NY CREATES Safety Orientation Training

Security

IT Familiarization Module Environmental, Health, and Safety Training

ØNYCREATES

CENTER FOR RESEARCH,
ECONOMIC ADVANCEMENT, TECHNOLOGY
ENGINEERING AND SCIENCE





NY CREATES Security

- 1. Emergency dispatch and response
- 2. Life safety systems monitoring
- 3. Visitor check-in
- 4. Driving and parking enforcement
- 5. Rule enforcement
- 6. Vehicular and foot patrol





ANC Security Control Center

The ANC Security Control Center is located on the NFE first floor and is staffed 24/7.
 To receive in person, service the entrance is located on the North side or rear of the building.

Emergency Number: 518-437-8600

Non-Emergency Number: 518-956-7082

- Dialing 911 from a site landline will ring the Security Control Center.
- The City of Albany Police Department is the primary responding police agency for the site and dialing 911 from a cell phone will ring the City of Albany Police Dispatch.
- The visitor desk in the NFE rotunda is staffed by a Security Officer during business hours Monday to Friday, 5AM to 6PM.
- The traffic checkpoint located on Tricentennial Av is staffed by a Security Officer Monday to Friday, 5AM to 3PM and as needed to support site operations.



Access Control

Simple Rules to Remember:

- 1. Personnel are to display their access badge or visitor badge as applicable to the Security Officer at the traffic checkpoint.
- 2. Visitors are to present a valid US drivers license or a passport at the time of check-in. Photocopies or pictures of them will not be accepted.
- 3. At all times all badged persons at the ANC must display a NY CREATES issued access badge or visitor badge.
- 4. The badge should be worn on the front of your outermost garment between your neck and belt line.
- 5. At all times, all visitors and new employees who are awaiting safety training and their access badge must have a visitor badge and escorted by an employee with an active access badge.





Access Control

- 6. If security asks you for your ID, you are required to provide it.
- 7. Taking pictures on site is prohibited unless in possession of a camera permit.
- 8. No firearms are permitted at the ANC.
- 9. Persons may not be under the influence of alcohol or a controlled substance while onsite.
- 10. Alcohol is only permitted to be on site and consumed when preapproval exists by NY CREATES for sanctioned events with a valid license or permit issued by the New York State Liquor Authority.
- 11. Immediately notify security concerning any potential breaches of security or safety.

NOTE: A violation of NY CREATES policy may result in a person's access being suspended or removed permanently.



Access Control-Non-US Person Clearance

- All visitors must present a valid US driver's license or passport at the time of check-in. If the visitor or perspective employee to receive an access badge is a non-US person a non-US person visitor clearance form needs to be completed by an authorized sponsor 10 business days prior to the visit or employee coming on site. The site's badging policy and forms are located on the NY CREATES website. https://ny-creates.org/resources/
- If the visitor is a non-US person that possesses a Permanent Resident Card (green card) the background check is not needed but the visitor must present the card when they register at the visitor desk.



Access Badge Issuance

- All individuals must complete the safety orientation prior to receiving an access card/badge.
- You will receive an email notifying you when your badge is available to be picked up. Badging hours are 8 AM to 11 AM, Monday through Friday or by appointment. You must have a valid US drivers license or passport to prove your identity at the time of badge issuance.
- To make an appointment, please email Access Control at accesscontrol@ny-creates.org
- If you have any additional access needs, please speak to your supervisor and if approved have them email Access Control indicating the reader number adhered to the reader, why access is required, and for how long.





Facility Access

- Do not allow a person to follow you into the building or into interior areas requiring proximity card access (tailgating).
- Do not prop doors.
- Do not defeat door locks or latches.
- Do not leave unsecured doors unattended.
- Enter and exit through designated doors only.
- Do not allow use of your access card or ID badge by any other person.
- Do not borrow another person's access card.
- Anyone found using an access card belonging to someone else will cause access for both individuals to be suspended pending investigation.
- Access to the facility is restricted to individuals with card access clearance.
- Only admit persons with valid identification badges into buildings and your work areas.
- Direct persons without badges to security.







What to Report

- Recording or monitoring activities, taking pictures.
- Attempts to gain information about operations.
- Obtaining badges, access cards, credentials, etc.
- Attempts to enter restricted areas.
- Suspicious persons that are out of place.
 - This may include people who are in places they should not be as well as people who do not fit into the daily routine.
- Suspicious packages, bags, or mail.
- Broken doors, locks, windows, and inoperative lights.
- Illegal parking and driving violations.





How to Report

 Report suspicious activity and potential breaches to personal safety or security immediately by contacting site Security at 518-437-8600.

- When reporting
 - Identify yourself by first and last name.
 - Provide your location and be specific as possible.
 - WHO, WHAT, WHEN, WHERE, WHY, and HOW.
 - Remain on the line until the Security Officer retrieves all necessary information.





Assist Security and Practice Personal Safety

Safety and security is everyone's responsibility...

- 1. Know routines.
- 2. Be aware of what is going on around you.
- 3. Take what you hear seriously.
- 4. Monitor and control who is entering your workspace and buildings.
- 5. Check identifications.
- 6. Make use of the "buddy system." Walk with a friend.
- 7. You may call or stop by the Security Control Center to take advantage of the 24/7 personal safety escort program provided by security.
- 8. Park your vehicle under a light if you are expecting to be on-site after dark. Have your keys ready for accessing your vehicle.
- 9. Program your cell phone with the security phone number, 518-437-8600.



Emergency Phones

"Blue Light" call boxes are in the A and F lot. These solar powered, wireless call boxes operate on a radio frequency. These can be activated by opening the box's door and will alert security to its activation and location. If necessary, you may then speak to the Security Control Center by depressing and holding the red button however the activation alone will cause a security response.







Lost Access Cards/Keys

- Lost access cards/keys should be immediately reported to security.
- Security will deactivate lost access cards.

PLEASE NOTE THAT THERE IS A \$20.00 FEE TO REPLACE LOST NY CREATES ACCESS Badges.

- If you left your access card and/or ID at Home?
 You will have to report the security visitor desk in the NFE for a visitor badge. Access cards are unique to each individual. Security will not produce an access or identification card for individuals who left them at home.
- There is also additional fees for other property lost or not returned upon employee separation:
 - Vehicle Hang Tag: \$5.00
 - Key: \$20.00
 - Core: \$150.00 per door affected.



Suspicious Packages/Bags

- What makes it a suspicious package/bag?
 - Is it out of place?
 - Excessive tape or string
 - Rigid or bulky
 - Lopsided or uneven
 - Protruding wires or metal
 - Strange odor
 - Wrong title with name
 - Oily stains, discolorations, or crystallization on wrapper













Suspicious Packages / Bags

If you think it is suspicious...

- Immediately call security at 518-437-8600.
- Do not shake, move, or empty the contents.
- Do not open, smell, or touch the package.
- Do not have others examine the package.
- Isolate the area by closing doors or sectioning off the area to prevent others from entering.
- Wash your hands with soap and water as soon as possible.



Telephone Threats

- Remain calm.
- Remain on the line. DO NOT HANG UP. Let the other person hang up on you.
- Write down the threat verbatim.
- Pay attention to background. Noises, music, cars, etc.
- Listen closely to the voice. Note any accents, gender, lisp, slurs, etc.
- Immediately notify security at 518-437-8600.





Parking Policy





Parking Policy Overview

- Parking is by permit only.
- Please visit https://ny-creates.org/parking-updates/ and ask your manager for the password for further information.
- Vehicles must possess valid state registrations and inspections.
- All roadways on the site are fire lanes.
- If there is no sign and no lines, it means "NO PARKING". Do not block emergency lanes, loading zones, fire hydrants, sidewalks, travel lanes, etc.





Parking Policy Overview

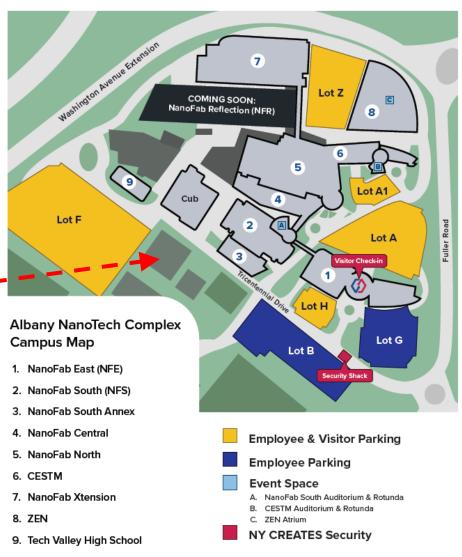
- 1. All vehicles must be parked in areas that are designated for parking.
- 2. DO NOT PARK in a reserved parking space that is not yours.
- 3. If you need to bring a temporary vehicle to the site, move your parking permit to the temporary vehicle each day you bring it.
- 4. Hosts are responsible for advising visitors concerning parking rules and regulations.
- 5. Overnight parking is allowed when approved in advance by security. You may pick up and complete the form at the security control center in the NFE.
- 6. Any vehicle violating the above rules or creating a hazard will be subject to immediate tow at YOUR expense without warning.



Parking Areas

- General parking is available in Lots A and F on weekdays between 5PM and 6AM and on weekends.
- There is no parking allowed in Freedom Quad unless you are authorized to do so by UAlbany.
 - This area is monitored by UAlbany Police.
 - If you park in this area, you may be ticketed and/or towed at your own expense.







Pedestrian Safety

- Take Steps to Avoid Injury While Walking:
- Be visible and make eye contact with drivers of vehicles.
- Never assume a driver will give you the right of way or stop.



- Stay alert, head up, and avoid distractions such as cell phones or other electronic devices while walking.
- Walk in safe places even though it may not be the quickest or most direct path. Use crosswalks when crossing the streets.
- Look left, right, and left again before crossing a street.
- Stand clear of parked cars or other obstacles before crossing so drivers can see you.



Rapid Flashing Rectangular Beacons

- Pedestrians are encouraged to utilize the Rapid Flashing Rectangular Beacons, where available.
- Beacons are located:
 - Tricentennial Dr in front of NFE and,
 - The entrance to the F lot
- Any concerns may be reported to NY CREATES Security:
 - 518-956-7082
 - 518-438-6752





Driver Safety Onsite

- ANC speed limit is 15 MPH.
- Focus 100% of your attention on driving.
- Don't use your phone or any other electronic device while driving.
- Observe and obey all traffic signs (e.g., stop, yield, pedestrian crossing, crosswalk, speed limit) to ensure the safety of yourself and others.
- Always yield for pedestrians and in crosswalks.
- Always wear your seat belt.
- Drive safely and defensively while on site roads, in parking lots, etc.
- Repeated safety violations related to driving may result in the loss of parking and driving privileges on site.



Active Shooter

Active Shooter Options for Consideration-RUN-HIDE-FIGHT

Click: https://www.youtube.com/watch?v=TeOdxKozra0 or Copy and past the link to view the video.



Active Shooter

Best Practices

- Be aware of your environment and any possible dangers.
- Take note of the nearest exits.
- If you are in an office and are unable to run, secure and/or barricade the door and remain quiet.
- If you are unable to run or hide, fight using any and all means to win.
- If a police officer approaches you, keep your hands visible and follow their commands.
- CALL 911 WHEN IT IS SAFE TO DO SO.



Security Messaging

 In the event of some emergencies audible tones and messaging may be transmitted.

Click on speaker icons to review.

Code Silver - Active shooter and/or armed intruder.



 Lock Down - An event has occurred where site population should remain secured within buildings and offices.





SaferWatch

SaferWatch is a mass communication application that NYCREATES Security utilizes to send and receive alerts to the site's population. It is highly recommended all personnel download the

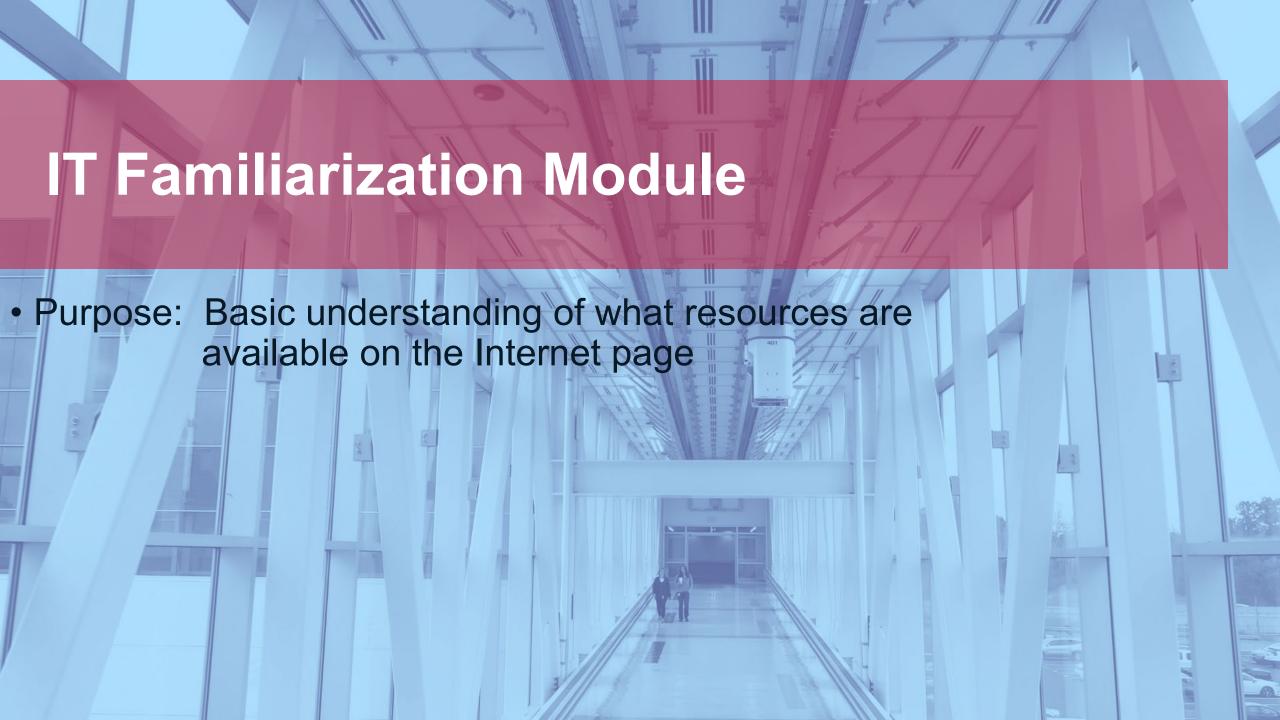
app.











Internet

www.ny-creates.org

ABOUT TECHNOLOGY ECONOMIC DEVELOPMENT



CAREERS RESOURCES NEWS & EVENTS VISIT











DIVE DEEPER.

Use this collection of resources to explore what NY CREATES has to offer.

© SECURITY PHONE NUMBERS

Security Control Center

Non-Emergency

518-956-7082

518-437-7083

518-437-8600

Emergency

518-438-6752

NFE Visitor Desk

518-956-7123

Access Control Office

518-956-7090

© EHS CONTACTS

- **O HUMAN RESOURCES**
- **O** NY CREATES SHIPPING AND RECEIVING
- **O POLICIES, PROCEDURES AND FORMS**
- O PRESENTATIONS
- **O PUBLICATIONS**
- ∅ TRAINING

EHS Contacts

Kassey Rydberg / AVP of Environmental, Health and Safety

518-380-1847 (Cell)

KRydberg@ny-creates.org

SAFETY ENGINEERING

Darren Brookhart / Sr. Safety Equipment Engineer

518-364-4345 (Cell)

DBrookhart@ny-creates.org

Priscilla LaFountain / Safety Engineer

518-728-3241 (Cell)

PLafountain@ny-creates.org

Glenn Matteson / Safety Engineer

518-225-9241 (Cell)

GMatteson@ny-creates.org

INDUSTRIAL HYGIENIST

Katlin Rhodes / IH / CSP 518- 641-2255 (Cell)

KRhodes@ny-creates.org

Sean Gavaghan

518-603-0305 (Cell)

SGavaghan@ny-creates.org

ENVIRONMENTAL ENGINEERING

Tina Ovitt / Environmental Engineer (Waste and Wastewater programs)

518-704-5697 (Cell)

TOvitt@ny-creates.org









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- **DUBLICATIONS**
- TRAINING

EHS Environmental, Health and Safety Policies and Procedures

EHS-00001 R7 NY CREATES Environmental Health & Safety Policy (.PDF)

EHS-00002 R16 Hazard Communication Program (.PDF)

EHS-00005 R16 Chemical Handling and Storage (.PDF)

EHS-00006 R6 Requirements for Safe Handling of Cryogenic Liquid (.PDF)

EHS-00007 R12 Confined Space Entry Procedure (.PDF)

EHS-00007-F1 R12 Confined Space Entry Permit (.DOC)

EHS-00008 R12 Lockout Tagout (LOTO) Program (.PDF)

EHS-00008-F1 R9 Lockout-Tagout Procedure Form (.DOC)

EHS-00008-F2 R6 Lockout Tagout Periodic Inspection Form (.DOC)

EHS-00008-F3 R6 Authorization for Removal of Lockout-Tagout Devices (.DOC)

EHS-00009 R15 Hazardous Waste Management (.PDF)

EHS-00010 R20 Personal Protective Equipment (PPE) (.PDF)

EHS-00010-F1 R4 Workplace Hazard Assessment and PPE Selection Form (.DOC)

EHS-00011 R7 Gas Cylinder Handling Procedure (.PDF)

EHS-00012 R10 Bloodborne Pathogen Exposure Control Plan (.PDF)





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TRAINING

Badging Process

- 1. Authorized Sponsor submits badge request form to accesscontrol@ny-creates.org
 - . Use your legal name on the badge request and to sign up for training. This name will be on your license/identification card.
 - Include your e-mail on the badge form be accurate.
- 2. View the online Safety Orientation and other applicable required training below. Complete the online test(s) below and submit it to ehs@ny-creates.org
- 3. After completing Safety Orientation, accesscontrol@ny-creates.org will e-mail you when your badge is ready. Badges can be picked up at the security badging office in the NFE rotunda between 8 a.m. and 12 noon Monday through Friday or by appointment.

If you have not received your badge in 5 business days, contact your SPONSOR to inquire about the badge.

Online Training

Important! Open and read: Instructions for Downloading and Submitting Test (PDF)

Safety Guide for the

If your test is not opened and submitted correctly, it can delay receiving access to the site.

PowerPoint Link (by Subject)	Test Link	Training Requirement
Safety Orientation (pdf)	Test (pdf)	Safety Orientation is required for anyone working on the Albany Nanotech Complex or anyone who has been off the Albany Nanotech Complex for more than two years.
Online Lab Safety (pptx)	Test (pdf)	For employees or students who work in laboratories
Cleanroom Safety (pdf)	Test (pdf)	Cleanroom Safety is required for anyone working in the cleanrooms and/or HPM area.
Contractor Safety Guide	Read the Contractor	Required initially for any: Contractor working on the Alliany Nanotech Complex and Kiernan Plaza



Wi-Fi Access

 ANC Secure - for NY CREATES issued electronics only, used NY CREATES issued Net ID for login and password.

 ANC-internet – for NY CREATES employees' personal electronics and requires same Net ID and password for login.

 ANC-CSR - issued for vendors and tenants via Helpdesk and requires issued credentials for login.



IT Assistance

 The NY CREATES Help Desk is available to assist you with IT related issues.

- The Help Desk can be reached by telephone at 518-956-7272 and by email at helpdesk@ny-creates.org
 - 24/7 Coverage





Course Objectives

 Increase your awareness of Environmental, Health and Safety (EHS)

- Inform you of your responsibilities for EHS at the ANC
- Provide awareness of EHS policies and procedures
- Provide information for hazard recognition and reporting



NY CREATES EHS Policy Statement

NY CREATES EHS is committed to:

- Protecting the health and safety of its employees, partners, customers and public
- Protecting the environment
- Complying with regulatory standards



Employee Responsibilities for Safety

- All individuals are responsible for safety at the ANC
- Take an active role in your safety and the safety of others
 - Report unsafe behaviors, actions, and/or conditions
 - All team members have stop work authority if they observe an unsafe condition or unsafe behavior.
- Understand the potential hazards to which you may be exposed
- Plan for and perform tasks in a safe manner
- Follow NY CREATES and your own company's safety policies and procedures
- Contact your manager if you feel you need additional safety training and/or equipment



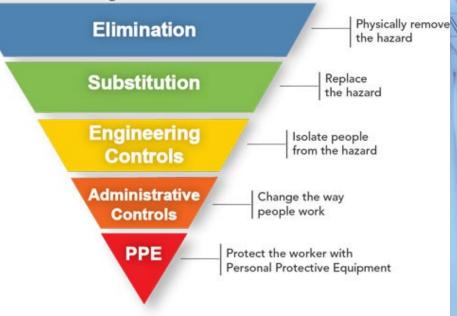
Employee Responsibilities

- Contractors must read and comply with the <u>Contractor Safety Guide</u>.
 Access the Contractor Safety Guide on the internet
- Be alert for maintenance concerns and report any concerns with the facilities at ANC (e.g., restrooms, air conditioning, walkways, stairs, doors, lighting, parking lots) to fixrequest@ny-creates.org for corrective action
- Take action to correct potential hazards in the workplace by notifying your manager and/or security
- All team members have stop work authority if they observe an unsafe condition, unsafe behavior, or they think someone is going to end up hurt by continuing.



Prevent Hazard Exposure Using The Hierarchy of Controls

Hierarchy of Controls





Additional EHS Training

CLEANROOM SAFETY TRAINING:

For individuals who go in the cleanrooms at ANC.

LABORATORY SAFETY TRAINING:

- For students or employees who work in laboratories.
- Cleanroom and/or Laboratory Safety are required prior to access being granted for any cleanroom or lab.
- Both classes are available online on the intranet or internet.
- Ask your supervisor what additional training you may need.

HAZARDOUS WASTE TRAINING:

For any individuals working with or generating hazardous waste.

RADIATION SAFETY TRAINING

• Required annually for anyone working with ionizing radiation producing equipment.

RESPIRATORY PROTECTION TRAINING

Required initially and annually for anyone who wears a respirator.

HEARING CONSERVATION TRAINING

• Required initially and annually for anyone who is on the hearing conservation program.



Illness Prevention

- Follow the Centers for Disease Control and Prevention (CDC) and NYS Department of Health (DOH) guidelines.
- CDC and NYS DOH recommends a flu vaccine every year.
- Wash your hands often with soap and water for at least 20 seconds or use a hand sanitizer that contains at least 60% alcohol.
- Avoid touching your eyes, nose, or mouth with unwashed hands. Germs spread this way.
- Avoid close contact with people who are sick.



Protect Yourself From Illness

- Stay home if you are sick, except to get medical care.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash.
- Immediately wash your hands.
- Clean and disinfect frequently touched surfaces and objects that may be contaminated with germs.
- Listen to and follow public health advice. This may include information about how to increase distance between people and other measures.





Emergencies

- The following emergencies can occur at this facility:
 - Fire/Smoke
 - Laboratory/Gas Alarm
 - Chemical Spill
 - Medical/Injury/Illness Reporting
 - Utility Failure
 - Violence or Terrorism
- For any emergency at ANC, you must call SECURITY IMMEDIATELY (518) 437-8600









Emergency Response Team "ERT"

- ERT is comprised of a team of trained employees
 - (13 Full-Time ERT Technicians and ~50 volunteers)
- The team's purpose is to evaluate on-site emergencies 24/7 and take appropriate actions
 - ERTs are 1st responders for our site who are trained in First Aid and CPR
 - For any evacuations do not go back into the area until the 'all clear' is given by ERT/EHS
- For ERT assistance or reporting an emergency, contact Security at 518-437-8600



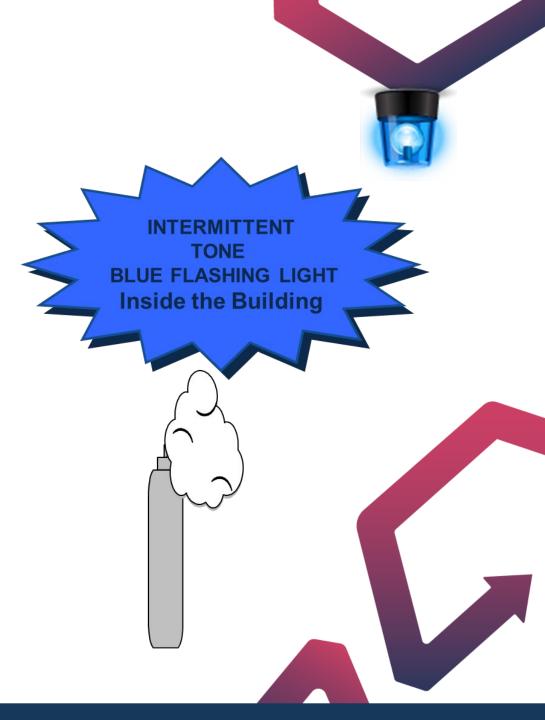
Reporting Process

- If you experience an injury or immediate medical illness (i.e., cardiac, asthma, pass out, diabetes), contact Security right away to dispatch ERT.
- Ask for help to notify your manager or Supervisor.
- Follow EHS-00026 Incident (Injury, Illness, or Near Miss Event) Reporting and Prevention Policy
 - Complete Supervisor Form if applicable (EHS-00026-F2 R7 Supervisor's Incident Investigation Report (Injury, Illness, or Near Miss Event)
 - Complete Employee Form if applicable (EHS-00026-F7 R6 Employee Report of Incident (Injury and Illness Event)
 - Submit both forms to HR and EHS as soon as possible
- If you decide to go home, then seek medical help, report to HR and your manager as soon as possible.



Gas Alarm Procedures

- Automatically activated by ANC Toxic Gas Monitoring System (TGMS)
- ERT is paged immediately
- Audible alarms and visual alarm
- Cleanrooms and subfabs shall evacuate via the nearest exit (gowned)
- Regroup in:
 - NFS rotunda if in NFS or NFSX
 - CESTM rotunda if in NFN, NFC, NFX, or CESTM
- Alarm and warning set points based on ACGIH TLVs



Fire Emergency Alarms

- Evacuation Alarm All Buildings
 - Click to hear the alarm >



- ZEN (Building 201) Only
 - Evacuation Alarm on Incident floor, one floor up and one floor down
 - Alert on all other floors (no flashing lights)
 - Click to hear the alert >

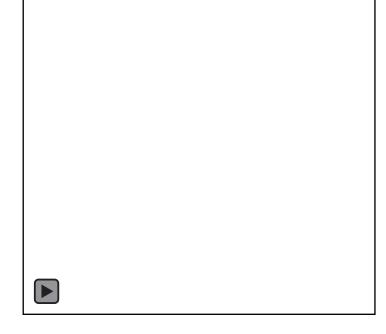


Zen Lobby Doors

In the event of an emergency such as a fire alarm the Zen sliding doors are designed to break away by pushing to allow for personnel to evacuate in a quick manner.







This function is to be used only in a life safety emergency.

Place cursor on the above and click play to view the video.



Fire Emergency Procedures

- Fire/Smoke
 - If you see fire/smoke (and building is not in alarm)
 - Activate closest fire pull station, normally located at door to stairwell
 - Leave the fire area, assist others that are in danger area, if you can.
 - Close the door to the room/area where the fire is located
 - Contact Security at (518) 437-8600 from a safe location
 - Continue exiting the building, report to your rally point
 - If you hear the fire alarm
 - Evacuate via the nearest building exit
 - Report to your rally point
 - If able, assist others while evacuating
 - Do NOT use the elevators





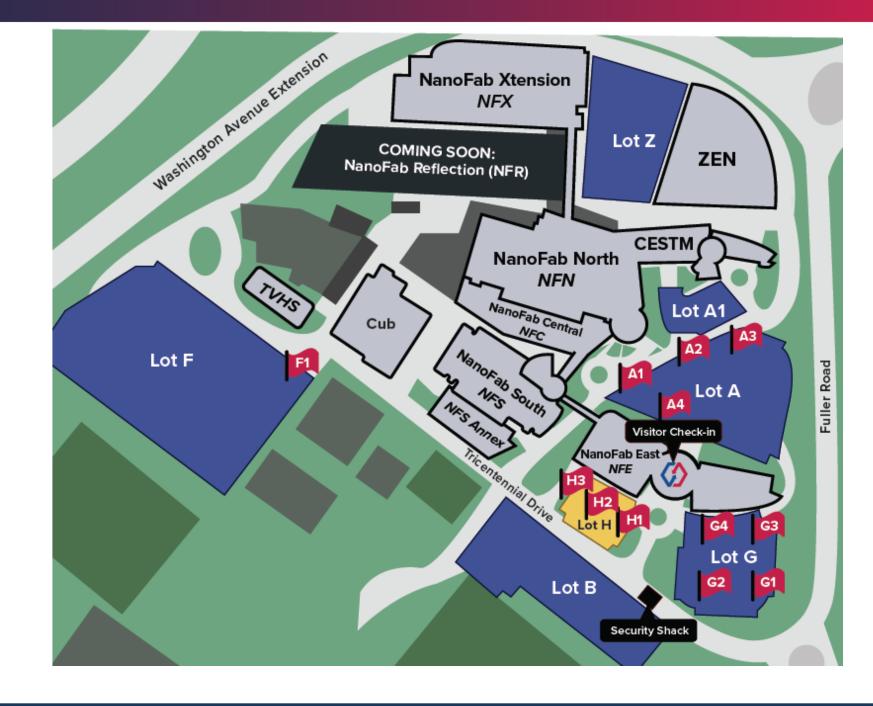
Rally Points are Located at Designated Light Poles in the Parking Lots

	Floor	Parking Lot	Rally Point
STUDENTS	All buildings/ floors	Α	A4
NFE	1	G	G1
	2	G	G2
	3	G	G3
	4	G	G4
NFN	1	А	A1
	2	А	A2
	3&4	А	А3
NFC	1	Α	A1
	2	А	A2
	3&4	А	А3
NFS/NFSX	1	Н	H1
	2	Н	H2
	3	Н	Н3
NFX	1	А	A1
	2	А	A2
	3	А	А3
	4	А	A4
CESTM	1	А	A1
	2	А	A2
	3	А	А3
Zen	1& 2	А	A1
	3 & 4	А	A2
	5&6	А	А3
	7&8	А	A4
CUB and Substation	All	F	F1





Rally Points



Emergency Reporting

- REPORT any work-related injury, accident, illness, fire, medical emergency, or chemical spill to Security at (518) 437-8600 and your manager, immediately.
- All employees must follow EHS-00026 Incident (Injury, Illness, or Near Miss Event) Reporting and Prevention Policy
- Employees must:
 - Complete the employee form as soon as possible
- Managers/Supervisors must:
 - Complete Supervisor Form if applicable (EHS-00026-F2 R7 Supervisor's Incident Investigation Report (Injury, Illness, or Near Miss Event) as soon as possible.
 - Investigate work-related incidents (e.g., injury, accident)
 - Complete an incident report
 - Take corrective action(s) to prevent recurrence
 - Submit both forms to HR and EHS as soon as possible





Hazard Communication Standard

- Federal Hazard Communication Standard (HCS), Title 29, Part 1910.1200 of the Code of Federal Regulations (OSHA 29 CFR 1910.1200) mandates that:
- "Workers have the right to know and understand the hazardous chemicals they use and how to work with them safely."
- This regulation is designed to make information about hazardous chemicals that are present in workplaces available to employees.
- The hazard communication standard applies to any business, including manufacturers that use hazardous chemicals, regardless of the number of individuals employed.



Purpose

- OSHA Hazard Communication Standard (HCS)
 - Classifies chemicals by their hazards
 - Provides information to employees





Globally Harmonized System (GHS)

GHS provides a common and coherent way to:

- Classify the chemicals used in the workplace
- Communicate the hazard information on labels and safety data sheets with symbols and terms that will be used on both domestic and foreign products and chemicals





Hazard Classification of Chemicals

HAZARDS Environmental Physical Health Hazards Hazards Hazards Such as Such as •Acute aquatic toxicity • Chronic aquatic toxicity • Skin corrosion/irritation • Flammable gases Carcinogenicity Explosives Acute toxicity • Gases under pressure

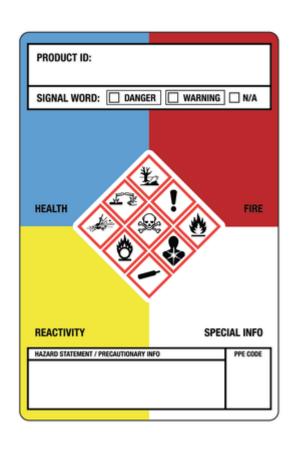


GHS Labels

- Labels are:
 - Written or printed
 - Graphic information (pictograms)
 - Attached to the immediate container or package of a hazardous chemical
- Labels must be:
 - Legible and clearly displayed
 - In English (other languages can be added if needed)
 - Revised within 6 months when new information becomes available



Label Example



- Pictograms diamonds indicating chemical hazards.
- Signal Word either "Danger" or "Warning" as identified on the chemical SDS. Signal Word is determined by hazard category.
- Hazard Statements describe the nature and degree of the product risks.
- Precautionary Statements how to handle the product to minimize risk.



Chemical Labeling

All chemical containers must be labeled properly!

- Name of Chemical
- Primary Hazard(s)
- Pictograms

CHEMICAL X

DANGER

HAZARD STATEMENTS

Fatal if swallowed.

Causes severe skin burns and eye damage

PRECAUTIONARY STATEMENTS

- Wear protective gloves.
- Wear face protection.
- Do not eat drink or smoke when using this product.
- Wash hands thoroughly after use.
- · Store in a sealed container.
- . IF ON SKIN: Rinse immediately with cool water.
- IF IN EYES: Rinse thoroughly with water and seek medical attention.
- IF SWALLOWED: Do not induce vomiting. Seek medical attention.

Dispose of contents/container in accordance with local regulations

Chemical X Manufacturing, 1234 Over There St., Nowhere, IL 12345 (123) 456-7890

See the S.D.S. for more information.





HCS/GHS Pictograms

- Standardized symbols or graphics
- Used to symbolize health, physical, and environmental hazard information
- Will be present on both Safety Data Sheets (SDS) and Labels





HCS / GHS Pictograms and Hazards

Health Hazard Flame **Exclamation Mark** Carcinogen Flammables . Irritant (skin and eye) Mutagenicity Pyrophorics Skin Sensitizer Reproductive Toxicity · Self-Heating Acute Toxicity (harmful) · Respiratory Sensitizer Emits Flammable Gas Narcotic Effects Target Organ Toxicity Self-Reactives Respiratory Tract Aspiration Toxicity Organic Peroxides Irritant Hazardous to Ozone Layer (Non-Mandatory) **Gas Cylinder** Corrosion **Exploding Bomb** Gases Under Pressure Skin Corrosion/ Explosives Self-Reactives Burns • Eye Damage Organic Peroxides Corrosive to Metals Flame Over Circle Skull Environment and Crossbones (Non-Mandatory) Acute Toxicity Oxidizers Aquatic Toxicity (fatal or toxic)



Signal Words

Show the severity of possible hazard and lead people to taking precautions.

- Warning: used for less severe hazards
- **Danger**: used for more severe hazards



Hazard Statement

 Describes nature of hazard(s) of a chemical for each hazard class (i.e., physical, health, environmental)

Examples

- "Causes serious eye damage through prolonged or repeated exposure."
- "Toxic if inhaled."



Precautionary Statement

 Measures to prevent or minimize adverse effects of chemicals during handling, transportation, or storage.

Examples

- "Keep away from heat, sparks, and open flames and store in a cool, well-ventilated place."
- "Do not eat, drink, or smoke when using this product."



Safety Data Sheet (SDS)

 A document containing details of specific hazardous chemicals and their usage

 HCS requires chemical manufacturers, distributors, or importers to provide SDSs (formerly MSDS) to communicate hazards of chemical products



SDS Content

- Uniform format and sections
- 16 sections (12 mandatory)

```
Section 1: Identification
Section 2: Hazard(s) identification
Section 3: Composition/information on ingredients
Section 4: First-Aid measures
Section 5: Fire-fighting measures
Section 6: Accidental release measures
Section 7: Handling and storage
Section 8: Exposure controls/personal protection
Section 9: Physical and chemical properties
Section 10: Stability and reactivity
Section 11: Toxicological information
Section 12: Ecological information
Section 13: Disposal considerations
                                           Non-mandatory
Section 14: Transport information
Section 15: Regulatory information
Section 16: Other information
```



Example SDS



Product Name: GASOLINE, UNLEADED AUTOMOTIVE

Revision Date: 22 Oct 2019

Page 1 of 16

SAFETY DATA SHEET

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: GASOLINE, UNLEADED AUTOMOTIVE

Product Description: Hydrocarbons and Additives

Product Code: 123455-20 Intended Use: Fuel, Gasoline

COMPANY IDENTIFICATION

Supplier: EXXON MOBIL CORPORATION

22777 Springwoods Village Parkway Spring, TX 77389 USA

24 Hour Health Emergency 609-737-4411

Transportation Emergency Phone 800-424-9300 or 703-527-3887 CHEMTREC

Product Technical Information 800-662-4525

MSDS Internet Address www.exxon.com, www.mobil.com

SECTION 2

HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

Flammable liquid: Category 1.

Skin irritation: Category 2. Germ Cell Mutagen: Category 1B. Carcinogen: Category 1B. Specific target organ toxicant (central nervous system): Category 3. Aspiration toxicant: Category 1.







Signal Word: Dange

Hazard Statements:





Product Name: GASOLINE, UNLEADED AUTOMOTIVE

Revision Date: 22 Oct 2019

Page 2 of 16

H224: Extremely flammable liquid and vapor. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H336: May cause drowsiness or dizziness. H340: May cause genetic defects. H350: May cause cancer

Precautionary Statements:

P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use.P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233: Keep container tightly closed. P240: Ground / bond container and receiving equipment. P241: Use explosion-proof electrical, ventilating, and lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing mist / vapours. P264: Wash skin thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection.P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308 + P313: IF exposed or concerned: Get medical advice/ attention. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P331: Do NOT induce vomiting. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish. P391: Collect spillage.P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up.P501: Dispose of contents and container in accordance with local regulations.

Contains: GASOLINE

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

Material can accumulate static charges which may cause an ignition. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited.

HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. May be irritating to the eyes, nose, throat, and lungs. Exposure to benzene is associated with cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders (see Section 11).

ENVIRONMENTAL HAZARDS

Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID: Health: Flammability: 3 Reactivity: 0 HMIS Hazard ID: Health: Flammability: 3 Reactivity:

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person

COMPOSITION / INFORMATION ON INGREDIENTS

SDS

- SDSs are available 24/7 using the HAZMIN database through the EHS intranet page (i.e., Approved Chemical List) or by going to cnse.comply1.com and signing in
- EHS approves each chemical on either a lab-by-lab or tool-bytool basis

EHS requires an SDS for all chemicals on site



Types of Chemicals at ANC

- Flammables and Pyrophorics
- Carcinogens
- Toxics
- Corrosives
- Oxidizers
- Compressed Gases
- Cryogenics









How Can You be Exposed?

Ingestion: Eating

• Inhalation: Breathing in through the mouth or nose

 Injection: Needle stick or into a cut, directly into your bloodstream

Absorption: Contact with the skin or eye



Chemical Exposure

- If you suspect that you have been exposed to a chemical and are experiencing any of the following conditions:
 - Dizziness
 - Shortness of breath
 - Headache
 - Upset stomach
 - Skin Contact
- IMMEDIATELY CALL (518) 437-8600 and CONTACT YOUR SUPERVISOR



Chemical Contact

EMERGENCY SAFETY SHOWER

Go to the closest shower

- Remove contaminated clothing: clothing will keep the chemical in close contact with the skin
- Rinse for 15 minutes with water or until medical help arrives
- Get someone to call (518) 437-8600 and notify your supervisor
- Contact to the eyes: hold eyelids open and apart with your thumbs and finger while rinsing





HCS and GHS Summary

- It is your right to know and understand the hazardous chemicals you use and how to work with them
- HCS classifies chemicals by their hazards and provides information to employees
- Study the SDS and label before working with chemicals
- Contact your supervisor for any additional information or questions

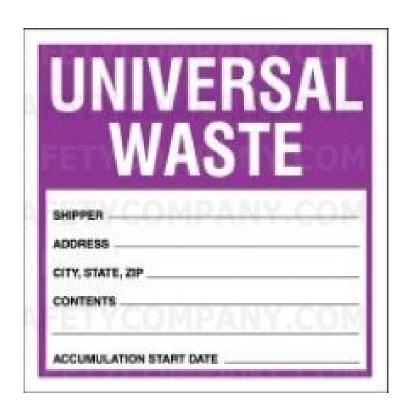




Universal Waste

- Batteries
- Ballasts
- Lightbulbs

 When you need to dispose of universal waste, use the appropriate universal waste label and place in a satellite accumulation area

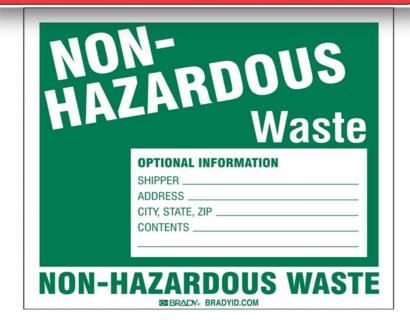




Chemical Waste

- Do not put ANY chemicals down the drain or in the trash
- Waste goes in Satellite Accumulation Areas
- Broken glass needs to be placed in a hard-walled container before disposal
- Broken wafers go in the wafer disposal bins or other approved locations
- Individuals who generate hazardous waste must complete the Hazardous Waste Handling training available on the intranet

HAZARDOUS WASTE ACCUMULATION (Check box if satellite □) □ Solid Waste □ Liquid Waste □ Mixed Waste □ Ignitable (Flashpoint < 140°F) □ Reactive □ Toxic □ Corrosive (pH<2.0) or (pH>12.5) Start Date __ /_ /_ FIII Date __ /_ /_ Contact Name: _____ Department/BulldIng/Tenant: _____ Chemical contents (product name or major chemical component): HANDLE WITH CARE! CONTAINS HAZARDOUS OR TOXIC WASTES





Stormwater Pollution Prevention Tips

- What must I do to help protect the stormwater runoff?
- Practice excellent housekeeping Do not discard trash and/or garbage in site parking lots or on the site grounds.
- Be aware of and protect nearby stormwater intake drains while performing tasks.
- Do not dispose of oil or any chemicals on the ground, in storm drains, ditches, or waterways.
- No outdoor staging of chemicals without EHS approval.
- Report chemical spills and/or leaks to the site emergency number 518-437-8600.













ACCIDENT PREVENTION SIGNS

- Danger signs: Indicate immediate danger and that special precautions are necessary
- Caution signs: Indicate a possible hazard against which proper precautions should be taken
- Safety instruction signs: indicate general instructions on safety measures



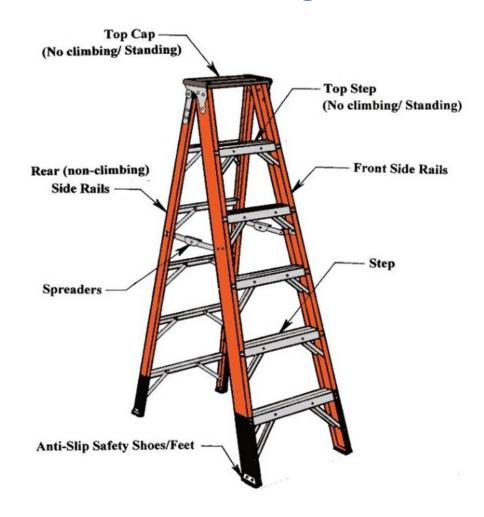








Ladder Safety





Follow manufacturer instructions and ladder labels



Check for, and avoid, overhead power lines



Face the ladder while climbing up or down



Only put ladders on a stable, level surface



Keep slippery materials away from ladders



Use a barricade to keep traffic away



Maintain 3 points of contact (two hands and a foot, or two feet and a hand)



Electrical Safety



- Only authorized, qualified, and trained personnel are allowed to work on electrical equipment, circuits, and parts.
- Do not:
 - Overload electrical outlets
 - Use damaged electrical cords (worn/frayed insulation or exposed wires)
 - Daisy chain (plug an outlet strip into an outlet strip, etc.)
 - Use extension cords in place of permanent wiring
 - Remove the ground prong
- Do:
 - Inspect wiring, power cords, and electrical tools before use for damage to cords
 - Use GFCI in areas with water
 - Use extension cords with a GFCI for temporary or portable equipment
 - Report any electrical shocks









Control of Hazardous Energy (Lockout/Tagout) (LOTO)

- Used to safeguard employees from the unexpected startup of machinery and equipment or the release of hazardous energy during service or maintenance activities
- Employees must be authorized and trained to do LOTO procedures and perform maintenance of equipment
- Do not defeat, tamper with, ignore, or operate any devices, or start up any machines or equipment that is locked or tagged out
- The tags and locks shall only be removed by the authorized person who attached them



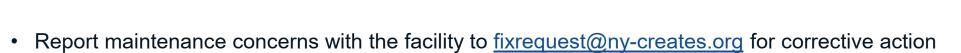






Housekeeping

- Ensure emergency exits, aisles, fire extinguishers, safety showers, and eye-wash equipment are unobstructed
- All doors and hardware must operate correctly
- Keep storage at least 18 inches below fire sprinkler heads
- Keep drawers closed when they are not being used
- Emergency exit signs are visible, and the lighted type are lit
- Keep work areas clean and organized
- Take corrective action when appropriate







Working Alone (EHS-00045)

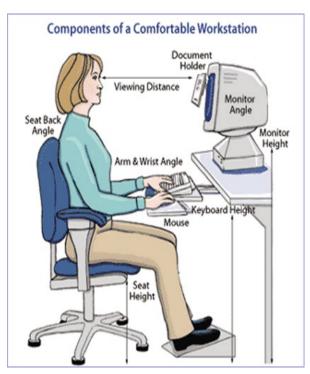
- Individuals can not work alone on site while performing extremely hazardous activities such as:
 - Handling chemicals
 - Performing service and maintenance
- Individuals must be within sight and calling distance of another individual

 Review EHS-00045 for more details or detailed description of tasks/roles that require a buddy system.



Ergonomics

- Repetitive motion injuries make up a majority of musculoskeletal occupational injuries
- Warning signs: Pain, severe discomfort, numbness, tingling
- Contact EHS for an ergonomic assessment of your workstation or operation, if needed



Repetition

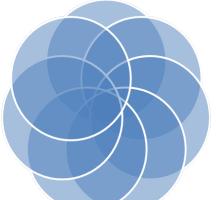
 the number of a similar exertions performed during a task

Contact Pressure

 resting a body part (elbow) on a hard surface for support

<u>Vibration</u>

 using jig saws, grinders or sanders



Awkward Postures

 kneeling or squatting for more than 2 hours total per day

Static Postures

 holding the same position or using the same muscles for long periods of time

Excessive Force

• lifting more than 50 pounds

Cold Temperatures

 Temperatures lower than normal room temperature



Materials Handling Overview

- Plan with ergonomics and safety in mind before materials (e.g., objects, loads) handling such as lifting, pushing, pulling and carrying
- Before handling materials, check for weight labels and stability
- For materials that are unstable, heavy, and/or bulky, employ safety
 measures such as use of mechanical equipment (e.g., hand truck, cart),
 reduce weight of the load, two or more person lift, and repack objects
- Pushing is generally preferable to pulling
- Wear appropriate footwear to avoid slips, trips, falls, or foot injury



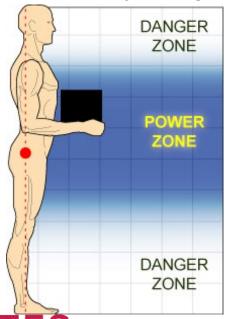
Guidelines for Materials Handling

- Wear proper gloves if necessary
- Lift only as much as you can safely handle by yourself
- Keep the lifts in your power zone (i.e., above the knees, below the shoulders, and close to the body), if possible
- Do not lift, carry, or transport unsafe and/or unstable materials
- Try to avoid stairs or slippery walking/working surfaces



Guidelines for Proper Lifting

- When lifting:
 - Use proper handholds, get a secure grip, and use both hands whenever possible
 - Avoid jerking by using smooth, even motions
 - Keep the load as close to the body as possible
 - To the extent feasible, use your legs to push up and lift the load, not the upper body or back
 - Avoid twisting your body; step to one side or the other to turn
 - Alternate heavy lifting or forceful exertion tasks with less physically demanding tasks









Quality Policy

"We are committed to fulfilling our customer's expectations for development of semiconductor technology and fabrication of semiconductor devices and to the continual improvement of the quality management system"

Every employee involved in fabrication of semiconductor devices is committed to:

Achieving our customer's satisfaction with our products and services

Compliance with all statutory and regulatory requirements

Continually improving the effectiveness of the quality management system

These commitments will be met through reviewed, approved and documented quality objectives, a shared quality culture, commitment to performance and unyielding integrity.

Contact:
Vlad Stolkarts, Quality Leader
vstolkarts@ny-creates.org
518-300-0159



Summary

- NY CREATES is committed to providing you a safe working environment
- You are a key player in this effort
- All individuals onsite are expected to share that commitment
- If you see something, say something
- Each of us must comply with safety and environmental laws and NY CREATES safety and security requirements
- Thank you in advance for your support and efforts toward workplace safety, health, and security

