MOX
FUEL FABRICATION FACILITY
General Employee Training (GET)

TRNG 1200
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COURSE DESCRIPTION AND LESSON OBJECTIVES

The MOX Services Project is committed to excellence in all of its work. To be a part of this effort, you must have the knowledge, skills and abilities to carry out your work safely, efficiently, and competently. This presentation is designed to give each new employee an overview of the MOX Fuel Fabrication Facility (MFFF) Project including history of the project, MOX fuel fabrication fundamentals, programs and policies, and the MOX Project Quality Assurance Plan (MPQAP). This presentation is mandatory for all personnel assigned to the Project. Upon completion of General Employee Training (GET), all new employees shall demonstrate a familiarity level knowledge of the MOX Fuel Project within the following topics:

1. Introduction the MOX Facility Operations
2. Health and Safety
3. Security
4. HARP
5. Employee Concerns Program
6. MOX Project Quality Assurance Plan
7. Hazard Communication
8. Policies & Procedures
9. Fitness for Duty
10. Procurement
11. Environmental
12. General Employee Radiological Training (GERT)
13. Government Property
MOX OVERVIEW
Welcome to the Mixed Oxide (MOX) Fuel Project. All new employees are required to receive initial and continuing training. New employees receive MOX Services General Employee Training (GET) at the time of their assignment to the project. Other mandatory training requirements will be identified for each employee by your Manager/Supervisor and must be satisfied prior to performing work.

About the MOX Project
In 1999, the National Nuclear Security Administration (NNSA) signed a contract with a consortium, now called CB&I AREVA MOX Services, LLC to design, build, and operate a Mixed Oxide (MOX) Fuel Fabrication Facility. This facility will be a major component in the United States’ program to dispose of surplus weapons-grade plutonium.

The facility will take surplus weapons-grade plutonium, remove impurities, and mix it with uranium oxide to form MOX fuel pellets for reactor fuel assemblies. These assemblies will be irradiated in commercial nuclear power reactors.

The design of the facility is based on AREVA’s MELOX and La Hague MOX facilities in France. The French have used MOX technology for almost two decades and currently supply MOX fuel to over 30 reactors worldwide.

The facility is being built at the Savannah River Site (SRS) near Aiken, South Carolina. It will be located in F Area in the center of the 310 mi² NNSA reservation.

MOX Fuel Fabrication Facility
The facility consists of two major sections. The weapons-grade material is cleaned and purified in the seven-level aqueous polishing (AP) portion of the building. The MOX process (MP) area consists of three levels. This is where the fabrication of the fuel takes place, from formation of the pellets to assembly of the MOX fuel rods.
Preliminary numbers for construction of the 600,000 ft² facility (including support facilities) indicate the use of over 170,000 yd³ of concrete, 35,000 tons of reinforcing steel, 23,000 instruments, 1000 tons of Heating Vents and Air conditioning, 500,000 linear feet of conduit, 47,000 linear feet of cable tray, 3,000,000 linear feet of power and control cable, and 80 miles of piping.

The Nuclear Regulatory Commission (NRC) will license and oversee the facility. The French design is being “Americanized” to ensure that the facility meets all federal safety and security requirements. It will also be a hardened facility, similar to a nuclear reactor. Security will be equal to the security measures currently in place at SRS. A Perimeter Intrusion Detection and Assessment System will encircle the facility for additional protection.

When operational, the facility will be capable of turning 3.5 metric tons of weapon-grade plutonium into MOX fuel assemblies annually. The facility will be licensed for 20 years.
Health and Safety Program

MOX Services’ Commitment to a Safe and Accident-Free Workplace

MOX Services is committed to creating and maintaining a safe and accident-free work environment for all employees through MOX Services policies and procedures, and complying with all applicable laws and regulations. Working safely is the absolute highest priority for all MOX Services employees and will not be compromised for any reason. No financial goal, work task, project deliverable, or schedule demand is worth an injury or environmental incident. It is the responsibility of every MOX Services employee to strive at all times, on every work assignment, to work safely. Suppliers and subcontractors are also accountable for meeting applicable safety and health requirements.

As always, the site safety program is based on the belief that all injuries can be prevented. The MOX Services Environmental, Safety and Health (ES&H) Program outlines the employee’s rules and rights, defines responsibilities, and identifies safety regulations.

Voluntary Protection Programs (VPP)

OSHA publically recognizes facilities that are proactive in their safety program and are working towards being one of the best in their industry. Through an evaluation process, OSHA awarded MOX Services the VPP STAR status. VPP STAR means MOX Services’ safety management system (SMS) includes four critical elements:

Management Commitment – MOX Services management is committed to systematically managing environmental, safety and health risks, opportunities, and impacts as an integral part of the project. Employee Involvement – Employees understand and incorporate environmental safety and health responsibilities into their daily work activities. All MOX Services employees are responsible, at all times and on all work assignments, for working safely and helping others work safely. MOX Services shall set challenging goals and objectives and assess performance to continually improve environmental, safety and health results that contribute to project success.

Worksite Analysis - A hazard identification and analysis system has been implemented at MOX Services to systematically identify basic and unforeseen safety and health hazards, evaluate their risks, and prioritize and recommend methods to eliminate or control hazards to an acceptable level of risk. MOX Services uses a structured, integrated safety management approach to achieve full compliance with applicable laws and regulations.

Hazard Prevention and Control – MOX Services ensures the effective implementation of systems for hazard prevention and control and ensure that necessary resources are available.
Health and Safety Training – MOX Services presents environmental, health and safety training for all employees to ensure regulatory compliance and continuous improvement of construction and operations.

Even though we passed OSHA’s initial evaluation, we need to continue our improvement process. Each year, we need to re-evaluate our program to ensure it meets or exceeds OSHA’s VPP requirements. The VPP Committee is charged with this evaluation. The VPP committee consists of MOX Services employees and subcontractors who represent managers, supervisors, craft, and administrative employees. A senior manager leads the committee. The Committee continues to evaluate MOX Services’ performance, to strengthen the partnership between management and employees, and to further our goal of being the best in class with a safe, secure, and productive working environment.

Management expects safety to be a core value, where we strive to reach our full potential. Our full potential means a safer environment, pride in your workplace, and being part of a team that rewards safety. MOX Services employees and subcontractors respect each person’s talents, welcome the exchange of safety ideas, and continually improve our safety management systems. These ideal will enable us to reach our objective - VPP Star Status for the MOX project.

General Safety Rules for Site Motor Vehicles
When driving on site, there are a few simple rules as highlighted in the “MOX Services Employee Safety Handbook”. These additional rules also apply to all personnel at MOX Services.

1. If you think that you are lost, STOP where it is safe and ask for directions or call 9-725-1911 from a MOX Services phone or 803-725-1911 from a mobile phone.
2. Motorists shall not use handheld cell phones and other hand-held mobile communication devices while driving on SRS property.
3. Motorcyclists must wear a helmet onsite. Watch for deer and other wildlife in the early morning and dusk. Remember that deer travel in herds, so if you see one deer, there are probably more.

Governmental Vehicles
1. Before entering a government vehicle, operators are to do a complete 360 degree inspection of the vehicle and glance around for traffic flow of vehicles and pedestrians that may interfere with driving and backing safely.
2. Government vehicles must be locked when unattended.
3. The operator of a government vehicle must have a valid driver’s license on his/her person.
4. Travel only on established roadways (i.e., paved roads). DO not drive down dirt, gravel, or other side roads unless you have a business reason to do so.
Parking Lots
1. When in a parking lot, drive in lanes provided, not across parking spaces.
2. Park in designated parking spaces.
3. The speed limit in site parking lots is 10 miles per hour, EVEN if it’s not posted.
4. Park head in (Don’t back in).

Pedestrian Safety Requirements
When walking on site roads and in parking lots, safety requirements include the following:
1. Pedestrians should use only sidewalks or designated crosswalks.
2. Always use caution when stepping off curbs.
3. Drivers must yield to pedestrians in crosswalks.
4. Walk on the left side of the shoulder of the road facing the traffic when there is no sidewalk.
5. Always use handrails on stairways.

MOX Services Safety Policy
A cornerstone of the MOX Services safety and health program is the individual right of every employee, including subcontractors, to call a time out if they observe employee safety being compromised. This principle is the most powerful means of guaranteeing safety on the MOX project.

Safety Time Out
A safety “time out” is an informal way to stop work until it can be performed safely. Anyone may call a safety “time out.” Additional information about “Safety Time Out” can be found in the “MOX Employee Safety Handbook”.

Employee Rights and Responsibilities
All employees have rights and responsibilities with regard to MOX Services, NNSA and Occupational Safety and Health Administration (OSHA) requirements. All personnel working for the MOX project have the right and responsibility, without reprisal, to participate in the following activities on official time:

1. Access:
   a. MOX Services and DOE safety and health publications;
   b. The employee safety and health program; and,
   c. The standards, controls, and procedures applicable to the site.
2. Observe any monitoring or measuring of hazardous substances and be notified when monitoring results indicate the worker may have been overexposed to hazardous substances. Employees shall receive, within 15 days of the receipt of a written request, access to or copies of, any monitoring or bioassay records relevant to the employee’s potential exposure to hazardous substances during employment.

3. Have a representative, authorized by the employee, accompany NNSA and/or OSHA during the physical inspection of the workplace for the purpose of aiding the safety inspection. When no authorized employee representative is available, NNSA and/or OSHA shall consult, as appropriate, with employees on matters of worker safety and health.

4. Request and receive results of safety and health inspections and accident investigations.

5. Express concerns related to worker safety and health or file a complaint regarding unsafe conditions or discrimination because of safety-related issues.

6. Decline to perform an assigned task because of a reasonable belief that the task poses an imminent risk of death or serious physical harm to you or others. This is based on a reasonable belief that there is insufficient time to seek effective corrective action through the normal hazard reporting and abatement procedures.

7. Stop work when the worker discovers employee exposures to imminently dangerous conditions or other serious hazards, provided that any stop work authority must be exercised in a justifiable and responsible manner.

8. Access their personal safety, health, and medical records consistent with the Freedom of Information Act.

**Report All Incidents**

Immediately report any injuries or illnesses to your escort, supervisor, or the person responsible for your visit or work scope. If there is an injury, employees shall be sent to the MOX Project nurse in the CAC. The SRS ambulance will be called in the event of an emergency.

- MOX Services Project Site Nurse:(803) 270-1218
- ES&H 24-hour hotline: (803) 795-5070
- SRSOC (for ambulance): (803) 725-3911

Report unsafe acts or conditions, near-misses, and incidents to your supervisor or escort.

*A near-miss is defined as an event which warns us of a serious event that may occur if conditions do not change. It is an incident where no injuries, property damage, or environmental impacts occurred and no controls were in place to prevent an occurrence (i.e. equipment almost turned over, employee was almost struck by a section of material being moved).*
General Site Safety Requirements
The first priority of MOX Services is the safety and protection of its employees, other SRS employees, and the general public. Work shall stop if it cannot be performed in a safe manner. Every worker has the responsibility and authority to call a time out if he/she believes that the work being performed is not safe.

General site safety requirements are listed in the “MOX Services Employee Safety Handbook”.

ES&H Safety and Health Procedures
- All work on the MFFF construction site shall be subject to the MOX Services ES&H policies and procedures.
- Subcontractors shall have responsibility for implementing the MOX Services ES&H program as defined in the subcontract.
- Subcontractors must also comply with their own company requirements and attend MOX Services safety meetings to discuss or resolve safety issues. Neither MOX Services nor the U.S. Government shall be responsible for supervising the implementation of the Subcontractor’s safety and health program.
- All personnel on the MFFF site shall report any injuries or near misses to MOX Services ES&H department using the MOX Services ES&H Incident Investigation Report Form–PP4-14A.
- MOX Services shall conduct assessments and audits of MFFF activities to ensure all employees are following good safety practices.
- The consequences for not following MOX Services ES&H policies and procedures are potential injury to employees, the public and/or the environment. These documents were implemented to protect you. Failure to follow them could result in Condition Reports (CRs), additional project costs, regulatory fines and/or citations, legal action against the project and individuals. Further, employees may be held personally accountable for adhering to ES&H policies and procedures.

Unsafe Practices and Conditions

Unsafe Practices
Unsafe practices (at-risk behaviors) are actions which people do or fail to do which may contribute to an accident or injury. The majority of occupational injuries are the result of at-risk behaviors. Some examples for causes of unsafe practices are failure to follow:

- Safety rules.
- Specific procedures or instructions.
- Safety practices of the job (JHA).
Unsafe Conditions

Unsafe conditions are physical or mechanical hazards that could contribute to
personal injury or illness to employees while performing their duties. The causes
of unsafe conditions are:

- Improperly installed guard rails
- Insufficient illumination
- Poor ventilation
- Improper storage of chemicals
- Unstable stacking of materials
- Poor housekeeping and trip hazards
- Damaged equipment or tools
- Improper disposal of waste (potential fire hazard)

When You Recognizing Unsafe Practices or Conditions

1. First, correct the situation, if safe to do so. Get help on the way, if necessary.
2. Report the practice or condition verbally to your supervisor.
3. Report the unsafe practice in writing to your supervisor using a Condition Report
   as explained in PP3-6.
4. Discuss the unsafe practice or condition during safety meetings.
5. Use the Employee Concerns Hotline: (803) 819-2327.
6. Submit safety suggestions via the suggestion boxes or the ES&H Duty
   Engineer.

Office Safety Requirements

Even if you work in the office rather than the construction or fabrication areas, there are
hazards in the workplace. Additional information on Office Safety can be found in the “MOX
Employee Safety Handbook”.

Barricades

Barricades are physical obstructions (e.g., rope, metal pipes or wooden rails, metal chains,
plastic chains, traffic cones, etc.) intended to:
- Warn personnel of a hazard.
- Limit personnel or vehicle access to a specific area.

Do not enter a barricaded area. Entry is limited to personnel specifically assigned to the area
or to personnel who have permission to pass through from the work group that erected the
barricade. There are three types of barricades
1. Warning Barricade
   a. Calls attention to an existing or potential hazard, but offers no physical protection.
   b. Indicates a location having a hidden hazard (slippery floor, overhead leak, overhead work, etc.).
   c. Posting lists entry requirements on the barricade tag.
   d. Designated by red or yellow safety tape, a rope or chain.
   e. Red Barricade means danger and access is only allowed for personnel working in the area to mitigate the hazard.
   f. Yellow barricade means caution and access is allowed only with permission from the supervisor or designated employee.

2. Protective Barricade
   a. Calls attention to a hazard and provides physical protection from the hazard.
   b. Posting lists entry requirements on the barricade tag.
   c. Areas where personnel could fall into a pit or hole in the ground, through a hole in the floor or wall, or off a roof or structure.
   d. Are constructed from wood, pipe railing, wire rope, steel chain fences.

3. Radiation Barricade
   a. Warn personnel of radiation exposure and / or radioactive contamination hazards.
   b. Identified by magenta and yellow tape, rope and signs.
   c. Radiography areas shall also have signs and red flashing lights to warn personnel.
   d. Designate work areas where personnel can be exposed to extreme radiation levels.
   e. Shall never be crossed.

Danger Tags
“Danger – Do Not Use Tag” is placed on a tool or equipment to prevent use or other specified conditions for protection of personnel against a hazard.

- Not to be used for hazardous energy control.
- Tag is identified as a Red card with black lettering and a red danger label.
- Anyone can apply a Danger – Unsafe Do Not Use Tag.
- Notify your supervisor or STR when you apply the tag.
Special Work Conditions

Confined Spaces
All confined spaces will be posted with a sign stating “Danger – Confined Space – Do Not Enter, Contact ES&H for Entry Requirements.”

Lockout / Tagout
Electrical lines and equipment, no matter how low the voltage, should be de-energized, locked-out, tagged and tested prior to work or repairs being performed.

Additional Training Required
There are certain tasks at MOX Services that require additional training. Some employees will never encounter many of these tasks, however, EVERYONE needs to be aware of these tasks and know that none of them can be completed without the proper authorization and additional training through the MOX Services training department or your company’s training program.

A partial list of these tasks includes:
- Confined space entry
- Hazardous energy control – Lockout / Tagout
- Any electrical work
- Hot work such as welding, cutting, and brazing
- Scaffold and ladder use
- Fall protection
- Chemical use
- Respirator use

**NOTE:** See your supervisor, read appropriate procedures, and consult the Job Hazard Analysis (JHA) for further information.
Material Handling

Safe Lifting
1. Correct lifting techniques include:
   a. Stand close to the load, with feet spread apart for a stable base.
   b. Squat with your head and back in line. Do not bend at the waist. Keep the principle of leverage in mind. Tighten stomach muscles. Abdominal muscles support your spine when you lift.
   c. Grip the load with your whole hand.
   d. Lift with your legs. Let your leg muscles should do most of the work.
   e. Hold the load centered and close to the body. The closer the load is to your body, the less force it exerts on your back. Do not add the weight of your body to the load. Avoid twisting. It can cause injury.

2. Maximum loads to lift:
   a. **GET HELP FOR BULKY OR HEAVY LOADS** (anything 50 lbs or greater).
   b. Use mechanical means whenever possible to help perform a lift.

Applying Force
This applies to pushing, pulling or prying loose whether by hand or other body force.

1. Do not force objects that do not fit or will not come loose.
2. Use mechanical means whenever possible, and ensure you and others are not in the line of fire.
**Job Hazard Analysis (JHA)**

For routine work activities and job-specific tasks, the JHA is designed to analyze the individual steps or activities to detect any actual or potential safety and environmental hazards and then develop safe job practices to eliminate or control those hazards. JHAs apply to all persons on site – MOX Services personnel, subcontractors, and unescorted visitors. There should be a JHA for **EVERY** job in the field. If you don’t have one, see your supervisor.

MOX Services employees and subcontractor employees shall:

- Help develop the JHA when asked.
- Participate in pre-job briefings to understand the hazard and associated controls for each task in the job.
- Comply with the hazard controls that are identified in the JHAs.
- Sign an acknowledgement after reading the JHAs.

JHAs shall be current and be updated to include any additional hazards that may evolve during the performance of the work. Whenever a JHA is revised, the affected personnel shall be briefed on the changes and sign the amended JHA.

Where a new hazard is noted either during the daily walk-through or during the shift, a safety task analysis (STA) shall be filled out and communicated addressing preventative measures.

*If you have questions regarding a Job Hazard Analysis, see your supervisor or refer to PP4-5.*
Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) puts a barrier between the hazard and the individual who wears the PPE. All employees are required to wear PPE in certain areas of the MOX Project.

- Workers are permitted only to use or wear PPE provided by their employer.
- For adequate protection, PPE must be matched with the specific hazard as detailed in the JHA, especially when handling chemicals.
- PPE is useless unless it is worn correctly.
- Proper fit, correct use and routine maintenance are critical for maximum protection.

Proper Work Attire/Clothing

For tasks involving manual work in the field, work clothes consist of full-length pants or trousers and a shirt or blouse with long sleeves that does not expose any portion of the torso from the neck to the waist. To enter a MOX Services construction area you shall wear:

- Eye protection
- Hard hat
- High-visibility jacket, vest or shirt
- Protective footwear
- Hearing protection (as posted)

Additional information can be found in the “MOX Employee Safety Handbook” on requirements for the following PPE:

- Eye and Face Protection
- Head Protection
- Hand and Finger Protection
- Foot Protection
- Hearing Protection

Remember – all protective equipment is to be inspected by the user before each use.

Heat Stress

There is the potential for Heat Stress when the working environment exceeds 85 degrees Fahrenheit (F). Heat stress is aggravated by relative humidity, limited ventilation and level of energy exerted. MOX Service shall post red flags visible to employees working in the vicinity of the MFFF, MOX warehouse/PAF area, and rebar lay-down yard. Additional guidelines on avoiding Heat Stress are available in the “MOX Employee Safety Handbook”.

Emergency Management

Emergency Management Program
The Emergency Management Program is the collection of plans, procedures, equipment, and facilities providing dedicated emergency response personnel the capability to mitigate an emergency to:

- Protect the health and safety of the public and site personnel.
- Protect site property and equipment.
- Protect the environment.

MOX Services implements the emergency management program through our Emergency Response Manual. MOX Services does utilizes SRS emergency services such as Fire Department and Ambulances.

Emergency Information
Emergency Phone Numbers – SRS Operations Center (SRSOC)
- MOX Project phone: 725-3911
- Cell phone: 803-725-3911
- Site phone: 3-3911

Emergency Alarms
When you hear the alarm:
STOP, turn off equipment and listen for the announcements
IF YOU CANNOT hear or understand the announcement, check with your supervisor immediately
Listen to the “ALL CLEAR” announcement for instructions

Rally Points
Purpose
Rally points provide an assembly point during an event which requires the evacuation of personnel from a building or area.
Function
Rally points function as a place to centralize employees in a single area, away from the emergency situation.
Emergency Response Actions
When conditions pose a risk to worker health and safety, a Warble tone will be initiated. A Public Address announcement will direct workers to take appropriate protective actions including:

- Remain Indoors
- Seek Shelter
- Evacuate

The MOX Services Emergency Response Plan addresses a variety on emergency situations, which include:

Refer to YELLOW “Emergency Response Actions” CARD

- **INJURY**
  - Notify Supervision
  - Call Nurse 803-819-2286
  - Stay with injured person
  - Render aid if capable

- **REMAIN INDOORS**
  - Go to any completed building
  - Turn off ventilation
  - Close doors and windows
  - Remain until “ALL CLEAR”

- **STORMS**
  - If lightning go to any building
  - Remain until “ALL CLEAR”

- **TORNADO**
  - Go to designated shelter (BAD, PAF, BTS, interior of MFFF)
  - Remain until “ALL CLEAR”

- **FIRE**
  - Leave area immediately
  - Call SRSOC 803-725-3911
  - Location by building number
  - If possible direct fire trucks
Fire Safety
Reporting a Fire by Pull Station
- Become familiar with where the pull stations are located in your facility
- Pull the pull station as you leave the building even if you called
- Go designated rally points
- Never fight fire unless in incipient stage & confident you can fight the fire & have exit behind you
- Personnel should be aware that fighting a fire exposes individuals to extreme health and safety risks
- MOX Services employees are not to fight a fire unless it is incipient stage
- Extinguishers are provided for egress purposes ONLY.

To quickly put out small incipient fires, portable fire extinguishers must be used properly. Proper fire extinguisher operation can be achieved by following the steps described by the acronym, "P.A.S.S."
- P...Pull pin
- A...Aim nozzle
- S...Squeeze handle
- S...Sweep side to side

Remember, the fire extinguisher is only the initial line of defense against a fire. Always make notification and get help on the way first.
For A, B, or C type fires, start discharging agent about ten feet away from the fire.

Tornado Warning
If a tornado warning is issued, and you cannot access a shelter in time:
- Do not try to outrun a tornado in a vehicle
- Move to an area free of trees and power lines
- Locate a depression or ditch and lie face down & cover your head
- Evacuate trailers, prefabricated buildings and vehicles

Designated Shelter
If you are directed to go to a designated shelter, look for this sign
Shelter can be used for a hazardous release, but its primary use is for severe weather with high winds or a tornado

NOTE: Trailers and pre-fabricated buildings are NEVER “designated shelter”

Bomb Threats
Remain calm - most bomb threats are hoaxes.
Use the MOX Services Emergency Response Manual Attachment J
Notify the SRS Operations Center at 725-3911 if reporting an emergency onsite from a cellular phone.
Notify local authorities by calling 911 if in the offsite warehouse.

**Protective Actions for Confirmed Bomb Threat**
Follow instructions from senior personnel in the structure. You may be directed to evacuate the entire building, or just part of the building. You may be directed to evacuate the area completely to another area onsite

**Security Emergencies**
Follow the directions of CENTERRA security forces. A direct threat may require evacuation of the buildings, MOX site or even the Savannah River Site or could be simply to stay indoors where you are located.

Outdoors – go to the nearest building away from the condition and remain there until the security personnel direct otherwise.

Indoors – by lying face down with your security badge on your back you are easily identified by security forces. Do not try to hide!!!

**Remote Worker**
Remote workers are personnel who are beyond the range of the safety alarm signal system capability and public address announcements. Additional information on Remote Workers can be found in the “MOX Employee Safety Handbook”.

**MOX Services Fitness Center**
The MOX Services Fitness Center is located in the Training building (TAC). It is free to all MOX Services employees and open 24 hours a day and 7 days a week.

There is a full-time fitness coordinator from 8 AM to 5 PM.

You must see the fitness coordinator to fill out a waiver and get a green gym card in order to use the facility at any point in time.
SECURITY

Security briefings help employees develop an appreciation for the need to protect our country’s national security interests. The purpose of the Safeguards and Security Awareness Program at MOX is to inform individuals of their safeguards and security responsibilities and to promote continuing awareness of good security practices. Security programs and procedures already exist on the MOX Project to protect classified material. However, information generally available to the public as well as certain activities reveal the existence of, and sometimes details about, classified or sensitive information or undertakings. Such indicators may assist those seeking to neutralize or exploit U.S. Government actions in the area of national security.

Information Security

The protection and control of classified and unclassified controlled information (UCI) is critical to our nation’s security. This responsibility includes providing direction to ensure that all applicable laws, regulations, policies, directives and other requirements are followed or achieved, and that both classified and UCI are properly protected and marked.

There are several types of UCI on the MOX Project. They include:

- Unclassified Controlled Nuclear Information (UCNI)
- Official Use Only (OUO)
- Export Control Information (ECI) (a subset of OUO)
- Personally Identifiable Information (PII) (a subset of OUO)
- Limited Rights Notice (a subset of OUO)
- Safeguards Information (SGI)
- Sensitive Unclassified Non-Safeguards Information (SUNSI)

Again, UCI is not publicly releasable and the methods and requirements for identify, controlling, and protecting the different types of UCI are detailed in MOX Service’s Project Procedures. Any person who determines that UCI has been or may have been lost or disclosed without authority must IMMEDIATELY report this information to their supervision.

No comment policy. Occasionally statements may appear in the public domain (e.g., newspaper, internet, etc.) that contain UCI. That the UCI appeared publicly does not make it uncontrolled. It is MOX Service’s policy to neither confirm nor deny that information appearing in the public domain is or is not UCI. Any questions concerning the accuracy, sensitivity, or technical merit of such information should be responded to in a “no comment” manner.
Operation Security (OPSEC)

OPSEC is a systematic and proven process by which the U.S. Government and its supporting contractors can deny information to potential adversaries regarding capabilities and intentions by identifying, controlling, and protecting generally unclassified evidence of the planning and execution of sensitive (unclassified controlled information) Government activities.

As a Site employee, you may be entrusted with information that is essential to the success of our mission. As the first line of defense, adhere to the following OPSEC countermeasures:

• When no longer needed, dispose of all UCI in a Shred Ahead bin/s.
• Properly handle (email, fax, and phone etc.) in accordance with MOX Service’s Project Procedure.
• Do not discuss UCI in public.
• Limit distribution of UCI to those with the need-to-know.
• Off Site, do not wear your SRS security badge or display it in plain view within your privately owned vehicle.

Personally Identifiable Information (a subset of OUO)

NOTE: Personal information does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.

Personally Identifiable Information (PII) as used in information security, refers to information that can be used to uniquely identify, contact, or locate a single person or can be used to with other sources to uniquely identify a single individual. Unprotected PII is available in public sources such as telephone books, public websites, university listings, etc. In contrast, protected PII is defined as an individual’s first name or first initial and last name in combination with any one or more of types of information, including, but not limited to, social security number (any form), passport number, financial information such as account numbers in combination with any required security or access code or password, date and place of birth, mother’s maiden name, medical information (see the Health Insurance Portability and Accountability Act (HIPPA), etc.

The protection of PII and the overall privacy of records are concerns both for individuals whose personal records are at stake and for organizations that may be liable or have their reputations damaged should such PII be inappropriately accessed, used, or disclosed. Treatment of PII is distinct from other types of data because it needs to be not only protected, but also collected, maintained, and disseminated in accordance with Federal law.
Cyber Security

Employees are expected to conduct themselves professionally in the workplace and to refrain from using Government resources inappropriately. The MOX Computer Security Code of Conduct applies to any user of a computer system, a network, or anyone who processes information under the umbrella of the MOX Project. Inappropriate use exposes MOX to risks, which include compromise of information, networks and services, and legal issues. Administrative/disciplinary actions may be taken consistent with current company policies. Sanctions may include reprimand, suspension without pay, or other sanctions in accordance with applicable regulations.

Computer Virus

You should also be alert to the threat of computer viruses infecting your computer. Symptoms of a virus include:

- Email messages automatically sent;
- Unusual display on monitor;
- Unexpected sound effects;
- Modification of text or commands;
- Unusual behavior when machine is started;
- Marked reduction in speed;
- Unrecognized new files appearing;
- Files suddenly missing.

If you suspect a virus: Do not shut down your system; Do not attempt to delete the virus; Immediately contact the IT Helpdesk.

Computer Software and Media

All unclassified computer media such as disks, diskettes, CDs, DVDs, hard drives or MOX issued thumb drives must be scanned for viruses prior to being used on the MOX network.

Constructive disciplinary action may be taken up to and including termination for failure to follow the requirements in the Computer Security Code of Conduct, including the media sanitization/disposal process.
Foreign National Briefing

A Foreign National is any person that falls into the following categories:

- Not a US citizen.
- Subject to some foreign government.
- Born outside jurisdiction of US and has not been naturalized under US law.

There are two categories of Foreign Nationals that you may encounter while at MOX:

- **Visitor**—A visitor is granted access for 30 days or less and must be escorted at all times.
  - Visitors are authorized under a DOE approved MOX security plan.
  - Visitors must wear a red visitor badge.
  - Foreign national visitors are not allowed access to electronic equipment at MOX nor are they allowed to bring electronic items into any facility.

- **Assignee**—An assignee is granted access for more than 30 days, up to two years. An escort is not required within MOX facilities.
  - An assignee will work on a specific project.
  - Assignees are identified within a specific security plan which is Security Bulletin #41, Foreign National Assignee Security Plan.
  - Assignees wear a red badge with a picture.
  - An assignee’s badge may be renewed, but paperwork is required in advance.

MOX employees may fill one of two responsibilities within the Foreign National Program:

- **Host**—A host has the overall responsibility for FN and must submit all associated paperwork for the visit.
  
  *Additional training is required for this role*

- **Escort**—A Foreign National Escort is responsible for:
  
  - Reading and understanding security plan.
  - Ensuring Foreign National doesn’t deviate from plan.
  - Reporting any suspicious acts to MOX security.

  *Additional training is required for this role*

Interaction

Since any employee may interact with a Foreign National, it is imperative that each person assigned to MOX:

- Read Security Bulletin #41, Foreign National Assignee Security Plan
- Discuss only topics within the scope of work with Foreign Nationals
- Complete annual refresher Foreign National Training.
- You can only be granted the responsibilities to escort and/or be a host if you have completed the additional Foreign National Escort and Host Training.
Site Security

DOE Badge Program

The DOE-SR Personnel Security Department is established to ensure the overall objectives and requirements of the Personnel Security Program are implemented.

A photo ID badge is required for unescorted entrance to the SRS. The security badge color/clearance level on the badge identifies the access level the wearer has been approved for through the DOE Personnel Security Program. Clearance approval and need-to-know are components for access to national security information. A maroon badge is site-specific and is issued to uncleared personnel. A “C” for “Contractor” is located along the right edge of the security badge for any contractor employee. HPSD-12 Badges (white photo badges) will have the clearance level printed on the badge (L or Q). uncleared HSPD-12 Badges will not have a clearance level designation. A red badge is issued to foreign nationals and is initialed with “FN” on the badge.

Site ID Badge

This badge displays the employee’s photo, name and User ID (bar-coded). It’s about the size of a credit card and has a magnetic strip on the back.

The badge has two purposes:

- It is scanned at the barricade when an individual is pulled over for a random inspection.
- It is used to verify employment for government rates at hotels while on government business travel.

You must wear your Site ID/ProRad badge at all times onsite.

NOTE:

- SRS does not issue one-day temporary badges. If you forget your badge, you will have to retrieve your badge prior to entry onto the site.
- If you lose your badge, you must complete form OSR 10-32 Lost/Forgotten/Stolen Badge Report and submit it to Security (Badge Office).
- If your badge is stolen, you must produce a police report and submit the proper form to Personnel Security.

Site Photo Badge Rules

Access to any level of classified matter is restricted to individuals who are authorized or "cleared" through the DOE's Personnel Security Program. The DOE security badge is used as an indicator of authorized site access and the level of clearance. Follow these rules when you are issued a badge:
Badges must be worn at all times while onsite and at offsite DOE facilities.
Badges must be worn in plain view and at chest level.
Badges must **not be worn** in public or **used** as personal identification outside of the SRS.

Familiarize yourself with the policies listed below.

- It is against the law to counterfeit, alter, or misuse your badge.
- Protect your badge from theft. If your badge is lost or stolen, report it immediately to the Badge Office (within 24 hours) and complete OSR 10-32 *Lost, Damaged or Stolen Badge Report*. If your badge is stolen, you are required to file a police report and provide a copy of the report to the SRS Badge Office.
- Your badge is the property of DOE and must be returned to the Badge Office if it has expired, is no longer required, or upon your termination.
- If you take an extended leave of absence (90 days or longer), you must return your badge to the Badge Office.
- Wear your badge in plain view, above the waist while in DOE security areas, including Property Protections Areas (PPA).
- Renew your badge when there is a change in name, physical appearance, or the badge becomes faded or damaged.
- Do not use your badge outside of DOE facilities, other than for government purposes.
- Do not use your badge as a means of identification for unofficial purposes. Personnel on official government travel must use their Site ID (white badge with bar code) for verification purposes if required for government rates at hotels.
- Do not use your badge off-site for verification of employment or for verification for discounts. Use your Site ID badge for these functions.
- **Do not display your badge in off-site locations such as restaurants, service stations, convenience stores, etc.**

**Requirements for Badging**

**Badge Office Located 703-46A**

**You must have with you:**

- Photo ID
- One other form of ID (such as a Social Security card)
- Blue Card (issued once you pass the GET exam)

**Hours are:**

6:30 a.m. – 3:30 p.m. Monday – Thursday
6:30 a.m. – 2:30 p.m. Friday

**The Challenge System**

The Challenge System is a well-established policy that states all cleared and uncleared employees are responsible for..."reporting security incidents of unescorted, uncleared or insufficiently cleared personnel to the appropriate resident Area Security Representative, or
the Protective Force (CENTERRA).” Confront any person not wearing a badge or wearing a badge with an unacceptable clearance for the area.

If you notice an uncleared employee without an escort in an escort required area, challenge that uncleared employee and assist in locating his escort or return him to the nearest CENTERRA station. Ask the individual you are challenging “May I help you or assist you?” Under no circumstances should you become physical or abusive with that individual. If the individual is abusive or uncooperative with you, report that person to your supervision or management, WSRC Security, or CENTERRA.

CENTERRA Security

Different security and access controls are used according to what needs to be protected. CENTERRA-SRS Security Police Officers (SPOs) provide the physical security and protective force at these control points. The controls include, but are not limited to, badge grasping to ensure positive identification, fences, barricades, and monitoring devices. At some time you may be part of a random inspection performed by CENTERRA-SRS SPOs. Your car may be searched at entry and exit points to facilities, areas, and boundaries. When you are involved in these activities, follow the instructions of the CENTERRA-SRS SPOs. Failure to comply can result in denial of entry. CENTERRA-SRS SPOs have warrantless arresting authority, like state law enforcement authorities.

Badge Inspections at Site Perimeter Barricades

NOTE: The driver of the vehicle must have a valid driver's license.

At the Site perimeter barricades it is important for employees to come to a complete stop, present their badge and be alert to the safety of all personnel. When approaching the barricade, follow all required posted speed limits, stop signs and direction provided by CENTERRA-SRS. Prior to pulling up to the barricade, have the vehicle windows down so CENTERRA-SRS can view the inside of the vehicle. Passengers in the vehicle should be awake. During the security badge inspection process, drivers and passengers should refrain from talking on cell phones, turn the volume down on radios/DVD players and avoid eating/drinking/smoking while processing in at the barricade.

All vehicle occupants of the vehicle will remove their Site security badge and give the badge to CENTERRA-SRS for inspection one at a time. If your badge is in a plastic holder/badge protector, employees are required to remove the badge from the badge holder prior to handing your badge to the protective force member. If the employee has a HSPD-12 security badge, remove the badge from the badge holder, and give the security badge to CENTERRA-SRS. If the employee has the old style badge, the employee will also give the security badge to CENTERRA-SRS.

CENTERRA-SRS will keep control of the badge until the entire inspection process is completed. CENTERRA-SRS will conduct a plain view inspection of the vehicle at this time for prohibited and controlled articles. CENTERRA-SRS will provide direction to the driver if the vehicle is selected for a random inspection. After CENTERRA-SRS has completed the plain
view vehicle inspection, verified and inspected the security badge, they will return it to the employee. The employee(s) should place the badges back on their lanyards and when instructed, proceed with caution. The badging process will be required for all occupants of the vehicle. In all cases, the employee will give the badge to CENTERRA-SRS.

Random Vehicle Inspection

As part of the search process for prohibited and controlled articles at the site perimeter barricades, when a personally/privately-owned vehicle (personally-owned vehicle, subcontractor vehicle, vendor, etc.) is pulled for a random vehicle inspection at a perimeter barricade, the Protective Force, in addition to checking for required security badges and conducting a search of the vehicle, will also ask for a valid driver's license.

A driver is required to have a valid driver's license in order to drive the vehicle on-site, and is required to have these documents on his/her person or in his/her vehicle.

Personnel driving government vehicles are required to provide their driver’s license when pulled for a random inspection

Personally-Owned Recreational Vehicles

Personally-owned recreational vehicles (boats, campers, travel trailer, motor homes, and cargo trailers) are not allowed to enter the site.

Security Areas

A Security Area is a physically defined space (area) containing a security interest and is subject to protection and access controls. Security Areas have clearly defined barriers such as fences, walls, and doors. Contraband requirements vary depending on the Security Area designation.

Property Protection Area (PPA)

The PPA is a security area that is defined by a fenced area, secured building, or manned barricade. This area is established for the protection of government property against damage, destruction, or theft

Limited Area (LA)

The LA is a security area defined by permanent barriers that control, impede or deny access to unauthorized individuals and is established for the protection of classified matter and quantities of Category III Special Nuclear Material (SNM).

Protected Area (PA)

The PA is established for the protection of Category I and II quantities of SNM which is encompassed by physical barriers including perimeter intrusion, explosive detection and assessment systems. Access controls include metal detection on entry/exit and SNM detection on exit. These barriers and controls are designed to impede or deny access to unauthorized individuals. “Q” cleared employees with additional access codes on their badge are allowed unescorted entry.

Material Access Area (MAA)

MAAs are located within PAs and are used for the protection of Category I SNM or Category II quantities SNM with credible rollup to a Category I quantity.
Exclusion Area (EA)
Defined by physical barriers with access controls where mere presence in the area would result in access to classified matter. EAs must meet all requirements of a LA. Visual barriers must be used if visual access is a factor. “Q” cleared employees with special access and authorization are allowed unescorted access.

Prohibited and Controlled Articles
Prohibited and controlled article requirements vary according to the security area (Limited Areas and higher). Certain items are prohibited while even more items are controlled and are not allowed in Security Areas.
Prohibited items on SRS Property include:

- weapons - cross-bows, bows and arrows, martial arts weapons such as butterfly knives, other fixed blade knives not intended as eating utensils or required in the performance of duty. (Exception: folding knives with locking blades under 3 inches),
- firearms (Exception: Shotguns belonging to hunters who have been issued SRS hunt permits and are participating in authorized hunts)
- simulated firearms
- ammunition and explosives
- incendiaries and accelerants, to include paint thinner, solvents, propane, gasoline, etc., explosive materials and related devices (Exception: highway safety flares if properly stored in the vehicle)
- alcoholic beverages (including empty containers)
- non-prescription narcotics, illegal drugs, controlled substances and drug paraphernalia or articles used in the sale, manufacture, delivery, or possession of illegal drugs. These articles include hypodermic needles and syringes, roach clips, spoons, vials and pipes designed to smoke hashish or marijuana

NOTE: Hypodermic needles or syringes used for legitimate medical purposes, such as insulin injections for the person for whom they are prescribed, are not contraband.

- tear gas, chemical mace and devices containing chemical agents chloracetophenone (cn), orthochlorobenzalomalonalonitrile (cs) or other chemical irritants. (Exception: Containers of two ounces or less of pepper or mace sprays carried for personal use are not prohibited at SRS.)
- stun guns (small devices that generate electrical shock)

NOTE: Some items are prohibited and controlled everywhere on-site and in DOE off-site facilities. Other items are prohibited and controlled only in SRS security areas (Limited Areas and higher.)

In an effort to minimize delays during the vehicle inspection process, employees should clean out their vehicle and leave unnecessary equipment, tool-boxes, boxes, luggage, and garden tools (items listed above) at home. Certain items could be considered a prohibited and
controlled item (weapons) such as machetes, axes, pipes and nail guns, unless these items are needed and approved for employee’s work requirements

**Incidents of Security Concern**

A *violation* is defined as an action or intent that constitutes a violation of U.S. law, Executive Order or the implementing directives. Example: communication or disclosure of classified information, with or without intent to injure the U.S. through deliberate or negligent means.

Incidents of security concern may involve a security deviation; inadvertent access, unauthorized disclosure, loss, potential or actual compromise of classified and unclassified controlled information; theft, diversion, loss or destruction of special nuclear material, nuclear weapons or weapon components; espionage; loss or theft of Government property; loss of confidentiality, integrity, or availability of information systems; and other hostile acts that may cause unacceptable adverse impacts on national security.

Any employee who becomes aware of circumstances or events that constitute an incident of security concern are responsible for immediately notifying their supervisor or the MOX Facility Security Officer (x8921).

**Reporting Requirements**

Employees applying for or granted a DOE access authorization must report the following information to their Personnel Security Office, verbally, within two working days followed by written notice within the next three working days, all employees and its partners are to report:

To the Personnel Security Office

- All arrests, charges, citations (including charges that are dismissed), or detentions by any Federal, State, or other law enforcement agencies for violations of law; and violations of Federal, State, County, or Municipal laws, regulations or ordinances within or outside of the U. S. Traffic violations for which a fine of up to $300.00 is imposed need not be reported, unless the violation was alcohol or drug related.
- Personal or business-related filing for bankruptcy.
- Garnishment of wages.
- Legal action effected for name change.
- Change in citizenship status.
- Employment by, representation of, or other business-related association with a foreign, or foreign-owned interest or foreign national.
- Any approach or contact by an individual seeking access to classified matter or sensitive information.
- Lost or stolen badges
- Hospitalization for treatment of mental illness, treatment for drug abuse, or treatment for alcohol abuse.
Additional Reporting Requirements for Individuals with a DOE “L” or “Q” Security Clearance:

- Provide full, frank, and truthful answers to relevant and material questions, and when requested, furnish or authorize others to furnish information that is deemed pertinent to the access authorization eligibility process. This obligation applies during all phases of the access authorization process.
- Immediately notify their Personnel Security Office or your Organizational /Facility Security Officer after any approach or contact by any individual seeking unauthorized access to classified matter or Special Nuclear Material. If such an approach or contact is made while on foreign travel, notify a Department of State (DOS) official at the local United States Embassy or Consulate with a request that DOS report the incident to the Director, S&S, and DOE Headquarters.
- Provide your Personnel Security Office with a completed DOE Form 5631.34, "Data Report on Spouse/Cohabitant," within 45 days of marriage to or cohabitation with an individual who does not now nor never has possessed a DOE access authorization.

To the Security Incident Program Manager

All incidents of security concern.

To the Counterintelligence Officer

- All contacts with individuals of any nationality, in which illegal or unauthorized access is sought to classified or otherwise sensitive information, material, technology, or facilities
- Any attempted exploitation by a foreign entity

To the Foreign Travel Officer

- All intended foreign travel (outside the U.S.) 30 days prior to travel.

To CENTERRA-SRS or MOX Security

- Theft or destruction of government property
- Malicious mischief or vandalism
- Unfamiliar persons within your work area
- Workplace violence
- Suspicious activities

If you receive or discover a suspicious package or envelope, DO NOT TOUCH OR MOVE THE ITEM AFTER YOU DETERMINE A CREDIBLE THREAT EXISTS. CLEAR THE IMMEDIATE AREA AND CONTACT THE SRSOC at 9-725-3911 or 803-725-3911.
• Contact Information

Project Procedures (PPs) and Security Bulletins are accessible on MOX Today and Documentum. Visit MOX TODAY’s Security page for additional security information.
Employee Concerns Program (ECP)

Maintaining a safe, healthful, and productive work environment is a primary goal on the MOX Project. Open communication is vital to achieving this goal. It is the project’s policy to create and sustain an environment of open communication. This means you should be able to voice a concern without any fear of reprisal and expect that your concern will be addressed. The majority of concerns should be raised to and resolved by your supervisor in the normal course of daily business; however, there are circumstances when an employee may desire an alternative avenue for reporting concerns or disputes. The Employee Concerns Program will improve the overall productivity of CB&I AREVA MOX Services by providing positive solutions to challenges identified by our employees.

We will work with employees and management to: openly, positively, and cooperatively identify areas of improvement; apply high quality, neutral fact-finding skills to those areas; and respond to employees and management in a thorough and timely manner.

What is an Employee Concern?
An employee concern is a good faith expression by an employee that a policy or practice of the MOX Project or one of its subcontractors should be improved, modified, or terminated. Concerns may include, but are not limited to, issues relating to health; safety; the environment; management practices; quality; security; waste, fraud or abuse; or reprisal for raising a concern.

Are There Issues That Are Not Employee Concerns?
Yes. The ECP is intended to supplement, not replace, existing complaint processes. Issues, such as discrimination on the basis of race, gender, religion, etc., or sexual harassment, should be addressed by contacting the Human Resources Department. Workplace issues for employees who are members of a collective bargaining unit should be addressed through their formal grievance process, by contacting their Business Agent. All employees should, however, report any issues they have regarding the construction or operations of the MFFF to their line management or the ECP.

Open Communication
CB&I AREVA MOX Services management recognizes that free and open expression of employee concerns is essential to safe and efficient accomplishment of the MOX Project’s missions. Employees working on the MOX Project and subcontractors have the right and responsibility to report concerns. Concerns may include topics such as those relating to the environment, safety, and health; waste, fraud and abuse; quality; security; and management of MOX-related activities. Employees also have the right and responsibility to identify alleged harassment and intimidation of co-workers. Management encourages open communication between supervisors and employees and has a zero tolerance policy for reprisal against those who raise concerns.
Safety Conscious Work Environment (SCWE)
SCWE is an environment in which employees are free to raise safety concerns, both to their management and to external agencies, such as NRC and DOE, without fear of reprisal.

Reprisal
Reprisal, also called retaliation, is any action taken against an employee in response to, or in revenge for, the employee raising reasonable concerns about any aspect of project-related operations.

The ECP Process
All types of issues may be brought to the ECP. They will be investigated by the ECP or transferred to the appropriate complaint process or organization having jurisdiction. Employees are encouraged to approach their line management initially in an attempt to reach resolution at the lowest level possible; however the ECP is available to all employees working on the MOX Project, if they are uncomfortable raising their concern to line management or their management has not been successful at resolving their concern.

The ECP works with managers and supervisors to ensure employee issues are welcome and will be addressed effectively.

The ECP complements existing avenues for raising concerns, helping to ensure the prompt identification, reporting, and resolution of employee concerns regarding such issues as the environment, safety, health, management, and quality of the MOX Fuel Fabrication Facility (MFFF) operations. In addition, the ECP addresses internal employee reprisal complaints.

Employees working on the MOX Project and subcontractor employees may contact the ECP if:
• They are uncomfortable raising their concern to their supervisor;
• Their supervisor is unable to resolve their concern;
• They are unsure where to report their concern;
• They fear reprisal for raising their concern; and/or
• They want to request confidentiality.

Employees contacting the ECP directly will be assisted in determining the most appropriate process to evaluate and resolve their concern. Upon receiving a concern in the ECP, it is reviewed by the ECP Manager and prioritized based on urgency and safety significance. A concern may be investigated by the ECP or transferred to the appropriate office or program having formal responsibility.

Protected Activity
Protected activity involves raising concerns or otherwise making disclosures of information related to MOX operations and facilities, which the individual reasonably and in good faith believes are evidence of unsafe, unlawful, fraudulent, or wasteful practices, or engaging in certain actions that are protected under law, regulations, or legal precedent.
What Should I Do if I Believe I’ve Been Retaliated Against?
CB&I AREVA MOX Services employees and subcontractor employees who believe they have been retaliated against for raising concerns should contact the ECP. All employees have the right to address their reprisal issues externally to DOE, the NRC, or the U.S. Department of Labor (DOL) through established formal complaint processes. Information about those complaint processes may be obtained by contacting the ECP, the DOE/National Nuclear Security Administration (NNSA) Service Center ECP, NRC, or DOL. Employees should be aware that specific filing requirements and timeframes may exist for those formal complaint processes.

Reporting Concerns to the ECP

Call MOX Services ECP Hotline – 803.819.2327
Toll Free: 866.371.9461, ext. 2327
Visit the ECP Manager at Building 706-3F, BTS
Submit an ECP Report Form, PP3-1A, to:
MOX Services ECP Manager
Building 706-5F
P. O. Box 7097
Aiken, SC 29804-7097

Felicia Pinkston
MOX Services
ECP Manager

Confidentiality
Employee concerns may be submitted anonymously or confidentially. The ECP will maintain the confidentiality of concerned individuals to the extent allowed by law. Employees wishing to remain anonymous may provide the ECP with a unique codename or identifier to be used to obtain access to concern status in the future.
MOX Project Quality Assurance Plan (MPQAP)

Organizational culture is the shared basic assumptions that are developed in an organization as it learns & copes with problems. The basic assumptions that have worked well enough to be considered valid are taught to new members of the organization as the correct way to perceive, think, act, & feel. Culture is the sum total of a group’s learning. Culture is for the group what character & personality are for the individual.

The MOX Project is an important part of the United States Nuclear Nonproliferation policy and will eventually remove at least 34 metric tons of Plutonium Nuclear Weapons from the US arsenal and convert them into Nuclear Fuel Leads to power reactors. This not only creates energy, but also eliminates the possibility of this plutonium of ever being used for nuclear weapons. It is vital that everything we do at the MOX Project is done with the highest attention to detail and the greatest care. The implications of not performing at the highest level in everything we do would be profound, and profoundly bad.

What is Quality Assurance?

Quality Assurance is the set of planned and systematic actions necessary to provide adequate confidence that a structure, system, or component will perform satisfactorily in service; that Items Relied on For Safety (IROFS) will be available and reliable to perform their designated safety function when needed.

Historically Quality Assurance has been viewed as a system of reviews, inspections, surveillances, and audits that can be applied to:

a. Products which can be examined at various stages of manufacture or construction before they are placed in service.

b. Documentation needed to show conformance to requirements.

c. Performance of investigations in the event of subsequent malfunction of those products.

In other words, the aim of Quality Assurance is that quality is built in before work is complete.

Quality Control is a component of quality assurance that comprises actions related to the physical characteristics of a material, structure, component, or system. Quality Control determines whether the quality work performed and materials purchased were indeed delivered as required for installation per the technical specifications. At MOX the keystone of the MOX Quality Assurance Program is the MOX Project Quality Assurance Plan (MPQAP) which establishes MOX Services’ commitment to 10CFR50 Appendix B through the use of ASME NQA-1-1994 (as revised by the NQA-1a-1995 Addendum) and Regulatory Guide 1.28, Revision 3.
The MPQAP, along with the Quality Assurance Program Policy Statement, and the many project procedures bearing the QA designation make up the MOX Services QA Program.

Why do we use procedures?

a. Procedures are tools that we use to help us perform work. Not only do they guide us on how to do the work required but they help provide necessary controls to make sure the work is done in a consistent manner.

b. We can also use procedures to look at work historically by going back to any point in time and looking at how work was performed based on the procedure revision that was current at that time. We can also see how work controls have changed over the course of different procedure revisions.

c. Procedures are continually updated to keep work controls current with technology, business practices, and regulatory expectations. If you find that a procedure you are implementing is incorrect or not safe to follow, call a Time Out, notify your supervisor, and await guidance. If the procedure is confirmed to be incorrect or unsafe, then the procedure must be revised prior to conduct of further work.

**Conditions Adverse to Quality**

When conditions adverse to quality are found it is important to identify and correct them in a timely manner. Conditions adverse to quality are failures to implement the QA program or situations where it is impossible to determine if the QA program was properly implemented. Examples include equipment malfunctions, procedure deficiencies, deviation from approved controls, defective material, and defective equipment.

Methods of discovering an adverse condition or nonconformance include self-identification by members of MOX functional organizations, assessments by functional organization management, inspection by QC, and audits and surveillances performed by QA. Individuals who discover a condition adverse to quality should report the discovery immediately to their management or should initiate a nonconformance report (NCR) for items or a condition report (CR) for activities. Information on 10 CFR Part 21 Reporting Defects and Noncompliance must be posted conspicuously.

**Nonconformance Reports**

An NCR is written on an item that doesn’t meet, or when it can’t be determined if an item meets, applicable technical and QA requirements.

Once an NCR has been initiated, Quality Control affixes a red HOLD tag to the item stating the deficiency and establishing restrictions for use of the item until the nonconformance is resolved. Only QC staff can remove a hold tag once it is placed on material.

For more details refer to PP3-5 Control of Nonconforming Items.
Hold Tags
Hold Tags and the Hold Tag process are entirely owned by the QC Department and all questions regarding items with a Hold Tag must go through the QC Department.

Hold Tags are bright red, placed on equipment, and can only be removed by QC Personnel.

Generally once a hold tag is attached to an item, the item is not moved until the nonconformance is resolved. There are a few legitimate reasons to move a tagged nonconforming item:

- Segregation Disposition implementation
- Perform preventative maintenance
- Conditional Release implementation

One probable reason for moving the item would be to control it. We might want to segregate it from similar conforming items, thus reducing the chance of it being accidentally placed in the plant.

If it is practical to do so, the item can be placed in an impound area or hold area

QC must be contacted before an item is relocated.

Conditional Release

When it is determined that a nonconforming item is needed for installation or use prior to completion of corrective action, a conditional release request (CRR) is initiated. If the traceability and identification of the nonconforming item(s) can be maintained, the nonconforming item(s) can be easily removed or corrected at a later date and items that are nonconforming because of incorrect or incomplete documentation may be conditionally released pending receipt or correction of the documentation package, if in the judgment of QC, sufficient information and documentation is available on the project.

*NOTE: Weld wire, concrete or grout shall not be conditionally released.*

Condition Reports

A Condition Report (CR) is written when an activity doesn’t meet, or when it can’t be determined that an activity meets, applicable technical and QA requirements. The condition report process is also used to document and resolve problems with equipment, programs or processes that can lead to adverse safety conditions, regulatory violations, decreased reliability, or human performance issues. Often a CR will be written on an item for which an NCR has also been written to address a deficient activity that contributed to the deficient item.

Any MOX Services employee, vendor or subcontractor can submit a CR electronically or via a CR Drop Box.
Oversight

There are three types of oversight activities at MOX – assessments are conducted by line management and independent audits and surveillances are performed by QA.

Project Assessments are performed annually by the MOX Services president and focus on overall effectiveness of project processes and programs. Management Assessments are performed at least annually by functional area management and focus on processes and programs. Finally, Activity Assessments are performed as needed by functional area or work group management and focus on a single activity or process.

Surveys are generally unannounced and evaluate a limited scope activity. Surveillance is the act of monitoring, witnessing, or observing to verify whether an item or activity conforms to specified requirements, such as the QA Plan, regulatory requirements, procedures, work plans, drawings and specifications, training, or other project documents and commitments.

Audits are formal detailed evaluations performed in accordance with Project Procedure 3-7. Their purpose is to evaluate the scope, status, adequacy, programmatic compliance, and implementation effectiveness of MOX Project quality affecting activities. Audits are scheduled at a frequency commensurate with the status or importance of the activity consistent with the schedule for accomplishing work.

Training

Everyone on the MOX Project is required to be adequately trained prior to performing related job tasks. This training is determined by each employee’s supervisor who establishes a training matrix for all the employees in their organization based on expected job roles. When a new employee is hired, they are assigned one or more of these roles and are required to complete the training as outlined by their supervisor on the matrix.

Remember, you must be trained and/or qualified BEFORE you perform work that is based on that training or qualification requirement. You might not take any training off project without prior approval.

Work at MOX is based on procedure controls. Much work is performed by directly implementing procedures. Much work is performed by implementing work plans developed from procedures, e.g. construction work packages, inspection plans. Training on procedures and plans is often accomplished by reading, called required reading, or by group review led by the work supervisor.

Always make sure you read or attend specific training on the current revision of the governing procedure/plan prior to performing work controlled by those documents. Current training is crucial since procedures change continually as processes are improved.

In addition to current training on procedures/work plans, some jobs require job-specific training or qualification. Even if you have been trained to perform a job at other workplaces, you must
successfully complete MOX specific training and qualification requirements prior to performing work.

Compliance with our controls ensures that we have high quality products and technically correct items and services, as well as identifies safety concerns allowing us to use the proper controls to correct the identified hazards.

These controls help to minimize deficiencies and reduce the amount of rework and repair that may occur. This in turn increases efficiency, saving the project money and of course, enhancing DOE client satisfaction.

**Quality Assurance Records Management**

When preparing an initial document (Revision 0) the Technical Justification IS THE product of the overall preparation process. This is true no matter whether the document is a drawing, calculation, datasheet, equipment design, piping layout, etc. The initial issue of a document is the Technical Justification.

A Technical Justification is used to validate adequacy and/or performance of a System, Structure, or Component.

The Technical Justification comes from the analysis and documentation of:

1. relevant Design Input
2. description of use
3. equipment and/or component data
4. codes and standards
5. any other pertinent data

The synthesis of this information provides the basis for the design product.

If a technical justification adequately answers the question: “Why is it OK to make this change?” When you make a revision to approved documents, then you need to be able to validate that the changes do not have an adverse effect on the approved design.

The Project Records Center (PRC) is the principal repository for site quality documents and quality records. PRC enters electronic versions of quality documents/records into Documentum, the Electronic Data Management System used by MOX. Documentum protects documents from loss while allowing read access to site personnel with computer access and a need to use the document. Documentum can be accessed through the MOX Today home page.

A small number of quality documents and quality records are maintained in satellite repositories that are approved by the PRC Manager. For example, training records are maintained in fire resistant filing cabinets in a secure area of the Training Department. Review of these documents requires a visit to the Training Department and interaction with a training administrator.
If you need to see your Training records, contact your Training Coordinator so that they can coordinate your request with the Training Department.

Remember, use only the most current revision of project documents. Those will always be found in Documentum or in an alternate repository. Each day ensure that electronic and/or paper copies of procedures are current before use by checking Documentum or the satellite repository.

**Editing QA Records**

If you are the individual who is creating or revising a Quality record, please review section 3.11.1 of Project Procedure 3-4.

No correction fluid or correction tape of any kind is allowed at the MOX Project. If you do make an error, simply draw a single line through the error and place your initials and the date nearby.

Never scribble or scratch out an error and be aware of Material False Statement & Signatures - A written or oral statement that provides incorrect information, or omits information that has the capability to affect the direction or outcome of agency action.

NRC will give credit if the Project corrects its own mistakes before it relies on the information.

If you discover incomplete or inaccurate information:

- Don’t ignore or cover it up!
- Inform management
- Document the condition under the QA Plan
- Correct the information
- Determine what other documents might be affected

**Date Conversion**

Management Directive 001 establishes the date format used within work documents. The MD-001 format consists of a two digit number for the day of the month, a space, a three letter abbreviation for the month, a space, and then a two digit number for the year. The month is not to be expressed as a number. Refer to MD-001 for further information on date conventions applicable to computer software usage.
Mentoring

Do you understand the importance of the many codes and regulations we work under?

How did you learn what was important in a nuclear environment?

Do you share with others your importance of why working in a nuclear environment is different that any other kind of workplace?

If this is your first job in a nuclear environment…
Do you ask for knowledge from those with more experience?
Will you ask questions when something is unclear?
Do you understand the implications of overlooking something due to lack of knowledge?

So what is your role in Quality Assurance?

Your most important role in Quality Assurance to take ownership of your work and use an inherent questioning attitude. If things don't look right, they probably are not right. When things don't look right you should seek guidance from your supervisor or take a time out to seek clarification or other guidance.

Pay attention to detail and try to anticipate and prevent potential problems. If the procedure or instruction doesn’t seem right to you, and could possibly create an unsafe condition, take a Time Out until a change is made or solution is found.

Be sure to immediately report any discrepancies or nonconformance to your supervisor.

You must be trained to perform your assigned work prior to starting it. If you are not trained and/or qualified to perform the task assigned, then inform your supervisor or STR.

Remember, it’s important to always use the most current revision of procedures. If you work from an outdated revision, you could make the workplace unsafe for everyone at MOX. Don’t wing it; procedures were written as a control to make sure work is performed correctly; follow them as written.

Also, never rely on verbal authorization to make changes in your work.

If you are placing rebar according to a drawing, and your supervisor tells you that the drawing is incorrect and that you need to place the rebar differently, ask to see the updated drawing. There are no changes allowed by verbal instruction. All changes to work packages, plans, drawings, etc. must be reviewed, approved and signed.

NOTE: If there is something about a drawing or other work instruction that is unclear, seek clarification to proceed. The person clarifying the information is not changing it; they are simply explaining the instruction.
MOX Hazard Communication

Annually, about 32 million workers work with and are potentially exposed to one or more chemical hazards. Because of the seriousness of potential safety and health problems, and because many employers and employees know little or nothing about them, the Occupational Safety and Health Administration (OSHA) issued the Hazard Communication Standard. The basic goal of hazard communication is to ensure that employers, employees and the public are provided with adequate, practical, reliable and comprehensible information on the hazards of chemicals so that they can take effective preventive and protective measure for their health and safety. OSHA has aligned its Hazard Communication Standard (HCS) with the GHS or Globally Harmonized System of Classification and Labelling of Chemicals

The Four Parts of the Hazard Communication (HazCom) Program

There are four parts to a hazard communication program:

1. **Written Plan** – HazCom requires employers to develop, implement and maintain a written hazard communication program that describes labels or other forms of warning, safety data sheets and employee information and training. The written HazCom plan can be located in project procedure PP4-19. It is available in Documentum and has a wealth of very specific information on the program.

2. **Employee Training** – HazCom training will be provided to all personnel who routinely perform work onsite according to the following guidelines:
   a. Within the first 30 days of employment; and,
   b. Whenever new chemical or physical hazards are introduced at the workplace.

   *Refresher training of sufficient content and duration will be provided to individuals whenever their work activities change.*

3. **Safety Data Sheets (SDSs)** - An SDS is a compilation of information required under the OSHA Hazard Communication Standard. This data is usually provided by chemical manufacturers describing a chemical's toxicity, health hazards, physical properties, fire hazards, and reactivity data including storage, spill, and handling precautions. MOX Services maintains SDSs that are received prior to purchase or with incoming shipments of all chemicals. SDSs are readily-accessible during each work shift to employees. Contact your supervisor if you wish to read or obtain a copy of an SDS.

4. **Product Warning Labels** – HazCom labels from the manufacturer will contain signal words, hazard statements, pictograms, and precautionary statements.
   1. Signal word indicates the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words for HazCom are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.
   2. This signal word is generally followed by a hazard statement such as, "Danger Flammable."
3. This may be followed by precautionary statements. There are four types of precautionary statements presented, "prevention," "response," "storage," and "disposal."

4. Finally, the appropriate pictograms are shown to reflect the hazards.

**Hazardous Chemical Ratings:** Every chemical container must be labeled with the following information:

1. Product identifier;
2. Words, pictures, symbols or combination, which provide general information regarding the hazards of the chemicals.

If the manufacturer's warning label is damaged or missing, or the product is transferred to a secondary container, then a HazCom Label must be used. The individual who transfers a chemical from the original containers to a secondary container is responsible for applying the HazCom labels. The appropriate HazCom label for all chemicals at the MFFF construction site can be found on the SDS and Approved Product List (APL). More than one Pictogram or label may apply to a product. Be sure to use ALL appropriate labels. A link to the SDS and Approved Products List appears on the left side of the MOX Today home page.

The four bars are color-coded, using the modern color bar symbols with blue indicating the level of health hazard, red for flammability, orange for a physical hazard, and white for Personal Protection. The number ratings range from 0-4.

**Blue/Health**

The Health section conveys the health hazards of the material. If an asterisk is present, it signifies a chronic health hazard, meaning that long-term exposure to the material could cause a health problem such as emphysema or kidney damage.

4. Life-threatening, major or permanent damage may result from single or repeated overexposures (e.g., hydrogen cyanide).
3. Major injury likely unless prompt action is taken and medical treatment is given.
2. Temporary or minor injury may occur.
1. Irritation or minor reversible injury possible.
0. No significant risk to health.

**Red/Flammability**

The criteria used to assign numeric values (0 = low hazard to 4 = high hazard)

4. Flammable gases, or very volatile flammable liquids with flash points below 73 °F (23 °C), and boiling points below 100 °F (38 °C). Materials may ignite spontaneously with air (e.g., Propane).
3. Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 °F (23 °C) and boiling points above 100 °F (38 °C), as well as liquids with flash points between 73 °F and 100 °F.

2. Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 °F (38 °C) but below 200 °F (93 °C) (e.g., Diesel fuel).

1. Materials that must be preheated before ignition will occur. Includes liquids, solids and semi-solids having a flash point above 200 °F (93 °C) (e.g., Canola oil).

0. Materials that will not burn (e.g., Water).

**Orange/Physical Hazard**

Reactivity hazard are assessed using the OSHA criterion of physical hazard. Seven such hazard classes are recognized: Water Reactives, Organic Peroxides, Explosives, Compressed gases, Pyrophoric materials, Oxidizers, and Unstable Reactives.

4. Materials that are readily capable of explosive water reaction, detonation or explosive decomposition, polymerization, or self-reaction at normal temperature and pressure.

3. Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, self-react, or undergo other chemical change at normal temperature and pressure with moderate risk of explosion.

2. Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

1. Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

0. Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

**Chemical Hazards**

**Physical hazards** are a chemical for which there is scientifically-valid evidence that it can cause harm to a person. Examples are listed below.

**Health hazards** means a chemical for which there is statistically significant evidence that acute or chronic health effects may occur when it is inhaled, ingested, touched, or absorbed by the skin.

**Chemicals have two types of effects:**

a. **Acute Effect:** Characterized by rapid exposure to a harmful material in a short period of time.

b. **Chronic Effect:** Characterized by exposure to harmful material in small doses over a long period of time.
No one can predict how a particular chemical will affect a specific individual. SDSs tell only what happens to groups of people, but they do provide a reasonable indication.

**Routes of exposure**
Exposure routes are different ways chemicals enter your body. Some chemicals are more toxic by one exposure route than by another. For example, onion juice vapor irritates the eyes, but skin contact with onion juice produces little or no effect. In addition, some routes are more direct, depending on the physical state (i.e., solid, liquid, or gas) of the chemical. Another example is airborne asbestos fibers that are inhaled can induce cancer, but other exposure routes to asbestos are not significant. The same is true of alpha-emitting particles (e.g., plutonium-239).

There are four main routes of exposure:

a. **Breathing/Inhalation** takes a chemical from your nose or mouth, down your windpipe, and into your lungs. Some chemicals get trapped in your lungs. Other chemicals exit your body when you breathe out. However, many pass from your lungs into your bloodstream. Once in your bloodstream, chemicals can spread throughout your body and cause injury or disease far away from the original site of contact.

b. **Skin Absorption** hazards pass through the skin on contact and enter the bloodstream through the pores. Once in your bloodstream, chemicals can spread throughout your body and cause injury or disease far away from the original site of contact. Chemicals can also be absorbed through the mucous membranes of the nose.

c. **Swallowing/Ingestion** takes a chemical from your mouth, down your esophagus, and into your stomach. From there, many chemicals enter the small and large intestines, where they can be absorbed into the bloodstream and spread throughout your body. Damage can be done at any point along the digestive tract.

d. **Injection** allows a chemical to enter the bloodstream via sharp objects or pressure penetrating the skin.
Target Organ Effect
Target organ effect is defined as the damage done to organs of the body from exposure to certain materials or chemicals.

Chemical exposure may cause or contribute to many serious health effects such as heart ailments, diseases of the central nervous system, kidney (renal) and lung damage, sterility, cancer, burns, and rashes. Some chemicals may also be safety hazards and have the potential to cause fires and explosions and other serious accidents.

Examples of categories of chemicals and their target organs are:

- Hepatotoxins produce liver damage, such as ethanol and chloroform.
- Nephrotoxins produce kidney damage, such as mercury, antifreeze and lead.
- Neurotoxins attack the central and/or peripheral nervous system, such as mercury, ethyl alcohol, and chlorine gas.
- Hemotoxins affect the blood, such as benzene, lead and carbon monoxide.
- Pulmonary toxins attack the lungs, such as asbestos and silica.
- Cardiovascular toxins affect the heart, such as ethanol, carbon monoxide, and lead.
- Reproductive toxins affect the reproductive system, such as lead, glycol ether, and carbon disulfide.
- Cutaneous hazards affect the skin, such as greases, acids, polychlorinated biphenyls (PCBs), and fiberglass.
- Eye hazards affect the eye, such as lime, cement and mace.

In addition to sensing the chemical itself, exposure hazards can be detected by:

- Spotting equipment failures, such as a ventilation system that stops working, damaged chemical containers, or faulty PPE.
- Spotting leaks, spills, fires, and other emergency situations.
- Recognizing the onset of health effects, such as headache, dizziness, coughing, irritation, or nausea.
- Watching for anything unusual and out of the ordinary.
Employee Responsibilities:

1. Use, handle, and store chemicals properly.
2. Follow MOX Services Hazard Communication requirements for HazCom labeling.
3. Update inventory and usage of chemicals present in your work area as required.
4. Follow the chemical interaction matrix guidelines to avoid dangerous reactions.
5. Dispose of excess chemicals and chemical wastes properly by following approved waste management procedures.
6. To obtain information on container labeling, contact the MOX Chemical Coordinator.
7. Review, understand, and follow the limits and precautions for all MFFF procedures involving chemicals.
8. Wear appropriate PPE as prescribed, when using chemicals.
9. Review the chemical labels and SDS documents prior to using the product.
10. Ask your manager/supervisor if you have questions.
11. Notify your Supervisor if you:
   a. Plan on bringing new chemicals into the work area.
   b. Find chemical containers with labels that are damaged/unreadable.
   c. Cannot find the SDS document for a chemical that is in your work area.
   d. Find containers without any chemical label.
12. Apply the HazCom label to any secondary (i.e., non-manufacturer) containers or manufacturers’ containers that have missing, faded, or damaged labels. Contact the Chemical Coordinator for assistance.

To obtain an SDS for any chemical, contact your supervisor, the Chemical Coordinator, any ES&H Team member, or call (803) 795-7050.

Beryllium Awareness

Beryllium is a metallic element that occurs naturally in about 30 minerals. It is lightweight (lighter than aluminum), but stiffer than steel. It has a high melting point, conducts heat well, and is corrosion-resistant. Though useful, it can cause serious health problems to those who are exposed to airborne particles.

Beryllium is not present at the MFFF construction project. During operations where beryllium may be present in trace amounts, OSHA limits employee exposure in accordance with the requirements of 29 CFR 1910.1000. If you perform work, or have the potential to perform work, in a facility that may contain trace quantities of beryllium, your supervisor/manager or STR will inform you, and you will be required to complete training.
Policies and Procedures

Time Reporting and Attendance

1. MOX Services is on contract with the federal government; therefore we must be attentive to regulatory and contractual requirements of the government.

2. Daily timekeeping depends primarily on the employee. The employee is the one who knows what tasks were performed and how long it took to perform each task. Mischarging through improper time sheet entries is a violation of federal law under the False "Claims Act".

3. Project numbers must be used for charging your time to what you are working on. Check with your Supervisor to determine you have the correct project number prior to performing work. Paper timesheet can be used until electronic version is in place, however; the paper timesheet must be **completed in ink** with no markup corrections, and they must include charge code number/s. *(If your work scope activities do not fall within the charge code description, bring this to the attention of your Supervisor.)* Provide an explanation for any mark-outs.

4. “Floor checks”, time keeping audits may be conducted at any time. Workers will be randomly selected for verification of compliance with timekeeping requirements.

Work Schedule

1. Core hours for the MOX Project are from 8 AM until 4 PM Monday through Thursday with Managers having latitude on Fridays for a 3 o’clock end time. Core hours are the hours that most employees are expected to be present for duties. Most departments operate on a 9/80’s work schedule. On this schedule employees work 9 hour days Monday through Thursday and 8 hours every other Friday. Construction and some supporting groups remain on a 4X10 schedule.

2. General and site office hours are between the hours of 6 AM to 6:30 PM. Routine work should be completed during this time frame. Your schedule may vary and will need to be worked out between you and your supervisor.

3. Work outside of the general and site office hours must be authorized by your supervisor in advance of the scheduled work.

4. Employees must notify their Lead, Supervisor, Manager or STR by 8:00 AM if they are going to be absent or late. Notifications should be made as soon as possible.

5. All schedules must include an unpaid break (minimum 30 minutes) for lunch. Any additional breaks must be made up (smoke-breaks).

6. You must work the time before you can record your hours!
7. Employees shall not be permitted to work more than:
   - 16 hours in a 24 hour period, excluding applicable shift turnover time;
   - 24 hours of work during any 48 hour period, excluding applicable shift turnover time;
   - 48 hours of work during any 72 hour period, excluding applicable shift turnover time;
   - 84 hours of work during any 7 day period, excluding applicable shift turnover time;
   - 14 days without having 2 full days off (48 consecutive hours).

Subcontract Technical Representative (STR)

After a subcontract is awarded, the STR is the point of contact for both MOX Services personnel and for the Subcontractor.

STR Duties and Responsibilities:
   a) Technical lead for the subcontract.
   b) Monitors the subcontract.
   c) Coordinates changes according to procedures.
   d) Evaluates the subcontractor.

Sexual Harassment

It can be difficult to draw the line between friendly behavior, flirtation, and sexual harassment. The determining factor is whether the behavior is unwelcome. "Welcome" is always determined from the recipient’s point of view. Even if the intention behind the behavior is merely to be friendly, the behavior could be sexual harassment if it has an intimidating or offensive impact on the recipient.

Each employee should report to their supervisor any behavior observed or encountered that may constitute sexual harassment for investigation.

Sexual harassment will be subject to disciplinary action up to and including dismissal.

Fitness for Duty

MOX Services depends on the results of credible substance abuse tests as a major tool to ensure a safer, more productive drug free workplace. With this in mind, we must do everything possible to prevent drug-abusing workers and job applicants from successfully altering test results and thereby undermine the benefits of our drug screening program. Accordingly, effective immediately, MOX Services establishes the following Management Directive to address conduct associated with tampering or falsifying substance abuse test results:

Any individual(s) attempting to or assisting with switching, tampering or adulterating or possessing tools or paraphernalia capable of switching, tampering or adulterating any specimen or sample(s) collected under MOX Services Fitness for Duty policy is strictly prohibited. Any such efforts will result in immediate
removal from the site and appropriate disciplinary action up to and including termination.

**Workplace Violence**

Workplace violence is any verbal abuse, threatening behavior, or physical assault, occurring in the work setting. Examples of workplace violence include, but are not limited to, abusive language, verbal threats of physical violence, obscene or harassing phone calls, stalking, hitting, punching, shooting, stabbing, rape, beatings, or suicide. If you perceive an immediate threat to your personal safety or you have experienced an actual physical assault in the workplace, call 9-725-3911 immediately or have someone call on your behalf. If no immediate physical threat is present, such as in cases of verbal threats, heated arguments, etc., immediately report the incident to your supervisor, MOX Services Security at 803-819-8921, the MOX Services HR Manager at 803-819-5651, or the Employee Concerns Program (ECP) Hotline at 803-819-2327. If reported to the ECP, the ECP will work with Savannah River Site Security and the appropriate personnel to fully investigate and resolve your complaint.
PROCUREMENT

Procurement means to acquire or obtain something. It is MOX Services’ policy to use sound business practices to procure goods and services in an ethical manner that provides maximum value for each expenditure, taking into consideration cost, delivery, quality, reliability, applicable law and regulations.

Non-procurement personnel may contact suppliers regarding general requirements, product information, specifications, and other information. Under no circumstances are there to be discussions that could: imply a MOX Services commitment to purchase, create a noncompetitive situation or create a favored supplier relationship. The process of obtaining quotations and negotiating prices for the purpose of developing cost estimates or committing materials and services during the proposal stage or during the execution of a project will be performed solely by Procurement through its appropriate representatives.

MOX Services personnel are expected to adhere to the highest standards of business ethics and to conduct themselves and MOX Services business in a manner that will safeguard MOX Services’ reputation, retain the respect of MOX Services’ clients and associates, and comply with applicable law and regulation governing the conduct of business under MOX Services’ DOE prime contract.

Students will complete the MOX Services PERSONNEL - VENDOR ETHICS CERTIFICATION during this portion.
MOX Services Environmental Stewardship

CB&I AREVA MOX Services (MOX Services) Environmental Safety & Health (ES & H) is committed to excellence and leadership in protecting the environment at all MOX Services work locations, at Savannah River Site (SRS), and within our community. Accordingly, it is the policy and practice of MOX Services to conduct all day-to-day construction activities and future operations in a manner that protects human health and the environment, and to be in full compliance with federal, state, and local environmental laws, regulations, and other relevant requirements. The MOX Services Environmental Sustainability Policy Statement established MOX Services’ commitment to systematically integrate environmental stewardship principles into the planning and execution of work at all levels so that the MOX Services mission is effectively accomplished for the benefit of the public, our employees, and the protection of the environment.

The MOX Services Environmental Sustainability Policy Statement was the first step in implementing an Environmental Management System (EMS) to determine, prioritize, implement, and improve on how MOX Services addresses environmental protection and waste management issues.

MOX Services Environmental Management System (EMS)
MOX Services’ EMS is the framework to achieve full compliance with federal, state and local laws and regulations as well as DOE and NNSA requirements. MOX Services uses the EMS to continually mitigate the impact of its activities on the environment, which include day-today tasks, one-time events, and facility design and construction. Through annual assessments, MOX Services identifies which activities have the potential for the most significant impact on the environment and are identified for MOX Services activities annually. For each of these Significant Environmental Aspects (SEAs), MOX Services sets measurable and achievable Objectives and Targets to ensure these activities minimize the impact on the environment. Employees should be aware of these EMS Objectives.

In order to continually manage and improve MOX Services’ environmental protection performance and to mitigate or eliminate any impacts on the environment, MOX Services works diligently to achieve the environmental objectives and targets that have been established for each SEA. Each MOX Services employee should understand that following environmental compliance and waste management procedures is crucial to meeting the EMS Objectives and Targets. Special tasks may also be assigned to personnel to reach specific EMS Targets.
The current EMS Objectives are:

1. Maintain regulatory compliance;
2. Minimize pollution associated with storm water runoff and wastewater discharges;
3. Prevent risks associated with the handling and storage of hazardous materials;
4. Minimize air emissions;
5. Minimize generation and hazards of waste; and,
6. Maintain an environmentally-sustainable site.

How do you think your job may affect these EMS Objectives? That is something you should think about every day.

MOX Services Environmental Protection and Compliance Program

The MOX Services Construction Environmental Protection Manual and the implementing through project procedures were designed to protect the environment through strict compliance with all relevant environmental laws and regulations.

To protect the environment for our future generations, all MOX Services employees and its subcontractors must comply with all federal, state and local laws; applicable Savannah River Site (SRS) procedures; and all MOX Services ES&H procedures.

If you have any questions about your job activities and how they may affect the environment, or have any questions about ES&H procedures, please contact your supervisor or MOX Services ES&H.

1. Prevention of Storm Water Erosion and Sedimentation

Without the appropriate storm water controls (e.g., silt fences, rock check dams), storm water runoff will erode soils and deposit them as sediment in unwanted places. To prevent this, specific storm water controls have been installed and are inspected monthly to ensure they are working properly. Here are some ways that MOX Services employees and subcontractors can assist in this effort:

- Do not leave liquid or solid wastes on the ground; especially in a storm water pathway;
- Do not dump any wastewaters into the storm sewers or ditches;
- Avoid outdoor storage of materials, when possible. Indoor storage is preferred;
- Do not move or damage silt fences, hay bales, swales, rip-rap, and diversion dams that have been installed to prevent storm water sedimentation and erosion;
- Report any damaged sedimentation and erosion control devices to the Subcontractor Technical Representative (STR) immediately and request ES&H support.
2. **Wastewater Management**

Wastewater is defined as any water-based material resulting from a construction activity, even if the water originated from a domestic water system. That is because pollutants can enter a water stream as a result of traveling through piping, through abrasive contact with concrete walls, or if chemicals (e.g., chlorine) have been added.

**Exceptions:** Rainwater is not a wastewater unless it is exposed to pollutants. Non-contaminated rainwater can be disposed through common dewatering practices.

If you are working with water and are not certain if it could become a wastewater, notify the ES&H in advance of implementing any process that will use water. ES&H can direct you in the proper method for collecting and disposing of that water.

2. **Control of Air Emissions**

MOX Services emits two types of air pollutants; point source emissions and fugitive emissions. Point source emissions come from specific activities, such as the emergency diesel generators and the Concrete Batch Plant (CBP). Point sources are regulated by air permits from South Carolina Department of Health and Environmental Control (SCDHEC). MOX Services must ensure all permit requirements are followed, such as using filters on the CBP to minimize dusting, limiting the hours the emergency generator is operated, and ensuring generators receive the proper preventive maintenance. To determine if your work requires a permit, contact ES&H prior to placing any new air emission source into operation.

Fugitive emissions are mobile activities (e.g., driving) or temporary activities (e.g., painting, welding) that cause dust (i.e., particulates), metal fumes or solvent vapors to be emitted into the air.

3. **Oil Management & Spill Response**

Petroleum products and oils are chemicals with special regulatory requirements. MOX Services organizations and subcontractors must notify ES&H of any oil (e.g., petroleum, silicone oil, vegetable oil) containers that exceed 55 gallons, known as bulk containers. To manage bulk containers of oil, MOX Services has developed a Spill Prevention Control and Countermeasures (SPCC) Plan, which details the location of all bulk oil containers, their containment, how to respond to spills, and who to notify if a spill occurs. Construction activities may result in unintended spills of fuels, oils, chemicals, and other materials that have the potential for damaging the environment. If you see a
spill, without putting yourself in danger, determine the type of material spilled and the approximate amount and then take the following steps:

**Immediately** report any oil or chemical spills to your Supervisor, Manager, Lead, STR, or the ES&H Duty Person; You must provide information on the spill to ES&H, who will call the SRSOC at 725-3911 or 803.725.3911, NNSA-SR and other organizations, as appropriate; and, ES&H will provide guidance, based upon the appropriate Safety Data Sheet (SDS) document, regarding the appropriate methods to clean up the spill. If you handle oil containers greater than 55 gallons you must attend annual SPCC Training.

4. **Legacy Waste Units**

In the early years of SRS, prior to environmental legislation, radioactive and hazardous wastes were disposed of in seepage basins, rubble piles, and ash pits. Modern technology has replaced these practices and most areas have been cleaned up. However, there are still some locations that have the potential to have some of these legacy materials. These locations are listed in the Federal Facility Agreement (FFA), and are clearly marked with orange balls and/or signs. (These are the same orange balls that are used to warn low-flying aircraft of power lines.)

**Warning:** An employee or subcontractor must not enter, begin work in or around, or disturb the area unless contact has been made with ES&H who will make the appropriate contacts with Savannah River Nuclear Solutions (SRNS).

5. **Land Disturbances**

MOX Services shares F-Area, with several other legacy projects and facilities. Some of these have active buried utility, chemical and radiological lines. To ensure you don’t accidentally disturb these services or pipes, site clearance permits are obtained from SRNS. These site clearance permits generally take up to 30 days to obtain.

The MOX Services ES&H works with SRNS to obtain these site clearances after, meet any regulatory requirements, and tests the areas prior to beginning work.

**Temporary Structure Renovation/Demolition**

Similarly, SCDHEC conservatively assumes that all structures, new or old, have the potential for Asbestos Containing Material (ACM) and other hazardous materials. Therefore, SCDHEC requires an asbestos survey and permit prior to the renovation or demolition of any structure.
To ensure that MOX Services complies with this requirement, MOX Services employees and subcontractors must contact ES&H, **before** installing, renovating or demolishing structures. ES&H will discuss the approval process which may include sampling materials for asbestos or ACM and compiling building material specifications. Then, ES&H will develop the required permits with SCDHEC.

3. **MOX Services Waste Management Program**

In concert with the Environmental Compliance Program, MOX Services has developed and implemented a Waste Management (WM) Program. The WM Program, is detailed in the *Waste Management Manual*, and implemented through project procedures; some of which will be assigned to you as required reading. The WM Program is designed to ensure that waste materials are properly managed through reuse, recycling or disposal and that the project complies with all relevant requirements in waste disposal laws and regulations. Note that requirements for industry and construction are much more stringent than what is required at your home. But by following the relatively simple steps of segregating waste materials before placing into a container, you can make a big difference in this project by

1. Reducing landfill waste volumes through recycling;
2. Minimizing transportation and disposal costs by reducing volume of waste generated;
3. Eliminating rejected loads; and,
4. Minimizing rework labor costs by doing the job correctly the first time.

To ensure wastes are properly segregated for proper recycling or disposal, MOX Services inspects waste containers on a routine basis. To demonstrate compliance, MOX Services keeps records of all waste shipments.

1. **Office Waste Management**

The majority of construction wastes are classified as non-hazardous waste, which is managed under a specific procedure on the project. The procedure provides a list of waste items that are considered prohibited items. These prohibited items are never allowed in the general trash. They must be handled under the direction of ES&H.

To reduce the cost of disposal and maximize recycling associate with non-hazardous waste MOX Services segregates the waste further. Construction wastes are divided into rubble, metal, wood and trash. The rest of the project waste is considered office trash.

Office trash includes most everything generated in the MOX office complexes with a few exceptions such as Universal Waste, which will be described later in this training. The office trash cans are emptied routinely by housekeeping staff and the waste placed into the blue-green dumpsters located outside each office facility.
Note: Currently, the project recycles cardboard by placing into dumpsters for processing at the MRF. Therefore, please break down boxes and packing materials, so that the cardboard will fit into each dumpster.

2. Universal Waste Management

Universal Waste (UW) is a hazardous waste that requires special handling. The major categories of universal waste are:

- Universal Waste Batteries - Various batteries (e.g., lithium, mercury, silver oxide, nickel cadmium, nickel metal hydride);
- Universal Waste Pesticides - Recalled pesticides;
- Universal Waste Mercury-containing equipment; and,
- Universal Waste Lamps, including non-green tip fluorescent, high intensity, discharge, neon, mercury vapor, high pressure sodium, and metal halide.

Construction activities and operations have the potential to generate three of the four possible UW types. MOX has developed a procedure to safely and properly manage UW.

UW must never be placed in a dumpster.

3. Waste Management Procedures and Training

WM responsibilities and associated training are assigned to project personnel depending upon the type of work you do. All personnel working at the MFFF construction project are required to understand the basic rules associated with WM. Field and craft personnel, who use or manage construction waste containers, are required to attend additional training to learn the more job specific rules for waste handling. These personnel include construction managers, supervisors, foremen, craft, equipment operators and the general labor force.

To begin with, it is important for you to know that MOX Services is required to and is responsible for characterizing all waste generated on the project. Waste may be non-hazardous, hazardous, radioactive or mixed waste (mixed waste is waste that is both radioactive and hazardous). During construction, the project will not generate radioactive or mixed waste. The characterization for all waste streams must be carefully documented. So if you are planning to create a new waste stream, contact ES&H. ES&H will evaluate the waste to determine if it is hazardous or non-hazardous and what the appropriate method to manage is for a new waste.
Waste Minimization, Pollution Prevention and Sustainability

Obviously, the best way to manage waste is to not create it in the first place! MOX Services has developed Waste Minimization, Pollution Prevention and Sustainability Plan (WMPPSP) to provide guidance on this topic. The principles are implemented through the plan and ES&H procedures, which minimize waste disposal through source reduction, material reuse or waste recycling. Waste disposal is the least desirable option because it increases projects costs due to purchase of unused materials, transportation of the materials to and from site, double handling the materials, and, finally the waste disposal.

Currently, the three most cost-effective and compliant methods for waste minimization are:

1. Site Excess Program repurposes items that are no longer needed, but are still useful such as equipment, tools, computers, building materials, and chemicals.

2. Off-site Recycle Programs are for items that can be intercepted, reprocessed, and portions of the materials that can be reused. Items that are commonly recycled include, but are not limited to: wood, cardboard, paper, metal, plastic, and electronics.

2. Pollution Prevention through design plans ahead so that programs make the most of the required resources. Methods include Design facilities with materials that will reduce waste generation during operations; Good housekeeping practices; Purchasing only what you need; Usage of sustainable acquisition programs, which prioritize environmentally-preferred products; and, Preferred usage of non-hazardous and non-toxic materials.
4. Natural Resources Management Plan

In April 2012, NNSA-SR, with the assistance of the Savannah River Ecology Laboratory (SREL) and SRARP, planted a Conservation Garden in front of the Administration Building. This garden contains the endangered smooth purple coneflower. It also includes other native species, local stone cobbles, and reproductions of archaeological artifacts. One plant, the sky-blue lupine, is a larval host for several species of butterflies, including the rare Frosted Elfin.

Other threatened or endangered species may be located at SRS, although not on the MOX Services footprint. Contact ES&H if you see any of these species or a wetland disturbance. ES&H will make the appropriate contacts to NNSA-SR and USDA-SR.

In addition to the endangered species, MOX Services must abide by Migratory Bird Act (MBA). This means that ES&H must be notified immediately if a bird’s nest is located since it is illegal to move it during certain times if it is a protected MBA species. ES&H will observe the nest. If no eggs are present, ES&H will remove the nest. If eggs are present, the location of the nest and date of discovery will be logged. The nest may NOT be disturbed until the birds abandon it.

5. Energy Efficiency and Conservation

To comply with a DOE Order, MOX Services has committed to reducing its energy consumption, whenever practical. Therefore, each employee and contractor must do their part by turning off equipment and non-essential lighting when not in use, as much as you would do in your own home.

As part of the commitment to energy conservation, MOX Services Administration Building was designed to be energy efficient and meet certain “green-design” requirements. It received a Gold Leadership in Energy and Environmental Design (LEED) certification in September 2010.
Employee's Responsibilities

Complying with environmental laws and regulations for the safety of employees, the public, and the environment is extremely important for the MOX Services Project and SRS. Accordingly, all MOX Services employees and subcontractors are responsible for:

- Follow all environmental procedures;
- Notifying their immediate supervisor or manager, the proper organization, and MOX Services ES&H IMMEDIATELY if there is a non-compliance issue;
- Considering the potential effects of each job on the environment and waste generation prior to beginning work;
- IMMEDIATELY reporting all spills or releases to the environment to your Supervisor, Manager or STR; and,
- Becoming familiar with the MOX Services EMS and current SEAs to ensure they are working toward the objectives and targets affecting their work.

The consequences for not fulfilling these responsibilities can affect not only the success of the project, but may also affect you personally. Failure to comply with these rules can result in:

- Disciplinary action;
- Increased project costs;
- Interrupted project schedule;
- Regulatory non-compliances and fines;
- Environmental damage; and, Criminal penalties.
General Employee Radiological Training (GERT)

10 CFR 835 states that each individual shall complete radiation safety training commensurate with the hazards in the area and the required controls before being permitted unescorted access to controlled areas and before receiving occupational dose during access to controlled areas at a DOE site or facility.

In a Controlled Area, you may encounter radiological barriers, postings, radiation producing devices, or radioactive materials. Your responsibilities for observing and obeying these barriers, postings, and procedures are emphasized throughout this training.

Maintain Radiation Exposures ALARA

Even though the mission at SRS has changed from production to waste management and environmental restoration, the SRS policy for protecting employees, visitors, the general public, and the environment has not changed.

It is and always has been SRS’s policy to maintain personnel exposure to radiation and radioactive materials at a level that is As Low As Reasonably Achievable (ALARA). Radiation exposure of the work force and public shall be controlled such that exposures are well below regulatory limits and that there is no radiation exposure without an overall benefit.

Additional Training

Additional training beyond GET is required for the employees who are identified as radiological workers. Every employee, both radiological worker and non-radiological worker, must play an active part in maintaining exposures to radiation and radioactive materials within DOE limits and As Low As Reasonably Achievable (ALARA).

Definitions

It is important for you to know that as a general employee, you will probably NOT be exposed to radiation, radioactive materials, or radioactive contamination.

Radiation is energy from unstable atoms emitted through space and matter.

Radioactive material is material that contains unstable atoms.

Radioactive contamination is radioactive material where you don’t want it to be.
Risks in Perspective
Even though we know that there are many benefits associated with radiation and radioactive materials, accepting a risk of any kind, such as smoking, driving a car, working at a nuclear facility, or playing football, is a highly personal matter.

Risk Comparison
Risks associated with occupational exposures are low when compared to other risks from normal day-to-day activities. Occupational radiation doses are considered to be chronic doses. A chronic radiation dose refers to small amounts of radiation received over a long period of time.

Biological Effects
Biological effects from chronic radiation doses may occur, although the risks are very small. These effects may show up in the exposed individual or in the future children of the exposed individual.

"Exposed individuals" have a slight risk that cancer may develop due to chronic radiation doses. This risk is small when compared to the natural occurrence of cancer. The high cancer incidence rate in the population makes it difficult to measure the additional risk of fatal cancers due to low-level radiation exposure.

Using data furnished by the National Academy of Sciences, a single whole body dose of 10,000 millirem delivered to a large population of persons of all ages could result in an increased risk of fatal cancers of less than 1 percent. The millirem is a unit used to express how much radiation we receive.

As for future children of the exposed individual, genetic effects have been extensively studied in plants and animals, but there have been no genetic effects clearly caused by radiation observed in human populations.

Sources of Radiation
Our occupational exposure is not the only example of a chronic radiation dose. Another example of a chronic radiation dose is what we receive from natural background sources of radiation. We are also exposed to man-made sources of radiation.

Natural Background
- Cosmic radiation- Sun and outer space
- Radon (a gas)
- Earth’s crust- Rocks/soil
- Materials in our bodies such as Potassium-40

Man-made sources
- Medical uses - x rays and nuclear medicine
- Consumer products, such as smoke detectors, tobacco products and exit signs that glow in the dark
Average annual dose

The general public receives about 620 millirem/year from natural background and man-made sources of radiation.

Personnel Dose Limits

Since there may be risks involved from chronic doses of radiation, there are limits and special policies put in place as to the amount of radiation workers may potentially receive.

General Employee Radiation Dose Limit

The DOE whole body radiation dose limit for the general employee (a non-radiological worker) is 5000 mrem/year. However, at SRS, a general employee (non-radiological worker) is administratively controlled to 100 mrem/year.

Embryo/Fetus

Because a developing embryo or fetus is especially sensitive to radiation, a special policy is in place. Radiation doses to the embryo or fetus may increase the chances that the child will have slower mental growth, low birth weight, a small head size, or childhood cancer.

Special Policy for a Declared Pregnant Worker

After a female radiological worker voluntarily notifies her employer, in writing, that she is pregnant, she is considered a declared pregnant worker. The employer then provides the option of a mutually agreeable assignment of work tasks, without loss of pay or promotional opportunity, such that further occupational radiation exposure is unlikely.

Access to Exposure Reports

If you are monitored for exposure, you have the right to request reports of that exposure.

- Upon request, an employee may receive a current radiation exposure report by contacting Radiation Protection personnel.
- Monitored personnel will receive an annual report of their exposure.
- Upon termination, a report of radiation received will be available within 90 days.

NOTE: Individuals who have received radiation exposure at facilities away from SRS should arrange for those dose records to be sent to the SRS Dosimetry Records Coordinator.
Methods Used to Control Radiological Material

Just as there are signs that we see in our daily lives that help control access to areas or regulate our driving habits, SRS uses signs and specific barriers to control access to various areas controlled for radiological purposes.

Radiological signs and barriers
Signs that have the standard radiation symbol colored magenta or black on a yellow background are used to identify radiological areas and radioactive material. Yellow and magenta rope, tape, chains or other barriers also designate the boundaries of these areas.

Special packaging
Yellow plastic wrapping or a labeled container is used to package radioactive material. **Yellow plastic sheets cannot be used for non-radiological purposes.**

Designated storage areas
We use designated areas to store radioactive material. In areas that have radioactive contamination, protective clothing and equipment are used to prevent personnel contamination.

Each type of radiological area will be posted as to whether the area has a radiation hazard and/or a contamination hazard

**Areas a General Employee CAN Enter Unescorted**

As a general employee, you can enter these areas without a radiological worker escort or any type of radiological controls.

* Radiological Buffer Area (RBA)

- A Radiological Buffer Area is an intermediate area established to:
- Prevent the spread of contamination.
- Protect personnel from radiation exposure.
- Provide a buffer area between Controlled Areas and radiological areas.

**Remember, if the URMA and SCA are located inside the RBA, you must be escorted by someone who can enter the RBA unescorted.**
Areas a General Employee CANNOT Enter Unescorted

**GERT will NOT allow unescorted access to:**

- Radiological Buffer Area (RBA)
- Radioactive Material Area (RMA)
- Radiation Area (RA)
- Contamination Area (CA)
- Inactive Contamination Area (ICA)
- High Radiation Area (HRA)
- High Contamination Area (HCA)
- Inactive High Contamination Area (IHCA)
- Airborne Radioactivity Area (ARA)
- Very High Radiation Area (VHRA)
- Radiography Area

Employee Responsibilities

A positive radiological attitude is not limited to those who perform radiological work. All employees have an impact on maintaining exposures to radiation and radioactive material As Low As Reasonably Achievable.

- Read and obey all signs and postings.
- Comply with all radiological and other safety rules.
- Do not enter any area controlled for radiological purposes unless escorted or trained.

Here are some rules if you are being escorted:

- Obey the instructions of your escort. Your escort will inform you of any entry procedures requiring a Whole Body Count (WBC), submitting bioassay samples, or signing in on a Radiological Work Permit (RWP).
- Use ALARA techniques while in the area to minimize your exposure. These would include minimizing your time in the area or maximizing your distance from a source of radiation.
- Be alert for and report unusual radiological situations.

If you discover radiological material that appears to be unattended (e.g., discarded in a trash receptacle or loose outside or in a building corridor), **DO NOT** touch or handle the material.

Warn other personnel not to approach the area. Guard the area. Have someone notify Radiation Protection personnel. Wait for the Radiation Protection personnel to arrive before leaving the scene.

- Know where and/or how to contact Radiation Protection personnel in your work area.
- Comply with emergency procedures for your work area.
- Keep exposures to radiation and radioactive materials ALARA.
- Know your dose history.
GOVERNMENT PROPERTY

MOX Services is responsible for all government property acquired, fabricated or provided under the Prime Contract between MOX Services and the U.S. DOE.

Government Property (GP) – all property owned by or leased to the Government or acquired by the government under the terms of the MOX Services Prime contract, including both Contractor Acquired property and Government Furnished property. In addition to equipment of all types, government property also includes, but is not limited to, the following: office supplies (pens, pencils, paper, tape dispensers, staplers, calculators, etc.), safety supplies (glasses, gloves, vests, hard hats, safety harnesses, etc.), computer components (mice, keyboards, speakers, cables/wires/cords, internal boards, etc.), hand tools (hammers, wrenches, screwdrivers, tape measurers, etc.), construction supplies (tool belts, ladders, wheelbarrows, etc.), material (nuts & bolts, sand, concrete, rebar, etc). Essentially, government property on the MOX Project includes all items – regardless of value or type – that have been purchased (or leased) by MOX Services.

Identification of Government Property – government property will be identified as “DOE-MOX” where practical. Government property which is not practical to mark or which by its nature cannot be tagged, marked or labeled, e.g., stores property, metal stock, office supplies, items that would be damaged by tagging, etc., is exempted from tagging, marking or labeling.

Private Property – property not owned or rented or leased by the Government. Property owned by individuals or companies.

Private Property of all type requires an identification of ownership when it is used in an area with government property. For example, if you bring from home your own fan to use in your office, you must put a sticker on it identifying it as belonging to you.

Property owned by subcontractors and property being leased by MOX and/or subcontractors will be identified on the equipment as to ownership.

Shipment of Government Property – GP being shipped, transported or otherwise removed from the MOX Project must be approved by Property Management prior to removal. Approval will be obtained when completing the appropriate shipping document. Shipping documents include: PP10-36A Material Shipping Request (MSR), MOX000012 Expedited Shipping Justification (ESJ), PP10-20C Property Bill of Lading, or PP10-20A Property Pass.

Use of Government Property - GP shall be utilized, consumed, moved, or stored only for purposes authorized by the Prime Contract, unless otherwise approved by the NNSA Contracting Officer. Government property shall not be modified, cannibalized, or otherwise altered unless specifically stated in the contract.
Custodian of Government Property – as an employee on the MOX Project you may have some GP specifically assigned to you for you to perform your job. Whether it is a computer or a power tool assigned to you, your responsibilities as a custodian include:

- notifying Property Management should you decide to “permanently” relocate the GP to another room or building

- obtaining approval from Property Management prior to GP being removed from the MOX Project for any reason

- obtaining approval from Property Management prior to affixing anything to the GP or removing anything from it

- notifying Property Management as soon you discover GP to be lost, damaged, destroyed, or abused (includes equipment being leased by MOX) **NOTE: If the missing GP is a computer, blackberry, or cell phone, you should notify Property Management within 30 minutes.**

- notifying Property Management when you decide to transfer GP to another custodian (on the MOX Project)

- returning GP to Property Management when you no longer need it or when it is broken beyond repair

For more information and specific questions, contact MOX Services Property Manager
Located in the BAD
(803) 819-2852 or (803)819-2152
MOXProperty@moxproject.com
List of Acronyms

AEC       Area Emergency Coordinator
ATC       Atmospheric Technology Center
CAC       Construction Administrative Complex (706-2F)
CAT       Consolidated Annual Training
CAF       Craft Assembly Facility (706-7F)
CBP       Concrete Batch Plant (633-F)
CBT       Computer Based Training
CFR       Code of Federal Regulations
COO       Chief Operating Officer
CPR       Cardiopulmonary Resuscitation
BAD       Building, Administration (706-5F)
BAP       Building, Aqueous Polishing
BEG       Building, Emergency (Diesel) Generator (254-20F)
BMF       Building, MOX Facility (226-F) (inclusive of the BMP, BAP and BSR)
BMP       Building, MOX Processing
BRP       Building, Reagents Processing (226-1F)
BSR       Building, Shipping and Receiving
BTS       Building, Technical Support (706-3F)
BSW       Building, Secured Warehouse (731-2F)
DOE       U.S. Department of Energy
EEC       Equipment Engineering Complex (706-6F)
EF        Enhanced Fujita
EM        Environmental Management
EMT       Emergency Medical Technician
EOC       Emergency Operations Center
EPA       Environmental Protection Agency
EPIP      Emergency Plan Implementing Procedure
ES&H      Environment, Safety and Health
FAEC      F-Area Emergency Coordinator
GET       General Employee Training
HAZMAT    Hazardous Materials
HWCC      Hazardous Waste Contingency Coordinator
ICS       Incident Command System
ISC       Incident Scene Commander IT Information Technology
MAC       MOX Administrative Complex (706-1F)
M&O       Management and Operations
MEDCON    Medical Condition

MOX General Employee Training

Mixed Oxide

National Nuclear Security Administration

National Oceanic and Atmospheric Administration

U.S. Nuclear Regulatory Commission

NWS National Weather Service

Oil Removal Contingency Plan

Occupational Safety and Health Administration

Public Address

Process Unit Assembly Facility (226-2F)

Perimeter Intrusion Detection Alerting System

Project Procedure

Staging Area

South Carolina Department of Health and Environmental Control

Spill Prevention Control and Countermeasures

Savannah River Ecology Laboratory

Savannah River Site Operations Center

Savannah River National Laboratory

Savannah River Nuclear Solutions

Savannah River Site

Savannah River Site Fire Department

Subcontract Technical Representative

Training Administrative Complex (706-4F)

Temporary Construction Opening

Gas Storage Area (619-6F)
**Building Number**

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<td>Secure Warehouse (BSW)</td>
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</tbody>
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MOX Project Rally Points

- Primary Rally Point
- Alternate Rally Point
- Parking

Notes
- BSW, CSB and TAC will use CAC rally points
- BTS will use BAD rally points