

FFPO Procedure Blue Sheet Form

A. Procedure Title (list manual, procedure series, or specific procedure #)

SPR Accident Prevention Manual rev 11

Section 36 Personal Protective Equipment

B. Procedure Name/series type (i.e., operations, maintenance, etc.) E S & H

C. Check (✓) one of the following:

1. Procedure(s) accepted “as is” with terminology replaced as denoted in the Site Procedures Approved Terminology Replacement List for the FFPO SPR M&O contract.

2. In addition to the changes in approved terminology for the FFPO SPR M&O contract, improvements to the procedure are warranted:

Category 1 Finding (Resolution prior to contract start)

Category 2 Finding (Resolution within 90 days of contract start)

Category 3 Finding (Resolution to the Issues Management program)

D. Comments/Notes:

E. Forward a copy of this form to the FFPO Director, Business Management for revision tracking.

Signed

FFPO Reviewer Signature

02/28/14

Date

Steve Mahan

FFPO Reviewer Print Name

Site Procedures Approved Terminology Replacement List

Approved Terminology Replacements



Terminology to be Replaced	Substituted Verbiage
AGSC	M&O Contractor or MOC
Boeing	M&O Contractor or MOC
Construction Management Services or CMS contractor	M&O Contractor or MOC
DynMcDermott or DM or Company	M&O Contractor or MOC
DM Contract No.	M&O Contract
Organizational Changes	
William Gibson or "Hoot"	DOE Project Manager or DOE PM
Robert (Bob) McGough or DM Project Manager or CEO	MOC Project Manager or MOC PM
Randy Sutton (Acting) or DM General Counsel	MOC General Counsel or MOC GC
Scott Landry or DM APM, O&M and COO	MOC APM, O&M
APM, Cavern Integrity	Senior Director, Cavern Integrity
Colleen Yates or DM APM, Business Operations and CFO	MOC APM, Business Operations and CFO
APM, Security and Emergency Preparedness or Director, Security and Emergency Preparedness Division	Senior Director, Security & Emergency Preparedness
Henry Schmidt, Jordan Jones, or Duane Johnson	Senior Director, Security & Emergency Preparedness
Leslie Williams or APM, Data Systems or Data Systems Director	Senior Director, Data Systems
William Bozzo or DM APM, ES&H	MOC APM, ES&H
Walt Newcomb or DM Director, Energy & Sustainability	Director, Environmental
J.P. Martinez or DM APM, Engineering	MOC APM, Engineering

ACRONYMS

- AGSC ASRC Gulf States Constructors
- APM Assistant Project Manager
- ASRC Arctic Slope Regional Corporation
- CAS Contractor Assurance System
- CFO Chief Financial Officer
- COO Chief Operating Officer
- ES&H Environment, Safety, and Health
- GC General Counsel
- M&O Management and Operating
- MOC Management and Operating Contractor
- O&M Operations and Maintenance
- PM Project Manager

36. PERSONAL PROTECTIVE EQUIPMENT

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36.1. GENERAL

36.1.1. Introduction

This section provides for and establishes the requirements for use of personal protective equipment (PPE) when necessary to protect personnel from workplace hazards that could cause injury or illness. It also defines the responsibilities for evaluation, procurement, distribution, maintenance, inspection, identification, and use of PPE which the employer shall provide at no expense to the employee. This procedure applies to SPR plans and activities. The PPE requirements apply to all personnel and activities on SPR property.

NOTE

Personal protective devices alone should not be relied on to provide protection against hazards, but should be used after deploying engineering controls, administrative controls, guards, and sound operating practices.

36.1.2. Application

All routine and non-routine activities shall have a PPE hazard assessment conducted, to include changes in operation, products and/or services. This is especially important wherever hazards of processes or hazards based on the environment, chemicals, radiological threats, or mechanical irritants are encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

36.1.3. PPE Design

- a. All personal protective equipment shall be of safe design and construction for the work to be performed.
- b. All Personal Protective Equipment shall be designed and approved according to the appropriate ANSI standard.

36.1.4. Defective and Damaged PPE

- a. Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, and protective shields and barriers, shall be used and maintained in a sanitary and reliable condition.
- b. Defective or damaged personal protective equipment shall not be used and shall be removed from service.

36.1.5. Training

- a. Employers will provide training to each employee who is required by the task being performed to use PPE.
- b. Each such employee shall be tested to know at least the following:
 1. When PPE is necessary;
 2. What PPE is necessary;
 3. How to properly don, doff, adjust, and/or wear PPE;
 4. The limitations of the PPE; and,

5. The proper care, maintenance, useful life and disposal of the PPE.

NOTE

General PPE guidelines requirements are outlined in Table 36.1 of this section.
ADDITIONAL PPE MAY BE REQUIRED BASED ON THE PPE HAZARD
ASSESSMENT PERFORMED.

36.2. PPE HAZARD ASSESSMENT

36.2.1. Assessment

- a. To determine the need for PPE, an assessor will either conduct a walk-through PPE hazard assessment of each task or perform an assessment of the workplace. The assessor's signature will be the certifying signature on the PPE hazard assessment.
- b. The basic hazards include:
 1. Impact
 2. Penetration
 3. Compression (roll over)
 4. Chemical
 5. Heat
 6. Harmful dust
 7. Light (optical) radiation
 8. Atmospheric conditions.
- c. A PPE hazard assessment shall include trained personnel involved (such as Operations, Maintenance, and subcontractors).
- d. The SPR JHA will identify the PPE required and the form will be used when a Safe Work Permit is required.
- e. If it is a task requiring a Work Authorization Permit, the PPE hazard assessment will be used.

36.2.2. Sources

- a. Each walk-through PPE hazard assessment at an SPR site shall identify the PPE required for the following potential hazards:
 1. Machinery, processes, or sources of motion where any movement of tools, machine parts, or personnel could result in impact with stationary objects
 2. Sources of high temperatures that could cause burns or eye injuries or ignite protective equipment
 3. Possible chemical exposures
 4. Any sources of harmful dust
 5. Sources of radiant light (such as welding, brazing, cutting, furnaces, high-intensity lights)
 6. Sources of falling objects or potential for dropping objects
 7. Sources of sharp objects that might pierce feet or cut hands
 8. Sources of rolling or pinching that could crush feet
 9. Layout of the workplace and the location of coworkers
 10. Any electrical hazards
 11. Potential for atmospheric hazards, such as inadequate oxygen or the presence of hazardous vapors
 12. Site requirements for PPE use in certain locations

13. Potential for falling from heights
 14. Other tasks with potential exposures
- b. Injury/accident experience should be reviewed to help identify problem areas. Refer to the PPE Hazard Assessment located in the appendix. Once the walk-through hazard assessment is completed protective actions are determined and the assessment is signed by the trained hazard assessor.
 - c. The employees assigned to perform the task shall be briefed on the hazards and planned protective actions which will include a review of MSDSs for all tasks associated with hazardous materials.

36.2.3. Organization and Analysis of Data Gathered

- a. Once a walk-through PPE hazard assessment has been completed, an assessor will estimate the seriousness of the hazards associated with the task. The assessment will be incorporated, or referenced as a requirement to review by the department responsible for completing the task, in one of the following that governs the task:
 1. Maintenance Requirement Card (MRC), or
 2. Operations Requirement Card (ORC), or
 3. Safe Work Permit.
- b. All PPE requirements shall be identified by a JHA and/or PPE hazard assessment sheet (Located in the appendix).
- c. Workplace hazards should be reassessed on a regular basis by the Site Safety Specialist and/or personnel trained to perform the task to ensure that all personnel involved identify and evaluate new equipment and processes, review accident records, and reevaluate the suitability of previously selected PPE.

36.2.3.1. PPE Selection

- a. Before any PPE is used, an evaluation shall be performed to determine if implementation of engineering or administrative controls would abate the hazard.
- b. OSHA and Integrated Safety Management (ISM) require that personnel consider certain criteria for assessing hazardous situations that exist in an operation or process, and match the protective devices to the particular hazard.
- c. Selecting PPE to guard against identified hazards involves several general steps:
 1. Become familiar with the hazards and the type of PPE available and what it can do (such as impact protection or splash protection).
 2. Compare the hazards to the capabilities of the PPE.
 3. Select PPE that ensures a level of protection greater than the minimum required to protect employees from the hazards.
 4. Fit the user with the protective device and provide instructions on the use and care of the PPE. Document the fit and training.
 5. Ensure employees are made aware of all warning labels and limitations of their PPE.

36.2.3.2. Waiver of PPE Requirements

- a. PPE requirements may not be waived unless a new PPE hazard assessment has been done and the hazards requiring PPE are no longer present.
- b. Only the Site Director or his designee can waive PPE requirements by implementing some other form of hazard control.

36.3. EYE AND FACE PROTECTION

- a. Eye protection includes protection from chemicals, objects, and ultraviolet radiation.
- b. Those wearing non-safety prescription glasses may wear any type of safety approved eye cover protection that fits securely over their prescription glasses (that is, goggles, face shield, or safety-approved visitor spectacles) or prescription safety glasses may be purchased and paid for by the company.
- c. If visitors will be subject to operational eye hazards, they shall be provided with appropriate eye and face protection for the specific hazard.

NOTE

Eye protection equipment is required when grinding, buffing, burning or welding, handling chemicals, chipping, or when exposed to flying objects. Observe warning signs that are posted requiring the use of goggles, face shields, or safety glasses. Review the PPE hazard assessment for required eye protection.

36.3.1. Types of Eye and Face Protection

- a. Specific types of eye and face protection are outlined in table 36-2, Eye and Face Protection.
- b. To reference where to find the location of specific markings to ensure compliance with protective eye and face protection see tables 36-3 & 36-4.

36.3.2. Eye and Face Protection Hazard Assessment Criteria

Personnel shall use appropriate eye or face protection when exposed to the following hazards:

- a. Flying hazards
- b. Flying particles
- c. Liquid chemicals
- d. Acids or caustic liquids
- e. Chemical gases or vapors
- f. Potentially injurious light
- g. Nuisance dust
- h. All weapons firing
- i. Harmful ultraviolet radiation.
- j. Arc Flash hazards.

36.3.3. Inspection and Maintenance

- a. Eye and face protection shall be inspected visually by the user prior to each use.
 1. Users will check for broken parts, heat distortion, or excessive scratches, abrasion, and deterioration.
 2. Before use, the defect must either be corrected or the item replaced.
- b. Work in a humid atmosphere tends to cause glasses to fog. If this occurs, the user should apply a QPL approved anti-fog liquid or spray to the glasses before use.
- c. Eye and face protection should be stored so that lenses or windows are protected from scratches, abrasion, and deterioration, and away from heat that could distort plastic parts.

36.3.4. Proper Selection and Donning

The general procedure for selecting eye and face protective devices is as follows.

- a. Become familiar with the selection, the type of protective equipment available, and what each type can do.
- b. Compare the estimated hazards associated with the environment and the available equipment.
- c. Select the appropriate protective equipment so that the protection is greater than the estimated hazard.
- d. Fit the user with the protective device and provide instruction on care and use as recommended by the manufacturer.
- e. Shaded lenses shall not be worn while indoors, before daylight or during night time hours.

36.3.5. Procedures for Procurement (DM Only)

- a. Employees requiring prescription safety eyewear should procure the eyewear from a commercial source.
 - 1. Eyewear must be marked "Z87," certifying it meets the specifications of ANSI Z87.1, and have attached side shields.
 - 2. The site safety specialist, or New Orleans Safety and Health, will inspect the eyewear and enter a Request for Check in SAP.
 - 3. The authorizing party approves the request on-line prior to reimbursement.
 - 4. The site-specific label number for Safety Equipment and Supplies will be used as the accounting charge number.
 - 5. The eyewear user submits this form and the receipt to New Orleans Accounts Payable. Reimbursement will be provided up to \$220 per year.
 - 6. The cost of the eye exam should be covered by personal insurance.
- b. Specific roles and responsibilities for determining proper safety glasses can be found in Table 36.5.

36.4. HEAD PROTECTION

36.4.1. General Requirements

- a. All head protection must meet ANSI Z89.1 Standard requirements for industrial head protection.
- b. The required hard hat for DM sites is a Type 1 Class E for new (ANSIZ89.1-2003) head protection. Class B for the older (ANSI Z89.1) hard hats is the minimum requirement.
- c. The wearer should be able to identify the type of helmet by looking inside the shell for the manufacturer, ANSI designation, and class. For example:

Manufacturer's XYZ
 ANSI Z89.1
 Class B
 ANSIZ89.1-2003 (new)
 Type I Class E

- d. Hard hats are required by employees in all site areas except vehicle parking areas, sidewalks, roadways between buildings, and inside buildings or vehicles (unless engaged or entering maintenance or construction work in areas where hard hats are required).
- e. Hard hats shall not be modified or changed in any way. Hard hats that have been altered or have sustained an impact shall be removed from service immediately.
- f. In some cases, a chinstrap may be needed to keep the helmet on an employee's head. Chinstraps should break at a reasonably low force however, to prevent strangulation.

NOTE

All new hard hats purchased must meet Type I Class E as specified in ANSI Z89-1.2003.

36.4.1.1. Tactical Assault Helmets

- a. The PT A-Alpha Tactical Assault Helmets manufactured by Pro Helmets can be used by Protective Force Officers during daily operations and during force on force exercises in lieu of the standard industrial hard hat.
- b. Evaluators and controllers tasked with shadowing Protective Force officers during force on force exercises may also utilize the tactical assault helmet, as long as use is consistent with the exercise.
- c. If areas must be entered where exposure to falling objects from above exists, a standard industrial hard hat or an approved ballistic helmet shall be worn.

NOTE

Tactical assault helmets may not be worn in construction areas, warehouses, and other areas that are likely to present hazards from small falling objects.

36.4.2. Head Protection Hazard Assessment Criteria

During a PPE hazard assessment, the following factors should be considered when determining if a hard hat is required:

- a. Is there a potential for injury to the head from falling objects? Examples include:
 - 1. working below other workers who are using tools and materials that could fall;
 - 2. working around or under conveyor belts that are carrying parts or materials; and
 - 3. working below machinery or processes that might cause materials or objects to fall.
- b. Is an electrical hazard present? (Requires the use of a Class 1 or Class 2)
- c. Is there a potential for injury to the head from bumping into a beam or other object?
- d. Is there any site requirement? (designated by a sign or procedure)

36.4.3. Inspection and Maintenance

Users shall:

- a. Inspect the suspension system daily before use.
 - 1. Make sure all harness support clips are properly positioned on the shell.
 - 2. The headbands are adjustable and should fit so that the actual hat doesn't touch the head and maintains 1¾ inch clearance above the suspension.
 - 3. Do not tamper with the harness and headbands because this could decrease the impact capabilities of the hat.

4. Pay special attention to the condition of the suspension system because of the important part it plays in absorbing the shock of a blow.
 5. Look for torn cradle straps, broken sewing lines, loose rivets, defective lugs, and other defects.
 6. If necessary replace the suspension system.
- b. Inspect hard hats daily for cracks, dents, or holes. If any of these conditions are identified, replace the hat immediately. Also, inspect for fading caused by UV radiation. Faded hats do not meet the ANSI test standards and shall be removed from service. Hard hats can become brittle over time and should be removed from service if they do. A simple field test can be performed to determine possible degradation of polyethylene shells: Compress the shell inward from the sides about 1 inch with both hands and then release the pressure. The shell should quickly return to its original shape, exhibiting elasticity. There should be no residual deformation. If the hat does not exhibit elasticity similar to that of a new shell, or if it cracks because of brittleness, it should be removed from service and replaced immediately.
 - c. Clean hard hats only with a mild soap or detergent, and rinse in clean water. After rinsing, carefully inspect the shell for any signs of damage. Be careful not to use solvents than can damage the shell; consult the hard hat manufacturer to find out what solvent should be used.
 - d. Store hard hats away from ultraviolet light when not in use.
 - e. Do not apply solvents or paint to the hard hat.
 - f. Stickers may be placed on hard hats, avoiding excessive amounts that could possibly cover cracks, dents, or holes.
 - g. Never drop or throw a hard hat, and do not use it as a support.
 - h. Do not store or carry hard hats on the rear-window deck of an automobile, as sunlight and extreme heat may adversely affect the degree of protection offered.

36.4.4. Proper Selection and Donning

- a. To provide maximum protection, hard hats shall be worn squarely on top of the head, with the sweatband and brim over the forehead.
- b. The harness shall be adjusted to achieve a snug fit that allows space for ventilation between the shell and headband.

36.5. HEARING PROTECTION

- a. Warnings will be posted at the perimeter of areas where possible exposure to excessive noise exists.

NOTE

Hearing protection (ear plugs, ear muffs, or both) shall be worn when noise levels exceed 85 decibels. At noise levels of 100 decibels or higher double hearing protection will be worn except on the firing range. On the firing range administrative rotation is used to limit exposure.

- b. As a general rule, if someone has to raise his or her voice to tell you something, hearing protection should be worn.
- c. For addition information on proper selection and requirements for hearing protection see Section 25 of the APM.

36.6. FOOT PROTECTION

36.6.1. Requirements

Safety shoes are required in all site areas except vehicle parking areas, sidewalks, roadways between buildings, and inside buildings or vehicles (unless engaged or entering maintenance or construction work in the exception areas where hard hats are required).

- a. Safety shoes or boots with metatarsal guard shall be used for operations that may be very hazardous to the feet, such as heavy demolition, where additional foot hazards may be introduced.
- b. Safety shoes with a distinct heel shall be required for any personnel climbing vertical ladders.
- c. Leg guards are required when using chainsaws.
- d. All personnel working or walking near offsite pipelines and equipment, or other areas where snakes may be located, shall wear shin/leg guards to prevent snakebites. Safety leg guards for snakebite protection include metatarsal and shin guards used to prevent injury to the legs and lower extremities of the leg, and will be made available and donned as required by employees working in areas with dense/tall vegetation.
- e. Safety footwear must meet (ASTM) F2413 standards.
- f. Electrician's wearing steel toed shoes shall wear shoes with Electrical Hazard Protection. The label will be marked with the letters EH.

36.6.2. Foot Protection Hazard Assessment Criteria

Personnel should use the correct foot and leg protection when working around the following hazards:

- a. Falling objects
- b. Rolling objects
- c. Electrical Hazards
- d. Slip Hazards
- e. Chemical Exposure
- f. Extreme temperatures
- g. Overgrown weedy areas, such as the offsite valve stations

36.6.3. Inspection and Maintenance

- a. Users shall:
 1. Before donning footwear, check that the soles are free of cracks or holes, heels are in good condition, and soles and heels are firmly attached to the uppers.
 2. Don footwear in a relatively uncontaminated area, and store footwear away from excessive heat or cold, dust and chemicals.
 3. After any significant impact or crush-type contact, inspect your footwear for evidence of distortion of the toe box and metatarsal protector. If damaged, replace the footwear.
 4. Before use, all leggings shall be inspected for cuts, scrapes, and deformities that affect protective qualities. If any such deficiencies are found, discard the leggings immediately.
- b. For more information on inspection, proper care, and maintenance of safety footwear refer to the chart below.

36.6.4. Provision of Safety Footwear

- a. DM will reimburse up to \$110 per pair for safety footwear for employees (including New Orleans personnel) who are exposed to job-related hazards of electrical shock or foot injury

by entering a Request for Check in SAP after demonstrating that the footwear purchased meets all requirements.

- b. SPR visitors, assessors, and all personnel who will be entering areas requiring safety footwear must comply with these procedures.
- c. Visitors, contractors, subcontractors, and DOE personnel are expected to provide their own safety footwear.

36.6.5. Procedures

- a. DM requires employees whose job function exposes them to electrical shock or foot injury to request the proper shoes through their respective supervisors (or purchase footwear as explained in the figure below).
- b. Supervisors will verify the need for the safety footwear prior to purchase of new.
- c. DM allows employees whose jobs require wearing safety footwear daily to purchase two pairs of safety footwear so that the footwear may be rotated. Otherwise, the purchase of safety footwear will be limited to one pair.
- d. If new shoes are required more frequently than every two years, supervisors are responsible for determining the need for the purchase of replacement safety footwear; inspecting the old safety footwear to verify that new footwear is required.

36.6.6. Inspection and Maintenance

See chart below for additional information pertaining to foot protection and maintenance.

Foot Protection Maintenance		
Type of Shoe	Useful life and disposal of	Proper care and maintenance
Leather Shoes	Dispose after leather is ripped or torn or should it become saturated with chemicals.	Use shoe grease on leather to keep supple. Do not dry leather in direct sunlight or heat. Clean leather with saddle soap.
Rubber Boots and Shoes	Dispose after cracks or punctures appear in the rubber.	Wash occasionally to remove impurities. Do not store in direct sunlight or near electric motors.
Electrical Hazard Protective Shoes	Dispose if sole is punctured or cut, embedded with conductive materials significant wear causes the sole thickness to diminish.	Avoid moisture and keep free of conductive materials (e.g. screws, nails, metal shaving).

36.6.7. Proper Selection and Donning

See below chart for specifics on proper selection and donning of proper foot protection.

Proper Foot, Shin, Leg Protection Selection Chart	
Hazard types/areas	Recommendations
Falling objects	Impact compression shoe with a recommend metatarsal protection.
Rolling objects	Impact compression shoe with a recommend metatarsal protection. Leg/shin guards (i.e., use of a chain saw)
Sharp objects (i.e., glass, metal chips, fillings)	Impact compression protection with puncture resistance.
Electrical Hazards	Impact compression protection and a shoe or boot that has the appropriate electrical hazard protection.
Reptile Hazards	Leg/shin guards

36.6.8. Recovery of Worn Safety Footwear

DM will not recover an employee’s worn safety footwear when the footwear is replaced, or when the employee resigns, retires, or is terminated.

36.7. HAND PROTECTION

NOTE

Appropriate hand protection (gloves) is required when the hands are exposed to hazards such as those from skin absorption of harmful substances, or when it is likely that cuts or lacerations, abrasions, punctures, chemical burns, thermal burns, electrical shock, and harmful temperature extremes could result from the task

36.7.1. General Requirements

- a. Gloves are not to be worn when operating equipment that has a rotating motion (for example, when using hand tools with moving parts that could catch the gloves and cause injury).
- b. Gloves are also required in accordance with MSDSs and/or as indicated on a Safe Work Permit.
- c. Each type of glove is designed to handle a certain range of hazards. Some tradeoffs between the degree of protection and task performance may be necessary. No one glove is universally acceptable for all tasks, and glove selection must be carefully considered.

36.7.2. Types of Hand Protection

Types of Hand Protection	
Type	Use and Purpose
Elastomeric gloves	a. Gloves made from any of the various polymers with elastic properties resembling those of natural rubber (for example, coated latex, nitrile, and rubber). b. These gloves are used for protection from exposure to all types of chemicals.
Non-elastomeric gloves	a. Gloves that protect personnel from physical hazards and provide little protection from corrosive agents (for example, cotton, leather, or steel mesh).
Anti-vibration gloves	a. Gloves designed to ergonomically protect employees from repeated vibrations caused by hand held power tools.
Cut-resistant gloves	a. Gloves designed to protect hands from direct contact with sharp edges such as glass, metal, ceramics and other materials.

36.7.3. Hand Protection Hazard Assessment Criteria

Hand protection is required for potential hazards such as:

- a. Skin absorption of harmful substances
- b. Severe cuts or lacerations
- c. Severe abrasions
- d. Harmful temperature extremes
- e. Chemical burns
- f. Thermal burns
- g. Punctures
- h. Electrical
- i. Vibration.

36.7.4. Glove Selection and Donning

No single glove type provides universal protection. Many factors must be considered in selecting a glove, including:

- a. the type of hazard,
- b. duration, frequency, and degree of exposure to the hazard, and
- c. degree of hand dexterity or touch required while using the glove.

36.7.5. Inspection and Maintenance

- a. Users shall ascertain the performance characteristics of gloves relative to the specific hazard anticipated, such as chemical hazards, cut hazards, or flame hazards.
- b. Users shall ensure that manufacturer's data is available confirming that the gloves to be used meet the appropriate test standards for the hazards anticipated.
- c. Gloves shall be inspected before each use to be sure they are free of holes, cuts, loose or open seams, severe wear, or contamination by oil or chemicals. Replace them if deterioration is present.

WARNING
 No glove protects against crushing or pinching injuries of the hand, or from injuries resulting from striking the hand against, or being struck by, an object.

36.8. FLAME RESISTANT CLOTHING (FRC)

- a. Flame resistant clothing is worn when working in areas where the potential for a flash fire exists, during well servicing operations (workover) and crude oil process operations, such as:
 - 1. Pulling wet string tubing
 - 2. Snubbing tubing
 - 3. Fracturing or perforating the well
 - 4. Using bridge plugs or packers
 - 5. Open hole work
 - 6. Flow testing
 - 7. Plugging an abandoned well
 - 8. Cementing
 - 9. Stimulation
 - 10. Wireline operations
 - 11. Equipment openings (e.g., line breaking or valve changes)
 - 12. Gauging the crude oil system
 - 13. Transfer of hydrocarbons
 - 14. Maintenance operations on production equipment
 - 15. Hot work operations
 - 16. Using open flame
 - 17. Launching and retrieving a pig
 - 18. Start-up operations
 - 19. Any operation working with wellhead or wellbore under pressure
 - 20. Degas plant operations
- b. Other operations may be included if the PPE hazard assessment indicates that FRC should be a requirement. If FRC is needed, this will be noted on the Safe Work Permit.

36.9. TABLES: PERSONAL PROTECTIVE EQUIPMENT

TABLE 36.1. GENERAL PPE GUIDELINES	
TYPE OF PPE	PROCEDURE
Eye and Face Protection	<ul style="list-style-type: none"> a. Whenever the use of safety glasses is required, such use will be strictly enforced. b. Personnel are required to wear safety glasses at all times while working in the areas prescribing such use by hazard assessments. c. Selection of eye protection must suit the job at hand. When in doubt, contact your immediate supervisor/manager. The employer will provide each affected employee eye protection that provides side protection when there is a hazard from flying objects. d. Eye and face PPE shall be distinctly marked to facilitate identification of the manufacturer. e. Employees whose vision requires the use of prescription lenses must wear either protective devices fitted with prescription lenses or protective devices over regular prescription eyewear. <ul style="list-style-type: none"> 1. Those wearing non-safety prescription glasses may wear any type of safety approved eye cover protection that fits securely over their prescription glasses (that is, goggles, face shield, or safety-approved visitor spectacles) or prescription safety glasses

TABLE 36.1. GENERAL PPE GUIDELINES	
TYPE OF PPE	PROCEDURE
	<p>may be purchased.</p> <p>f. The wearing of safety glasses is not normally required in offices, control rooms, locker rooms, and break areas. However, activities such as maintenance work in these areas may require employees in these areas to wear suitable eye protection.</p> <p>g. Eye and face protection shall be inspected regularly for integrity, and defective or damaged eye and face protection shall be immediately removed from service.</p>
Head Protection	<p>a. All affected personnel shall wear a protective helmet when working in areas where there is a potential for injury to the head from falling objects.</p> <p>b. All affected personnel shall wear a protective helmet designed to reduce electrical shock hazard when near exposed electrical conductors which could contact the head.</p> <p>c. Protective helmets purchased after July 5, 1994 shall comply with ANSI Z89.1-2003, "American National Standard for Personnel Protection-Protective Headwear for Industrial Workers-Requirements," which is incorporated by reference as specified in 29 CFR 1910.6.</p> <p>d. Protective helmets purchased before July 5, 1994 shall comply with the ANSI standard "American National Standard Safety Requirements for Industrial Head Protection," ANSI Z89.1-1969, which is incorporated by reference as specified in 29 CFR 1910.6 (The protective force uses head protection approved for their use only and in specified areas.)</p>
Foot Protection	<p>a. All affected personnel shall wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards.</p> <p>b. Visitors exposed to hazards that could cause injury to the toe, metatarsal, or sole of the foot or chemical saturation and/or electrical shock shall wear appropriate foot protection.</p> <p>c. Protective footwear purchased after July 5, 1994 shall comply with ANSI Z41-1991, "American National Standard for Personal Protection-Protective Footwear," which is incorporated by reference as specified in 29 CFR 1910.6.</p> <p>d. All safety footwear must meet the American Society of Testing Material (ASTM) F-2413, which provides specifications for safety toe footwear designed to protect against open electrical circuits of 600 volts or less under wet or dry conditions, and for footwear that protects against injury from falling objects.</p>
Hand Protection	<p>a. All personnel are required to use appropriate hand protection when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.</p> <p>b. Personnel shall select the appropriate hand protection based on the</p>

TABLE 36.1. GENERAL PPE GUIDELINES	
TYPE OF PPE	PROCEDURE
	hazard assessment performed and an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.
Hearing Protection	a. Hearing protectors shall be provided and worn: <ol style="list-style-type: none"> 1. By personnel when they are subjected to sound levels exceeding those listed in Table G-16, 29 CFR 1910.95 and feasible administrative or engineering controls fail to reduce sound levels within the levels of the Table. 2. Personal protective equipment shall be provided and used to reduce sound levels within the levels of the table. 3. By any employee who is exposed to an 8-hour time-weighted average of 85 decibels or greater, and who: <ol style="list-style-type: none"> a) Has not yet had a baseline audiogram established; or b) Has experienced a standard threshold shift.

TABLE 36.2. EYE AND FACE PROTECTION

Types of Eye and Face Protection	Guidelines
Safety Glasses	a. Safety glasses shield the wearer's eyes from frontal impact and optical radiation. They shall consist of the following major components: <ol style="list-style-type: none"> 1. front with bridge area 2. lens 3. temples 4. side shields b. Each lens shall be distinctly marked with the manufacturer's monogram, usually a letter. c. The remaining major components will bear a trademark identifying ANSI Z87.1. d. All markings will be legible and permanent.
Face Shields	a. Face shields have headgear supporting a window. b. The window is curved to surround and cover the wearer's face. c. They are assembled in many combinations of the various major component types to provide the user with a wide choice of suitable equipment. d. Face shields will be used only as a secondary means of eye and face protection. A face shield alone doesn't provide enough protection by itself; any time a face shield is used it must be used in combination with approved safety glasses or goggles. e. All major face shield components will bear a trademark identifying the manufacturer and will be marked "Z87" to indicate compliance with American National Standard Z87.1. f. All markings will be legible and permanent.
Goggles	a. Goggles contain an eye cup, to cover the eye sockets completely, and can be worn over glasses. b. Goggles are constructed to fit snugly to the face, sealing the eyes from the forehead to the temples, cheeks, and bridge of the nose. c. Chemical goggles are designed to protect the eye from splash hazards. d. Impact goggles are designed to protect the eye from objects or particles reaching the eye surface. e. Goggles must be used according to their design purpose. f. Each lens will be distinctly marked with the manufacturer's monogram. g. All major goggle components will be marked "Z87" to indicate compliance with American National Standard Z87.1. h. All markings will be legible and permanent.
Welding Helmets	a. Welding helmets will be constructed of heat-resistant material. b. The three commonly available types are stationary lens, lift front, and hand shield. c. Each lens of the welding helmet will be distinctly marked with the manufacturer's monogram. d. All major welding helmet components will be marked "Z87" to indicate compliance with American National Standard Z87.1. e. All markings will be legible and permanent.

TABLE 36.2. EYE AND FACE PROTECTION	
Types of Eye and Face Protection	Guidelines
Special Purpose Lenses	a. Special purpose lenses provide eye protection while the user is performing visual tasks that require unusual filtering of light. b. Special purpose lenses meet all the requirements of the ANSI standard Z87.1 except the transmittance requirements. c. A common type of special purpose lens is the photochromic lens. This lens darkens when exposed to sunlight and fades when removed from sunlight. It is frequently used to provide comfortable vision for a wide range of ambient light conditions requiring critical acuity, or fast reaction to visual stimulation.

TABLE 36.3. Required Marks and Marking Location by Product Category				
Required Marks	Removable Lens	Removable Side Protection	Frame	Non-Replaceable Components Products ¹
Manufacture mark	ALL	ALL	ALL	ALL
“Z87”	FS, G, WH	ALL	ALL	ALL
“Z87-2”			IF APPL ²	
“+” High Impact	IF APPL			ALL
Shade Number	IF APPL			IF APPL
“S” (special purpose)	IF APPL			IF APPL
“Light/Medium/Dark”	FS-IF APPL			FS-IF APPL
“V” Variable Tint-photochromic	IF APPL			IF APPL

1 For non-replaceable component products, including products with non-removable lenses, only one product marking is required.

2 Dual lens, non-plano (such as prescription) spectacle frames only.

Legend

All = all categories of products: spectacles, goggles, face shields and welding helmets

FS = faceshields

G = goggles

WH = welding helmets

IF APPL = if applicable (if the product complies with the appropriate requirements)

TABLE 36.4. Frame Marking Locations on Eye and Face Protectors	
Category	Frame Components Subject to Markings
Spectacles	Front, at least one temple and removable side shields
Goggles	Frame and lens housing or carrier
Face shields	Headgear/adaptor and crown
Welding Helmets and Hand shields	Headgear, shell and lens housing or carrier

TABLE 36.5. RESPONSIBILITIES for DETERMINING PROPER SAFETY EYEWEAR	
Position or Department	Responsibility
Safety and Health Director	a. Establish the policies and identify the requirements for safety eyewear. b. Specify the applicable standards (Z87.1) for safety eyewear c. Authorize payment of Request for Checks on-line. (DM Only)
Managers	Authorize eligible employees with vision problems to purchase prescription safety eyewear from commercial sources (not to exceed one pair per year). (DM Only)
Site Safety Specialists or ES&H Manager	Visually verify that prescription safety eyewear obtained by employees from commercial sources is marked "Z87" and has attached side shields.
Employees	a. Ensure prescription safety eyewear purchased is marked "Z87" and has attached side shields. b. Enter a Request for Check on-line and submit it with an attached receipt to Accounts Payable for reimbursement. (DM Only)

TABLE 36.6. RESPONSIBILITIES for DETERMINING PROPER SAFETY FOOTWEAR	
Position or Department	Responsibility
Supervisors	a. Evaluate the hazards of tasks being performed by employees to determine if safety footwear is needed. b. Authorize new shoes if a new employee or an existing employee requires replacement of safety footwear.
Site Safety Specialists or ES&H Manager	Perform a visual inspection of safety footwear obtained by employees from commercial sources to verify that the footwear meets the requirements in ASTM F-2413.
Employees (DM Only)	a. If safety footwear is commercially purchased after receiving authorization, complete the Request for Check form and include a receipt. If the manufacturer's certification that the shoes meet the safety specifications outlined in ASTM F-2413 is not engraved or sewn on the safety footwear and verified by the site safety specialist, the manufacturer's certification must be submitted with the receipt. b. Enter a Request for Check in SAP and attach the receipt for approval and reimbursement for purchased safety footwear.

TABLE 36.7. RESPONSIBILITIES for DETERMINING PPE

Position or Department	Responsibility
Operations, Maintenance, and Site Support Managers	a. Ensure that a PPE hazard assessment and a JHA have been performed before a job is assigned to determine what PPE is required. (Jobs requiring Work Authorization only do not require a JHA but do require a PPE hazard assessment.) This includes, but is not limited to, requirements for head, eye, hand, foot, respiratory, and skin protection. Consult Material Safety Data Sheets for equipment needed for assignments involving hazardous chemicals. b. Ensure that the need for PPE is identified in the PPE hazard assessment and on the SWP. c. Provide PPE that meets the appropriate test standard(s) for the hazards anticipated. d. Provide adequate storage for PPE. e. Ensure that PPE is issued to personnel according to the hazards of their work area. f. Ensure that personnel are trained in the proper use of PPE and that they maintain these items in a sanitary, reliable condition.
Site Safety Specialists	a. Perform or assist with the training of site employees in PPE use. b. Perform periodic assessments to ensure proper use and care of PPE. c. Review purchase requests for PPE. d. Reassess the workplace hazard situation as necessary, by identifying and evaluating new equipment and processes, reviewing accident records, and reevaluating the suitability of previously selected PPE. e. Assist in determining engineering and procedural solutions before implementing PPE.
Employees	a. Assist in the walk-through PPE hazard assessment of each task. b. Review the PPE hazard assessment or JHA before performing a task. c. Obtain and use PPE identified in the hazard assessment of the task. d. Maintain PPE in a sanitary, reliable condition. e. Report on and turn in all damaged PPE.
Site Property	a. Ensure that minimum stock levels of PPE are maintained as directed in writing by the site director. b. Ensure that PPE ordered meets the requirements established in this section. c. When purchasing gloves from the manufacturer, request documentation that the gloves meet the appropriate test standard(s) for the hazard(s) anticipated. d. Maintain the contract for rental and cleaning of FRC.
Sub-contractors	a. Ensure all requirements are met as outlined in 36.7
Security Subcontractor	a. The Security Police Officers have unique PPE requirements. The appropriate PPE for their use is specified in their safety plan and procedures.