equipment
- 1910.151 & 1910.269-First Aid/CPR/AED - Initial & Every 2 years (AHA), Required for Employees Working On or Associated with Exposed Lines or Equipment Energized at 50 Volts or More, Offer to Faculty & Staff 2x/Year
- 1910.178-Powered Industrial Trucks - Initial & Every 3 Years, In-Class & Performance Evaluation
- 1910.157- Portable Fire Extinguishers - Initially & Annually, OSHA Coordinators, Building Coordinators, Residential Directors & Assistants, Laboratory Graduate Assistants, Online training Module for Student Workers & Faculty
- 1910.252-255-Hot Work (Welding, Cutting, & Brazing) – Initial, Maintain Hot Work Permit Program
- 1910.332-Electrical – Initial, Electrical Equipment Testing Required Annually
- 1910.1001-Asbestos – In-House Asbestos Abatement Program for <120 ft² (Includes 3 Inspectors, 3 Supervisors, 4 Workers), Vendor Provided Training Every 2 Years



- 1910.1030-Bloodborne Pathogens - Initial & Annual, HEP B Vaccination/Declination Required
- 1910.1200-Hazard Communication – Initial Annual, MSDS Online Maintained by EH&S, Online Training Module
- 1910.1450-Occupational Exposure to Hazardous Chemicals in Laboratories - Initial, Online Training Includes Students (Chemistry Department)
- General Duty Clause
 - Ergonomics - Work with Human Resources and Disability Services providing ergonomic assessments of employees workstations
 - Indoor Air Quality Investigation - Respond within 48 hours; immediate if dangerous to life and health. Air sampling performed when potential issues exist
 - Any other safety related issues not under TOSHA or OSHA regulations

Online Safety Training Modules

- Art Safety
- Asbestos Awareness
- Hazard Communication
- Lab Safety
- Hazardous Waste
- Bloodborne Pathogens (Exposure Control Program)
- Chemistry Laboratory Safety Training
- Emergency Preparedness
- Portable Fire Extinguishers
- Bicycle Safety
- Radiation Safety
- ETSU Heart Radiation Safety Training
- Radiation Safety Training for Ancillary Personnel
- X-ray Safety Training
- Biosafety Lab Training
- Campus Security Authorities
- Theatre Safety
- Theatre Firearm Safety
- Laser Safety
- Laboratory Safety in Biology Labs
- Supplemental Safety Training for the Department of Internal Medicine



Other Responsibilities

- New Hire Orientation (Campus- Wide) - Work with departments to identify specific safety training requirements.
- Tool Box Talks - Safety information relayed to departments based on accident, near misses, or hot safety topics.
- Accident Investigations - Investigate all reported incidents or near misses.
- MSDS Online - Maintain Safety Data Sheets (SDS) and chemical inventories on EH&S site.
- Perform face velocity tests for all chemical hoods on main campus, College of Health Sciences, Valleybrook, Kingsport and Innovation Lab using AirData Micromanometer. Currently involves 212 laboratories.
- Building safety inspections with Facilities Management



Health & Safety Items/Reports/Certifications Calendar

Reports	Due Date
• Asbestos Supervisor Certification	09/23 – Annually
• Asbestos Inspector Certification	09/24 – Annually
• Asbestos Physicals	10/01 – Annually
• Asbestos Training	Annually
• Asbestos AHERA Management Inspections	Every 6 months (Dec & May)
• Asbestos AHERA Report	Annually before 07/09
• Asbestos AHERA Management Plan	Every 3 years
• Electrical Gloves	Every 6 months
• Fume Hoods	Annually (Summer)
• Hearing Conservation	Annually (Spring & Fall)
• Respirator Medical Clearances	PRN by Occupational Physician(1-3 years)
• Respirator Fit-Test	Annually
• Confined Space Training	Annually (Shutdown)
• Bloodborne Pathogens	Annually (Jan)
• On-line Trainings (Haz Com, Lab Safety, Haz Waste, BBP, Fire Ext, Art Safety)	Annually once Departments have been registered
• Hazard Communication/Universal Waste	Annually (Jan)
• Lead Renovation, Repair Certified Renovator	02/18/2015 (Every 5 years)
• Lab Safety Inspections	Annually (May to Nov)
• AED's	Batteries changed PRN (Good for 4 years)
• Update/Review EH&S Policies	Annually (Apr)
• Calibrate Portacount	Annually (Jul)
• Air Data Multimeter	01/2014 (Every 2 years)
• Calibrated TSI IAQ Calc	01/01 – Annually



Fire & Life Safety

1. Fire Alarm Systems

- ETSU currently has 81 fire alarm systems protecting buildings on the main campus, VA campus, and off-site facilities, such as the Nave Center and the Natural History Museum. The state adopted fire code requires that all fire alarm systems be tested annually, and maintained in operable condition.
- In 2011, EH&S gained approval through the State Fire Marshal's Office to implement an in-house inspection program. Prior to this, ETSU was required to have these inspections performed by a licensed fire protection company. Significant savings and a more comprehensive inspection program has been achieved. EH&S employs a Fire & Safety Technician, who annually tests each system, verifying operability and the need for various repairs, if any.
- EH&S employs a Fire Protection Manager, who coordinates repairs of these systems, when needed. In 2013, the Fire Protection Manager and Fire & Safety Technician conducted 49 fire alarm system repairs. Approximately 40 repairs were conducted by fire alarm vendors.
- During 2013, the fire alarm systems CPA and Sherrod Library were replaced with new equipment.
- This year, two fire alarm systems were installed in the new parking garage. Additionally, three fire alarm master controller systems were installed at the new public safety dispatch center. The fire protection manager coordinates these fire alarm equipment replacement projects.

2. Fire Protection Impairment Program

- The state adopted fire code requires ETSU to develop and maintain a Fire Protection Impairment Program. This program was developed in April of 2008, and is utilized for all sprinkler and fire alarm system shutdowns. The fire protection manager is responsible for documenting and maintaining impairment records.



3. Sprinkler Systems

- The state adopted fire code requires that all sprinkler systems be annually tested and maintained in an operable condition.
- The fire protection manager coordinates these inspections and tests with a certified sprinkler contractor. ETSU currently has 51 buildings protected by a sprinkler system.
- The fire protection manager coordinates the maintenance and repair of ETSU's sprinkler systems. Any deficiencies found during the annual inspection are mitigated by the fire protection manager.

4. Call-For-Assistance Buttons

The fire protection manager has coordinated the installation of 122 call-for-assistance buttons. These "panic" button signals are routed through the fire alarm panels so that a UL Listing can be maintained on these life safety devices. The Fire & Safety Technician is responsible for the annual testing of the call-for-assistance buttons. The Fire Protection Manager and the Fire & Safety Technician conduct maintenance and repairs of the call-for-assistance buttons, the associated repeaters, receivers, etc.

5. Building Coordinators

Manage Building Coordinator Program which includes annual training. Monthly Fire and Life Safety Inspection Reports are completed by each of 51 building coordinators. These reports are forwarded to the fire protection manager, who mitigates any deficiencies noted. The monthly inspection reports address exits, manual pull stations, storage rooms, fire hazards, emergency plaques and diagrams, AED's, and elevator emergency phones. Reports are kept on file for one year.

6. Maintains Monthly Fire & Life Safety Equipment Inspection Reports

The fire protection manager receives and maintains the Monthly Fire and Life Safety Equipment Inspection Reports for all ETSU facilities. These inspections are conducted by Facilities Management personnel and cover fire extinguishers, sprinkler systems, emergency lights, and exit signs. Any deficiencies listed in these reports are mitigated by the fire protection manager. Reports are kept on file for one year.



7. Day Care Centers

The fire protection manager is responsible for conducting fire drills at the Child Study Center and Little Bucs and inspecting their facilities every 30 days, as per state fire marshal requirements. Inspection reports are generated and kept on file for one year. Any deficiencies found during these inspections are mitigated by the fire protection manager.

8. Exhaust Hood Cleaning

The state adopted fire code requires that all exhaust hoods be cleaned every six months. The fire protection manager coordinates the cleaning of our 10 exhaust hoods, located in the Culp Center and University School, with a local contractor. Deficiencies found during the cleaning are mitigated by the fire protection manager. Reports are kept on file for one year.

9. Exhaust Hood Suppression Inspections

The state adopted fire code requires that all exhaust hood suppression systems be inspected and tested by a certified contractor every six months. The fire protection manager coordinates these inspections and tests, and mitigates any deficiencies found. Reports are kept on file for one year.

10. Fire Drills

The state adopted fire code requires that all business occupancies conduct fire drills annually. Assembly occupancies, such as Sherrad Library, Basler CPA, and the Culp Center are required to conduct drills quarterly. The fire protection manager is responsible for conducting and documenting these fire drills. Thirty-six fire drills were conducted in academic facilities during 2013.

Resident Directors conduct 3 fire drills in each residential hall every semester. These fire drills are documented in a Monthly Inspection and Fire Drill Report. The report includes information regarding the fire drill, fire extinguishers, public kitchens, laundry rooms, storage areas, emergency lights, and exits. These monthly reports are forwarded to the fire protection manager for perusal. Sixty fire drills were conducted in the residential halls during 2013.

All fire drill reports are kept on file for one year for perusal by authorities having jurisdiction.



11. Fire Extinguishers

The state adopted fire code requires that all fire extinguishers be annually inspected and date tagged. The fire protection manager coordinates the annual inspection of approximately 2,500 fire extinguishers. Any deficiencies found during these inspections are documented and corrected by the fire protection manager.

12. Fire Pumps

The state adopted fire code requires that all fire pumps be tested annually. The fire protection manager coordinates the annual inspection and test of 5 fire pumps. Any deficiencies found during the inspection are then corrected by the fire protection manager.

13. Building Inspections

The fire protection manager is responsible for conducting annual fire and life safety inspections of the residential facilities. During the 2013-14 cycle, the following residential facilities were inspected:

- Carter Hall
- Centennial Hall
- Governors Hall
- Lucille Clement Hall
- Luntsford Apartments
- Nell Dossett Hall
- Powell Hall
- Stone Hall
- West Hall

During these inspections, 20 deficiencies were observed and respective work orders issued for corrective actions.

14. Fire Watch Activities

The state fire marshal's office has mandated the use of a fire watch at the Mini Dome when the building is occupied by 300 or more persons. ETSU was required to hire four off-duty Johnson City Fire Department Firefighters for each basketball game. But in order to save money and have more input into the fire watch process, EH&S petitioned the state fire marshal's office to allow ETSU personnel, who were properly trained, to perform this task. EH&S developed a fire watch program, as well as a training piece, that was approved by the state fire marshal's office and is currently being utilized for Mini Dome events and any major fire alarm/sprinkler system impairments. ETSU is one of the few organizations that has a state fire marshal approved fire watch program using non-fire department personnel.



The fire protection manager is responsible for ensuring that fire watches are conducted when needed, and training of ETSU personnel as how to conduct fire watches. To date, 60 ETSU employees have been trained on fire watch procedures.

15. Hot Work Permits

The state adopted fire code requires the issuance of hot work permits anytime the use of torches or welding is utilized on campus. Facilities Management personnel, as well as contractors, must complete a Hot Work Application for approval by the fire protection manager. The permit is then posted at the job site.

16. MIC Testing

The state adopted fire code requires the use of testing for the presence of microbiological agents in the water supply for new sprinkler systems. The fire protection manager utilizes standard sample kits to send water samples for laboratory analysis. If MIC is detected, the fire protection manager is responsible for injecting a MIC inhibiting agent into the sprinkler system piping on an annual basis.

17. Fire Hydrant Testing

The state adopted fire code requires the annual flow testing of campus fire hydrants. The fire protection manager coordinates hydrant testing through the Johnson City Fire Department, who conducts the flow tests. Test results are kept on file for one year.

18. Fire Safety Training

The fire protection manager provides fire extinguisher training, utilizing an outdoor fire simulator, for faculty, staff, and students. Since 2008, 1,000 persons have been trained on the use of portable fire extinguishers. Additionally, annual fire extinguisher and fire safety training is provided for all resident directors and resident assistants.

19. Fire Response Log

The fire protection manager is required by policy to notify by email the following personnel anytime the fire department responds to the campus:

- Dr. David Collins
- Dr. Wilsie Bishop
- Bill Rasnick
- Dan O'Brien



A log of all fire department responses to campus is maintained by the fire protection manager.

20. Create and maintain Evacuation Diagrams and Emergency Procedures Plaques

The state adopted fire code requires evacuation diagrams and emergency plans for all campus buildings. The fire protection manager is responsible for creating the diagrams and plans and having them installed at the main entrances of all campus facilities.

21. Prepare Annual Fire Safety Report

The fire protection manager is responsible for preparing the annual fire safety report required by the Department of Education. This report is published on ETSU's website.

22. Coordinate Pre-Fire Planning with JC Fire Department

The fire protection manager is the liaison between ETSU and the Johnson City Fire Department. The fire protection manager coordinates fire department pre-fire planning inspections, Knox Box inspections and any activities related to firefighting operations on campus.

23. EH&S Maintains 24/7 Standby Service for Fire Alarm Systems

EH&S provides an on-call person at all times for service calls related to fire alarm and sprinkler systems. The EH&S Director, the Fire Protection Manager, and the Fire & Safety Technician provide this on-call service. During 2013, these persons responded to 55 emergency calls after normal business hours.



Fire & Life Safety Compliance Items/Reports

Month Due	Items/Reports
January	<ul style="list-style-type: none">• Prepare Annual Fire Safety Report• Clean exhaust hoods at Culp & UH• Test exhaust hood suppression systems• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
February	<ul style="list-style-type: none">• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
March	<ul style="list-style-type: none">• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
April	<ul style="list-style-type: none">• Quarterly cleaning of Culp Char Grill• Begin annual fire drills• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
May	<ul style="list-style-type: none">• Begin annual sprinkler system testing• Begin annual fire alarm testing• Get quotes for exhaust hood cleaning• Get quotes for fire pump testing• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
June	<ul style="list-style-type: none">• Re-apply MIC inhibitor at VA bldg. 178• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports



Fire & Life Safety Compliance Items/Reports – cont.

Month Due	Items/Reports
July	<ul style="list-style-type: none">• Begin fire extinguisher inspections• Clean exhaust hoods at Culp & UH• Test exhaust hood suppression systems• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
August	<ul style="list-style-type: none">• Test fire pumps• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
September	<ul style="list-style-type: none">• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
October	<ul style="list-style-type: none">• Quarterly cleaning of Culp Char Grill• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
November	<ul style="list-style-type: none">• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports
December	<ul style="list-style-type: none">• Check monthly Fire & Life Safety Reports• Check monthly Attachment B & E PM's• Check monthly Housing Inspection & Fire Drill Reports• Check weekly fire pump test reports



Pest Management

EH&S provides pest management services for all ETSU properties including housing facilities. EH&S also maintains an on-call person for any after business hour incidents involving any pests that could compromise the safety of the university community. Some examples are raccoons, skunks, poisonous spiders, bats, stray dogs, and snakes. EH&S also insures that all staff responsible for herbicide and pesticide management maintain the applicable applicator licenses. The department facilitates Department of Agricultural inspections on an annual basis.