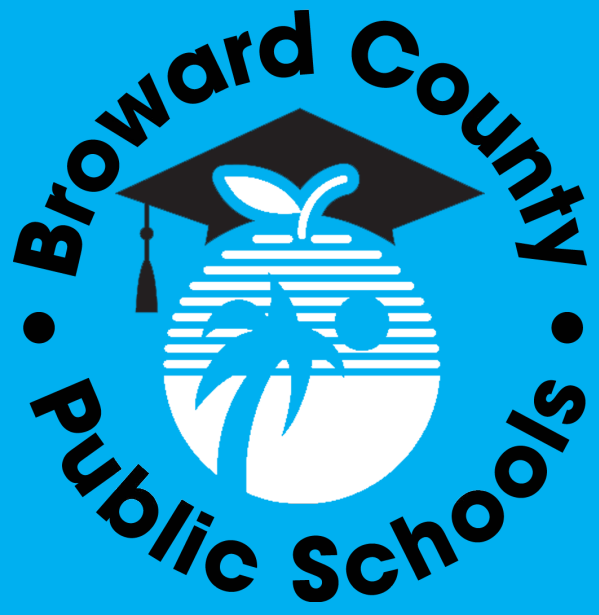

ENVIRONMENTAL HEALTH & SAFETY MANUAL

2018

Environmental Health & Safety Department

Website: http://www.broward.k12.fl.us/ehs/

Broward County Public Schools

Environmental Health & Safety Manual

2018

Environmental Health & Safety Department
School Board of Broward County
Website: http://www.broward.k12.fl.us/ehs/index.html

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MESSAGE FROM SUPERINTENDENT ROBERT W. RUNCIE

BROWARD COUNTY PUBLIC SCHOOLS SAFETY

As the Superintendent of Broward County Public Schools (BCPS), I strongly support individual and team efforts to provide a safe, healthy, and environmentally-friendly learning climate and workplace for all students, faculty, and staff. By identifying potential problems, evaluating current methods of operation, controlling hazardous conditions and developing safer ways to learn and work, we all benefit.

The BCPS Management Team has the personal and legal responsibility to maintain a safe and healthy environment. At BCPS, the role of Environmental Health & Safety (EH&S) is to provide safety leadership, guidance and support to the BCPS Management Team. This will drive our continued success as a high quality educational institution, employer of choice and responsible member in the community.

Maintaining a safe and healthy learning and work environment is a continuous endeavor that requires the cooperation and contribution of all BCPS students, faculty, and staff members. Each of us have the personal and legal responsibility to observe, report, and adhere to all EH&S safety rules, policies, and procedures. When you work safely, you contribute to high quality education, enhancing your future and the future of BCPS and the community.

Robert W. Runcie
Superintendent of Schools

AUTHORITY

The Superintendent of Schools, School Board of Broward County, imparts upon the Environmental Health and Safety Department, the authority to establish an Environmental Health and Safety Manual that contains safety rules, policy and procedures for all BCPS personnel with the goal of providing a safe, healthy and environmentally-friendly learning climate and workplace throughout the District. The Environmental Health and Safety Department shall be solely responsible for the review, update and revisions of the EH& S Manual. The EH&S Manual shall not be changed, amended or modified by any other individual, agency or entity.

ENVIRONMENTAL HEALTH & SAFETY MANUAL

School Board of Broward County Broward County Public Schools

Goal

Consistent with the Superintendent of Schools' April 2, 2018 "Broward County Public Schools Safety Letter" and the State Requirements for Educational Facilities (SREF), it is the goal of the School Board of Broward County (SBBC) and Broward County Public Schools (BCPS) to provide a leadership role in Environmental Health and Safety. This is accomplished by providing a safe, healthy and environmentally-friendly place to learn and work through an active, planned and comprehensive Environmental Health and Safety (EH&S) Program, that shall meet or exceed all applicable federal, state, county and school board requirements.

Purpose

The EH&S Manual describes the general organization, objectives, responsibilities and guidelines which will provide clear direction on implementing and maintaining the EH&S Manual. The purpose of the EH&S Manual is to establish consistent and effective environmental health and safety practices, policy and procedures throughout the District and thereby promote environmental and resource conservation, prevent accidents, injuries, illnesses, and preserve life and property. It is the responsibility of each Site Administrator (School Principal or Department Head) to ensure that their staff, facilities, operations and services have knowledge of, and comply with, the applicable standards set forth in this EH&S Manual.

Scope

The EH&S Program, as described in this EH&S Manual, applies to all SBBC students, faculty, staff and facilities. On-site contractors at SBBC facilities are also included within the scope of this manual. Where reference is made to schools, departments or sites, this shall encompass all SBBC and BCPS District entities, facilities, operations and their personnel.

The EH&S Manual is not designed to be all-inclusive for the multitude of functions performed daily by District staff or operations, nor it is intended to be a detailed "how to" safety and health instruction manual. The EH&S Manual provides the basic tools and resources for administrators of District schools and departments to guide and manage the safety of their staff, services, operations and facilities. As the scope of BCPS District operations evolve, environmental health and safety requirements may be added, revised or deleted, as applicable, to promote compliance with current federal, state and local safety standards. The EH&S Department shall be solely responsible for revisions or updates to the EH&S Manual.

The EH&S Manual is designed to meet the intent of all applicable federal, state, local, and best practices. Accordingly, Florida State Requirements for Educational Facilities (SREF) 2014, Florida Department of Health (Health and Sanitation), Department of Education (Florida State Statue 1013.12), OSHA 29 CFR Parts 1910 & 1926, NFPA Life Safety Code 101, and other applicable federal, state and county health and safety standards incorporated by reference, are acknowledged to be a part of EH&S Manual's scope, incorporated by reference, and accordingly will be adhered to by BCPS personnel.

ENVIRONMENTAL HEALTH & SAFETY (EH&S) DEPARTMENT

Vision To be the professional and guiding force in advancing a culture where safety, health and environmental sustainability are core values adopted and practiced throughout all levels of the District.

Mission To maintain safe and healthy working and learning environments, facilitate increased awareness and efficient use of energy and other natural resources, and ensure regulatory compliance with federal, state and BCPS District requirements and protocols.

In support of our Mission, the EH&S Department is committed to being a department comprised of individuals dedicated to our mission and values, and stewards of the highest professional practices and standards, including:

- Fostering a proactive culture focused on EH&S awareness, inter-departmental communication/collaboration, implementation and supervision of safe working practices, and providing training in health, safety and environmental matters.
- Evaluating the status of and overseeing compliance of health, safety and environmental standards, codes, policies and regulations through on-site collaboration, inspections, monitoring and documentation.
- Cultivating partnerships with students, staff, departments and administrators that enables them to recognize/identify EH&S issues and empowers them to learn to work safely to minimize injuries, illnesses, and environmental impact and/or assist in resolving those issues through education, monitoring and problem solving.

Values

Excellence! The EH&S department values excellence and constantly strives to be a leader within the District and EH&S field.

Service & Professionalism! The EH&S Department is a service-oriented department committed to professionalism through friendly and helpful interactions and facilitation of effective education. The EH&S department supports and encourages professional development of its staff to continuously expand technical expertise and knowledge**.**

Compliance! The EH&S department is committed to promoting practices that meet or exceed compliance with regulatory standards.

"Excellence in safety and health can only be achieved through the combined and diligent efforts of all District personnel. At BCPS, a safe and healthy learning and working environment will always be a priority and safety must be at the forefront of every plan and activity." *Director, EH&S Department, BCPS*

SECTION A
RESPONSIBILITIES OF BCPS DISTRICT PERSONNEL

In accordance with the Superintendent of Schools, all BCPS District personnel are responsible for observing, reporting and adhering to all EH&S safety rules, policy and procedures. In addition, all BCPS District personnel are responsible for taking all reasonable precautions to ensure their safety, as well as the safety of others and of District operations, services and facilities. Accordingly, it is the responsibility of all personnel to be aware of and comply with all applicable provisions of this Environmental Health & Safety (EH&S) Manual.

Further, in accordance with the State Requirements for Educational Facilities (SREF) all BCPS personnel (including on-site contractors) must comply with the OSHA Regulations 29CFR 1910 General Industry (https://www.osha.gov/SLTC/generalindustry/index.html) and 29CFR 1926 Construction Standards (https://www.osha.gov/doc/) as applicable to their sites, job tasks and operations.

The responsibilities described below are broad. They do not limit individual schools and departments from establishing more comprehensive or task specific environmental health and safety responsibilities as applicable to their operations or facilities.

The **Superintendent of Schools and the School Board** are responsible for establishing and administering Board Policy pertaining to the Environmental Health and Safety Manual.

The **Chief Facilities Officer** is responsible for oversight of the Facilities Operations.

The **Chief Fire Official** is responsible for oversight of the BCPS District Fire Safety Program.

The **EH&S Department Director** is responsible for the development and implementation of the BCPS Environmental Health & Safety (EH&S) Manual as described below and as described in SBBC EH&S SOP #400 Policy Statement.

A.1. EH&S Department Director

Development and implementation of the BCPS Environmental Health & Safety (EH&S) Manual will be accomplished by the EH&S Department Director, in accordance with the Superintendent of Schools' leadership goals. The purpose of the EH&S Manual is to provide effective and consistent environmental health and safety practices in all District services, operations and facilities. The EH&S Director shall therefore take all reasonable actions to keep environmental health, safety and resource conservation at the forefront of all District endeavors, and oversee the EH&S staff efforts in accomplishing this goal.

The EH&S Director is further empowered to order the cessation of an activity, or limit access to a facility evaluated as presenting an immediate and serious life safety hazard. Resumption of said activity or facility access shall require the approval of the EH&S Director or designee.

A.2. EH&S Department Staff

The EH&S staff (including Managers, Coordinators, Specialists, etc.) are responsible for providing oversight, technical guidance, inspections, training, accident/injury investigations, recommendations and resources to assist BCPS District site administrators and staff in understanding and complying with the EH&S Manual and applicable federal, state and local environmental health and safety requirements, standards and best practices. Our activities are guided by regulations and standards designed to protect the safety of people and environment.

In accordance with its responsibilities, the EH&S staff are committed to:

A.2.1 Fostering a proactive BCPS culture focused on safety and health awareness, inter- departmental communications/collaboration, training, implementation and supervision of safe working practices.

A.2.2. Evaluating the status of and overseeing compliance of health, safety and environmental standards, codes, policy and regulations through inspections, monitoring and documentation and hazard resolution.

A.2.3. Cultivating partnerships with students, staff, departments and leadership to promote safe and healthy learning and working environments and minimize the potential for injuries, illness and environmental impact.

A.2.4. Promoting environmental awareness, as well as ensuring effective resource and energy conservation and management.

A.2.5. Performing JHA's or other similar safety evaluations for tasks when requested or deemed necessary.

The EH&S staff is also authorized to order the cessation of specific activities or conditions that, in their opinion, present an immediate and serious life safety hazard. The EH&S staff may require the removal from service of unsuitable or unsafe equipment or machinery, by either tagging, disabling or impounding if deemed necessary. Resumption of activities, facility access or equipment use will require approval from the EH&S Director or designee.

Photo: broward.k12.fl.us/ehs

A.3. BCPS Site Administrators (School Principal or Senior Administrator)

The "site administrator" is the principal at a school site or the highest-level administrator / department head at a non-school site. BCPS site administrators are responsible for providing the leadership essential to promote effective and pro-active environmental health and safety conditions and operations at all levels of their respective site. Hazard types and conditions may vary from one District site to another. Accordingly, all site administrators are responsible for:


Photo: cdc.gov

A.3.1. Delegating the staff and resources necessary to comply with this EH&S Manual and all applicable federal (e.g., OSHA, EPA), state (e.g., SREF) and local environmental health and safety requirements.

A.3.2. Providing the communication and coordination for their site's health and safety plans, practices and compliance with the EH&S Manual. Site Administrators should contact the EH&S Department when assistance is needed or to report safety concerns.

A.3.3. Conducting, or coordinating, monthly self-inspections at their site(s) for the purpose of identifying and correcting unsafe practices and hazards. Self-Inspection Checklists are available in Appendix 4.

A.3.4. Investigating/reviewing accidents, injuries and "near miss" incidents to identify cause and corrective actions to prevent reoccurrences.

A.3.5. Requesting Job Hazard Analysis (JHA) or other similar safety evaluations from EH&S for tasks in their departments when requested by on-site staff or otherwise considered necessary. (Appendix 5).

A.3.6. Cooperating, and instructing staff to cooperate fully, with the EH&S Department on matters pertaining to safety training, safety concerns, site inspections, accident investigations, safety committee proceedings and other health and safety issues.

A.3.7. Following procedures, consistent with current BCPS policy to address the following potential environmental health and safety issues:

- Suspicions of being under the influence of drugs/alcohol that may contribute to an unsafe act, injury or accident. Refer to SBBC Policy # 2400 Drug Free Workplace (Appendix 6) for instructions. Risk Management Special Investigative Unit, phone 800-374-4810.

- Counseling and progressive disciplinary action to address unsafe or irresponsible acts or horseplay, or violations of safety practices and procedures by staff (Section P).

A.4. BCPS Department Heads, Managers and Supervisors

Photo: browardschools.com

Department Heads, Managers and Supervisors are responsible for providing the front-line leadership and direction to their staff to ensure that working safely is always a priority at every site and for every task. Their responsibilities include:

A.4.1. Communicating and coordinating effective employee health and safety information and practices to comply with the EH&S Manual and applicable federal, state, local standards and best practices, in order to reduce the potential for unsafe acts, unsafe conditions, accidents or injuries.

A.4.2. Contacting the EH&S Department when assistance is needed with safety and health issues or to report safety concerns.

A.4.3. Accessing and monitoring potential hazards in the workplace or operations to reduce the potential for unsafe acts or conditions, which could lead to accidents or injuries. Planning work assignments accordingly and taking all reasonable precautions to provide safe and healthy work conditions and sites for all personnel.

A.4.4. Ensuring that staff are properly trained and equipped to perform tasks safely, aware of potential job-related hazards, and understand and comply with all applicable safety and health procedures, as well as emergency and disaster readiness procedures.

A.4.5. Reviewing with employees upon hire, new assignment and as needed thereafter all job or task specific safety information. This includes applicable *Job Task Safety Rules* contained in Appendix B, as well as equipment manufacturer's safety instructions. When feasible, this information should be posted near equipment or at worksite.

A.4.6. Allowing only properly qualified or certified personnel to perform work when the job tasks or equipment operation require qualification or certification. Implement and document specific safety procedures and ensure employee training and appropriate

written programs for tasks involving hazardous work such as lock-out / tag-out of hazardous energy, permit required confined space entry, etc. (Appendix 3).

A.4.7. Requiring that staff attend all applicable environmental health and safety training as detailed in the BCSP Safety and Health Training Curriculum (Section B) and in accordance with SCCB EHS-SOP # 405 – Environmental Health & Safety Training (Appendix 7). Forwarding documentation to the EH&S department of all employee safety training including informal on-site safety training or "tool box safety" training, as well as maintaining such documentation on site.

A.4.8. Informing staff to ask questions when unsure and to promptly report health and safety concerns for correction. Prompt actions should be taken to correct unsafe acts or hazards related to conditions, operations, equipment or facilities.

A.4.9. Identifying and monitoring employee tasks requiring personal protective equipment (PPE) such as gloves, eye protection, respirators, etc. to ensure employees have the proper PPE and are trained to use it properly (Section C).

A.4.10. Establishing communication procedures, when applicable, to monitor the safety of staff assigned to remote work locations or working alone.

A.4.11. Conducting, or coordinating, routine (e.g., monthly) inspections of facilities and operations to identify and correct unsafe acts, conditions or equipment. Self-inspection checklists should be used to document inspections and follow up on corrective actions (Appendix 4).

A.4.12. Instructing staff to inspect their equipment and worksites daily, and tag unsafe equipment or conditions to prevent use /access. Ensuring specialized equipment (e.g., hydraulic lifts, lab hoods, etc.) are inspected in accordance with manufacturer's or best practices / trade intervals and the inspection information is posted on the equipment or otherwise documented.

A.4.13. Ensuring staff are aware of, and comply with, the school or department's Hazard Communication/ Chemical Safety Program SBBC EH&S-SOP # 415 (Appendix 7), for the proper storage, use, spill management and Personal Protective Equipment (PPE) for chemical, biological and other potentially hazardous products. Safety Data Sheets (SDS) shall be available for all hazardous products utilized or stored at the worksite and can be obtained from Risk Management (phone 754-321-1900).

A.4.14. Investigating and reporting all accidents and injuries in accordance with Section N. Providing training, counseling and/or disciplinary action, consistent with District's Administrative Policy, to an employee who performs an unsafe act or fails to follow proper safety procedures.

A.5. All BCPS Employees


Photos: BrowardK12.fl.us & cdc.gov

All BCPS employees, including faculty and non-faculty staff, are responsible for following all safety instructions, performing their work safely and exercising proper caution to reduce the potential for accidents or injuries to themselves and others. Their responsibilities include:

A.5.1. Learning and complying with the safety rules, programs, policies and instructions applicable to their job. This includes applicable provisions of the EH&S Manual, federal (e.g., OSHA), state (e.g., SREF) and local standards, including those generally recognized within their respective professions or trades.

A.5.2. Attending and completing all safety and health training as required by EH&S Manual and their supervisor, department head or site administrator. Providing documentation of training attendance and completion when requested by supervisor or site administrator.

A.5.3. Following all equipment or product manufacturer's safety instructions, workplace safety rules, policies and warnings. Working safely to prevent injury to themselves and others. Only operating equipment or performing tasks when qualified or authorized to do so. Asking for instructions when untrained or unsure of how to perform a task or operate equipment properly. Knowing and complying with the applicable *Job Task Safety Rules* listed in Appendix 1.

A.5.4. Being aware of the work environment and potential hazards and taking all reasonable precautions to prevent an accident or injury to themselves and others. Inspecting items before use and not using items that are defective or damaged.

A.5.5. Promptly reporting any safety or health concerns to the supervisor, department head or site administrator. If the concern is not adequately addressed within a reasonable period of time, the employee should contact the EH&S Department for guidance.

A.5.6. Being alert to potential walking and sitting hazards. Using handrails on stairs and being alert to slipping, tripping or falling hazards. Using chairs and seats properly, and only sitting in areas or items designated for sitting.

A.5.7. Reporting to work properly attired and groomed to perform the assigned job tasks safely as specified in Section D.

A.5.8. Not being impaired due to alcohol, drugs, or medication while on duty. Promptly notifying the supervisor, department head, administrator or principal if you are taking

medication or have any condition which could cause an impairment (e.g. drowsiness, etc.).

A.5.9. Knowing body limitations and preventing awkward movements and unsafe acts. Not force, overreach or overstretch. Handle and lift materials properly and safely. Request help when lifting or handling large or heavy items.

A.5.10. Keeping work areas, tools and equipment clean and orderly. Storing items properly. Promptly cleaning up or reporting spills, waste or debris. Being alert to, and promptly reporting, unusual odors, small leaks, dented or deteriorated containers, etc.

A.5.11. Inspecting tools, equipment, safety devices and personal protective equipment PPE (e.g., gloves, googles, etc.) prior to each use. Not using damaged or defective equipment. "Tag" or label unsafe items and report or remove them from service. Following all safety warnings and using all safety devices properly. Not altering, removing, disabling, or ignoring a safety device or safety warning.

A.5.12. Using equipment properly and only for its intended use. Do not stand on tables, chairs, or desks to reach items. Obtain a step stool or request help when needed.

A.5.13. Avoiding unnecessary distractions to himself/herself and others. Not engage in horseplay, arguments or fights. Report unsafe or unusual behavior (e.g., impairment, aggressive or violent acts) to the supervisor, department head or site administrator.

A.5.14. Immediately reporting an accident, injury or near-miss to the supervisor, department head or site administrator. Complete the reporting requirements in Section N. Cooperate fully with the supervisor and other personnel conducting an investigation.

A.5.15. Properly de-energizing (turning off or disabling) equipment and electrical circuits before working on them in accordance with the manufacturer's instructions and, if applicable, OSHA Lock-Out/Tag-Out procedures.

A.5.16. Operating a BCPS vehicle as per Section F and with a valid and appropriate Florida Driver's License. Being aware of state, county and departmental rules and the vehicle instructions. The driver and all passengers must wear a seatbelt. No one may ride on any portion of a vehicle that is not designed for that purpose.

A.5.17. Being attentive to the vehicle, pedestrian, weather and road. Not talking or texting on a cell phone or other personal device, not wearing ear buds or playing loud music while operating a District vehicle, not engaging in aggressive behavior, and not using the vehicle for unauthorized purposes.

A.5.18. Having and maintaining current all required licenses, certifications, physical examinations and documents necessary to perform job tasks. Immediately notifying supervisor, department head or site administrator of a suspension, revocation, limitation or physical or medical condition which may limit the employee from performing the job legally or safely.

A.5.19. Complying with the school/department's Hazard Communication/ Chemical Safety Program as per Section J and SBBC EH&S-SOP # 415 – Chemical Safety

Program (Appendix 7), for the proper storage, use, spill management and personal protective equipment for chemical, biological and other potentially hazardous products.

A.6. BCPS District Contractors, Sub-Contractors, Vendors

The safety of everyone, every operation and every facility at BCPS is of paramount importance. Contractors, sub-contractors, vendors and their workers are responsible for knowing and complying with all federal (e.g., OSHA, EPA), state (e.g. SREF), county standards and best industry practices as applicable to their workers, sites, services, operations and equipment, and for taking adequate measures and precautions to ensure their safety, the safety of others and the safety of their sites and operations.

Photo: broward.k12.fl.us

A.7. BCPS District Students and Visitors

The safety of everyone at BCPS is of paramount importance. Students and visitors are responsible for following all safety and health instructions provided at a site, for taking all reasonable precautions to ensure their safety and the safety of others, and for promptly reporting safety concerns, accidents or injuries to teachers or other BCPS staff.

SECTION B
BCPS DISTRICT EMPLOYEE SAFETY & HEALTH TRAINING

Training is a key component for preventing accidents, injuries and illnesses and for ensuring District services, operations and facilities consistently maintain the highest quality for places to learn and work. Accordingly, site administrators (school principals and department heads) are responsible for allocating the resources necessary to ensure that their staff receive appropriate safety and health training in order to perform their jobs safely and to comply with federal (e.g., OSHA, EPA), state (e.g., SREF), county and BCPS District regulations and SBBC EHS-SOP # 405 – Environmental Health and Safety Training (Appendix 7).

Documentation of all employee safety and health training shall be provided to the EH&S Department in accordance with SREF, as well as maintained at the site of employment. Safety and health training is a continuous process that involves several key components: initial orientation upon hire or new assignment, formal and re-fresher training to comply with regulations or standards, and, as needed, on-the-job safety training.

Photo: OSHA.gov

B.1. OSHA Training Requirements

OSHA's mission is to ensure the protection of workers and prevent work-related injuries, illnesses, and deaths by setting and enforcing standards, and by providing training, outreach, education and assistance. Many OSHA standards, include explicit safety and health training requirements to ensure that workers have the required skills and knowledge to safely do their work. OSHA believes that training is an essential part of every employer's safety and health program for protecting workers from injuries and illnesses. OSHA's training-related requirements for workplace safety and specific job tasks are provided in the OSHA Training Requirements Booklet Publication # 2254: https://www.osha.gov/Publications/osha2254.pdf.
SREF Chapter 5 requires SBBC to establish compliance with OSHA standards.

B.2. Safety Orientation and On-the-Job Training


photo: OSHA.gov

Site safety orientation and tasks specific on-the-job safety training shall be conducted upon new hire, upon new assignment, new process or new equipment and periodically thereafter, by the employee's supervisor or as determined by the site administrator. Site orientation and on-the-job safety training shall be documented and maintained in the employee's file with copies provided to the EH&S department (email: safetytraining@browardschools.com) and shall include a review of:

B.2.1. This EH&S Manual and other safety programs/information and where they will be located for future reference.

B.2.2. Potential job site and job task hazards, along with warnings, safety rules, safety procedures, and safety devices to prevent accidents or injury to self or others.

B.2.3. Hazard Communication Program and Safety Data Sheets, Universal Precautions Program, and other pertinent safety programs (e.g., confined space entry) as applicable to their jobs.

B.2.4. Appropriate Personal Protective Equipment or PPE (e.g., shoes, gloves, safety glasses, etc.) to be used by employee. When PPE is required for the job, the employee shall be provided with and trained in its proper selection, inspection, use and storage and required to wear the PPE appropriately.

B.2.5. Emergency procedures, as well as the procedures for reporting a safety concern, accident, injury, unsafe act or condition.

B.2.6. Applicable safety procedures in accordance with federal, state, county and best industry practices. Other safety training as determined by the department and/or the EH&S Department.

B.2.7. Supervisors will ask and answer employees' questions to ensure knowledge and understanding of the safety training discussed.

B.3. SBBC Environmental Health & Safety Training

The purpose of EH&S Training is to provide consistent and effective compliance with regulatory standards, prevent accidents, injury and property damage, and enhance environmental health and safety throughout the District. The EH&S Training staff will collaborate with BCPS District schools and departments to assess, facilitate and document District job safety training requirements and provide a training curriculum consistent with federal, state, county requirements and best practices.

The EH&S Department is responsible for maintaining District-wide Safety and Health Training Records as mandated by SREF. Accordingly, copies of all staff training and certifications must be sent to the EH&S Department for documentation purposes. The scope, objectives and responsibilities related to EH&S Training are fully described in SBBC EH&S SOP # 405 – Environmental Health and Safety Training (Appendix 7). In brief, the training responsibilities are as follows:

B.3.1. Directors/ Management: Supporting the EH&S training requirements by modeling and ensuring that Department Managers/Supervisor are cognizant of their role and responsibilities regarding EH&S required training and issues.

B.3.2. Supervisors: Being aware of the EH&S Training requirements applicable to their site or operations. Cooperating fully with the EH&S Department to identify, coordinate, schedule and complete all required training for themselves and their staff. Maintaining documentation of all safety training for themselves and their staff, and ensuring training documentation is provided to the EH&S Department for compliance with SREF.

B.3.3. Employees: Attending and participating in all scheduled EH&S Training. Advising supervisor when they have questions about training or would like more training.

B.4. Environmental Health & Safety Training Curriculum

The following training classes are provided or coordinated through the EH&S Department or the department listed next to the class below. (A more current class list may be available on the EH&S website.) Additional topics may be offered on a request basis, as staff resources permit. Please contact the EH&S Department at 754-321-4200 for schedule and registration information.

Photo: browardschools.com

1. Asbestos Awareness
2. Accident Review (Training provided by Transportation Department)
3. Aerial Lifts
4. Basic Facility Service Person (FSP) (Training by Custodial and Grounds)
5. Biomedical Waste (Training by Risk Management)
6. Bloodborne Pathogens (Training by Risk Management)
7. CPR/AED (to meet Policy 5303)
8. Reasonable Suspicion of Drugs/Alcohol (Training provided by Risk Management)
9. Emergency Response Protocol (ERP) Evacuation (Training provided by Risk Mgmt.)
10. Environmental Workshop
11. First Aid (to meet SBBC Policy 5303)
12. Forklift
13. Indoor Air Quality
14. Laboratory Safety (Training by Sciences Department)
15. Lock-out /Tag-out Awareness
16. Master / Professional Facilities Services Person (Training by Custodial & Grounds)
17. Safety Best Practices & Supervisory Safety
18. Safe Work Permit
19. Slips, Trips and Falls
20. Underground Storage Tanks

B.5. Job Tasks Safety Rules

It is the policy of the EH&S Department that all BCPS personnel (including on-site contractors) must comply with applicable regulations, including the OSHA Regulations, contained in 29CFR 1910 General Industry and 29CFR 1926 Construction Standards, EPA, SREF and best industry practices, as applicable to their sites, trades, job tasks and operations.

Additionally, BCPS personnel are to be aware of and comply with the applicable *Job Task Safety Rules* provided in Appendix 1. The *Job Task Safety Rules* are not all-inclusive for the multitude of tasks performed by BCPS employees, rather they are intended to give information on some basic safety requirements for common job tasks, and augment (not supersede) recognized safety and health standards such as OSHA, EPA, SREF or best industry practices.

B.6. "Five-Minute Safety" or "Tool Box Safety" Talks

It's important for management and supervisors to convey to employees that they care about their safety at the workplace. One of the best ways to do this is to have frequent informal and brief, safety talks at the beginning of shifts or meetings. Commonly called "5 minute" or "tool box" safety talks, these talks should convey information about workplace safety practices or safety concerns. Safety Talks should be documented with the topic discussed, date and attendees.

B.7. EH&S Department On-Line Library

The EH&S website contains information on a variety of environmental health and safety topics and resources.

B.8. Other Health and Safety Training Requirements

The EH&S Department does not have the staff resources to become the sole trainer for any school or department, however they will work with Site Administrators to resolve training needs. It is the responsibility of every Site Administrator to be aware of the safety and health training needs of its personnel and allocate the necessary resources to coordinate staff training that is not available through the EH&S Department.



Photos: OSHA.gov

SECTION C
PERSONAL PROTECTIVE EQUIPMENT (PPE)

It is the policy of the BCPS District that feasible engineering and / or administrative controls will be utilized to reduce or eliminate employee exposures to workplace hazards. Where engineering or administrative controls are not feasible or not sufficient, Personal Protective Equipment (PPE) (e.g., safety shoes, respirators, gloves, eye protection, etc.) shall be provided by the employer and properly worn by staff.

Photo: browardschools.com

It is the responsibility of each site administrator and supervisor to determine which operations require the use of PPE by staff. The appropriate type of PPE will be determined by the evaluation of the hazard (e.g., applicable regulations, Safety Data Sheets (SDS), hazard warnings on equipment or products, employee concerns) and by consulting the EH&S department.

The purpose, selection, fit, use and employee training for PPE will be coordinated among the supervisor and the EH&S Department in accordance with applicable OSHA PPE standards (29 CFR 1910.132 – 1910.138) and (pending) SBBC EH&S SOP # 412 - Personal Protective Equipment (Appendix 7). When PPE is determined as necessary for an operation, the appropriate PPE shall be readily available to the employee and the employee must use the PPE when performing the operation.

Prior to assigning an employee to an operation which requires the use of PPE, the supervisor will ensure the employee is trained as to the reason for the equipment, the proper use, inspection, cleaning, storage and limitations of the equipment. The supervisor and the EH&S Department will maintain documentation of all employee training.

When the use of PPE has been specified for an operation, its use shall be mandatory. Supervisors will be held accountable for staff allowed to work without the proper PPE. An employee who is injured as a result of not wearing prescribed PPE, shall receive disciplinary action and may be subject to denied Workers Compensation Disability Leave benefits. When an employee is required to use PPE as part of his/her work task, the employee shall be fully responsible for:

- Using, maintaining and storing the PPE properly at all applicable times.
- Inspecting the PPE prior to each use and replacing impaired or damaged equipment.
- Notifying supervisor of any questions or concerns with the use of the PPE.

SECTION D
PERSONAL ATTIRE AND GROOMING FOR WORKING SAFELY

BCPS District employees shall come to work dressed and groomed in a manner that is appropriate to performing their job safely and does not pose a hazard to the employee or others. Personal clothing, accessories, hairstyles, headdress or headgear, jewelry, bags or shoes (e.g., flip-flops) which could pose a hazard to the employee or to another person shall not be worn during the performance of job. Further, hazardous areas such as construction sites have special safety requirements and items such as short pants, sneakers or boat shoes are not allowed.

Potential hazards due to long or loose clothing, hair, facial hair (e.g., beard), long nails, personal head gear that may be caught in machinery, increase the potential for injury or accident to employee or others, or prevent the proper fit of required safety equipment such as hard hats, gloves, respirators are not appropriate nor allowed to be worn while on duty. Headsets, earbuds and other personal items that pose a risk to the employee or others by inhibiting an employee's sensory perception in the performance of the job task (e.g., vision, hearing, and smell) may not be worn while on duty.

It is the responsibility of the employee to report to work each day properly dressed and groomed to perform the job tasks safely. Supervisors who observe an employee whose attire, grooming or personal accessories, in the opinion of the supervisor, constitute a hazard to the employee, others, or to the work operation, shall advise the employee that the practice is inappropriate. The employee shall promptly resolve the concern to the satisfaction of the supervisor.

SECTION E
EQUIPMENT, MACHINERY, PRODUCTS, SAFETY DEVICES & PPE

E.1. Procurement

Clear and detailed specifications for the procurement of equipment will be coordinated between the applicable supervisor/manager, the EH&S Department and the Procurement Department. The term "equipment" includes tools, light and heavy machinery and vehicles, safety devices, safety apparel, and Personal Protective Equipment or PPE (e.g., gloves, respirators, hard hats and safety shoes, ear muffs or ear plugs). Products including paints, chemicals, cleaners, additives, solvents, powders, fillers and mixes, should be reviewed by Risk Management (754-321-1900) or verified as acceptable via Risk Management's Safety Data Sheet (SDS) program.

Photo: browardschools.com

The intended use and required safety features for equipment or products should be clearly detailed in the request, selection and procurement process. All equipment must conform to applicable safety requirements (e.g., NFPA, NIOSH, OSHA, ANSI), as well as the best industry or trade standards. Tools, equipment and machinery should be of industrial quality or grade. Procurement specifications must include that all equipment and products have the manufacturers' instructions and safety warnings or Safety Data Sheet (SDS) upon arrival.

E.2. Manufacturer's Instructions, Safety Warnings and SDS

All District staff are required to have knowledge of and comply with the manufacturer's instructions and safety warnings, including Safety Data Sheets (SDS) for all equipment or products used, regardless of whether the equipment is owned, leased or borrowed. Supervisors shall review manufacturer's instructions and safety warning or SDS with their staff and instruct staff to use equipment or products accordingly. District staff shall read and comply with the manufacturers' instructions, safety warnings and SDSs.

Photo: cdc.gov

Additional instructions or safety practices for the use of equipment may be required in accordance with applicable standards (e.g., OSHA, NIOSH, NFPA) best industry or trade practices, the supervisor, the Hazard Communication Manual or the EH&S Department. When the manufacturer specifies that licensing or qualification is required, only licensed or qualified staff will be authorized to operate equipment. The term "equipment" includes tools, light and heavy machinery and vehicles, safety devices, safety apparel, and Personal Protective Equipment or PPE (e.g., gloves, respirators, hard hats and safety shoes, ear muffs or ear plugs). The term "product" includes paints, chemicals, cleaners, additives, solvents, powders, fillers and mixes.

The manufacturers' instructions and safety warnings and/or Safety Data Sheet (SDS) should be posted in a readily visible location near where the equipment or product is used or stored. When this is not practical, the manufacturer's instructions, safety warnings and SDS documentation shall be maintained in a location readily accessible to staff. Manufacturer's instructions, safety warnings and Safety Data Sheets (SDS) are normally shipped with new equipment or products. In the case of existing equipment or products, if the information is missing, the supervisor shall make reasonable attempts to obtain the information from the manufacturer or online. Most SDS are available through Risk Management's SDS Program call 754-321-1900 for information.

E.3. Inspection and Maintenance of Equipment

All equipment shall be inspected and maintained in accordance with the equipment manufacturer's instructions, safety warnings, applicable regulations and standards (e.g., OSHA, UL, ASME, ANSI, NFPA) and best industry or trade practices. The term "equipment" includes tools, light and heavy machinery and vehicles, safety devices, safety apparel, and Personal Protective Equipment or PPE (e.g., gloves, respirators, hard hats and safety shoes, ear muffs or ear plugs).

Where feasible, printed instructions, safety warnings and inspection dates shall be available on or near the equipment. Painting over, defacing or removing of instructions, warning labels or signs is prohibited. Detailed documentation of equipment inspection and maintenance shall be maintained by the supervisor or the site administrator or designee.

Photo: broward.k12.fl.us/ehs

SECTION F
MOTOR VEHICLES AND SPECIALIZED VEHICLES / EQUIPMENT

F.1. Motor Vehicles

District staff shall not be allowed to drive a BCPS vehicle unless they have provided a valid current Florida Driver's License or a Commercial Driver's License (CDL) if applicable to their manager.

The site administrator or designee is responsible for ensuring that staff are properly licensed to operate the assigned vehicle type and acknowledge familiarity and understanding of the proper operating instructions. When additional licensing or training is required by federal, state, local standards, by the site, or by the EH&S Department, staff will not be allowed to operate the vehicle unless the provisions for licensing or training have been fully met.

F.2. Vehicle Operators Shall:

F.2.1. Have a valid State of Florida Driver's License or other required licenses and be fit to operate the vehicle. Immediately report to the supervisor or site administrator the suspension, expiration or revocation of any licenses (e.g., Florida Driver's License), or a physical or medical condition which could impair the employee's ability to safely operate the vehicle.

F.2.2. Know and comply with all applicable state regulations, BCPS safety rules, and thoroughly understand the vehicle operating instructions, limitations, and emergency procedures.

F.2.3. Not smoke or allow smoking in BCPS vehicles. Not carry a firearm, even with a concealed weapons permit, in a vehicle or property unless authorized to do so by BCPS.

F.2.4. Inspect the vehicle prior to each use. Report any damage, defects, missing equipment or other items to the supervisor or site administrator prior to placing it in service. Request another vehicle or obtain clearance from the supervisor or site administrator before utilizing a vehicle with cosmetic or minor (non-safety related) damage. Under no circumstances operate a vehicle with damaged or non-working items that could in any way impede safety (e.g., brakes, lights, horn, windshield wipers, and missing seat belts).

F.2.5. Always wear seat belt and require that all passengers wear their seatbelt while conducting District business, even if operating a personal or leased vehicle.

F.2.6. Not ride, or allow any person to ride, on any portion of a vehicle that is not designed for that purpose.

F.2.7. Remain alert to vehicle, weather, pedestrian and road conditions and follow all traffic laws and warnings.

F.2.8. Not talk or text on a cell phone or other personal device, not wear ear buds or play loud music while operating a District vehicle, not engage in aggressive behavior, and not use the vehicle for unauthorized purposes.

F.2.9. If involved in a vehicular accident, regardless of who is at fault, comply with appropriate reporting (refer to Section N), including:

- Promptly call the police or 911, then call the supervisor or site administrator.
- Contact Risk Management at 754-321-1900 (24 hours / 7 days) AND Environmental Health & Safety at 754-321-4200 (Monday through Friday, 8 AM to 4 PM). Follow the instructions provided.
- Collect all pertinent information including contact information of other drivers, persons, witnesses, driver's license, vehicle tag numbers, and insurance. Take photos if possible. Submit a written accident report in accordance with SBBC EH&S-SOP #411 Accident Investigation Program (Appendix 7).

F.3. School Buses

Photo: browardschools.com

The SBBC Transportation Department administers all school bus programs and training. The BCPS Pupil Transportation Safe Driver Plan, SBBC Policy # 5300.1 is provided for reference in Appendix 6. The SBBC Student Transportation and Fleet Services Handbook contains specific guidelines pertaining to school buses.

F.4. Specialized Vehicles & Equipment (e.g., Heavy Machinery, Forklifts, Cranes)

Each District school or department shall ensure that departmental personnel who operate specialized vehicles/equipment receive training and possess licenses, certificates and ratings applicable to the specialized vehicles/equipment being operated. The EH&S Department is responsible for maintaining Districtwide Safety and Health Training Records as mandated by SREF. Accordingly, copies of all staff training and certifications must be sent to the EH&S Department for documentation purposes (email: safetytraining@browardschools.com).


Photo: browardschools.com

Each Department shall further ensure that such specialized vehicles/equipment are not operated by staff until such required training and licensing has been obtained and the employee has demonstrated proficiency in safe operation. Proficiency should be verified by the supervisor on an annual basis. Records of the proficiency demonstrations shall be maintained in the employee's department file.

SECTION G
SAFETY & HEALTH INSPECTIONS

G.1. Inspections by EH&S Department

Photo: OSHA.gov

The staff of the EH&S Department shall conduct casualty safety and sanitation inspections of BCPS District facilities and operations aimed at identifying and correcting unsafe or unhealthy practices, operations and/or conditions. These inspections may be announced or unannounced and shall be conducted as determined by the EH&S Department for the purpose of hazard identification and evaluation of safe work practices in accordance with applicable federal (e.g. OSHA, EPA), state (e.g. SREF), local regulations, best practices and the EH&S Manual. All District personnel shall cooperate fully during a safety and health inspection.

EH&S Department inspection reports will be sent to the appropriate site administrator for prompt response and corrective action. The site administrator or designee, will take appropriate and timely actions to correct the items identified in the inspection report and respond to the EH&S Department with the corrective measures taken.

G.2. Inspections by Other Authorized Entities

Inspections of District facilities and operations may, at times, be conducted by authorized entities such as the Fire Chief Inspectors, the State of Florida, Broward County, EPA, Health Department, and the District property insurance underwriters. Site personnel in receipt of a safety or health inspection report by an authorized entity shall take appropriate and timely actions to correct the items identified and comply with the responding and reporting requirements. The EH&S Department should be copied on the report and on all responses and corrective actions.

G.3. Site Self-Inspections

Photo: BLS.gov

Regularly scheduled (e.g., monthly) safety self-inspections of facilities or schools shall be conducted by the site administrator or designee (e.g., supervisors) for the purpose of prompt identification and resolution of potential safety and health issues. Safety checklists should be used to document the self-inspections and maintained onsite along with the status and completion dates of items identified. Sample safety checklists are available from Appendix 4 or the department/school may choose to make their own safety self-inspection checklist.

The National Institute of Occupational Safety and Health (NIOSH) offers school administrators a Safety Checklist Program to bring their schools into compliance “even when they have little safety and health experience, a busy schedule, and many unanswered questions.” https://www.cdc.gov/niosh/docs/2004-101/default.html

SECTION H
ENVIRONMENTAL CONSERVATION PROGRAM & ENERGY MANAGEMENT SYSTEM

Consistent with the Environmental Stewardship SBBC Policy # 7014 (Appendix 6) and the District's efforts to conserve our valuable natural resources and minimize utility expense, the SBBC EH&S SOP # 407- Environmental Conservation Program & Energy Conservation System (Appendix 7) promotes proper energy utilization to reduce energy consumption, costs and environmental impact, through conservation awareness and monitoring.

The program establishes guidelines for the proper management of our energy resources; and maintains the most comfortable and safe environmental conditions throughout BCPS, at the lowest cost.

Photo: browardk12.fl.us/ehs

The Energy Tools for Schools program was implemented to provide helpful suggestions to reduce each school's energy and resource consumption. As a result, the Shared savings incentive award was established and is given annually to all BCPS and Centers that reduce electrical usage. Another main component of the Environmental Conservation is the Energy Management System, used to control A/C Equipment and lighting in BCPS facilities. Also, during long school breaks (summer, winter and spring), a District wide email alert called "Turn It Off" is distributed to all BCPS Employees with information regarding to turnoff all nonessential electrical equipment.

Energy Management Security (EMS) System

The Energy Conservation/Utility Management department is responsible for controlling, monitoring, and maintaining all EMS systems throughout the District. The District's EMS systems are designed to control both Air-Conditioning and Outdoor Lighting equipment. These systems also monitor for security intrusion alarms during non-operating hours.

Monitoring of EMS systems is done remotely either by the Energy Conservation/Utility Management department or the District's Special Investigative Unit department where 24/7 security monitoring is done.

Through remote access of these EMS systems, the District has the ability to maintain, diagnose and correct issues relating to classroom temperature settings. In addition, these EMS systems also provide the District with an effective way to manage electrical usage.

Electrical usage can be controlled through the combination of refining air-conditioning schedules, maintaining proper classroom space temperatures settings, and limiting additional A/C runtime on weekends and holidays. These tasks are handled by EMS Technicians who help ensure proper automatic control and functionality of these systems.

Our staff of EMS Technicians has a diverse background in Heating Ventilation and Air-Conditioning (HVAC) controls, building automation controls, and security alarm system controls. These EMS Technicians, along with District maintenance and custodial staff, help ensure proper functionality of HVAC, Security and Outdoor Lighting equipment.

Concerns regarding emergency management should be directed to the EMS Help Desk at http://www.browardschoolsconserve.com/contact.htm.

Photo: Broward EHS Department

SECTION I
INDOOR AIR QUALITY

Photo: ed.gov

Broward County Public Schools Indoor Air Quality (IAQ) Program partnered with the Environmental Protection Agency (EPA) in 2003 to implement the EPA IAQ Tools for Schools program in the District. Our program continues to evolve and change with new information, new assessment request procedures, and training being developed and updated yearly.

Indoor Air Quality (IAQ) is a concern to all building occupants and many things may contribute to the overall Indoor Air Quality of a building. Mold is often blamed for indoor air quality concerns; however, there are many other factors that can actually be the cause of an indoor air quality complaint. Further, molds and mold spores are part of our natural air and environment and cannot be eliminated from indoor or outdoor environments. While it is impossible to eliminate all mold in the indoor environment, it is possible to control indoor mold growth by controlling indoor moisture.

Many IAQ concerns raised by occupants can be easily resolved at the location by assessing the area and taking the following actions:

For Teachers & Room Occupants:

- Remove all chemicals, room deodorizers & air fresheners. These items produce pollutants that trigger allergies.
- Remove all live plants. The soil may contain allergens and mold spores. Over-watering can create moisture problems.
- Remove all animals. Some occupants may be allergic to pet dander.
- Reduce Clutter. Excess boxes, paper & stuffed animals hold dust, moisture & odors, are food sources for mold, and prevent optimal cleaning of the room.
- Keep exterior doors and windows closed. This helps to eliminate the introduction of untreated, unfiltered, humid air into rooms.
- Only qualified technicians shall adjust thermostats. This helps to ensure HVAC systems operate properly.
- Report any of the following building related issues to your Facilities Serviceperson:
  - Broken / Missing Ceiling Tiles
  - Water Stained Ceiling Tiles
  - Water Stained or Damaged Wall Material
  - Leaks / Spills Dirty / Dusty surfaces

Site Administrators and Facilities Servicepersons should note that most IAQ concerns raised by occupants of a building can be easily and quickly resolved by the site-based staff assessing the area and taking certain actions, such as cleaning of the area, or by calling in worker orders for completion or repairs of corrective actions. In this way, many IAQ issues can be promptly resolved at your location without waiting for EH&S, Physical Plant Operations, or Facilities and Construction involvement.

For Facilities Servicepersons:

- Remove excess buildup of dust. Dust contains mold spores and allergens - Excess dust triggers allergies.
- Clean surfaces including flooring. Maintaining a clean environment prevents allergens and unwanted pests.
- HVAC filters should be clean and properly installed. Properly installed filters remove allergens from the air. Filters must be replaced per the District filter schedule for systems to operate efficiently.
- Clean and sanitize HVAC supply and return grills. This helps eliminate dust and microbial growth build-up on the grills.
- Replace stained ceiling tiles. Wet tiles become environments for mold growth.
- Initiate a work order to correct water intrusion. Water intrusion leads to mold growth. Being proactive prevents more serious issues.

Air Sampling is not a standard practice and is not recommended by the Environmental Protection Agency (EPA) or the Centers for Disease Control (CDC) due to the subjectivity of the results (outdoor vs. indoor). Also, there are no established safe levels or regulatory standards for mold. As recommended by the EPA, mold assessment is mainly done through visual inspection of areas where there have been moisture problems or water damage.

The Broward Schools Indoor Air Quality Resource Guide highlights the major facets of our IAQ program and the SBBC EH&S SOP # 407- Indoor Air Quality Program (Appendix 7) provides the *IAQ Program Response Protocol* describing the process for handling an IAQ complaint. In an effort to efficiently allocate resources, all BCPS locations should ensure the issues identified in the *IAQ Program Response Protocol* have been addressed prior to requesting an IAQ Assessment from the EH&S Department.

I.1. Tobacco-Free Environment

Consistent with the Tobacco-Free Environment SBBC Policy # 2401 (Appendix 6) all BCPS areas, facilities and vehicles are tobacco-free environments. The policy applies to students, employees, volunteers, parents, spectators and visitors.

SECTION J
CHEMICAL SAFETY, TOXIC OR HAZARDOUS SUBSTANCES

J.1. Chemical Hazards and Toxic Substances

Photo: OSHA.gov

Chemical hazards and toxic substances can pose a wide range of health hazards (such as irritation, sensitization, and carcinogenicity) and physical hazards (such as flammability, corrosion, and the potential for explosion). OSHA's Hazard Communication Standard (29CFR 1910.1200) requires that workers receive information about chemical and toxic substance hazards in the workplace and associated protective measures that they should take to protect themselves and others.

In order to ensure chemical safety in the workplace, information about the identities and hazards of the chemicals must be available and understandable to workers. OSHA's Hazard Communication Standard requires the development and dissemination of such information:

- Chemical manufacturers and importers are required to evaluate the hazards of the chemicals they produce or import, and prepare labels and safety data sheets to convey the hazard information to their customers.

- All employers with hazardous chemicals in their workplaces must have labels and safety data sheets (SDS) for their exposed workers, and train them to handle the chemicals appropriately. The training for employees must also include information on the hazards of the chemicals in their work area and the measures to be used to protect themselves and others.

Safety Data Sheets (SDS) are available from the Risk Management (754-321-1900).

Contact EH&S Department. (754-321-4200) Monday – Friday 8:00 am – 4:00 pm for any questions on ensuring the safe use, storage, disposal and emergency spill management of chemical or toxic products used or stored at BCPS facilities.

J.2. Bloodborne Pathogens

Photo: cdc.gov

Bloodborne pathogens are infectious microorganisms in human blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B (HBV), hepatitis C (HCV) and human immunodeficiency virus (HIV). To prevent infection, all blood and body fluids should be considered to be potentially infectious and all persons should use universal precautions (e.g., gloves) to prevent exposure to the blood/body fluids of others.

The OSHA's Bloodborne Pathogens Standard applies to employees who have occupational exposure (reasonably anticipated job-related contact with blood or other potentially infectious materials). The three most common bloodborne pathogens (BBPs) are human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV).

In order to reduce or eliminate the hazards of occupational exposure to bloodborne pathogens, an employer must implement a written Bloodborne Pathogens Exposure Control Plan (Appendix 3) for the worksite with details on employee protection measures. The plan must also describe how an employer will use engineering and work practice controls, personal protective clothing and equipment, employee training, medical surveillance, hepatitis B vaccinations, and other provisions as required by OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030). Engineering controls are the primary means of eliminating or minimizing employee exposure and include the use of safer medical devices, such as needleless devices, shielded needle devices, and plastic capillary tubes.

If you are stuck by a needle or other sharp or get blood or other potentially infectious materials in your eyes, nose, mouth, or on broken skin, immediately flood the exposed area with water and clean any wound with soap and water or a skin disinfectant if available. Report this immediately to your supervisor and seek medical attention.

SECTION K
HAZARDOUS MATERIALS LICENSES

In order to protect the air, waters, soils and other natural resources of Broward County, the use, storage, handling and disposal of hazardous materials are regulated. The SBBC EH&S SOP # 408 – Hazardous Materials Licenses (Appendix 7) provides the procedures for renewing hazardous materials licenses required by the Code of Broward County, Florida Volume 11 Chapter 27 – Pollution Control and the State of Florida's Division of Emergency Management.

Photo: broward.k12.fl.us/ehs

SECTION L
SANITATION, SOLID WASTE, PEST CONTROL & ANIMALS

In accordance with SREF requirements, BCPS is committed to promoting healthful conditions and maintaining high standards of sanitation and housekeeping through the elimination of dirt and agents of infection or disease.

Photo: broward.k12.fl.us/ehs

OSHA requires employers to provide all workers with sanitary and immediately-available toilet facilities (restrooms). The sanitation standards (29 CFR 1910.141, 29 CFR 1926.51 and 29 CFR 1928.110) are intended to ensure that workers do not suffer adverse health effects that can result if toilets are not sanitary and/or are not available when needed.

BCPS has implemented policies and procedures, in accordance with SREF Chapter 5 (1)(e), for sanitation and housekeeping to ensure the health and safety of occupants. This includes requirements that occupied facilities are cleaned and serviced in accordance with an established schedule and prescribed methods, and that trash/waste containers are provided in all areas and emptied daily.

The SBBC EH&S SOP # 409 – Solid Waste Program (Appendix 7) provides the procedures for BCPS personnel, as well as BCPS refuse and recycling vendors to follow to properly dispose of solid waste.

BCPS is committed to safe and effective pest control management through an Integrated Pest Control Management (IPM) approach. Rather than relying on pesticides, the IPM approach utilizes a variety of strategies including sanitation, maintenance, inspection and monitoring to control pests. When necessary, pesticides are still used, however, every effort will be made to use the least harmful product. Physical Plant Operations, Custodial Grounds Department, Pest Control 754-321-4163 will provide further information on efforts to ensure safe and effective Pest Control Management at BCPS facilities.

BCPS has established procedures for allowing animals on District property. Information can be found at www.browardschools.com/Web/Get-Involved/Superintendent-Screenings

SECTION M
ASBESTOS

Asbestos is the name given to a group of naturally occurring minerals that are resistant to heat and corrosion. Asbestos has been used in products, such as insulation for pipes (steam lines for example), floor tiles, building materials, and in vehicle brakes and clutches.

Asbestos is well recognized as a health hazard and its use is now highly regulated by both OSHA and EPA, as well as several State (e.g., SREF) and local agencies. Asbestos fibers associated with these health risks are too small to be seen with the naked eye. Breathing asbestos fibers can cause a buildup of scar-like tissue in the lungs called asbestosis and result in loss of lung function.

The Federal Asbestos Hazard Emergency Response Act (AHERA) require public school districts to:

- Inspect their schools for asbestos-containing building material and monitor areas identified with asbestos.
- Prepare asbestos management plan and take action to prevent or reduce asbestos hazards.
- Removal of these materials is not usually necessary unless the material is severely damaged or will be disturbed by a building demolition or renovation project.
- Personnel working on asbestos activities in schools must be trained and accredited.
- Provide asbestos awareness training to applicable personnel such as custodians.

The OSHA Asbestos Standard (29 CFR 1910.1001) requires employers reduce the risk to workers by providing personal exposure monitoring to assess the risk and hazard awareness training for operations where there is any potential exposure to asbestos.

BSPS maintains a rigorous Asbestos Management Program in accordance with Federal and State regulations. Contact EH&S Department, Local Education Agency at 754-321-4200.

Photo: broward.k12.fl.us/ehs/memos

SECTION N
EMERGENCIES, FIRST AID, ACCIDENTS REPORTING & INVESTIGATION

Photo: cdc.gov

N.1. On-Site Requirements

In accordance with SBBC Policy # 5303 First Aid (Appendix 6) all school personnel must know how to access 9-1-1 (follow your "dial out" instructions to get an outside line) and each school and district facility must have the following on-site:

- **Emergency Information Posters** with current emergency information in all health rooms, main offices, cafeterias and physical education areas. (Available from EH&S at 754-321-4200)
- **Emergency Preparedness Manual** (Available from Risk Management at 754-321-1900)
- **Health Services Manual** (Available from Health Education Services)
- **First Aid and CPR/AED** a minimum of two individuals with current certification in each school and district facility.

N.2. Reporting Accidents, Injuries and Incidents

Photo: OSHA.gov

Prompt reporting, investigation and corrective follow-up of an accident or incident is essential to maintain an effective health and safety program and prevent accident reoccurrence.

Consistent with SBBC Policy # 2301 Reporting Injuries (Appendix 6), all injuries regardless of how small or insignificant, must be reported promptly in accordance with Florida Statutes and Board Policy, Rules and Regulations.

All injuries/illnesses, accidents, incidents, hazards or near-misses must be promptly reported to the supervisor or site administrator. Upon knowledge of an injury, accident, incident, hazard or near-miss, the following phone notifications will be made, as applicable:

N.2.1. Serious Injury or Accident, Emergency, Serious Damage/Hazard – Phone 911 (follow your "dial out" instructions to get an outside line). Follow the instructions provided. Contact Risk Management at 754-321-1900 (24 hours / 7 days) AND EH&S at 754-321-4200 (Monday through Friday, 8 AM to 4 PM). Follow the instructions provided.

N.2.2. Employee On-the-Job Injuries & Illnesses – Contact the Workers' Compensation Unit at 800-374-4810 (24 hours / 7 days) AND EH&S Department at 754-321-4200 (Monday to Friday, 8 AM to 4 PM). Follow the instructions provided.

N.2.3. Student or Visitor Injuries –Contact Risk Management at 754-321-1900 (24 hours / 7 days). Follow the instructions provided.

N.2.4. Property Damage or Vehicle Accidents –Contact Risk Management at 754-321-1900 (24 hours / 7 days) AND Environmental Health & Safety at 754-321-4200 (Monday through Friday, 8 AM to 4 PM). Follow the instructions provided.

N.2.5. Emergency Management Issues – Contact Emergency Management Department at 954-240-5957 (24 hours / 7 days). Follow the instructions provided.

N.2.6. All other Accidents, Injuries, Near-Misses – Contact EH&S at 754-321-4200 (Monday through Friday, 8 AM to 5 PM). Follow the instructions provided.

N.3. Injuries to BCPS Employees

Photo: browardk12.fl.us/rmt

BCPS employees are required to promptly report all on-the-job injuries or illnesses, regardless of severity, to the supervisor. The injury or illness must also be reported to the Workers' Compensation Unit at 800-374-4810 (24 hours / 7 days) AND to the EH&S Department, phone 754-321-4200 (Monday through Friday, 8 AM to 4 PM). Follow the instructions provided.

- **First Aid*:*** If the employee injury or illness requires FIRST AID, CPR or AED treatment, follow the instructions in SBBC Policy # 5303 First Aid (refer to Appendix E).

- **Medical Attention:** If an employee sustains an injury or illness that requires medical treatment, 911 (follow your "dial out" instructions to get an outside line) shall be contacted or the employee shall be taken for medical treatment at the nearest emergency room or (for non-emergencies) in accordance with instructions received from Workers Compensation 800-374-4810 (24 hours / 7 days).

N.4. Injuries to Students or Visitors

Injuries to students or visitors (non-BCPS employees) occurring in BCPS facilities must be promptly reported to the supervisor, site administrator or designee. The injury must also be reported to Risk Management at 800-374-4810 (24 hours / 7 days) AND to the EH&S Department, phone 754-321-4200 (Monday through Friday, 8 AM to 4 PM). Follow the instructions provided.

- If the injury or illness requires FIRST AID, CPR or AED treatment, follow the instructions in SBBC Policy # 5303 First Aid (refer to Appendix E).
- If the injury or illness requires emergency medical attention, 911 (follow your "dial out" instructions to get an outside line) shall be contacted.
- All student injuries or illnesses must be reported on a Student Accident Report within 24 hours of occurrence.

N.5. Accident Investigation by Supervisor and Site Administrator

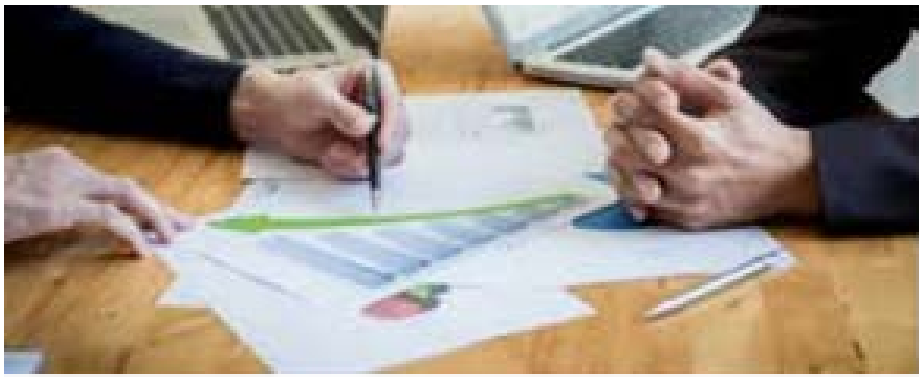

Photo: OSHA.gov

Accident Investigation is an invaluable tool in preventing accident recurrence and controlling losses. Thorough investigation, reporting, and corrective follow-up of an accident is necessary to maintain an effective safety and loss prevention program.

Upon notification of an accident, the supervisor and/or site administrator will investigate the accident to obtain information regarding the cause and, if appropriate, take steps to prevent a reoccurrence. The accident investigation by the supervisor and site administrator should commence as soon as possible after the occurrence, after medical attention has been rendered and the reporting instructions above have been completed.

In accordance with SBBC EH&S Accident Investigation Program SOP # EH-411 (Appendix 7), the following are the proper steps to follow when conducting the accident investigation:

How to Conduct an Accident Investigation

1. **Check the Scene**
   a. Carefully examine the site of the incident.
   b. Reconstruct, as much as possible, the chain of events leading up to the incident, and attempt to determine the cause.

2. **Collect the Evidence**
   a. Inspect machinery, protective equipment, site conditions, etc., to determine cause and/or contributing factors to the incident.
   b. If equipment or machine parts were defective, remove them from use and place "Warning – Do Not Use" signage on equipment. Contact the manufacturer for repair or replacement. Contact EH&S for resource information. Do not return damaged or defective equipment to service.

3. **Interview the Employee**
   a. Ask the employee to start from the beginning and describe what happened.
   b. Determine what procedures were (or were not) followed, what equipment was used.
   c. If the employee exhibits unusual or erratic behavior, contact your management or Human Resources immediately for directions.
   d. Include the employee's description of the accident in your report and when possible obtain the employee's signature.

4. **Interview Witnesses**
   a. Interview witnesses at the scene (when possible, interview separately).
   b. Obtain their names, titles, addresses, phone numbers and statements.

5. **Write It Down, Take Photos, Make Sketch / Diagram**
   a. Document all facts and observations.
   b. Note any unsafe conditions, faulty equipment, procedures not followed, or misuse of equipment. Note other conditions (e.g., lightning, weather, distractions).
   c. Attach (and number) all photos, diagrams, statements and any other pertinent information to your report.

6. **Review the Report**
   a. Review the evidence and your report. Ensure that complete and adequate information is presented. If necessary, conduct further questioning of employee or witnesses.
   b. Within 23 - 48 hours of the incident, forward the supervisor's report and any additional information to: Director of Risk Management, fax: 754-321-1917.

N.6. Investigations by EH&S, Workers Compensation and Risk Management

The EH&S Department's may conduct an investigation in addition to, and independent of, the investigations conducted by the department, school or other entity. All BCPS District personnel shall cooperate fully with staff from the EH&S Department, Workers Compensation Department or Risk Management Department during accident or incident investigations.

SECTION O
SAFETY ADVISORY COUNCIL (SAFETY COMMITTEE)

An effective Safety Committee is an essential component of an organization's safety and health program. The Safety Committee can have valuable input in the safety program. Some of the functions of a Safety Committee include: reviewing accidents and safety concerns, recommending safety training and improvements to the safety program, and promoting effective corrective measures.

The EH&S Department will establish a BCPS Districtwide Safety Advisory Council (Safety Committee) consistent with the requirements of Florida State Statutes 442. The responsibilities of the Safety Advisory Council and the specifications for its composition, function, agenda and reporting will be described in (pending) SBBC EH&S-SOP # 402 Safety Advisory Council (Appendix 7).

Photo: browardschools.com

SECTION P
DISCIPLINARY ACTION FOR UNSAFE ACTS OR CONDITIONS

BCPS District schools and departments shall implement appropriate employee counseling, training, and disciplinary action to address unsafe actions or attitudes by personnel. When violations of rules or procedures which impact environmental health and safety occur, corrective action shall be prompt and positive.

Appropriate administrative action, consistent with SBBC Policy # 4.9 – Employee Disciplinary Guidelines (Appendix 6), should be taken when personnel causes injury or danger to him/herself, others or to District property either by willfully or negligently violating safe work practices, disregarding traffic regulations, or by a demonstration of an attitude of indifference or defiance.

EH&S MANUAL
APPENDICES

Appendix 1	**Job Task Safety Rules**
Appendix 2	**Safety & Health Training Curriculum**
Appendix 3	**Written Safety Programs and Plans**
Appendix 4	**Safety Self-Inspection Checklists**
Appendix 5	**Job Hazard Analysis (JHA) or Job Safety Analysis (JSA)**
Appendix 6	**SBBC Policies Referenced in EH&S Manual**
Appendix 7	**EH&S Standard Operating Procedures (SOP)**

APPENDIX 1
BCPS Job Task Safety Rules
From the District's "Play It Safe" Book*

This is not an all-inclusive BCPS job tasks list and the safety rules provided here are not all-inclusive for the multitude of tasks performed by BCPS employees, rather they are intended to give information on some of the basic safety requirements for common job tasks. Site administrators and supervisors are responsible for ensuring that employees are provided with safety orientation and job specific safety training for the tasks they perform, consistent with all applicable federal (e.g., OSHA, EPA), state (e.g., SREF), and local regulations, manufacturer or product instructions and best industry practices. The Job Task Safety Rules are provided to augment (not supersede) any recognized safety and health standards.

A. General Safety Rules
B. Lifting
C. Slips, Trips and Falls
D. Office and Classroom Safety
E. Science / Lab Safety
F. Cafeteria / Food Service Safety
G. Maintenance and Repair Functions
   - G-1. Handling Materials
   - G-2. Hand Tools
   - G-3. Gasoline Powered Engines
   - G-4. Ladders and Scaffolding
   - G-5. Machines and Power Tools
   - G-6. Saws
   - G-7. Drills and Drill Press
   - G-8. Grinders

H. Electrical
I. Mechanics
J. Garage and Repair Shop Safety
   - J-1. Carbon Monoxide
   - J-2. Jacks
   - J-3. Electric Chain Hoists
   - J-4. Pits
   - J-5. Washing Parts

K. Roofing Safety
   - K-1. Catch Platforms
   - K-2. Kettles and Tankers
   - K-3. Chicken Ladders or Crawling Boards

L. Welding Safety
M. Heavy Equipment Safety
   - M-1. Mobile Cranes
   - M-2. Bulldozers and Tractors
   - M-3. Motor Graders
   - M-4. Shovels, Clamshells and Loaders

N. Warehouse Personnel
   - N-1. Forklifts

O. Vehicle / Driver Safety
P. Smoking Policy
Q. Drug & Alcohol-Free Workplace

BCPS EMPLOYEE HEALTH AND SAFETY

Job Tasks Safety Rules

From the District's "Play it Safe" Handbook

In accordance with the State Requirements for Educational Facilities (SREF) all BCPS personnel (including on-site contractors) must comply with the OSHA Regulations as applicable to their sites, job tasks and operations:

- **29CFR 1910 General Industry** https://www.osha.gov/SLTC/generalindustry/index.html)
- **29CFR 1926 Construction Standards** (https://www.osha.gov/doc/)

A. GENERAL SAFETY RULES

"At BCPS Working Safely is Always Priority One. Let's Get the Job Done Safely!"

1. Be aware of emergency plans and what your duties consist of before you evacuate.
2. Wear personal protective equipment, hardhat, foot protection, blood borne pathogen protection, and safety glasses or face shields as directed by your supervisor.
3. Sit in vehicles properly. (Never stand up, sit on the side, or ride on any exterior part of a vehicle). Buckle up for safety; it's the law.
4. Vehicles are to be stopped when entering or exiting. (Do not enter or exit any moving vehicle).
5. Do not work or drive while under the influence of alcohol or drugs.
6. Damaged or unguarded tools and equipment are not to be used.
7. Use the right tool and use it properly. (e.g., do not use defective or mushroom-headed tools).
8. Use every safeguard provided. After removing guards for repairs, replace at once.
9. When working around machinery, do not wear loose clothing, torn sleeves, ties, key chains, rings, watches, or any item that could become entangled in the machinery.
10. Work only in properly lit areas.
11. Walk (do not run); watch your step; keep firm footing and balance at all times.
12. Horseplay or practical jokes are prohibited. Avoid distracting others.
13. Long hair must be tied off, wrapped, or confined in a manner to prevent being caught in any machinery.
14. Frayed, cut, or cracked electrical cords are not to be used. Turn them into your supervisor for repair or replacement.
15. Be sure all electrical devices are grounded at all times.
16. Use only ladders and step stools to get additional height: Do not attempt to get additional height from a climbing device by placing it on a box, crate, or other improvised method.
17. Inspect each ladder before using. Be sure the ladder is properly positioned and secured at the top and bottom.
18. Equipment is not to be altered. For example, removing protection guards.

19. Never leave materials, tools, etc., in a position to slide or fall.
20. Keep your work area clean and free of loose objects, stumbling or slipping hazards.
21. Review the safety educational material posted on bulletin boards or distributed in your work area.
22. Report all accident/injuries, no matter how minor, to your supervisor.
23. Report all unsafe work conditions or procedures observed during the course of work activities to your supervisor.
24. Never stand under suspended loads or in the danger zone of falling objects, moving equipment, dripping caustics, etc.
25. Keep flammables in the proper safety type containers.
26. Never use gasoline for cleaning purposes.
27. Always keep hands and feet clear of pinch points.
28. Never allow oil, grease, or heat to come in contact with oxyacetylene equipment.
29. Never leave an unsafe condition unguarded or unmarked, even temporarily.
30. When working overhead, place warning signs below and rope off the area.
31. Know the location of fire extinguishers and how to use them.
32. Do not walk or run in front of or behind moving equipment.
33. Vehicles, equipment, and tools will be removed from service when unsafe to operate.
34. Protective gloves must be worn when handling irritants or other potentially hazardous products. See your supervisor for gloves.

B. LIFTING

"When employees use smart lifting practices and work in their "power zone" they are less likely to suffer from back sprains, muscle pulls, wrist injuries, elbow injuries, spinal injuries, and other injuries caused by lifting heavy objects." The "power zone" for lifting is close to the body, between mid-thigh and mid-chest height. Comparable to the strike zone in baseball, this zone is where arms and back can lift the most with the least amount of effort." ***OSHA eTools***
https://www.osha.gov/SLTC/etools/electricalcontractors/supplemental/principles.html#power

OSHA Safety and Health Topics: Ergonomics
https://www.osha.gov/SLTC/ergonomics/controlhazards.html

OSHA Materials Handling Booklet
https://www.osha.gov/Publications/OSHA2236/osha2236.html

1. Injuries can be caused by improper lifting techniques and excessive weights.
2. Size up the load; get help if there is any doubt in your mind of your ability to lift it.
3. Make sure your footing is secure. Place feet close to the base of the object to be lifted.
4. Get a firm grip on the load. Position your feet 6" to 12" apart.
5. Bend at the knees, not at the back. Keep your back straight.
6. Lift slowly and evenly with your leg muscles and not with your weaker back muscles.
7. Keep the object as close to your body as possible.
8. Set objects down in the same manner as you picked them up but in reverse.
9. Avoid twisting your back to turn when lifting.

10. If you must change direction while lifting, pivot with your feet and turn your entire body to change direction.
11. Perform movements smoothly and gradually. Hands should be dry and free of grease when lifting.

C. SLIPS, TRIPS, AND FALLS

"The floor of each workroom is to be maintained in a clean and, to the extent feasible, in a dry condition." **OSHA Walking / Working Surfaces Standard 29CFR 1910.22**
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9714

1. Immediately clean up spills, water, oil, and other liquids from the floor by using mop, bucket, oil dry materials, sand, paper towels, and cloth materials.
2. Use caution signs and/or cones to warn of slippery areas. Caution: In elementary schools, do not permit students to use mops for clean- up purposes.
3. Turn on lights before entering a dark room.
4. Pick up all foreign objects from floor surfaces, tiles, or stairs to prevent slipping.
5. Be sure that mats and carpets lie flat on the floor.
6. Take short steps, walk slowly, and use hand rails when you have to walk on slippery surfaces or in congested conditions.
7. Keep drawers and doors closed.
8. Wear closed toe, non-slip sole shoes.
9. Walk up or down stairs or steps. Take only one step at a time.
10. Avoid blocking your view by carrying/pushing objects so large that you cannot see where you are going.
11. Jumping from truck beds, platforms, scaffolds, or other elevated places is prohibited.
12. Do not tilt chairs back on two legs.
13. Avoid wet, icy, slick, or oily areas by walking around them.
14. Use protective covers when running electrical and other cords across doorways, aisles, or landings.

D. OFFICE AND CLASSROOM SAFETY

(Includes office personnel, teachers and paraprofessionals.)

"Appropriate placement of the components and accessories for the workstation will allow you to work in neutral body positions, help you perform more efficiently, and work more comfortably and safe." **OSHA Computer Workstation eTools**
https://www.osha.gov/SLTC/etools/computerworkstations/components.html

1. Use care when closing desk and filing cabinet drawers to prevent injuries. Keep them closed when not in use or unattended.
2. Office furniture should be positioned to eliminate tripping hazards of telephone or electrical cords. Cords shall not be strung across passageways or open areas where they will create a tripping hazard.
3. Do not tamper with office machines, phones, or wiring. Contact your supervisor if repairs are required.
4. Use a staple remover not your fingers for removing staples.
5. When refilling a stapler, point the loading end away from you since the pressure of the spring mechanism can cause ejection of the staples.
6. Do not put oily rags, broken glass, or sharp objects in wastebaskets. Place them in a special container for special handling by the facility serviceperson.
7. All electrical equipment such as typewriters, copy machines, fax machines, and calculators must be unplugged before cleaning.
8. Handle files and paper carefully to prevent cuts. A moistener for envelopes is recommended.
9. Do not use "guillotine" type paper cutters. Use the "wheel" type paper cutters.

D.1 Desks, Tables, etc.

1. Use only shatterproof glass tops with leveled edges.
2. Mounted pencil sharpeners shall be positioned on desks or tables so that they do not protrude.
3. Check desks and tables for splinters, cracks, and loose veneer.

D.2 Facility and Equipment (For labs refer also to Section E)

1. Post emergency evacuation plan.
2. Never block any escape routes and plan alternate escape routes.
3. Never block a fire door in the open position.
4. Never store materials in lab aisles or storage area aisles.
5. All moving belts and pulleys should have safety guards.
6. Instruct lab personnel in the proper use of the eyewash fountain emphasizing rolling of the eyeballs and the eyelids "inside out".
7. Ensure that eyewash fountains and showers will supply at least 15 minutes of water flow.
8. Emergency showers and the eyewash should be accessible at all times with no storage in or around them.
9. Regularly inspect fire blankets for rips and holes. Keep good records of inspections.
10. Regularly inspect safety showers and eyewash fountains and keep records of the inspections.

11. Keep up to date emergency phone numbers posted next to the phone.
12. Place fire extinguishers near an escape route not in a "dead end".
13. Regularly maintain fire extinguishers, maintain records, and train personnel in the proper use of extinguishers.
14. Acquaint personnel with the meaning of "Class A fire", "Class B fire", "Class C fire", Class D fire", and how they relate to fire extinguisher use.
15. Secure all compressed gas cylinders when in use and transport them by securing to a hand truck.
16. Install chemical storage shelves with lips and never use stacked boxes in lieu of shelves.
17. Only use an explosion proof refrigerator for lab storage.
18. Have appropriate equipment and materials available for spill control. Replace when they become outdated.

D.3 Fans

1. Check fans regularly to make sure that the guards are not defective and that the blades are secure.
2. Fans should not be placed on low tables, chairs, etc., or in any location where individuals might catch their clothing or hands in them.
3. Floor type fans should not be placed in locations where they will present tripping hazards.

D.4 Filing Cabinets

1. File cabinets should be secured to prevent their being overbalanced. Where two or more cabinets sit side by side, they should be fastened to each other.
2. Do not stack file cabinets on top of each other.
3. Heavy materials should be put in the bottom drawers and lighter materials should be in the top drawers.
4. Pull only one drawer out at a time.
5. File drawers should not be left open. Always use the handles to close them.
6. File cabinets should be checked periodically for burrs and sharp edges.
7. Never place materials, boxes, other files, etc., on top of the cabinets. Not only will they fall, but they put undue strain on the person lifting them.

D.5 Office Machines

1. Office machines should be properly located and placed in a manner so there is no danger of falling.
2. Electrical machines and connections shall not be touched with wet hands or operated on damp floors.
3. Office machines should not be adjusted, lubricated, or cleaned while they are running. Make sure that the machine is stopped by disconnecting the plug from the outlet.
4. If repairs are needed, call in a work order.

D.6 Swivel Chairs

1. Extreme care should be taken by persons tilting back in swivel chairs to which they are not accustomed.
2. Do not raise seats on swivel chairs so high as to contribute to overbalancing.
3. Spring tension bolts should be checked regularly. Weak bolts on swivel chairs can break and cause a person to be thrown with considerable force.
4. When purchasing swivel chairs, the five leg type should be considered instead of the four leg type for added stability.

D.7 Telephones

1. Do not tamper with the telephones. If repairs are needed, contact the Telecommunications Department.
2. During a lightning storm, use the speakerphone feature whenever possible to avoid having the receiver in your hand during lightning strikes.

D.8 Wastebaskets

Metal waste cans should be checked for sharp points or fragmented edges which could cut the user. Sharps should not be thrown into normal waste containers.

E. SCIENCE / LAB SAFETY

"A laboratory is a workplace where relatively small quantity of hazardous chemicals are used on a non-production basis." **OSHA Lab Standard 29CFR 1910.1450.**

OSHA Lab Guidance Safety Booklet
https://www.osha.gov/Publications/laboratory/OSHA3404laboratory-safety-guidance.pdf

1. Never work alone in a science laboratory, chemical prep area, and/or storage area.
2. Never eat, drink, smoke, chew gum, tobacco, and/or apply cosmetics in a science laboratory, chemical prep area, and/or storage area. Do not store food or beverages in the laboratory environment.
3. Never pipette by mouth.
4. Wash hands before and after work in a science laboratory and after spill cleanups.
5. Restrain loose clothing (e.g. sleeves, full cut blouses, neckties, etc.), long hair, and dangling jewelry.
6. Never leave heat sources unattended (e.g. gas burners, hot plates, heating mantles, sand baths, etc.).
7. Do not store reagents and/or apparatus on the lab bench or in fume hoods. Keep the lab shelves organized.
8. Never place reactive chemicals near the edges of a lab bench.
9. Use a fume hood when working with volatile substances.
10. Never lean into the fume hood.
11. Do not use the fume hood as a storage area.
12. Obtain and read the Safety Data Sheets (SDS) for each chemical before beginning any experiment.
13. Analyze new lab procedures in advance to pinpoint hazardous areas.
14. Accidents should be analyzed to prevent repeat accidents.
15. Protection should be provided for not only the lab worker but also the lab partner working nearby.
16. Do not mix chemicals in the sink drain.
17. Always inform co-workers of plans to carry out hazardous work.
18. Carry out regular fire or emergency drills with critical reviews of the results.
19. Have written actions planned in case of an emergency (e.g. what devices should be turned off, which escape route to use, a personnel meeting place outside the building, and a person designated to authorize re-entry into the building).
20. Lab personnel should have recent training in first aid, CPR, etc.

E.1 Safety Wear (Lab)

1. Approved eye and/or face protection should be worn continuously.
2. Gloves should be worn which will resist penetration by the chemical being handled and which have been checked for pin holes, tears, or rips.
3. Wear a laboratory coat or apron to protect skin and clothing from chemicals.
4. Footwear should cover the feet and toes completely.

F. CAFETERIA & FOOD SERVICE SAFETY

"All employee food service facilities and operations shall be carried out in accordance with sound hygienic principles. In all places of employment where all or part of the food service is provided, the food dispensed shall be wholesome, free from spoilage, and shall be processed, prepared, handled, and stored in such a manner as to be protected against contamination." **OSHA Sanitation Standard 29CFR 1910.141h**
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9790

1. Never clean an electrical appliance unless the appliance is disconnected from the power source.
2. Keep aisles clean, clear, and dry at all times.
3. Closed toe and non-slip shoes should be used. Shoes should be sturdy and well maintained. High heel shoes or open toe shoes are not permitted.
4. Store cleaning products separate from food products.
5. Use power machines only after having been trained.
6. Steam tables and cutting blocks must be cleaned daily.
7. Store heavy items close to the floor.
8. Push carts or dollies should not be overloaded.
9. Keep sharp protruding objects out of the aisles and away from all workers; all drawers should be kept closed.
10. Place all cleaning equipment such as brooms, mops, carts, pails, etc., where they will not be a hazard to workers. Caution: In elementary schools, do not allow the students to use mops and pails.
11. Know the location of the first aid kit; ensure accessibility.
12. Exhaust hood fans must be operated when ranges are in operation. Keep filters in the hoods clean and free of grease.

F.1. Cafeteria Receiving Area

1. Keep floors in a safe condition free from broken tiles and sliding floor mats.
2. Floors and/or deck areas shall be clear and hazard free.
3. Use proper tools for opening crates, boxes, and cartons.

F.2. Cafeteria Storage Area

1. Shelves shall not be overloaded. They must be able to bear the weight of the items being stored.
2. Heavy items shall be stored on lower shelves.
3. An appropriate ladder must be available to reach all items.
4. Cartons and flammable materials must be stored away from light bulbs.
5. Light bulbs must have a screen guard.
6. Incompatible chemicals shall be stored separately. For example, ammonia and bleach should not be stored together or one above the other.
7. Portable and stationary racks must be in safe condition.
8. If locked in a freezer, know how to operate escape mechanism and emergency escape procedures.

F.3 Food Preparation Area

1. Electrical equipment must be properly grounded.
2. Electrical equipment must be inspected regularly, look for defective cords or plugs.
3. Avoid leaning against equipment when turning it on or off.
4. Mixers and attachments must be in safe operating condition and inspected regularly.

F.4. Food Serving Area

1. Keep serving counters and tables free from broken parts and wooden or metal slivers.
2. Glassware, china, silverware, and plastic equipment must be inspected regularly and chipped or cracked items disposed of properly.
3. Use hair restraints.
4. If you are taking any medication, report it to your manager. Do not operate any equipment while you are taking such medication unless authorized by your manager.

G. MAINTENANCE AND REPAIR FUNCTIONS

NOTE: These rules apply to personnel such as: Boilermakers, carpenters, custodians, electricians, electrical technicians, grounds keepers, heating ventilation/air conditioning (HVAC) personnel, painters, pest control personnel, plumbers, mechanics, roofers, and welders.

"Good maintenance and repair procedures contribute significantly to the safety of the maintenance crew as well as that of machine operators."
OSHA https://www.osha.gov/Publications/Mach_SafeGuard/chapt4.html

G-1. Handling Materials

"Where mechanical handling equipment is used, sufficient safe clearances shall be allowed for aisles, at loading docks, through doorways and wherever turns or passage must be made."

OSHA Materials Handling Booklet https://www.osha.gov/Publications/OSHA2236/osha2236.html

OSHA Materials Handling Standard 29CFR 1910.176
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9824

1. Prior to use, inspect materials for slivers, jagged edges, burrs, rough, or slippery surfaces.
2. Wipe off greasy, wet, slippery, or dirty objects before trying to handle them. Keep hands clean and free of grease or oil.
3. When adjusting or changing a grip, set the object down.
4. Never carry glass under the arm. A fall could severe an artery.
5. When moving materials on hand trucks or dollies, push rather than pull whenever possible.
6. When exerting leverage on large wrenches or prying tools, pull rather than push whenever possible.
7. Get help if the weight, size, bulk, or shape of the article prevents you from maintaining balance and/or puts excessive strain on back or abdominal muscles.
8. When two or more persons are carrying materials, all should face forward whenever possible. If a person must walk backwards, others should be especially alert to slipping, tripping, or bumping hazards and issue appropriate verbal directions to him/her.
9. Avoid getting hands or other body parts pinched between the load and other objects around or near it.
10. Use the proper tools such as wrenches, pry- bars, or special handling tools to lift heavy covers, etc.

G-2. Hand Tools

"Five basic safety rules can help prevent hazards associated with the use of hand and power tools:

- *Keep all tools in good condition with regular maintenance.*
- *Use the right tool for the job.*
- *Examine each tool for damage before use and do not use damaged tools.*
- *Operate tools according to the manufacturers' instructions.*
- *Provide and use properly the right personal protective equipment."*

OSHA Hand & Power Tool Safety https://www.osha.gov/Publications/osha3080.pdf

1. Use tools that are in good safe working condition and the proper tool for every job.
2. Cutting edges shall be kept sharp and shall be carried in a suitable sheath or holster.
3. Defective tools shall be promptly reported to the supervisor for repair or replacement.
4. Tool handles shall be kept free from splinters, burrs, etc. Make sure handles are tight on the head and not weakened by cracks or splits.
5. Impact tools such as hammers, chisels, punches, or steel stakes that have burred heads shall not be used. The head should be dressed to remove burrs or chipped edges.
6. When handing a tool to another person, sharp points and cutting edges shall be pointed away from both the person grasping it and the person offering it.
7. Only properly insulated tools shall be used when working around energized electrical circuits or equipment.
8. Never use a hammer with a hardened face on tempered, machined, or hardened surfaces. Rawhide, plastic, rubber, lead, brass, or copper hammers will prevent damage to parts and eliminate the danger of flying chips of metal.
9. Be sure the handle is not cracked, broken, splintered, or loose.
10. Avoid using a hammer with oily, greasy, or wet hands, and keep hammer handles clean by washing with an approved cleaning solvent.
11. A claw hammer is a hardened tool. Its use is restricted to hammering nails, wood, or other soft material. Never use a claw hammer on metals or hardened tools, except nail sets.
12. Use a soft hammer to strike a hardened surface.
13. Select the correct size and type of screwdriver to fit the job.
14. Never use a screwdriver as a chisel or as a substitute for a pinch bar.
15. Prevent the blade (screwdriver) from slipping. Be sure it fits the screw head correctly and avoid over-tightening the screw.
16. For electrical work, only use screwdrivers that have insulated handles of non-flammable material.
17. All files must have securely fastened handles.
18. Never use a file as a pry tool.
19. When using a file or rasp, grasp the handle of the file or rasp in one hand and the tip in the other.

20. When using diagonal cutting pliers, place the free hand over the ends of the cotter pin, safety wire or whatever is being cut. This will prevent the loose ends from flying and causing possible eye injury.
21. Never cut through live wires; turn off the current first; follow proper Lockout/Tag out procedures.
22. Do not attempt to cut hardened steel parts with pliers.
23. Handles of pliers that are used in electrical work must be insulated.
24. Never attempt to use a makeshift wrench. Always select the proper size and type for the job.
25. Check wrench for cracks and condition of jaws before using.
26. Always use box or socket wrenches on hexagon nuts and bolts as a first choice and open-end wrench as a second choice.
27. When using an adjustable wrench, always place it on the nut so that the pulling force is applied to the stationary jaw side of the handle.
28. Never use a piece of pipe, tubing, or another wrench to extend the handle of the wrench in order to secure additional leverage.
29. Keep wrenches free from oil and grease.
30. Always be ready to react immediately in case the wrench slips to avoid injury of the hand on a protruding edge.
31. Do not place the hand or finger over the back of a knife while it is in use.
32. A falling knife should always be allowed to fall and then be picked up.
33. Keep control of a hacksaw by releasing the pressure at the end of a stroke.
34. Make sure the blade (hacksaw) is taut in the frame before using it.
35. Select proper type of blade (number of teeth per inch) for the job.
36. Inspect electrical cords and the connections before using. Defective cords and switches are dangerous. The plug should be removed from the convenience outlet before any mechanical or electrical adjustments are made.
37. Avoid hanging extension cords over nails, bolts, or sharp edges. Do not allow it to be kinked or leave it where someone may trip over it. Always keep the cord away from oil, hot surfaces, or chemicals.
38. Do not overload or feed the drill too fast.
39. A specially ground drill is required for copper, brass, or other soft metal.
40. Always keep finger on the drill switch so that power may be shut off instantly.
41. Do not use a distorted or bent drill.
42. Disconnect extension cord before attempting to loosen a chuck on portable tools.
43. Avoid using a drill which overheats.
44. Long extension drills should only be used when absolutely necessary.
45. Work must be securely held when drilling.
46. See that the drill is firmly held in the drill chuck. Remove the chuck key.
47. When using a knife, pliers, or other cutting tools, avoid directing the blade towards yourself. Cut away from your body and stand clear of others.
48. Hand tools should not be carried in your pockets, especially screwdrivers, scribes, aviation snips, scrapers, chisels, files, etc.

G-3. Gasoline Engine Powered Tools

"Gasoline and other generator fuels should be stored and transported in approved containers that are properly designed and marked for their contents, and vented."
OSHA Flammable Liquids Standards 29CFR 1926.152 and 29CFR1910.106
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=10673&p_table=STANDARDS
OSHA Fact Sheet: Portable Generator Safety
https://www.osha.gov/OshDoc/data_Hurricane_Facts/portable_generator_safety.pdf
OSHA: Diesel Exhaust https://www.osha.gov/SLTC/dieselexhaust/

1. Always disengage the clutch before starting; never start under a load.
2. Always shut off the engine, wait for the machine to stop, and disconnect the spark plug wire before making adjustments or cleaning jammed objects.
3. Never operate the machine without the guards provided for it.
4. Always wear suitable personal protective clothing and equipment when operating the machine.
5. Never refuel running engines or hot engines.
6. Never smoke while refueling the machine.
7. Avoid working on or around poisonous or toxic plants, circular 441 – "Guide to the Poisonous and Irritant Plants of Florida" until you have been trained.
8. Follow labeled instructions and "Safety Data Sheet" when applying weed killers, fertilizers, pesticides, or herbicides.
9. Check mowing area and remove rocks, bottles, sticks, and other debris before operating power mowers.
10. Never use corridors, attics, vestibules, halls, stairs, or the space under them for storage purposes.
11. Wear proper face and hand protection when handling waste or rubbish.
12. Clothing saturated or impregnated with flammable liquids, corrosive substances, irritants, or oxidizing agents shall be removed immediately and shall not be worn until properly cleaned.

(OSHA Subpart D – 29CFR 1910.21, 29CFR 1910.25-27, 29CFR 1910.28)

G-4. Ladders / Scaffolding

"Stairways and ladders are major sources of injuries and fatalities for workers. *Inspect ladders before every use. Do not use a damaged ladder. Do not exceed the maximum load rating of a ladder. Be aware of the ladder's load rating and of the weight it is supporting, including the weight of any tools or equipment."*
OSHA Ladder Standard 29CFR 1910.23
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9715

"A Scaffolding is an elevated temporary work platform." **OSHA e-Tools Scaffolding**
https://www.osha.gov/SLTC/etools/scaffolding/index.html

1. Inspect ladders to be sure rungs are solid, tight, and clean and that rails are not cracked. Avoid using any ladder with weak or damaged rails, steps, or rungs.
2. Open step ladders fully and lock spreaders.
3. Use extension ladders only up to 60 feet and with enough overlap. If the ladder is extended less than 36 feet, have 3 feet of overlap between sections. If extended between 36 and 48 feet, have 4 feet of overlap between sections, and from 48 to 60 feet, have 5 feet between sections. Lash or otherwise secure the ladder in place. Use 4 to 1 rule in setting up extension ladders. It is easy to figure since the rungs of most ladders are one foot apart. Count the rungs up to where the ladder rests on the wall. If it is 16 feet, set the ladder base 4 feet away from the wall.
4. Never allow more than one person on a ladder.
5. Supply firm footing for the ladder. If the ground is soft or uneven, use boards under the feet of the ladder.
6. Face the ladder climbing up or down. Hold on with both hands. Carry tools or supplies in pockets or haul them up with a line.
7. Move the ladder frequently instead of reaching over too far. Follow the rule of keeping your belt buckle between the side rails.
8. Carry the ladder with the front end high enough to clear anyone ahead of you.
9. Never paint wooden ladders as paint could hide a defect in the wood and you would not see it.
10. Inspect the scaffold before mounting. It should be sturdy, free of knotty or defective planks, level, and solidly positioned.
11. Keep the scaffold free of scrap, loose tools, or tangled lines.
12. Follow the manufacturer's instructions when assembling.
13. Lock and block wheels before climbing. NEVER RIDE A ROLLING SCAFFOLD.
14. Level the scaffold after each move, but don't extend adjusting leg screws more than 12 inches.
15. Lash fixed scaffolds at intervals of 30 feet in length and 25 feet of height and ensure safety locks are in proper working condition.
16. Check all pulleys, blocks, hooks, fittings, and ropes on swinging scaffolds.

G-5. Machines / Power Tools (General)

"Moving machine parts have the potential to cause severe workplace injuries, such as crushed fingers or hands, amputations, burns, or blindness. Safeguards are essential for protecting workers from these preventable injuries. Any machine part, function, or process that may cause injury must be safeguarded."

Machine Guarding OSHA E-Tools https://www.osha.gov/SLTC/etools/machineguarding/intro.html

Hand and Portable Power Tools OSHA Standard 29CFR 1910. 241-244
https://www.osha.gov/SLTC/handpowertools/standards.html

1. Operate a machine only after you have received thorough instructions and advised by your supervisor that you are qualified to operate each machine.
2. Do not wear gloves, ties, or loose clothing. Remove rings, watch, and other jewelry and roll up sleeves when operating machinery.
3. Make all adjustments with the power off.
4. Never attempt to repair live circuits unless you are qualified through training and experience, and are authorized by your supervisor.
5. Never attempt to make repairs on electrical appliances, power tools, cables, or wiring unless you are qualified and certified to do so.
6. Inspect all portable power tools before operating including power cables, extension cords, and adapters.
7. Use "ground fault circuit interrupter" (GFCI) to operate portable power tools with metal housing and/or handgrip in damp or wet areas and on construction sites.

G-6. Saws (Power)

"Avoid injury by using properly guarded saws and appropriate safety equipment. Avoid loose-fitting clothes and long hair that might become entangled in a power tool and remove rings, watches, neck chains and other jewelry."

OSHA e-Tools https://www.osha.gov/SLTC/etools/machineguarding/saws.html

1. When operating scroll saws, stop the machine before removing scrap pieces from the table.
2. Always keep hands and fingers away from the saw blade.
3. Turn off the machine if the material is to be backed out of an uncompleted or jammed cut.
4. Disconnect the machine from the power source when making repairs.
5. Shut off the power and clean the saw and work area before leaving.
6. If you are not thoroughly familiar with the personal safety functions in the operation of any power machine, obtain advice from your supervisor or other qualified trainer.
7. Safety guards should be in place and used at all times.
8. Clamp work when using hole saw or cutting tools larger than ½" in diameter.
9. On band saws, adjust upper blade guide about 1/8" above material being cut.
10. On band saws, make sure the blade tension and blade tracking are properly adjusted.
11. Hold work piece firmly against the table. Do not attempt to saw stock that does not have a flat surface, unless a suitable support is used.

G-7. Drills / Drill Press

"Power presses are used in a wide variety of industries to punch, shear, and form metal and other materials. Injury statistics compiled by OSHA indicated that 49 percent of the injuries from mechanical power presses resulted in an amputation."
OSHA E-Tools https://www.osha.gov/SLTC/etools/machineguarding/presses.html

1. Do not exceed recommended speed for the drill, accessory, and/or work piece material.
2. Be sure chuck key is removed from the chuck before starting the drill press.
3. Adjust the table or depth stop to avoid drilling into the table.
4. Be sure the drill bit or cutting tool is securely locked in the chuck.
5. Always wear eye protection (safety glasses or an eye shield) when using the drill press.

G-8. Grinders

"Abrasive wheels shall be used only on machines provided with safety guards."
OSHA Abrasive Wheels Standard 29CFR 1910.215
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9839
Checklist for Abrasive Wheel Grinders https://www.osha.gov/SLTC/machineguarding/new-grinder-checklist.html

1. On all bench grinding machines, work rests shall be adjusted to approximately 1/8" from the wheels and thoroughly tightened in place so they cannot shift position while in use.
2. Inspect the wheels before turning on the grinder. Do not use wheels that have been chipped or cracked. Ring test before installation.
3. Dress grinding wheels on the face only. Replace wheels that have been chipped or cracked.
4. When grinding, use the face of the wheel only.
5. If the grinding wheel vibrates, dress wheel, replace the wheel, or replace the bearings of the shaft if they are worn. Grinding creates heat. Don't touch the ground portion of the work piece until you are sure it has cooled.
6. Shut off the power and do not leave until the wheel has come to a complete stop and the work area is clean when you are finished using the machine.

H. ELECTRICITY/ ELECTRICAL

"Electrical hazards can cause burns, shocks and electrocution (death). Always use caution when working near electricity." **OSHA Control of Hazardous Energy Standard 29CFR 1910.147**
OSHA Subpart S Electrical Standards 29CFR 1910.303 – 308, 29CFR 1910.331-335
https://www.osha.gov/SLTC/electrical/index.html

1. Use a (3) three prong, grounded extension cord with the proper rating for the tool you are connecting.
2. When using extension cords:
    a. Never plug more than the specified number of watts into the cord.
    b. Do not run through doorways, holes in ceilings, walls, or floors.
    c. Never remove, bend, or modify any metal prongs or pins.
    d. Do not use when wet.
    e. Do not plug one extension cord into another.
    f. Never drive, drag, or place objects over the cord or walk on it.
    g. Always unplug when not in use.
    h. Never use as a permanent power source.
3. Never repair or test live circuits except when necessary to affect repair.
4. When working on live circuits, tools shall have insulated handgrips approved for working on live circuits.
5. Ladders shall have nonconductive side rails.
6. Never connect heating unit using in excess of 1500 watts into utility 15 amp outlet.
7. Working in an area where you are likely to encounter electrical hazards is not permitted, unless you have been trained to recognize and avoid the hazards to which you will be exposed.
8. Do not enter spaces containing exposed energized parts without adequate illumination
9. Verify that circuit or equipment cannot be reenergized or restarted prior to performing work. Use proper Lockout/Tag out procedures.
10. Fuse handling equipment shall be used to remove or install fuses where fuse terminals are energized.
11. Use safety signs, symbols, or accident prevention tags to warn personnel of electrical hazards.
12. Ensure strain relief for all flexible cords and cables.
13. Apply proper grounding and bonding before dispensing flammable liquid(s).
14. Use gloves, aprons, and face protection while working.

I. MECHANICS

1. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, rubber aprons, and protective eyewear when using chemicals labeled "Flammable", "Corrosive", "Caustic", or "Poisonous".
2. Wear safety-toed, non-skid sole, leather shoes.
3. Do not wear jewelry while working.
4. Keep work area fully illuminated.
5. Do not use compressed air to clean yourself.
6. Do not point a compressed air hose at bystanders.
7. Place oily rags in a provided metal container with a lid.
8. Clean work area throughout the day as needed and at the end of each shift.

J. GARAGE AND REPAIR SHOP SAFETY

J.1 Carbon Monoxide

OSHA Fact Sheet: Portable Generator Safety
https://www.osha.gov/OshDoc/data_Hurricane_Facts/portable_generator_safety.pdf

Carbon monoxide is a nonirritating, colorless, tasteless, and odorless gas commonly caused by fuel burned in the absence of sufficient oxygen or wherever combustion is incomplete. Either this gas should be piped off from the garage area or doors and windows should be left open so that the fresh air can come into the garage area.

J.2 Electric Chain Hoists

"The safe working load of the overhead hoist, as determined by the manufacturer, shall be indicated on the hoist, and this safe working load shall not be exceeded."

OSHA 29CFR 1926.554
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10764

If all hoists are not provided with a check stop and a wire rope around the support "I" beam and fastened to the hoist, do not use the hoist.

J.3 Jacks

"The rated load shall be legibly and permanently marked in a prominent location on the jack by casting, stamping, or other suitable means." **OSHA 29CFR 1910.244**
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9851

1. All jacks should have a visible load capacity posted.
2. The operator shall make sure that the jack used has a rating sufficient to lift and sustain the load.
3. All jacks should be equipped with a safety ratchet that prevents the load from dropping if the pressure is released.
4. Hydraulic jacks should only be used to raise a piece of machinery into position. After machinery is in position, jack stands must be placed under a load bearing member.

J.4 Pits

1. Floor openings such as drain troughs should be guarded with covers. If any unguarded floor openings are found, inform your supervisor at once.
2. Make sure that all pits are provided with a curb four to six inches high to prevent vehicles from drifting into the pit.
3. Be certain that all open pits are provided with portable railings or standards when not in use.
4. Be sure steps into pits are clean and free of grease, oil, and water. Tools, parts, etc., must not be left on the steps.
5. Lights in the pits should be enclosed in vapor proof fixtures. If the lights are not of this type, inform your supervisor.

J.5 Washing parts

1. Use only low toxicity solvents that have a high boiling and flash point.
2. Be sure that the parts washers are complete with lids that are counter-weighted.
3. Carbon tetrachloride or gasoline should never be used for cleaning or degreasing

K. ROOFING SAFETY

"Roofers encounter many hazards on the job, including hazards associated with working at heights and from ladders, power tools, electricity, noise, hazardous substances, and extreme temperatures."
OSHA Protecting Roofing Workers Booklet https://www.osha.gov/Publications/OSHA3755.pdf

1. Felt-laying machines and mechanical moppers shall not be operated within a distance of three feet of any unprotected roof opening or within five feet of any unprotected roof edge.
2. Roofing brackets shall be constructed to fit the pitch of the roof.
3. Roofing brackets shall be securely fastened. When brackets cannot be securely fastened by any other means, rope supports are used; such supports shall consist of first grade manila rope of no less than three quarter inch diameter, or equivalent.

K.1 Catch Platforms

1. Pitched roofs: A catch platform, as described below, shall be installed below the working area of roofs more than 20 feet from the ground to eaves with a slope greater than 1:4 ratio (height: length lateral distance) without a parapet. In width, the platform shall extend 2 feet beyond the projection of the eaves and shall be provided with a safety rail, mid-rail, and toe board. If a safety harness is used and attached to a lifeline, a catch platform is not required.
2. Flat roofs: On flat roofs, not having a parapet of at least thirty inches in height, a standard guardrail substantially fixed in place may be used. A safety harness attached to a lifeline which is securely fastened to the structure may be used in lieu of a standard guardrail.

K.2 Chicken Ladders or Crawling Boards

1. Chicken ladders or crawling boards shall be no less than ten inches wide and one-inch-thick having cleats no less than one inch by one and one-half inches equal in length to the width of the board and be evenly spaced not to exceed twenty- four inches on center. Nails shall be driven through and clenched on the underside.
2. Crawling boards shall be secured to the roof by means of a ridge hook(s) of no less than three-quarters-inch of approved safety line, passed over the ridge, and securely fastened to maintain a safe working condition. A firmly fastened grab line of no less than three-quarters-inch of approved safety line shall be strung beside each crawling board for a handhold.
3. Where chicken ladders (or crawling boards) are provided in pairs, astride the apex of a roof, such chicken ladders shall be securely bolted together by a hinge bolt or provided with hooks or bolts with cleats securely fastened on the underside at the upper end to catch over the ridgepole.

K.3 Kettles and Tankers

1. Any employee working around kettles and tankers in use or that are being heated up for any use shall be under the direct supervision of a qualified supervisor.
2. An operating kettle shall be attended by at least one employee who is knowledgeable of the operation and hazards. The employee shall be within a distance of 25 feet whenever the kettle is in operation and keep the kettle in sight at all times.
3. Kettles must be equipped with leveling devices. Leveling devices must be securely fastened.
4. Kettles must be equipped with lids or covers hinged in place.
5. Never set a pumper or agitator into hot material.
6. Roofing kettles shall not be within 10 feet of any exit doors and shall not block any means of egress, gates, roadways, or entrances.

L. WELDING SAFETY (OSHA Subpart Q)

"Health hazards from welding, cutting, and brazing operations include exposures to metal fumes and to ultraviolet (UV) radiation. Safety hazards from these operations include burns, eye damage, electrical shock, cuts, and crushed toes and fingers. These can be controlled with proper work practices and personal protective equipment (PPE)."
OSHA Welding Standards 29CFR 1910.251-255 https://www.osha.gov/SLTC/weldingcuttingbrazing/

1. Welding will not be performed until you have been trained in the safe operation of all assigned welding equipment as well as the process.
2. Obey all warning signs that are posted as designated welding areas.
3. When working adjacent to welding areas, you must be protected from radiant energy, spatter of welding, and cutting arcs by noncombustible shields or shall be required to wear suitable eye/face protection and protective clothing.
4. Before starting to weld cut, welders must have permission of the supervisor and shall continue only so long as conditions at the welding site are unchanged.
5. When arc welding and arc cutting with open arcs, helmets or hand shields with filter lenses and cover plates will be used by operators and others when viewing the arc. Safety spectacles with side shields or goggles will also be worn.
6. Employees (including helpers) operating resistance welding or brazing equipment will use face shields or goggles.
7. All welders and cutters shall wear protective flame-resistant gloves.
8. In all welding/cutting areas to reduce air contaminants to allowable levels, proper ventilation shall be provided and/or respiratory protective equipment shall be utilize.
9. In performance of welding and cutting operations, only approved equipment shall be used.
10. All cylinders or containers used for storage of fuel gases and oxygen shall be constructed, charged, and maintained in accordance with nationally recognized good practices.
11. Cylinders stored inside a building shall be kept away from highly combustible materials and in locations where they are not subject to excessive rise in temperature, physical damage, or tampering.

12. No device or attachment facilitating or permitting a mixture of air or oxygen with combustible gases prior to consumption, except at the burner or in a standard torch or blow-pipe, shall be allowed.
13. The user shall not transfer gases from one cylinder to another or mix gases in a cylinder.
14. Acetylene gas shall not be generated, piped (except in approved cylinder manifolds and cylinder manifold connections), or utilized at a pressure in excess of 15 pounds per square inch gauge pressure.
15. The use of liquid acetylene is prohibited.
16. Acetylene gas shall not be brought into contact with unalloyed copper except in a blow-pipe or torch.
17. Oxygen shall never be used from a cylinder or cylinder manifold unless a pressure regulating device intended for use with oxygen, or so marked, is provided.
18. Fuel gas shall never be used from cylinders through torches or other devices equipped with shut-off valves without reducing the pressure through a suitable regulator attached to the cylinder valve or manifold.
19. Cylinders, valves, regulators, hoses, and other apparatus and fittings containing or using oxygen shall be kept free from oil or grease. Oxygen cylinders, apparatus, and fittings shall not be handled with oily hands, gloves, or other greasy materials.
20. When moving compressed gas cylinders by crane, cradles shall be used in order to reduce the possibility of dropping. Ordinary rope slings or electromagnets shall not be used.
21. Oxygen, fuel gas cylinders, and acetylene generators shall be placed far enough away from welding positions that they will not be unduly heated by radiation from heated materials, by sparks or slag, or by misdirection of the torch flame.
22. No gas welding or cutting shall be done in or near rooms or locations where flammable liquid, vapors, lint, dust, or loose combustible stocks are so located or arranged that sparks or hot metal from the welding or cutting operations may cause ignition or explosion of such materials.
23. When welding or cutting must be done above or within ten feet of combustible construction or material, or above a place where workers are employed, or where persons are likely to pass, noncombustible shields shall be interposed to protect such materials and persons from sparks, hot metal, or oxide.
24. One or more approved Class B or Class C fire extinguishers of suitable size shall be kept at the location where welding or cutting is being done.
25. When welding or cutting is done above or within ten feet of combustible construction or material, a fire watch shall be on hand.

M. HEAVY EQUIPMENT SAFETY (OSHA 1910.26 Subpart N and O)

OSHA Heavy Equipment Standards 29CFR 1926.552 - 556 and 29CFR 1926.600-606
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10767
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10763

M.1 Mobile Cranes

1. No load should be lifted which exceeds the rated capacity of the operating boom angle.
2. Standard operating signals should be agreed upon and used to direct all operations. Only one person should be permitted to give signals to the operator unless the load is being transferred to a point, which is out of sight of the signalman. In such cases, a second signalman should be designated.
3. Outriggers on rubber-tired cranes should be used as directed by the supervisor.
4. When cranes are being operated on soft ground, substantial mats should be laid down. Extreme caution should be used when operating near the edge of an excavation.

M.2 Bulldozers and Tractors

1. The condition of the equipment should be checked before operating. This should include brakes, clutches, steering mechanisms, hydraulic, and electrical systems. Any defect should be immediately reported to the supervisor for correction.
2. Before starting down a hill, the blade should be lowered to secure a load of earth in front of it and maintain the load all the way down the hill. If the load is lost, the blade should not be jammed into the ground as this might cause overturning. The dozer blade must never be used as a brake on downgrades.
3. Filling operations can be very dangerous. The material should be pushed over the edge only as far as necessary. This could prevent the possible overturning of the equipment.
4. When coupling a tractor to other equipment, workers should stand clear of the space between the units. The machine should be stopped, the transmission placed in neutral, and the brakes set before the worker is allowed to couple the equipment.
5. At the end of a work shift or when leaving the machine, the power should be shut off, the brakes should be set, blade landed, and the shift lever placed in neutral.

M.3 Motor Graders

1. Back sloping on steep, high embankments is tricky and often dangerous. Generally, when graders operate on slopes greater than one to one, the operator runs the risk of tripping over.
2. To avoid overturning, the blade should be extended when scraping shoulders and the grader should be operated off the shoulder.

M.4 Shovels, Clamshells, and Loaders

1. All workers should be clear of the bucket swing and the cab rotation. Never swing the bucket or clamshell over other workers.
2. When the soil is soft, make sure the equipment is on a solid foundation such as mats or heavy planking with the outriggers fully extended before starting to operate.
3. Before operating on a bank next to an excavation, a check should be made with the Superintendent or Engineer to determine whether shoring or bracing is necessary.
4. No one should be permitted in the cab with the operator.
5. The operator should never leave the machine on an inclined surface or on loose material with the motor idling because the vibration could put the machine in motion.

N. WAREHOUSE PERSONNEL

"Warehouse Operations can present a wide variety of potential hazards for the worker."
OSHA Warehouse Safety Pocket Guide https://www.osha.gov/Publications/3220_Warehouse.pdf

OSHA Materials Handling and Storage Booklet https://www.osha.gov/Publications/osha2236.pdf

General

1. Floors in the warehouse must be kept clean and aisles unobstructed to allow easy and safe access to stored materials.
2. Aisles must be kept clear and provide unobstructed access to exits.
3. Keep fire exits clear of all obstructions.
4. Lifting should be done from a knee bending position, not by leaning forward and picking up the item. This will allow the leg muscles, not the back muscles, to lift the weight.
5. Use ladders with anti-slide grips. Do not place in front of doors or on unstable bases. Always face toward the ladder when ascending or descending. Do not use the top step.
6. Use only approved equipment (mobile stairs, ladders) to retrieve materials from high shelves.
7. Observe the manufacturers' or your supervisor's instruction on how many cartons can be safely stacked.
8. Materials which can tip easily must be laid flat or secured.
9. Report inadequate lighting (burned out bulbs or blocked lighting) to your supervisor.
10. Use approved hand trucks, dollies, and other equipment to move heavy and/or awkward loads.
11. Store all hazardous or potentially hazardous products in designated areas immediately upon receipt.

N.1 Forklifts

"Only trained and competent operators shall be permitted to operate a powered industrial truck. All powered industrial truck operators must be trained and certified by their organizations." ***OSHA Powered Industrial Trucks Standard 29 CFR 1910.178***
https://www.osha.gov/SLTC/etools/pit/assistance/index.html

1. Only authorized and trained personnel are permitted to operate the forklift.
2. The forklift must be moved with the forks elevated just enough to clear the floor.
3. When approaching a blind comer with the forklift, sound the horn, reduce speed, and proceed with caution.
4. Do not leave a forklift unattended with the motor running.
5. No riders are permitted on the forklift at any time.
6. If seatbelts are provided, use them.
7. Turn the forklift slowly to prevent tipping and overturning.
8. Lower the load before moving the forklift.
9. Rubber hose, welding cables, etc., must not be run over by lift trucks and heavy objects. Hose and cables should be coiled and stored when not in use.
10. Smoking is prohibited when operating the lift truck or when working in the lift truck area.
11. Forklifts are to be checked before the start of any shift and any deficiencies are to be reported to the supervisor.

O. VEHICLE / DRIVER SAFETY

1. Vehicle and heavy equipment operators will perform a daily safety inspection and report to the supervisor prior to departing. As a minimum, check the following:

    a. On road vehicles:
        - Brakes & Emergency Brakes
        - Wipers
        - Seat belts
        - Lights (brake, head, tail, and signal)
        - Instruments for proper indication
        - Service type vehicles, for security of equipment

    b. Off road vehicles per checklist for the specific type of equipment.

2. Do not operate construction or agricultural engine driven equipment until properly trained and certification(s) documented by your supervisor.

O.1 Bus Drivers and Bus Operation Follow all procedures/directions given by your supervisor and the guidelines provided in the **SBBC Student Transportation and Fleet Services Handbook.**

General Rules

1. Perform required daily pre-trip inspections on the bus and report any defect affecting safety immediately to garage personnel or supervisor.
2. Ensure that the vehicle is free of physical or mechanical defects which present clear or apparent danger to passengers.
3. Report defects to your supervisor, or person designated by supervisor, immediately.
4. Bus conditions which require mechanical adjustments or repairs should be reported in writing and signed by the bus driver.
5. Keep all mirrors adjusted.
6. Observe the Florida Motor Vehicle Laws.
7. Drive at a safe speed. It is illegal to exceed the speed limit. Never exceed 55 mph.
8. At all times maintain clear & unobstructed path to emergency equipment and exits.
9. No books, chairs, seats, instruments, equipment, or articles shall be transported in the school bus driver's compartment or placed in the school bus aisles.
10. Never permit a student to stand at front of the bus or operate service door handle.
11. Never permit students to occupy the driver's seat on your bus.
12. Use sun glasses to reduce glare.
13. Drive ahead. You can see traffic far in front of the bus. This gives you the chance to spot dangerous situations and react to them. Your eyes should be constantly scanning the traffic ahead. If an accident occurs, you will have time to take evasive action to bring your bus to a safe stop.
14. Start stopping early. The less you use the brakes, the longer they will last and the better they will operate. When you apply the brakes, make it a habit to apply them gently and reduce pressure as you complete your stop. When you develop the habit of stopping early, you will avoid many panic stops.

15. Don't forget to change your driving habits when driving on wet pavement. Traction is poor on wet roads and it can easily require twice the distance to stop on wet roads than dry roads. Apply your brakes intermittently to avoid a skid. Double you're normal following distance. Move to the right to avoid potential head-on collisions. Roads are most slippery just after the rain starts to fall. The water combines with accumulated road oil and the road's surface becomes as slippery as ice. Avoid high speeds when the road is covered with water because the vehicle can hydroplane, losing contact with the road's surface. Good tires with deep treads help to maintain traction and maneuverability.
16. Drive defensively. Be constantly alert for motorists who are angry, drunk, half asleep, daydreaming, or ill.
17. Remember that signals from other drivers do not always indicate the exact intentions of the other driver.
18. Avoid tailgating at all times.
19. Stop the bus only where it can be seen at least 200 feet by traffic approaching from both directions.
20. Stop at all railroad crossings.
21. If you must back a bus, do so with proper signals from a responsible person outside and behind the bus, when possible.
22. Never coast with the clutch engaged or with an automatic transmission in neutral.
23. Always operate pupil warning light systems appropriately when stopping to load or unload passengers as prescribed by law.
24. Place the gear selector in neutral when the bus has been brought to a stop to load or unload pupils. Parking brake should be set when loading students or if any students cross in front of the bus.
25. Do not drive in any way that will damage the bus.
26. Always shut off the motor and set the parking brake before leaving the bus. Never leave the bus key in the ignition when your bus is parked or unattended.
27. Make sure all persons are off the bus before refueling.
28. Keep the bus clean and neat.
29. All accidents involving personal injury or property damage, no matter how small, must be reported to the driver's supervisor or person designated.

Procedures at Railroad Crossings

1. Before crossing any railroad tracks, the bus driver must bring the bus to a complete stop not less than 15 feet or more than 50 feet from the rail nearest to the front of bus.
2. When stopping, drivers shall observe traffic and reduce speed, far enough in advance so as to minimize the likelihood that other motorists will rear end the bus.
3. When stopped, the bus driver shall shift into neutral, fully open the service door, driver window, listen, and look in both directions along the tracks for any approaching train(s). For improved vision and hearing, the driver's window shall be opened and all noisy equipment and radios should be shut off until the bus has cleared the tracks. The service door shall be closed before proceeding across the tracks.
4. Drivers shall not shift gears when the bus is crossing the tracks.
5. No driver shall drive a bus through, around, or under any crossing gate or barrier at a railroad crossing while the gate or barrier is closed or being opened or closed.

P. SMOKING POLICY

"The school board of Broward County (SBBC) recognizes that the use of tobacco products is a health, safety and environmental hazard for students, employees, parents, visitors and school facilities. The school board believes the use of tobacco products on school grounds, in school buildings and facilities and on school property is detrimental to the health and safety of students, employees and visitors. Smoking and other uses of tobacco products are detrimental to health and a significant contributor to medical issues and death. A tobacco-free policy prepares students for the realities of an increasingly tobacco-free world - one where tobacco use is prohibited at worksites, in restaurants, on airplanes, in malls and in other places. Thus, the purpose of this policy is to establish that SBBC maintains a tobacco-free environment, to provide for notification to the public and to district employees and students and to provide an effective date of the policy."

Refer to SBBC Policy # 2401 – Tobacco Free Environment for complete policy.

O. DRUG & ALCOHOL-FREE WORKPLACE POLICY

"It is the intent of the board to comply with the drug-free workplace act of 1988 and other applicable law which requires the board to maintain a drug-free workplace. The board authorizes the superintendent to develop procedures to carry out this policy."

Refer to SBBC Policy # 2400 – Drug Free Workplace for complete policy.

APPENDIX 2
Safety and Health Training Curriculum

The following training classes are provided or coordinated through the EH&S Department (or the department listed next to the class). (A more current class list may be available on the EH&S website.)

Additional topics may be offered on a request basis, as staff resources permit. Please contact the EH&S Department at 754-321-4200 for schedule and registration information.

1. Asbestos Awareness
2. Accident Review (Training provided by Transportation Department)
3. Aerial Lifts
4. Basic Facility Service Person (FSP) (Training by Custodial and Grounds)
5. Biomedical Waste (Training by Risk Management)
6. Bloodborne Pathogens (Training by Risk Management)
7. CPR/AED (to meet Policy 5303)
8. Reasonable Suspicion of Drugs/Alcohol (Training provided by Risk Management)
9. Emergency Response Protocol (ERP) Evacuation (Training provided by Risk Mangmt.)
10. Environmental Workshop
11. First Aid (to meet Policy 5303)
12. Forklift
13. Indoor Air Quality
14. Laboratory Safety (Training by Sciences Department)
15. Lock-out /Tag-out Awareness
16. Master / Professional Facilities Services Person (Training by Custodial & Grounds)
17. Safety Best Practices & Supervisory Safety
18. Safe Work Permit
19. Slips, Trips and Falls
20. Underground Storage Tanks

APPENDIX 3
Written Safety Programs / Plans

In accordance with Federal, State or best practices, some of the operations performed by BCPS District personnel or contractors require written safety programs/plans specific to hazards of the work being performed. It is the responsibility of the Site Administrator to be aware of the requirements for written safety plans/programs in accordance with the hazards of their sites/work tasks and to allocate the necessary resources to ensure the written programs are established and complied with.

Please contact the EH&S department at 754-321-4200 for assistance in assessing the Written Safety Program/Plan requirements for your department.

The purpose of Written Safety Programs/Plans is to ensure employers properly identify and control specific hazards in their worksite. The following are examples of some written programs required by OSHA. (For more information on OSHA written programs/plans, refer to https://www.osha.gov/dcsp/compliance_assistance/sampleprograms.html or https://www.osha.gov)

- **Confined Space Entry** (OSHA 29CFR1910.146)
- **Respiratory Protection** (OSHA 29CFR1910.134)
- **Hearing Conservation (**OSHA 29CFR1910.95)
- **Lock Out/Tag Out - Control of Hazardous Energy (**OSHA 29CFR1910.147)
- **Hazard Communication / Globally Harmonized System (**OSHA 29CRF1910.1200)
- **Exposure Control Plan / Bloodborne Pathogens (**OSHA 29CFR1910.1030)

APPENDIX 4

Self-Inspection Checklists

Regularly scheduled (e.g., monthly) safety inspections of facilities or schools shall be conducted by the site administrator or designee (e.g., supervisors) for the purpose of prompt identification and resolution of potential safety and health issues. Safety checklists should be used to document the self-inspections and maintained on-site along with the status and completion dates of items identified. The department/school may choose to use safety checklists templates or make their own safety inspection checklists.

OSHA Publication 2209-02R 2005 offers sample checklists for a variety of hazards and facilities. https://www.osha.gov/Publications/smallbusiness/small-business.html#check

NIOSH (National Institute of Occupational Safety and Health) offers a Safety Checklist Program for Schools at https://www.cdc.gov/niosh/docs/2004-101/default.html

APPENDIX 5
Job Hazard Analysis (JHA)
Also known as Job Safety Analysis (JSA)

Source: OSHA https://www.osha.gov/Publications/osha3071.html#R3

OSHA "Job Hazard Analysis"

The OSHA "Job Hazard Analysis" booklet (publication # 3071) explains what a JOB HAZARD ANALYSIS (JHA) is and how to conduct one. The complete OSHA JHA booklet can be downloaded from https://www.osha.gov/Publications/osha3071.html.

According to OSHA, the information is designed for employers, foremen, and supervisors, but OSHA encourages employees to use the information as well to analyze their own jobs and recognize workplace hazards so they can report them to the employer. The following information is from the OSHA site.

What is a Hazard? A hazard is the potential for harm. In practical terms, a hazard often is associated with a condition or activity that, if left uncontrolled, can result in an injury or illness. See Appendix 2 of the JHA booklet for a list of common hazards and descriptions. Identifying hazards and eliminating or controlling them as early as possible will help prevent injuries and illnesses.

What is a Job Hazard Analysis? A job hazard analysis is a cooperative review that focuses on job tasks as a way to identify hazards before they occur. It focuses on the relationship between the worker, the task, the tools, and the work environment. Ideally, after you identify uncontrolled hazards, you will take steps to eliminate or reduce them to an acceptable risk level.

What is the value of a Job Hazard Analysis? One of the best ways to determine and establish proper work procedures is to conduct a job hazard analysis. A job hazard analysis is one component of the larger commitment of a safety and health management system.

Supervisors can use the findings of a job hazard analysis to eliminate and prevent hazards in their workplaces. This is likely to result in fewer worker injuries and illnesses; safer, more effective work methods; reduced workers' compensation costs; and increased worker productivity. The analysis also can be a valuable tool for training new employees in the steps required to perform their jobs safely.

For a job hazard analysis to be effective, management must demonstrate its commitment to safety and health and follow through to correct any uncontrolled hazards identified. Otherwise, management will lose credibility and employees may hesitate to go to management when dangerous conditions threaten them.

What jobs are appropriate for a job hazard analysis? A job hazard analysis can be conducted on many jobs in your workplace. Priority should go to the following types of jobs:

- Jobs with the highest injury or illness rates;
- Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents;
- Jobs in which one simple human error could lead to a severe accident or injury;
- Jobs that are new to your operation or have undergone changes in processes and procedures; and
- Jobs complex enough to require written instructions.

Where do I begin? **Involve your employees.** It is very important to involve your employees in the hazard analysis process. They have a unique understanding of the job, and this knowledge is invaluable for finding hazards. Involving employees will help minimize oversights, ensure a quality analysis, and get workers to "buy in" to the solutions because they will share ownership in their safety and health program.

1. **Review your accident history.** Review with your employees your worksite's history of accidents and occupational illnesses that needed treatment, losses that required repair or replacement, and any "near misses" events in which an accident or loss did not occur, but could have. These events are indicators that the existing hazard controls (if any) may not be adequate and deserve more scrutiny.

2. **Conduct a preliminary job review.** Discuss with your employees the hazards they know exist in their current work and surroundings. Brainstorm with them for ideas to eliminate or control those hazards. ***If any hazards exist that pose an immediate danger to an employee's life or health, take immediate action to protect the worker.*** Any problems that can be corrected easily should be corrected as soon as possible. Do not wait to complete your job hazard analysis. This will demonstrate your commitment to safety and health and enable you to focus on the hazards and jobs that need more study because of their complexity. For those hazards determined to present unacceptable risks, evaluate types of hazard controls. More information about hazard controls is found in the OSHA JHA booklet.

3. **List, rank, and set priorities for hazardous jobs.** List jobs with hazards that present unacceptable risks, based on those most likely to occur and with the most severe consequences. These jobs should be your first priority for analysis.

4. **Outline the steps or tasks.** Nearly every job can be broken down into job tasks or steps. When beginning a job hazard analysis, watch the employee perform the job and list each step as the worker takes it. Be sure to record enough information to describe each job action without getting overly detailed. Avoid making the breakdown of steps so detailed that it becomes unnecessarily long or so broad that it does not include basic steps. You may find it valuable to get input from other workers who have performed the same job. Later, review the job steps with the employee to make sure you have not omitted something. Point out that you are evaluating the job itself, not the employee's job performance. Include the employee in all phases of the analysis from reviewing the job steps and procedures to discussing uncontrolled hazards and recommended solutions. Sometimes, in conducting a job hazard analysis, it may be helpful to photograph or videotape the worker performing the job. These visual records can be handy references when doing a more detailed analysis of the work.

How do I identify workplace hazards? A job hazard analysis is an exercise in detective work. Your goal is to discover the following:

- What can go wrong?
- What are the consequences?
- How could it arise?
- What are other contributing factors?
- How likely is it that the hazard will occur?

To make your job hazard analysis useful, document the answers to these questions in a consistent manner. Describing a hazard in this way helps to ensure that your efforts to eliminate the hazard and implement hazard controls help target the most important contributors to the hazard.

Good hazard scenarios describe:

- Where it is happening (environment),
- Who or what it is happening to (exposure),
- What precipitates the hazard (trigger),
- The outcome that would occur should it happen (consequence), and
- Any other contributing factors.

A sample form found in the JHA booklet helps you organize your information to provide these details. Rarely is a hazard a simple case of one singular cause resulting in one singular effect. More frequently, many contributing factors tend to line up in a certain way to create the hazard. Here is an example of a hazard scenario:

Scenario: In the metal shop (environment), while clearing a snag (trigger), a worker's hand (exposure) comes into contact with a rotating pulley. It pulls his hand into the machine and severs his fingers (consequences) quickly.

To perform a job hazard analysis, you would ask:

What can go wrong? The worker's hand could come into contact with a rotating object that "catches" it and pulls it into the machine.

What are the consequences? The worker could receive a severe injury and lose fingers and hands.

How could it happen? The accident could happen as a result of the worker trying to clear a snag during operations or as part of a maintenance activity while the pulley is operating. Obviously, this hazard scenario could not occur if the pulley is not rotating.

What are other contributing factors? This hazard occurs very quickly. It does not give the worker much opportunity to recover or prevent it once his hand comes into contact with the pulley. This is an important factor, because it helps you determine the severity and likelihood of an accident when selecting appropriate hazard controls. Unfortunately, experience has shown that training is not very effective in hazard control when triggering events happen quickly because humans can react only so quickly.

How likely is it that the hazard will occur? This determination requires some judgment. If there have been "near-misses" or actual cases, then the likelihood of a recurrence would be considered high. If the pulley is exposed and easily accessible, that also is a consideration. In the example, the likelihood that the hazard will occur is high because there is no guard preventing contact, and the operation is performed while the machine is running. By following the steps in this example, you can organize your hazard analysis activities.

The examples that follow show how a job hazard analysis can be used to identify the existing or potential hazards for each basic step involved in grinding iron castings.

Grinding Iron Castings: Job Steps

Step 1. Reach into metal box to right of machine, grasp casting, and carry to wheel.
Step 2. Push casting against wheel to grind off burr.
Step 3. Place finished casting in box to left of machine.

Example Job Hazard Analysis Form

Job Location:
Metal Shop

Analyst:
Joe Safety

Task Description: Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.

Hazard Description: Picking up a casting, the employee could drop it onto his foot. The casting's weight and height could seriously injure the worker's foot or toes.

Hazard Controls:

1. Remove castings from the box and place them on a table next to the grinder
2. Wear steel-toe shoes with arch protection.
3. Change protective gloves that allow a better grip.
4. Use a device to pick up castings.

Task Description: Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.

Hazard Description: Castings have sharp burrs and edges that can cause severe lacerations.

Hazard Controls:

1. Use a device such as a clamp to pick up castings.
2. Wear cut-resistant gloves that allow a good grip and fit tightly to minimize the chance that they will get caught in grinding wheel.

Task Description: Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.

Hazard Description: Reaching, twisting, and lifting 15-pound castings from the floor could result in a muscle strain to the lower back.

Hazard Controls:

1. Move castings from the ground and place them closer to the work zone to minimize lifting. Ideally, place them at waist height or on an adjustable platform or pallet.
2. Train workers not to twist while lifting & reconfigure work stations to minimize twisting during lifts.

Repeat similar forms for each job step.

How do I correct or prevent hazards?

After reviewing your list of hazards with the employee, consider what control methods will eliminate or reduce them. For more information on hazard control measures, refer to the JHA booklet. The most effective controls are engineering controls that physically change a machine or work environment to prevent employee exposure to the hazard. The more reliable or less likely a hazard control can be circumvented, the better. If this is not feasible, administrative controls may be appropriate. This may involve changing how employees do their jobs.

Discuss your recommendations with all employees who perform the job and consider their responses carefully. If you plan to introduce new or modified job procedures, be sure they understand what they are required to do and the reasons for the changes.

What else do I need to know before starting a job hazard analysis?

The job procedures discussed in this booklet are for illustration only and do not necessarily include all the steps, hazards, and protections that apply to your industry. When conducting your own job safety analysis, be sure to consult the Occupational Safety and Health Administration standards for your industry. OSHA standards, regulations, and technical information are available online at www.osha.gov.

APPENDIX 6
SBBC Policies Referenced in EH&S Manual

Please refer to the SBBC Policies webpage to view the complete SBBC Policy.

SBBC Polity # 4.9	*Employee Disciplinary Guidelines*
SBBC Policy # 2301	*Reporting Injuries*
SBBC Policy # 2400	*Drug-Free Workplace*
SBBC Policy # 2401	*Tobacco-Free Environment*
SBBC Policy # 5303	*First Aid*
SBBC Policy # 5300.1	*Pupil Transportation Safe Driver Plan*
SBBC Policy # 7014	*Environmental Stewardship*

APPENDIX 7
EH&S Standard Operating Procedures (SOP)

Please refer to the EH&S website for the most current EH&S SOPs.

EH&S SOP	***TOPIC***
400-SBBC	EH&S Policy Statement
401-SBBC	EH& S Policy Origination
402-SBBC	Safety Advisory Council (pending)
403-SBBC	Comprehensive Safety Inspections (pending)
404-SBBC	Building Control Systems
405-SBBC	EH&S Training
406-SBBC	Broward County Nature Scape Program
407-SBBC	Indoor Air Quality Program
408-SBBC	Hazardous Material Program
409-SBBC	Solid Waste Program
410-SBBC	Asbestos Control Program (pending)
411-SBBC	Accident Investigation Program
412-SBBC	Personal Protective Equipment (PPE) Program (pending)
413-SBBC	Environmental Conservation Program
414-SBBC	Hazardous Walking Conditions Program
415-SBBC	Chemical Safety Program (pending)