

# ESSO EXPLORATION & PRODUCTION CHAD INC.



## CHAD DEVELOPMENT PROJECT



### GENERAL PROJECT SPECIFICATION FOR PROJECT SAFETY REQUIREMENTS

**GPS-008**

Rev. No.	Date	No. of Pages	Prepared By	Reviewed By	Approved By	Revision Details
0	19 Nov 96	40	CLO	PRS	DJS	Issued for Proposals
1		40	MEF		DJS	Issued for EMP



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

TABLE OF CONTENTS

1.0 GENERAL ..... 4

2.0 CLOTHING REQUIREMENTS ..... 7

3.0 PERSONAL PROTECTIVE EQUIPMENT ..... 7

4.0 SIGNS, SIGNALS, BARRICADES, AND LIGHTS..... 9

5.0 RIGGING EQUIPMENT FOR MATERIAL HANDLING ..... 10

6.0 HAND AND POWER TOOLS ..... 10

7.0 COMPRESSED GASES..... 11

8.0 SCAFFOLDS ..... 12

9.0 JOB SITE TRANSPORTATION RULES..... 13

10.0 CRANES, DERRICKS AND LIFTING EQUIPMENT ..... 14

11.0 CRANE SPECIFICS ..... 16

12.0 EQUIPMENT AND MOTOR VEHICLES, AND MARINE OPERATIONS..... 17

13.0 ELECTRICAL ..... 18

14.0 LADDERS AND STAIRWAYS ..... 18

15.0 FLOOR AND WALL OPENINGS AND STAIRWAYS..... 19

16.0 EXCAVATIONS AND TRENCHING..... 19

17.0 STEEL ERECTION..... 20

18.0 CONFINED AREAS OR SPACES ..... 22

19.0 HOUSEKEEPING ..... 23

20.0 CONTRACTOR RESPONSIBILITIES - MEDICAL SERVICES ..... 25

21.0 MINOR CUTS, SCRATCHES, BRUISES, ETC. - FIRST AID. .... 26

22.0 MEDICAL CASES NOT REQUIRING EVACUATION ..... 26

23.0 MEDICAL CASES REQUIRING EVACUATION SERVICE ..... 27

24.0 CONTRACTOR / SUB-CONTRACTOR DOCUMENTATION..... 28

25.0 REQUIRED ACCIDENT/INJURY INFORMATION ..... 31

26.0 SAFETY RULES AND PROCEDURES ..... 33

27.0 HAZARDOUS MATERIALS PROCESS AND/OR CHEMICALS..... 33

28.0 FIRE SUPPRESSION EQUIPMENT ..... 34

29.0 SAFETY & PERSONNEL PROTECTIVE EQUIPMENT ..... 34

30.0 WORK PERMIT REQUIREMENTS ..... 35

31.0 EMERGENCY PROCEDURES..... 36



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

32.0 MEDICAL SERVICES..... 37  
33.0 SAFETY INCENTIVE PROGRAMS ..... 37  
34.0 SAFETY MEETINGS ..... 37  
35.0 SUB-CONTRACTORS ..... 37  
36.0 DISCIPLINARY PROCEDURES..... 37  
37.0 PROJECT SAFETY GOALS..... 38  
38.0 PURPOSE STATEMENT ..... 38  
39.0 SAFETY TRAINING ..... 38  
40.0 SPECIAL PROJECTS ISSUES ..... 39  
41.0 CRAFT SPECIFIC CERTIFICATION PROGRAMS ..... 40  
42.0 SAFETY AUDITS/INSPECTION PROGRAMS ..... 40

APPENDIX I MONTHLY SAFETY SUMMARY REPORT ..... I-1  
APPENDIX II ALCOHOL AND DRUG USE POLICY FOR CONTRACTORS ..... II-1  
APPENDIX III JOB SAFETY ANALYSIS (THE JSA) ..... III-1  
APPENDIX IV HOW TO CONDUCT A ROOT CAUSE ANALYSIS ..... IV-1  
APPENDIX V SUB-CONTRACTOR SAFETY QUESTIONNAIRE ..... V-1



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**1.0 GENERAL**

All personnel on this project, including the employees of Contractor, will be required to comply with these requirements. Contractor shall ensure and indicate that all its employees have received and read these requirements. These requirements shall be fully explained to each employee and Contractor and employee must acknowledge that the employee understands its content. Contractor must provide proof that employees have received this information which shall then be retained by Contractor with the employee's personnel file. In addition, Contractor shall comply with the following:

- Managers include safety, health and environmental considerations in ongoing business strategies, decisions, planning and execution.
- Managers maintain their safety, health and environmental knowledge at a level commensurate with their job responsibilities.
- For major projects, there is a structured plan for safety, health and environmental activities addressing the following areas throughout the project life: Risk Assessment, Prevention and Mitigation, Regulatory Compliance, Emergency Preparedness, Quality Assurance.
- Human factors are explicitly considered in facilities design and construction.
- Esso reserves the right to regulate smoking, open fires, carrying matches, and welding permits when and where deemed necessary in the interest of safety. Contractor shall be responsible for and so enforce Contractor's personnel, the personnel of all Sub-contractors, and visitors to comply with the regulations and restrictions as directed. Smoking, open fires, and similar regulations may vary at different locations.
- When certain areas are designated as "OPEN AREAS" the Esso Safety Representative will issue a "HOT WORK PERMIT" which will authorize open flames, burning, and welding activities during regularly scheduled working hours.
- Within certain areas designated as "RESTRICTIVE AREAS," the Esso Safety Representative will issue a "HOT WORK PERMIT" daily which will authorize open flames, burning, and welding activities during regularly scheduled work hours. Smoking will be permitted only in designated compounds. "OPEN AREAS" shall be reclassified as "RESTRICTED AREAS" whenever designated by Esso and upon completion of the work.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**(NOTE:** This Hot Work Permit does not allow burning of trash and material cleared from ROW).

- No firearms are allowed on the job site without prior written approval by Esso.
- Use of photographic equipment requires specific approval by Esso.
- The Esso Safety Representative will verify adherence to procedures on a regular basis.
- Contractor is required to perform a self-assessment and audit of their safety program to insure compliance and effectiveness that will incorporate checks and authorizations that take a proactive approach that is consistent with risk or hazards that may be encountered. This self-assessment must be performed on a regular basis and documented for Esso review.
- Contractor's and Sub-contractors' project managers, construction managers, supervisors and safety advisors shall meet periodically to discuss project safety. The frequency, attendees and topics of these meetings shall be included in Contractor's safety execution plan.
- Contractor's and Sub-contractors' supervisors and safety advisors shall conduct daily periodic inspections of all facilities and the Work in progress at the Work Site.
- The frequency of Work Site inspections shall be included in Contractor's safety execution plan.
- Any safety rule infractions, unsafe working practices or unsafe conditions identified during these inspections shall be promptly corrected by Contractor.
- The periodic safety inspections shall be used by Contractor to evaluate the effectiveness of its safety program, and whether it is achieving the desired results.
- Although Contractor's line management is responsible for the safety of their personnel, Contractor's and Sub-contractors' safety advisors shall provide overall leadership for Contractor's safety program and shall monitor work activities at the Work Site continuously.
- Esso reserves the right to inspect the Work Site at any time and will call Contractor's attention to infractions/hazards and expect prompt follow-up from



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

Contractor. These Esso activities in no way relieve Contractor of its responsibilities for safe execution of the Work.

- Contractor shall promptly investigate any accident or incident which results in a fatality, lost time injury, damage to property or equipment in excess of US \$1,000 or a serious "near miss," i.e., an incident with the potential to cause a fatality, a lost time injury or damage in excess of US \$1,000. As part of this investigation Contractor shall complete a Root Cause Analysis of the incident as outlined in Appendix IV to this section.
- Normally, the investigation shall be conducted by a committee comprised of Contractor's superintendent responsible for the injured worker or incident, Contractor's safety advisor, a representative of Esso, and other representatives of Esso/Contractor/Sub-contractor who are familiar with the safety practices involved and who can contribute to the analysis of the incident and make recommendations for action to prevent recurrence.
- The investigation shall begin promptly after the accident or incident. Where applicable, photographs shall be taken of the scene of the accident, as well as any equipment or apparatus involved in the accident. The results of the investigation, together with the Root Cause Analysis referred to above and the committee's recommendations for preventive action, shall be submitted in writing to Esso within five working days after the incident occurs.
- Contractor shall also review and analyze all other injuries, including those requiring only first aid, to established trends that may indicate deviations from established work standards and safe working practices. Contractor, with Esso's approval, shall take appropriate corrective action, which may include publicizing the results of the analyses.
- Contractor shall keep written and photographic records of all fatalities, lost time injuries, and accidental property damage at the Work Site. The records shall include the reports of investigation results described in 25.11 above, as well as the identity of all witnesses, persons and property involved and corrective actions taken. Contractor shall keep these records two years after acceptance, and make them available to Esso upon request.
- Contractor shall prepare and submit to Esso by the fifth day of each month a safety report which covers the previous month's activities. The safety report, which shall be part of the monthly progress report, shall include:



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- A tabulation of all accidents and near misses that occurred during the reporting period, together with their apparent causes, in the format shown in Table 1.
- A tabulation of all hazards observed at the Work Site during the reporting period, and a description of corrective actions taken to mitigate or eliminate them.
- Graphs showing the recordable injuries rates and lost workday injuries rates since the beginning of construction activities.
- A summary of Contractor's safety activities, problem areas and corrective actions, government visits and safety audits during the reporting period.
- Contractor shall promote off-the-job safety

**2.0 CLOTHING REQUIREMENTS**

- 2.1 Long sleeve shirts shall be worn at all times (no tank tops). All shirts shall be tucked into trousers at all times. All shirts shall be hemmed at neck, sleeve, and tail.
- 2.2 Long pants are required at all times in all work areas.
- 2.3 Sandals, tennis shoes, or any other street type shoe will not be permitted. A well constructed boot/shoe that provides adequate protection with a hard flexible sole and steel toe shall be worn in all work areas. Exposure dictates whether or not an additional protective toe guard will be required. Contractor will be responsible for defining this requirement in its safety plan. All requirements as a minimum must meet OSHA 1926.96.
- 2.4 Loose fitting clothes or jewelry shall not be worn around moving machinery, padding machines, grinding operations, welding, etc.
- 2.5 Hair that could come in contact with, or be caught in machinery, shall be protected by a hard hat or hair net, as appropriate.

**3.0 PERSONAL PROTECTIVE EQUIPMENT**

- 3.1 Hard hats shall meet specifications contained in American National Standards Institute (ANSI), Z89.1-1981 and/or Z89.2-1971, or equivalent international standards. Hard hats are to be worn in all designated work areas as per OSHA 1926.100.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 3.2 Safety glasses with side shields are required in construction areas at all times as per OSHA 1926.102.
- 3.3 Approved eye and face protection is required as follows: Goggles, welding hoods and shields, and face shields will be required to be properly worn when in the area of operations, such as when welding, burning, grinding, chipping, chemical handling, corrosive liquids or molten materials, drilling, sawing, driving nails, power actuated tools, concrete pouring, tampers and gas fueled operated equipment (e.g., chain saws). This section will also apply to those employees of Contractor who are assisting any worker as an apprentice or helper. Prescription glasses must be approved safety glasses or approved safety glasses and frames or approved eye protection shall be worn as per OSHA 1926.102.
- 3.4 Only approved hearing and respiratory equipment shall be worn. The selection, fitting, and maintenance requirements shall be met by Contractor as per OSHA Technical Requirements 1926.101.
- 3.5 Safety harnesses will be required exclusively and shall be worn by all employees when working 6 feet (2.0 meters) or more above the ground or when working in a precarious position. The shock absorbing lanyard shall be securely attached to the employee 100% of the time and shall allow a maximum fall distance of 6 feet (2.0 meters). Safety harnesses shall also be worn and attached to the tie-off rail when working out of extendible and articulating boom platforms and to vertical drop lines when working from suspended scaffolding. Safety belts shall not be allowed on worksite as per OSHA 1926.104 and 1926.105 including all requirements of 1926.500 through 1926.503.
- 3.6 Seat belts shall be worn by all employees operating any motor vehicle and any equipment with rollover protection structures. For equipment designed by manufacturer without rollover protection, seat belts may be waived.
- 3.7 Safety nets shall be provided when work places are more than 25 feet (8.0 meters) above the ground where the use of other fall protection devices is impractical as per OSHA 1926.105.
- 3.8 Contractor must consult with the Esso Safety Representative and follow all applicable safety rules and regulations concerning the following:
- Use of lasers
  - Radiation sources
  - Explosive power tools



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- Hazardous materials

**4.0 SIGNS, SIGNALS, BARRICADES, AND LIGHTS**

- 4.1 Signs, signals, and barricades shall be visible at all times where a hazard exists including all requirements of OSHA 1926.200 through 1926.203.
- 4.2 All streets, roads, highways, and other public thoroughfares which are closed to traffic shall be protected by effective barricades on which shall be placed acceptable and highly visible reflective warning signs and flashing lights (when required). Barricades shall be located at the nearest intersecting public highway or street on each side of the blocked section.
- 4.3 All open trenches and other excavations shall be provided with suitable barriers, signs, and lights to the extent that adequate protection is provided to the public. Obstructions, such as material piles and equipment, shall be provided with similar warning signs and lights.
- 4.4 All barricades and obstructions shall be illuminated by means of warning lights from one hour before sunset to one hour after sunrise. Materials stored upon or alongside public streets and highways shall be so placed, and the work at all times shall be so conducted, as to cause the minimum obstruction and inconvenience to the traveling public.
- 4.5 All barricades, signs, lights, and other protective devices shall be installed and maintained in conformity with applicable statutory requirements and, where within railroad and highway ROW, as required by the authority having jurisdiction thereover, if requirements are more stringent than OSHA requirements.
- 4.6 When any work is performed at night or where daylight is shut off or obscured, Contractor shall provide artificial light sufficient to permit work to be carried on efficiently, satisfactorily, and safely, and to permit thorough inspection. During such time periods the access to the place of work shall also be clearly illuminated. All wiring for electric light and power shall be installed and maintained in accordance with permanent facilities codes and requirements, securely fastened in place at all points, and shall be kept as far away as possible from telephone wires, signal wires, and wires for firing blasts.
- 4.7 Signs, signals, and barricades shall be removed when the hazard no longer exists.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

4.8 Contractor's employees working in an area of potential traffic hazard shall wear approved reflective type vests.

**5.0 RIGGING EQUIPMENT FOR MATERIAL HANDLING**

NOTE: All rigging operations shall comply with OSHA 1926.251.

- 5.1 All rigging equipment shall be free from defects, in good operating condition, and maintained in a safe condition.
- 5.2 Rigging equipment shall be inspected by a designated, competent employee of Contractor prior to initial use on the job site and monthly thereafter to ensure that it is safe. Records shall be kept on job site of each inspection by Contractor and shall be made available to Esso upon request. All rigging equipment shall be color coded for inspection identification.
- 5.3 Contractor's damaged rigging equipment shall be immediately removed from service by Contractor.

**6.0 HAND AND POWER TOOLS**

NOTE: All hand and power tool operations shall comply with OSHA 1926.300 - 1926.307.

- 6.1 All hand and power tools, whether furnished by Contractor, or by Contractor's employee, shall be maintained in a safe condition.
- 6.2 Contractors shall not issue nor permit the use of unsafe hand or power tools.
- 6.3 Electrical power tools shall be grounded/earthed or double insulated with proper assured equipment grounding inspections or Ground Fault Circuit Interrupter protection provided. Portable welding machines having electrical receptacles shall be grounded.
- 6.4 Pneumatic power tools shall be secured to the hose or whip by some positive means. Safety pins shall be used in all connections.
- 6.5 Only properly trained Contractor employees shall operate power actuated tools. Certification records, employee certification cards, or equivalent certification documentation shall be maintained by Contractor on each of its employees using power actuated tools during performance of the work.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 6.6 All grinding machines shall conform to OSHA and ANSI, or local equivalent requirements, if local requirements are more stringent. Reference 1926.303
- 6.7 Cords, leads, and hoses shall be kept at least 7 feet (2.10 meters) off the ground or whatever height is necessary to be protected from traffic and tripping hazards.

**7.0 COMPRESSED GASES**

**NOTE: Using, transporting, moving and storing compressed gas cylinders must meet requirements of OSHA (29 CFR 1926.350).**

- 7.1 Compressed gas cylinders shall be secured in an upright position at all times. Location of cylinder storage areas must be approved by the Esso Safety Representative.
- 7.2 When transporting, moving, and storing cylinders, valve protection caps shall be in place and secured.
- 7.3 Cylinders shall not be hoisted by magnets or choker slings. Valve protection caps shall not be used for hoisting cylinders.
- 7.4 Cylinders shall be protected from overhead work at all times.
- 7.5 Cylinders shall be kept away from sparks, hot slag, and flames or adequately protected.
- 7.6 Cylinders shall not be placed where they can become part of an electrical circuit.
- 7.7 Cylinders shall be labeled as to the nature of their contents.
- 7.8 Oxygen cylinders in storage shall be separated from fuel gas cylinders or combustible materials a minimum of 20 feet (6.0 meters), or by a noncombustible barrier at least 5 feet (2.0 meters) high having a fire resistant rating of at least one-half hour. Empty cylinders shall be separated as above from full cylinders and stored with like cylinders.
- 7.9 "No Smoking" signs shall be posted at storage areas and signs shall clearly indicate contents of cylinders.
- 7.10 Anti-flash back arresters shall be installed on all oxygen and acetylene cylinders.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**8.0 SCAFFOLDS**

- 8.1 Footings or anchorage for any scaffold shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement.
- 8.2 No unstable objects such as concrete blocks shall be used to support scaffolds or planks.
- 8.3 Any part of a scaffold weakened or damaged shall be repaired or replaced immediately.
- 8.4 All scaffold planking shall be free of knots and cracks and shall completely cover the work platform.
- 8.5 Scaffold planks shall be tight, cleated at both ends, or overlapped a minimum of 12 inches (0.385 meters) and nailed or bolted to prevent movement. Overlaps are to occur directly above scaffold supports.
- 8.6 Safe access shall be provided to the scaffold platform. Specifically, a safe means of access from a ladder to the platform shall be provided.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 8.7 Scaffolds shall be equipped with a top rail made of timber not less than 2-by-4 inches (or equivalent strength), 42 inches (1.1 meters) high; a 21 inch (0.50 meters) high midrail, made of timber not less than 1-by-6 inches (or equivalent strength); and toeboards shall be installed on all open sides and ends of scaffold platforms 10 or more feet (3.0 meters) above the ground floor.
- 8.8 Scaffolding not adaptable to guard rails shall require the use of safety harnesses with the shock absorbing lanyard attached to a secure substantial object.
- 8.9 Mobile scaffolding casters shall be secured and locked prior to mounting.
- 8.10 No personnel or loose material shall be on mobile scaffold when it is being relocated.
- 8.11 Contractor's employees working swing stages, boatswain chairs, floats, suspended scaffolds, and needle beam scaffolds, etc., shall wear safety harnesses with shock absorbing lanyards attached to an independent lifeline.
- 8.12 A proper scaffold inspection and tagging system shall be maintained.
- 8.13 Quick mounted scaffold is prohibited.

**NOTE:** International standards may differ but as a minimum the construction for scaffolding shall meet the requirements of OSHA (29 CFR 1926.451).

**9.0 JOB SITE TRANSPORTATION RULES**

- 9.1 Drivers of motor vehicles shall have valid drivers license and be instructed to exercise judgment as well as observe posted speed limits. Much slower speeds are necessary in congested areas.
- 9.2 All Contractor entrance and exit routes shall be adequately marked.
- 9.3 Pedestrians and bicycles have ROW over motorized traffic.
- 9.4 Horns shall be used when passing and at all blind corners.
- 9.5 Established hand signals or turn signals are to be used.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 9.6 Reckless driving or other non-observance of these instructions will be cause for withdrawal of driving privileges on the project.
- 9.7 No two-wheel motorized vehicles are allowed on the job site. Any All Terrain Vehicle used on the job site shall be four-wheeled, not three-wheeled.

**10.0 CRANES, DERRICKS AND LIFTING EQUIPMENT**

Contractor is required to develop a Crane and Lifting Equipment Procedure that will address as a minimum OSHA 1926.550 through 1926.556 and Esso Onshore Crane/Lifting Safety Management Guidelines. This procedure must address all equipment to be used by Contractor or Sub-contractors including the following:

- Typical Onshore Crane/Lifting Safety Management System
- Personnel, responsibilities, training, certification
- Equipment, inspection, maintenance
- Safety checklist
- Erection and climbing
- Operating procedures and precautions
- Crane log
- Prequalification process
- Lift planning process (job safety analysis)
- Critical load and site factors and plan
- Lift evaluation form
- Permits
- Third party crane responsibility
- Performance monitoring tools
- Safe start-up, shutting down and securing equipment
- Crane suspended personnel basket requirements
- Hazard awareness checklist
- Moving crane checklist and procedure
- Pick and carry checklist
- Use of crane rating charts
- Mobile crane selection summary
- Specific inspection items
- Electronic operating aids
- Agreed objectives
- Resource responsible and accountable for implementation
- Assessment of improvement
- Management of change
- Measurement process



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 10.1 All cranes and derricks shall be certified as being in safe operating condition by Contractor prior to using the crane or derrick on the job site. This certification shall be maintained by Contractor and made available to Esso upon request.
- 10.2 All crane operators shall be properly licensed and certified by a competent person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees and who has authorization to take prompt corrective measures to eliminate them. Certification records shall be maintained on job site by Contractor and made available to Esso on request.
- 10.3 The swing radius of cranes shall be barricaded for protection of pinch points. The load line will be secured when work has been stopped or at the end of day shifts.
- 10.4 Hand signals prescribed by local standards shall be posted at an operator's station.
- 10.5 Manufacturer's specifications shall be observed by Contractor.
- 10.6 Equipment shall not be operated where any of the equipment or the load will come within 15 feet (5.0 meters) of electrical distribution or transmission lines without a "close proximity work permit" approved by site management.
- 10.7 Contractor's employees shall not ride the headache ball, hook, or load being handled by the crane.
- 10.8 Equipment shall not be lubricated while in use.
- 10.9 Rated load capabilities, recommended operating speeds, special hazard warning, specific hand signal diagram, and special instructions shall be visible to the operator while at the control station.
- 10.10 Contractor's employees shall not be allowed to work under the load of cranes. Tag lines shall be used on all loads. Special caution should be used in concrete bucket operations.
- 10.11 All equipment carrying loads shall have an Employee walk ahead of the load to watch for hazards and blind spots. All loads being walked shall have tag line attached to control load.
- 10.12 All crane and lifting equipment shall be operated and meet all requirements outlined in the ECI Onshore Crane/Lifting Safety Management Guide



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**11.0 CRANE SPECIFICS**

- 11.1 A complete and documented annual inspection must be performed before the machine arrives on site and an annual inspection must be performed thereafter. Cranes and derricks shall be inspected prior to use and at monthly intervals. Records shall be maintained on job site of these inspections by Contractor and copies shall be made available to Esso.
- 11.2 The complete annual inspection of all structural crane parts including NDE test of welded joints by a competent person qualified in accordance with OSHA 29 CFR Part 1926.32 (f), should be furnished by the crane supplier prior to the erection of the crane. A copy of this inspection and NDE test results should be kept on site. The inspection should also be certified by a registered engineer.
- 11.3 Cranes shall have flags or other indicators on the jib identifying the working load radius to the operator.
- 11.4 Cranes shall have limiting devices to control:
  - Trolley travel at both ends of the jib
  - Anti-two blocking/overhoisting limit device
  - Operating radius in accordance with lifted load
  - Pressures in hydraulic or pneumatic circuits
- 11.5 Load limiting devices, and acceleration and deceleration limiters, when provided, shall be installed in enclosures that can be locked or sealed to inhibit unauthorized tampering.
- 11.6 The operator should be trained, experienced and qualified for the operation of that specific make and model of crane. Operator experience documentation should be provided by the utilizing Contractor even if it is using a Sub-contractor on site.
- 11.7 The manufacturer's operator manual shall be kept with the crane while it is on site.
- 11.8 A wind velocity indicating device shall be mounted at or near the top of the crane. A velocity readout shall be provided at the operator's station in the cab and a visible or audible alarm shall be triggered in the cab and at remote control stations when the preset wind velocity has been exceeded.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 11.9 Regular inspections and maintenance of the cranes should be conducted and performed in accordance with the manufacturer's specifications and ANSI Standards.
- 11.10 All crane operations shall be performed in accordance with ANSI B30.3-1984 and ANSI B30.4-1981.
- 11.11 Personnel lifts can only be made with approved personnel platforms, and then only after a successful, unoccupied, trial proof test. A trial lift of at least 200% of the platform's rated capacity, for at least five minutes time, must be performed immediately prior to placing personnel on the platform. A competent person must inspect the crane, platform, rigging, and ground after the trial lift. Any deficiencies noted will be corrected, and another proof test shall be conducted, until the proof testing requirements are satisfied. A trial lift will be performed each time the crane is moved.

**12.0 EQUIPMENT AND MOTOR VEHICLES, AND MARINE OPERATIONS**

NOTE: All motor vehicles, mechanical equipment, and marine operations shall be maintained and operated in accordance to OSHA 1926.600 - 1926.606.

- 12.1 All equipment must be inspected daily before use by Contractor's operator. Formal inspections must also be made by Contractor at 30 day intervals with proper documentation maintained at the job site. Copies shall be made available to Esso upon request.
- 12.2 All hoisting equipment shall have a certified inspection report within the previous 12 months.
- 12.3 All hoisting equipment shall have manufacturer's operator's manual in the cab at all times along with load and radius charts.
- 12.4 Defective equipment shall be repaired or removed from service immediately.
- 12.5 All rubber-tired, materials handling equipment (MHE), self-propelled scrapers, rubber-tired front-end loaders, rubber-tired bulldozers, wheeled-type agricultural and industrial tractors, crawler-type loaders and motor graders shall be equipped with roll-over protective structures and seat belts as per manufacturer specification.
- 12.6 All Contractor's operators of construction equipment should be properly licensed and certified by a competent person. Copies of the certifications



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

shall be maintained on the job site by Contractor and made available to Esso upon request.

- 12.7 All equipment with an obstructed view to the rear must have a reverse signal alarm audible above the surrounding noise level or a flagman.
- 12.8 All cracked and broken glass shall be replaced before bringing vehicles on the job site. If glass is broken or damaged on job site and if damage is severe enough to cause a potential safety problem, the machine shall be stopped until such damage has been repaired.
- 12.9 Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried and all passengers should be properly seated or firmly seated in the bed of the truck. Standing or kneeling on the back of moving vehicles is prohibited.
- 12.10 Locations for storage of all fuels, lubricants, starting fluids, etc., shall be reviewed by Esso prior to use by Contractor for storage.

**13.0 ELECTRICAL**

- 13.1 All electrical work, insulation, and wire capacities shall be in accordance with the pertinent provisions of the permanent facilities codes and requirements.
- 13.2 Contractor shall develop a ground fault program in accordance with OSHA Requirements and approved Esso requirements.
- 13.3 Contractor shall develop and implement a lockout/tagout procedure in accordance to OSHA 1926.461 and 1926.417 and strictly adhere to the use of this procedure. The Esso Safety Representative will verify adherence to the procedure on a regular basis.
- 13.4 All temporary power panels shall have covers installed at all times. All open or exposed breaker spaces shall be adequately covered.

**14.0 LADDERS AND STAIRWAYS**

NOTE: Ladders and stairways shall meet OSHA 1926.1050 through 1926.1060 requirements.

- 14.1 The use of ladders with broken or missing rungs or steps, broken or split rails or other defective construction is prohibited.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 14.2 Ladders shall extend no less than 36 inches (1.0 meter) above landing and be secured to prevent displacement.
- 14.3 Portable ladders must be equipped with safety shoes.
- 14.4 Wooden ladders shall not be painted.
- 14.5 Metal or conductive ladders shall not be used.
- 14.6 Ladders must be inspected daily before use, formal inspections must also be made by Contractor at 30 day intervals and documented.
- 14.7 Ladders shall be used for means of access only and shall not be used in place of scaffold.
- 14.8 Every flight of stairs having four or more risers shall be equipped with standard stair railings. Stairs are not to be used until risers, landings, and railings are securely installed. Treads will be poured as soon as possible where poured treads apply.
- 14.9 Debris and other loose materials shall not be allowed to accumulate in stairwells.

**15.0 FLOOR AND WALL OPENINGS AND STAIRWAYS**

- 15.1 Floor and wall openings shall be guarded by a standard guardrail, midrail, and toeboard, or adequately covered.
- 15.2 Guardrail must be of sufficient strength to support 200 pounds of force when applied at midspan of the guardrail parallel with the floor and perpendicular to the guardrail.
- 15.3 Covers must be adequately secured to prevent displacement and have "Danger" signs attached identifying the hazard.

**16.0 EXCAVATIONS AND TRENCHING**

Trenching and excavations must meet the minimum requirement of OSHA 1926.650 - 1926.652.

- 16.1 A competent person must be designated and trained in soil classification and the recognition of trenching and excavation hazards and be present during all trenching operations.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 16.2 Appropriate documentation to meet trenching and excavation standards is to be kept on site.
- 16.3 Prior to opening any excavation or trench, Contractor must notify Esso. In addition, Contractor shall contact any other necessary personnel to determine whether underground installations, e.g., sewer, telephone, fuel, electric lines, etc., may be encountered and where they are located. Excavation permits shall be required.
- 16.4 Excavations and trenches shall be inspected by a competent person daily and after every rainfall to determine if they are safe.
- 16.5 All banks 5 feet (1.5 meters) high or more shall be sloped to 34-degrees unless soil is analyzed by a competent person allowing a greater slope angle, or shall be adequately shored.
- 16.6 Ladders or steps shall be provided and secured in all trenches 4 feet (1.2 meters) or more in depth. Ladders or steps shall be located to require no more than 25 feet (7.5 meters) of lateral travel before having access to egress and shall extend 3 feet (90 centimeters) above the top of the trench bank. This requirement shall be in affect any time personnel are in trench or excavation.
- 16.7 Material excavated shall be stored at least 2 feet (0.6 meters) from the edge of the excavation or trench and shall be shored to prevent material from falling into the excavation.
- 16.8 All trenches and excavations shall be properly barricaded to prevent persons from walking into them. Pipeline trench will be excluded except in areas of road crossing and public access.
- 16.9 All walkways or ramps crossing over excavations shall be securely fastened and equipped with standard guardrail.

**17.0 STEEL ERECTION**

NOTE: Reference OSHA 1926.750 - 1926.752.

- 17.1 At no time shall there be more than 4 floors or 48 feet (14.63 meters) of unfinished bolting or welding above the foundation or uppermost permanently secured floors.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 17.2 A temporary and/or permanent floor shall be maintained within two stories or 30 feet (9.14 meters) whichever is less, below and directly under that portion of each tier of beams on which any work is being performed.
- 17.3 Planking or metal decking in temporary floors shall be of proper strength and thickness to carry the working load. Decking shall be secured to prevent movement.
- 17.4 Standard guardrail and toeboards shall be installed around open sides of permanent floors. During structural steel assembly, a safety railing (cable) of one-half inch diameter shall be installed approximately 42 inches high, recessed into the interior of floor around all temporary floors.
- 17.5 Where fall distances exceed 25 feet (7.62 meters) safety nets shall be provided, if the use of scaffolds, ladders, catch platforms, or safety belts with lanyards attached to lifelines or other substantial objects is impractical.
- 17.6 Tag lines shall be used to control all loads.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 17.7 Containers shall be provided for storing or carrying bolts or rivets. When bolts, drift pins, or rivet heads are being removed, a means shall be provided to prevent accidental displacement. Tools shall be provided and lanyards to prevent falling.
- 17.8 During the final placing of solid web structural members, the load shall not be released from the hoisting line until the members are secured with not less than two bolts, or equivalent, at each connection.
- 17.9 Contractor shall not allow any of Contractor's employees to walk the steel. Contractor's employees must be tied off and "coon/straddle" the beam until safety cables are provided to which employees shall tie off. Two shock absorbing lanyards will be needed to ensure 100% tie-off.
- 17.10 A safe means of access to the level being worked shall be maintained. Climbing and sliding columns are prohibited and are not considered safe access.

**18.0 CONFINED AREAS OR SPACES**

- 18.1 Contractor shall develop an entry procedure to be used when Contractor's employees are required to enter confined areas or spaces. Such areas include storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, open-topped pits, basements, and temporary wood framing covered with plastic.
- 18.2 All of Contractor's employees who are required to enter confined areas or spaces shall be instructed as to the nature of hazards involved, necessary precautions to be taken and in the use of protective and emergency equipment required.
- 18.3 Before Contractor's employees are permitted entry into any confined area or space, the atmosphere within the space shall be tested to determine the oxygen level and concentrations of flammable vapors, gases, toxic contaminants. Contractor needing access to the confined area shall furnish the testing equipment and a person competent in the use of the testing equipment.
- 18.4 When welding, cutting, or heating in confined areas or spaces, ventilation shall be provided. When sufficient ventilation cannot be provided without blocking the means of access, Contractor's employees shall be protected by air line respirators and an employee of Contractor shall be stationed outside



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

the confined area to maintain communication with those working within and to aid them in an emergency. Stand-by employee should be trained in emergency procedures.

**NOTE:** As a minimum all confined spaces must meet or exceed OSHA (CFR 1910.146). Esso maintains the right to increase requirement if necessary.

**19.0 HOUSEKEEPING**

**NOTE:** VERY IMPORTANT Contractor will be required to keep all work areas under tight housekeeping requirements at all times. It is not acceptable to wait until the end of the day to start clean-up. Housekeeping must be maintained throughout the day. NO EXCEPTIONS to this requirement. Contractor will be monitored on a regular basis by Esso personnel. Project Management will be held accountable.

- 19.1 During the course of construction, all debris and scrap material shall be kept away from the work area.
- 19.2 Containers shall be provided by Contractor for the collection and separation of waste, trash, oily and used rags and other refuse. Metal (dumpster type) containers must be used and emptied promptly.
- 19.3 Garbage and other waste shall be disposed of at frequent and regular intervals.
- 19.4 Contractor shall notify Esso of any hazardous waste it will generate during performance of the work. Contractor has the direct responsibility of maintaining proper storage of these wastes while on site. Reference Coordination Procedure Section 30, Environmental Management and Contractor's Waste Management Plan.
- 19.5 Contractor shall not bury, burn, nor in any way dispose of a chemical on the job site without permission from Esso.
- 19.6 Materials and supplies shall be stored in locations which will not block accessways, and be arranged to permit easy cleaning of the area. In areas where equipment might drip oil or cause other damage to the ground or floor's surface, a protective cover of heavy gauge, flame resistant, oil-proof sheeting shall be provided between the equipment and the ground or floor



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

surface sheeting so that no oil or grease contacts the soil or concrete. This requirement is applicable to finished and unfinished floors and ground.

- 19.7 All hoses, cables, extension cords, and similar materials shall be located, arranged, and grouped so that they will not block any accessway and will permit easy cleaning and maintenance.



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS

**20.0 CONTRACTOR RESPONSIBILITIES - MEDICAL SERVICES**

**NOTE:** Refer to Coordination Procedure Section 23, Occupational Health, Medical Facilities and Sanitation.

Contractors have the following responsibilities:

- Ensure the availability of professional medical service personnel.
- Prior to commencement of work, make provisions for prompt medical attention.
- Ensure that first aid supplies approved by the Esso consulting physician shall be easily accessible when required.
- Provide adequate number of first aid kits and supplies approved by the Esso consulting physician. First aid kits shall be in a weatherproof container with individual sealed packages for each type of item. Contents of the first aid kits shall be checked by Contractor before being sent to the job site and at least weekly during performance of the work to ensure that expended items are replaced.
- Provide proper equipment for prompt transportation of the injured person to a treatment area.
- Emergency numbers of the physicians, medivac and ambulance shall be conspicuously posted.
- Complete and retain on file all employer's "First Report of Injury" and OSHA Form 200, or international equivalent, and provide Esso a copy on request.
- A daily record shall be kept on all employees requiring first aid treatment.
- Contractor shall make every effort to work with medical advisor with the best interest of the employee to propose and provide "alternative" or "restricted" work duty when possible.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**21.0 MINOR CUTS, SCRATCHES, BRUISES, ETC. - FIRST AID**

- 21.1 Each occupational illness or injury shall be reported immediately by Contractor's employee to Contractor or the designated safety representative.
- 21.2 All personal injuries and illnesses treated or reported shall be recorded on a daily First Aid Log. This log should contain such information as employee's name, badge number, foreman, nature and cause of injury, treatment administered, date, time, and first aid attendant's name. Contractor shall maintain such data for Esso's review.
- 21.3 Contractor's should treat the injured employee as often as necessary to ensure complete recovery or the decision is made to seek medical treatment elsewhere.

**22.0 MEDICAL CASES NOT REQUIRING EVACUATION**

- 22.1 Contact Contractor's first aid attendant or designated safety representative regarding medical cases not normally requiring evacuation such as minor lacerations, embedded foreign bodies in eye, minor sprains, strains, etc.
- 22.2 Contractor must provide proper equipment for prompt transportation for the injured person to an infirmary/trauma area.
- 22.3 A representative of Contractor should always accompany the injured employee to the medical facility and remain at the facility until the employee is ready to return. Contractor has the responsibility to ensure that the employee has or receives necessary forms, e.g., authorization slips, return to work notices, etc.
- 22.4 If it is necessary for Contractor's medical personnel to accompany the injured employee, provisions must be made by Contractor to have other qualified medical personnel available, properly trained and certified in first aid, to render first aid during the absence of the regular physician, physician's assistant, or nurse.
- 22.5 If it is necessary to call the medical facility to be utilized, this call should be made by the designated Contractor representative while the injured employee is being transported.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- 22.6 If the employee is able to return to the job site the same day, they should bring with them a statement from the attending physician containing such information as date, employee's name, date they are able to return to work, regular or restricted duty, date they are to return to doctor, diagnosis, signature and address of doctor. If the injured employee is unable to return to the job site the same day, the employee who transported them should immediately notify Contractor Management and Esso.
- 22.7 Contractor should designate one employee to keep files on all medical cases and retain all medical statements in this file.

**23.0 MEDICAL CASES REQUIRING EVACUATION SERVICE**

Examples of medical cases requiring evacuating services include severe head injuries, amputations, heart attacks, etc. Should evacuation service be necessary, the following procedures should be taken immediately:

1. Contact Contractor or nearest employee properly trained and certified in first aid.
2. While first aid is being administered, arrange necessary transportation.
3. While the injured employee is being transported, Contractor should contact the medical facility.
4. One designated Contractor representative should accompany the injured employee to the medical facility and remain at the facility until final diagnosis and other relevant information is obtained.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**24.0 CONTRACTOR / SUB-CONTRACTOR DOCUMENTATION**

**Safety Performance Notebook**

Directions for completing each section of the Safety Performance Notebook follow.

**Table of Contents**

Sections to be maintained and updated in the Table of Contents.

**Section I - Contractor/Sub-contractor Information**

Include the following:

- Names, addresses, phone numbers, etc., of company office and officers
- Worker's Compensation carrier/employer liability insurer, contact name and address with phone number
- Certificate of Insurance - current
- Union information (if any), local number and name
- Safety Performance Information
- Awards received past two years, if any OSHA 200 Log (or equivalent) - Previous three years

**Section II - Contractor/ Sub-contractor Safety Information**

Include the following:

- Copy of safety program
- New hire and visitor orientation
- Toolbox meeting reports
- Written HazCom program or local equivalent
- Training program
- Written respirator program (if required)
- Other job specific inspection programs
- Self assessment audit program



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**Section III - Contractor/Sub-contractor Safety Performance**

Include the following:

- Injury performance records
- First Aid Log (Monthly)
- First Report of Injury
- Accident Investigation Reports
- Current Year OSHA 200 Log (or equivalent)
- Area safety inspection reports to include corrective action taken (monthly)
- Copies of Monthly Report Form SR-1
- Incentive awards and safety goals obtained

**Section IV - Safety Enforcement Actions**

Include the following:

- Letters written to obtain compliance
- Reports documenting removal of employees from the project for safety reasons
- Work stoppages to correct safety problems

**Section V - Site Specific Safety Requirements**

Include the following applicable procedures must be approved by Esso Safety Representative.

**Section VI -Perform Accident/Injury or Near Miss Investigation(s) Using Esso Format**

Contractor is required to develop procedures for incident investigation and reporting of incidents, near-misses and unsafe acts.

Contractor must ensure that:

- A system is in place for reporting, investigating, analyzing and documenting safety, health, environmental and regulatory compliance incidents and significant near-misses.
- Criteria and scope for reporting and review of incidents and near-misses are defined in specific incident reporting guidelines issued by ECI Headquarters, Affiliate Headquarters and the unit.
- Responsibility is assigned for ensuring that such systems are in place and followed and that qualified personnel conduct investigations and analyses.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- Procedures exist for determining the scope and manner of investigations of incidents and significant near-misses based upon actual or potential consequences and legal considerations.
- Procedures exist for determining when medical evaluation or alcohol and drug testing is conducted in connection with an incident.
- A program is in place to encourage near-miss reporting.
- The role of human factors and the effectiveness of Systems are analyzed in investigations.
- Findings are retained, periodically analyzed to determine where improvements to practices, standards, procedures or management systems are warranted and used as a basis for improvement.
- An information base of incidents and near-misses, including root causes and corrective actions, is maintained to assist in identification of improvements and stewardship.
- Identified improvements are reviewed with Esso management and decisions implemented.

This information is required for all lost time injuries, potential or near-miss incidents and fatalities. The following should be included in the report:

- Use information from Contractor's Safety Performance Notebook for backup information that may be required
- Toolbox topics covered relative to the incident
- Safety Orientation, Root Cause Analysis, Accident Investigation Report, etc.
- Contractor is required to make immediate notification to Esso



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**25.0 REQUIRED ACCIDENT/INJURY INFORMATION**

25.1 The following information is required in the event of Contractor/Sub-contractor injury, lost time accident or fatality:

- Contractor is required to make immediate notification to Esso.
- Contractor/Sub-contractor names and addresses of project management (project manager, construction manager, safety manager, services manager, etc.)
- Contractor or Sub-contractor safety orientation and evidence showing that individual completed orientation when they started work.
- The Sub-contractor or Contractor safety program. Highlight the appropriate part dealing with the referenced accident.
- The Sub-contractor or Contractor work procedures on the work under way when the incident occurred.
- Contractor safety meetings and/or any Sub-contractor safety meetings (if related)
- Contractor safety inspections and/or Sub-contractor safety inspection(s) (highlight related items)
- Letters to Esso or Sub-contractor regarding safety
- Contractor/Sub-contractor safety performance on the project, Contractor/Sub-contractor safety performance as a company for the year on their OSHA 200 Log or equivalent
- Contractor/Sub-contractor incidence rate of lost workday cases and OSHA 200 Log or equivalent for the company
- Copy of Contractor's insurance certificates or information on the carrier and a letter from Sub-contractor's insurance carrier referencing the Sub-contractor's safety.
- Site Safety Regulations that pertain to the incident
- Any site safety topics that pertain to the incident
- Any site safety programs that pertain to the incident
- Treating physician's name, hospital, or clinic address, etc., and a doctor's statement on the injury the employee received (also return to work notice)
- Medical records on the employee where possible
- Job description for Contractor/Sub-contractor employee (may include specific references to safety)



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- Signed statements from designated Contractor/Sub-contractor representatives concerning the employee's safety performance on the job or safety requirements for the job, etc.
- Sketches of the accident area
- Exact name, address, and project location of foreman or supervisor. Also, what they were doing when the accident occurred. How far away from the area, etc.
- Signed statements from all witnesses with names and addresses
- Safety violations issued, if any
- Coroner's report, if fatality
- Full accident investigation
- First Report of Injury
- Accident and area photographs
- Copy of any procedure(s) - lockout, tagout, danger tags, etc.
- Any client related report or training information
- Any union training program including safety that the particular employee's union has at its locale
- A statement from Contractor regarding any type of useful information that could be used in defense
- Documentation reflecting monies expended by Contractor to have safety problems corrected, e.g., housekeeping, handrails, and floor hole covers, installations, etc.
- Specifically list enforcement measures taken by Contractor to enforce compliance of Sub-contractors with project safety procedures, e.g., withholding payment of invoices, instances of the Esso or Contractor stopping work until safety hazards are corrected.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**26.0 SAFETY RULES AND PROCEDURES**

Contractor shall:

- Develop Safety Rules and Procedures.
- Identify applicable procedures for work to be performed.
- Write Site Specific Safety Procedure Manual incorporating applicable safety procedures.
- Issue Project Safety Procedures manual to Esso.

**27.0 HAZARDOUS MATERIALS PROCESS AND/OR CHEMICALS**

Contractor shall:

- Contractor is required to develop a system that will ensure that information on potential hazards of materials involved in operations is kept current and, based on assessed risk to personnel, exposures are monitored, proper protection measures are communicated, and pertinent health data are recorded and reviewed.
- Contractor must develop and maintain documentation for purchase, transport, handling, storage and disposal of hazardous materials that are clearly defined for each location.
- Contractor must develop a system that will ensure that hazardous materials are not accepted from suppliers without associated material safety data sheets (M.S.D.S.).
- All personnel are provided with information about the potential hazards of the materials they are exposed to in their work.
- Contractor must ensure that exposure limits to hazardous materials are set. Based on assessed risk, personnel exposure is monitored, recorded, and subject to periodic review by Esso management.
- If there are potential hazards of products produced in operations, the Contractor must ensure that information on potential hazards associated with products and guidance to enable proper handling, use, and disposed is documented and communicated.
- Identify processes and chemicals that may expose employees to potentially hazardous conditions either in routine work or in emergency conditions.
- Current documentation is available and on location of each Material Safety Data Sheets (MSDS) on all chemicals and hazardous materials to which employees may be exposed and that a system is in place to maintain its currency.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- Contractor must develop a procedure to inventory hazardous materials kept on site that is regularly reviewed.

**28.0 FIRE SUPPRESSION EQUIPMENT**

Reference Coordination Procedure Section 24, Fire Protection & Fire Fighting.

- Determine the areas that require fire extinguishers.
- Determine the type, size, and number of fire extinguishers needed.
- Locate a vendor to service and re-charge fire extinguishers.
- Ensure all mobile equipment is equipped with a fire extinguisher.

**29.0 SAFETY & PERSONNEL PROTECTIVE EQUIPMENT**

Contractor shall:

- Identify the quantity and types of personnel protective and safety equipment needed.
- Develop a schedule to ensure the timely delivery of equipment and materials to the project.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**30.0 WORK PERMIT REQUIREMENTS**

Contractor is required to develop a system that addresses simultaneous operations and interfaces between Contractors working at a common site. Contractors permit system shall incorporate checks and authorizations that are consistent with risk or hazards.

The contractor must ensure the following requirements are developed into the Permit system:

- The work permit system contains prestart checks to ensure that: the work site is safe, that necessary isolations are performed and verified, necessary bypasses are performed, the work does not unsafely interfere with other work in progress or planned, those affected by the work are informed of the work and possible affects upon their work, and appropriate communications and coordination meetings are held and key decisions recorded.
- Work permits are approved for a specific duration.
- Senior operations management is responsible for ensuring an effective work permit system and verifying that it is used correctly.
- The type of work and work conditions that are managed with work permits are defined for each site based on the risks involved.
- Each Work Permit has a description of the work and details specific precautions to protect personnel, environment and equipment from potential hazards.
- Permit procedures require closeout checks to be performed at completion of the work to ensure that: the work was performed satisfactorily, isolations and bypasses are restored, work place and process are returned to a safe condition, and completion of work is communicated to affected personnel.
- The authority to approve and closeout work permits is clearly designated and documented at each site.
- All personnel issuing or using work permits are trained in the application of work permit procedures.
- Work permit system and training effectiveness is audited periodically and results documented. Work permits and records are retained to facilitate this assessment.

Develop project specific work permit procedures complying with Esso Permitting Policies and local requirements.

- Lock and Tag
- Cold Work (if required)

- Field Instrument
- Welding on Live Equipment or Platforms



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

- Hot Work
- Confined Space
- Crane Lift
- Excavations
- Electrical Hot Work
- Suspended Work Baskets

**31.0 EMERGENCY PROCEDURES**

- Develop project wide evacuation plan in coordination with Esso
- Identify emergency assembly areas and evacuation routes in coordination with Esso
- Develop maps illustrating these areas
- Identify emergency services/equipment that may be required: ambulance, medivac, fire truck, trauma packs, personnel retrieval systems
- Publish a listing of emergency communication systems
- Ensure that numbers are posted in appropriate areas of the project
- Severe weather procedures
- Post designations of assembly areas



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**32.0 MEDICAL SERVICES**

- Establish medical evacuation procedures and determine when to use local or foreign medical facilities based on extent of injury.
- Establish which off-site medical facilities are to be utilized by local employees for job related injuries or illnesses.
- Identify who will conduct employee physicals.

NOTE: Refer to Coordination Procedure Section 23, Occupational Health, Medical Facilities and Sanitation.

**33.0 SAFETY INCENTIVE PROGRAMS**

Develop programs to recognize employees and crews for superior safety performance.

**34.0 SAFETY MEETINGS**

Contractor must ensure that adequate meetings are held to proactively address associated hazards. As a minimum the Contractor must:

- Establish weekly safety meetings for all project supervisors.
- Establish an attendance tracking system.
- Establish a weekly Tool Box Meetings for craft.
- All safety meetings must be documented.

**35.0 SUB-CONTRACTORS**

- All sub-contractors have the same safety requirements as Contractors.
- Develop site specific sub-contractor safety policies and procedures.
- Ensure safety policies/procedures and qualification packages are included in proposals and contracts.

**36.0 DISCIPLINARY PROCEDURES**

Develop disciplinary procedures to address safety violations that are fair and consistent throughout.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**37.0 PROJECT SAFETY GOALS**

- Develop project safety goals to include no lost time accidents/injuries.
- Develop project safety objections that include those established by Esso.

**38.0 PURPOSE STATEMENT**

Provide purpose statement for project stating:

- Management commitment
- Intent, goals and objectives
- Expectation for support from all site personnel

**39.0 SAFETY TRAINING**

Develop a written and verbal orientation and comprehension test for new employees and sub-contract personnel to include:

- Description of project
- Management commitment
- Project safety goals and philosophy
- Site specific rules
- Evacuation alarms and procedures
- Areas requiring special protective clothing
- Accident and injury reporting procedures
- Permitting procedures
- Disciplinary procedures for safety violations
- Reporting unsafe acts or conditions
- Tool Box Meetings
- Hazard communication
- Chemical screening



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**40.0 SPECIAL PROJECTS ISSUES**

- Identify Safety Training and Comprehension Programs to educate site personnel on applicable safety management programs.
  - Hazard Communication/MSDS
  - Employee Medical Records
  - Confined Space Entry
  - Respiratory Protection/Fit Test
  - Hole Watch
  - Fire Watch
  - Emergency Procedures
  - Opening and Blinding
  - Lock and Tag
  - Process Overviews/Hazards
  - Industrial Hygiene
  
- Identify Safety Training and Comprehension Programs for craft specific tasks.
  - Basic Rigging/Hand Signals
  - Bloodborne Pathogens and first aid associated with (MSDS)
  - Power Actuated Tools (certification)
  - Electrical safe work practices
  - Fire extinguishers portable
  - Fork Lift Operator
  - Drum handling
  - Compressed gas/cylinder handling
  - Control of hazardous energy
  - Assured equipment grounding
  - Accident prevention signs, tags, barricades
  - Hearing conservation/protection
  - Personal protective equipment
  - Trenching and excavation
  - Welding/cutting/brazing
  - Overhead Gantry Cranes
  - Safe handling and storage of explosives
  
- Selection of computer programming to be used to track training.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS**

**41.0 CRAFT SPECIFIC CERTIFICATION PROGRAMS**

- Required craft certification programs.
  - Power Actuated Tools
  - Crane Operator
  - Motorized Equipment/Vehicles
  - Fork Lift Operator
  - Aerial Lift
  - Material and Personnel Hoist
- Develop training programs and comprehension tests for supervisors.
  - Permits
  - General safety responsibility, liability
  - Incident/Accident investigations

**42.0 SAFETY AUDITS/INSPECTION PROGRAMS**

- Establish weekly audit format.
- Develop auditing schedule.
- Identify site specific inspection programs.



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX I

APPENDIX I  
MONTHLY SAFETY SUMMARY REPORT

(INSTRUCTIONS)

**GENERAL**

The success of the Esso's Accident Prevention Program can only be determined by developing standard records that collect accurate data. This procedure is detailed in OSHA 29 CFR 1904 (OSHA Record Keeping Guidelines). The data to be collected is described on Form SR-1 "Monthly Safety Summary Report" (Table 1). This information will be catalogued throughout the year on a calendar year basis.

Contractors/Sub-contractors are required to complete and submit the Monthly Safety Summary Report to the Esso safety representative each and every month. This report is due on the 5th workday of each month. It is very important that this information is accurate and on time.

**SAFETY SUMMARY REPORT INSTRUCTIONS**

**Section A: Project Information**

1. Enter your assigned project number.
2. Enter the reporting month.
3. Enter Contractor name.
4. Enter Sub-Contractor name.
5. Enter reporting period. Example: **FROM** 27, July 1996 **TO** 31, August 1996.



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS APPENDIX I

**Section B: Project Site Statistics Craft/Salaried**

1. Enter project location.
2. Enter the number of employee workhours for the reporting period (month and year to date).
3. Enter any one-time treatment and subsequent observation of minor work-related scratches, cuts, burns, splinters, etc. not requiring medical care. However, a physician or registered professional may administer the first aid.
4. Enter any work-related loss of consciousness, injury or illness requiring more than first aid treatment by a physician, dentist, surgeon or registered medical personnel, nurse or paramedic under the standing order of a physician.
5. Enter all work-related deaths and illnesses, and those work-related injuries which result in: loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid.
6. Enter all work related cases resulting in an individual being unable to return to work on any of the individual's scheduled workshifts after the day of injury or illness.
7. Formula for calculating recordable incidence rate is as follows: Take the number of recordable cases x 200,000 ÷ by the number of hours worked. Use this same formula for both month and year to date calculations.
8. Formula for calculating Lost-Time Case incidence rate is as follows: Take the number of Lost-Time Cases x 200,000 ÷ by the number of hours worked. Use this same formula for both month and year to date calculations.
9. Formula for calculating employee hours per doctor case is as follows: Take the number of hours worked ÷ the number of doctor cases. Use this same formula for both month and year to date calculations.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS APPENDIX I**

**Section C: Project Site Statistics**

1. Enter number of hours since last Lost-Time injury.
2. Enter any business related auto/transportation accident.
3. Enter number of safety meetings held during the reporting period.
4. Enter the number of events that did not cause injury or fatality but that could reasonably have developed into a more serious incident.
5. Enter the number of documented safety walkthroughs conducted during the reporting period.

**Section D: Project Site Statistics Approval**

1. Signature is required by the individual preparing the document.
2. Enter the date the document was prepared.
3. Signature is required by the project manager in charge or designee.
4. Enter the date of project manager or designee approval.





GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX II

**APPENDIX II**  
**ALCOHOL AND DRUG USE POLICY FOR CONTRACTORS**

**CONTRACTOR ALCOHOL AND DRUG USE POLICY**

General Requirements

It is not ESSO's intent to establish alcohol and drug use policies for Contractors. However, ESSO requires contractors to have and enforce a program which is consistent with providing an alcohol and drug free workplace, which includes appropriate substance abuse testing programs, and is commensurate with the level of risk in the work being performed.

Contractors performing work on ESSO owned or controlled premises, in direct contact with ESSO operations, or of a nature which could cause ESSO to be held responsible for losses suffered as a result of actions on the part of Contractor or its employees, hereby agree to observe the following:

- Prohibit the misuse of legitimate drugs, or the use, possession, distribution, or sale of illicit or unprescribed controlled drugs or paraphernalia.
- Prohibit the possession, use, distribution, or sale of alcoholic beverages while on ESSO owned or controlled property.
- Recognize the right of ESSO to conduct unannounced searches of Contractor's property on ESSO premises.
- Recognize the right of ESSO to require Contractor to remove employees where cause exists to suspect alcohol or drug use.
- Prohibit the use of alcohol in all camp facilities.
- Prohibit Contractor's employees from being unfit for work as a result of the use of alcohol or drugs.
- Test as required by these guidelines.
- Comply with all applicable federal, state, and local laws and regulations.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX II**

- Contractors are required to pre-access test all security and food service personnel.
- All Expatriates are required to have pre-access alcohol and drug testing prior to arriving on job site.

Categories of Contractor Positions

The following categories of contractor positions are identified for purposes of testing and other requirements under these guidelines:

Safety-Sensitive Contractor Positions

ESSO management will determine those contractor jobs that are safety-sensitive. In general, these jobs have the following characteristics:

- a high exposure to catastrophic operational incident,
- the person performing the job has a direct role in operations where failure could result in serious harm to public or employee well-being, or
- of a nature which could cause ESSO to be held responsible for losses or actions of the Contractor.

Jobs Comparable to Designated Positions

ESSO management will determine those contractor jobs that are comparable to ESSO designated positions. In general, these jobs have the following characteristics:

- a high exposure to a catastrophic operational incident,
- the person performing the job has a direct role in operations where failure could result in serious harm to public or employee well-being, and
- no direct or very limited supervision is available to provide operational checks.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX II**

Jobs Comparable to Specified Executives

Contractor management will determine those Contractor jobs that are comparable to ESSO specified executive positions. In general, these are senior executives of a major company organization or are managers responsible for an organization which also has jobs comparable to designated positions.

Contractor Substance Abuse Testing

The following substance abuse testing requirements shall apply for Contractors working in ESSO operations:

- **Suspicion of Alcohol or Drug Use/For-Cause Testing.** All Contractors will be required to remove any of their employees from performing work for ESSO any time there is suspicion of alcohol or drug use or possession. In addition, for-cause alcohol and drug tests are required after a safety incident where there exists a basis to suspect involvement of alcohol or drug use. In cases involving contractors working in safety-sensitive positions or jobs comparable to designated positions, for-cause alcohol and drug tests are required after any safety incident. In any of the above cases, the Contractor's employee may only be considered for return to work after Contractor certifies as a result of a negative alcohol and drug for-cause test, conducted immediately following the incident, that said employee was in compliance with these guidelines.
- **Pre-Access Testing.** No Contractor employees working in safety-sensitive positions or in jobs comparable to ESSO designated positions will be permitted to perform work for ESSO unless Contractor certifies such employee has passed a pre-access alcohol and drug test within the 12 month period immediately prior to commencing such work. Any category of alcohol and drug test conducted during this period as part of the Contractor's substance abuse program that meets the standards of these guidelines may be used to satisfy this requirement.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX II**

- Random Testing. Contractors working in jobs comparable to ESSO designated positions, as determined by ESSO, are required to be continuously subject to an unannounced random alcohol and drug testing program while they are performing work for ESSO. Specified executives of contracting firms are encouraged to be subject to the same random alcohol and drug testing program to demonstrate their commitment to a substance-free workplace.

Any employee of a Contractor who tests positive in any of these alcohol and drug tests, or refuses to be tested, must be removed from the ESSO site and any ESSO work.

Test Administration (U.S.)

Alcohol and drug testing will be accomplished in accordance with applicable laws and will be the sole responsibility of the Contractors. While the U.S. Department of Transportation (DOT) requirements for substances to be tested, testing frequency, and threshold levels set acceptable standards, Contractors that do not have an existing program should be strongly encouraged to adopt ESSO's alcohol and drug testing standards. ESSO will not administer any alcohol or drug tests for Contractor's employees. Contractor will be responsible to select a lab certified to conduct such testing under a recognized certification program. Retaining the test results is the responsibility of Contractor.

Test Administration (Non-U.S.)

Alcohol and drug testing will be accomplished in accordance with applicable local/national laws. Contractor should normally be responsible for the testing of its workers. Non-U.S. Contractors that do not have an existing program should be strongly encouraged to adopt ESSO's full panel of drugs, thresholds and testing standards.

Contractor shall submit threshold levels to ESSO for review and approval.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX II**

Test Administration

Alcohol and drug testing will be accomplished in accordance with applicable laws and will be the sole responsibility of Contractor. ESSO will not administer any drug or alcohol tests for a Contractor's employee. The testing standards to be used insofar as drugs tested for, screening levels, and confirmatory levels, must, at a minimum, meet the U.S. Department of Transportation (DOT) requirements for drugs other than alcohol, and ESSO's requirements for alcohol. In addition, ESSO requires testing that complies with ESSO standards for all drug substances including alcohol for Contractor personnel assigned in positions comparable to ESSO's "designated" positions. DOT and ESSO's standard substances to be tested for and their detection levels are listed in Table 1. Testing may be performed at any certified laboratory. Handling of test results (e.g., retention, release, etc.) is the Contractor's responsibility.

Audit

Contractor is hereby advised that ESSO may, at ESSO's discretion, conduct an unannounced audit of Contractor's drug and alcohol program to verify that:

- Contractor's policy and its enforcement comply with these guidelines.
- Tests are being conducted as required.
- Procedures for handling samples establish a chain of custody that prevents tampering and switching of samples.
- The laboratory being used conducts tests using a scientifically sound method and is certified to perform such tests.
- The use of prescribed drugs is not reported as test positives to management. A medical review of test results is desirable.

Sub-contractors

Contractors must require their sub-contractors to maintain a Drug and Alcohol Policy in keeping with the requirements herein or require them to abide by ESSO's drug and alcohol policy guidelines to the same degree that Contractor must comply.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX II**

Exception

Contractor's employees who are subject to substance abuse testing requirements who are hired on short notice may, at ESSO management discretion, be permitted to begin work pending the required substance abuse testing certification. However, such certification must be received by ESSO with seven (7) calendar days from the first date Contractor's employees commence performing work. This exception does not apply to Contractor designated positions.

Certain other exceptions may be granted by ESSO management and will be handled on a case-by-case basis.

Non-Compliance

If it is determined that a Contractor is not complying with the provisions as described herein, action may be taken by ESSO to remove Contractor from a particular job and to note such non-compliance when considering Contractor for future jobs. The action taken will be at the discretion of ESSO management.

Contractor Designated Positions (refer to the notes on the following page)

At a minimum, Contractor designated positions shall include the Project Manager, Construction Manager, Crane Operators, Aircraft Pilots, Boat Captains and Truck Drivers hauling volatile products. Contractor shall nominate other designated positions that generally fall within the guidelines of the notes on the following page.

Random Testing Guidelines (for designated positions only)

Fifty percent (50%) of Contractor employees who perform work or relieve others who perform work in designated positions must be "random" tested every 12 months. Such testing is in addition to ESSO's requirement that all employees be subject to a pre-employment drug/alcohol test.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX II**

Note:

The following guidelines should be used to determine if a specific job falls into the designated position category:

1. the position involves work that provides a high exposure to a catastrophic operational incident, or
2. the position involves a direct role in operations, where a failure could result in serious harm to public or employee well-being, or
3. the position involves working either with no or very limited direct ESSO supervision for operational oversight.



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX III

**APPENDIX III**  
**JOB SAFETY ANALYSIS (THE JSA)**

What is JSA?

It is a simple procedure used to review a specific workplan in order to uncover hazards and then eliminate or remove them before the work is started.

Why Should We Perform a JSA?

- Develops worker involvement in planning and doing the work in an efficient, safe manner.
- Promotes teamwork and communication.
- Facilitates training.
- Focuses workers on their specific responsibilities.
- Identifies improvements to established job methods.

When is a JSA Performed?

Every time new work is started or a workplan changes.

Who Performs the JSA?

A JSA is performed by a unit of workers, supervisors and inspectors assigned to a specific work activity.

How is a JSA Performed?

- Step 1 - Select the work team and then the job to be completed.
- Step 2 - Categorize the job into a series of steps.
- Step 3 - Identify the hazards associated with each step.
- Step 4 - Decide on actions necessary to eliminate, reduce or control a hazard that could lead to an accident.



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX III

BENEFITS DERIVED FROM THE JSA PROCESS

Direct

- Identifies Hazards
- Improves Safety
- Defines Job Procedures
- Provides Training Commitment
- Increases Awareness
- Reduces Accidents
- Ensures OSHA Compliance
- Generates Safety Initiatives
- Facilitates Continuous Improvement
  - Productivity
  - Quality

Indirect

- Builds Teams
- Increases Involvement in Safety Process
- Develops Sense of Ownership
- Demonstrates Management's Commitment
- Builds Self-Esteem
- Increases Job Satisfaction
- Empowers those Performing the Work
- Recognizes the Expert
- Encourages Participation
- Shows that each team member is Important
- Makes Safety More Fun
- Shows Safety is Priority
- Demonstrates that We Care
- Encourages Thinking Before Acting
- Increases Understanding of Expectations \*
- Indicates Commitment \*
- Provides Exposure to OSHA Standards \*
- Identifies Skill Levels \*
- Identifies "Safety Leader" in Work Group \*

\* = Specific to Contractors



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX III**

JOB SAFETY ANALYSIS

Purpose: To identify the hazards or potential hazards associated with each step of a particular job and develop actions to eliminate, reduce or control the hazard.

To develop a thought process that can be used even when a written Job Safety Analysis is not performed.

How to Develop a JSA (see sample JSA form attached)

1. Categorize or identify job into observable steps.
2. Identify potential hazards associated with each step.
3. Specify control measures for hazards identified.

Priority of Job Selection for JSA

1. Frequency of job. (Note: Less frequent jobs are normally considered more critical.)
2. Magnitude of job.
3. Potential of accident/injury.
4. Newly established jobs.
5. Jobs requiring procedure modification.

Benefits

1. Reinforces thought process employees should use, whether written or not.
2. Helps plan selected jobs.
3. Helps critique a job.
4. Acts as a training aid for employees in training.
5. Standardizes safe work practices.
6. Perpetuates hazard control awareness.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX III**

HOW TO COMPLETE A JOB SAFETY ANALYSIS (JSA)

The JSA should be completed in accordance with the following guidelines:

Keep sentences short.

A. Sequence of Basic Job Steps

Categorize job into observable steps. Try not to be too general or too detailed.

- If job is complex, break into several tasks; prepare a JSA for each task.
- Begin with active verb, e.g. disconnect, check, invert, assemble, etc.
- Number each step.

B. Potential Hazards

Identify possible hazards associated with each step. List opposite job step.

- Consider potential accident causes (e.g., strain, sprain, cut, slip, fall, etc.).
- Consider environmental hazards (e.g., vapors, gases, heat, noise, etc.).

C. Recommended Safe Procedure

Develop solutions for each potential hazard. List opposite hazard.

- Present controls (e.g., ventilate, isolate, allow to cool, secure, etc.)



## JOB SAFETY ANALYSIS

	Job: Sharpening & Replacing a Rotary Mower Blade Page of	Date:		New Revised
Job Safety Analysis Training Guide	Title of Person Who Does Job:	Supervisor:	Analysis By: Operator & Supervisor	
Department: Maintenance Group	Section: Outdoor Beautification		Reviewed By: Safety Department	
Required/Recommended (Circle One) Personal Protective Equipment: Cut Resistant Gloves and Safety Glasses			Approved By: Manager	
A. Sequence of Basic Job Steps		B. Potential Hazards		C. Recommended Safe Procedure
<ol style="list-style-type: none"> <li>1. Disconnect spark plug wire.</li> <li>2. Remove Fuel.</li> <li>3. Invert mower.</li> <li>4. Remove dull blade.</li> <li>5. Check for bent blade.</li> <li>6. Sharpen and balance dull blade.</li> <li>7. Reassemble blade to mower.</li> <li>8. return mower to cutting position.</li> <li>9. reconnect spark plug wire.</li> <li>10. Add fuel.</li> </ol>		<ol style="list-style-type: none"> <li>1. Striking against (SA) housing. Burn hand.</li> <li>2. Spillage - Fire, inhalation.</li> <li>3. Caught between (CB) Dropping on foot, etc. Spilling fuel. Overexertion.</li> <li>4. Knuckles SA blades.</li> <li>5. Cuts while handling blade.</li> <li>6. Cutting hand, SA vise.</li> <li>7. SA blade or housing.</li> <li>8. Overexertion. Caught between</li> <li>9. None</li> <li>10. Fire</li> </ol>		<ol style="list-style-type: none"> <li>1. Do not use excessive force. Allow mower to cool.</li> <li>2. Ventilation, no smoking, proper container. Flush away with water (if necessary).</li> <li>3. Tip properly. (Grass catcher chute up). Wear gloves. Be sure cap is tight. Lift properly, use leg muscles.</li> <li>4. Securely block blade-wooden block. Use proper size SOCKET WRENCH WITH EXTENDER. Wear gloves.</li> <li>5. Wear gloves.</li> <li>6. Wear gloves. AVOID CONTACT WITH SHARP BLADE.</li> <li>7. Block blade. WEAR GLOVES. AVOID CONTACT WITH SHARP BLADE.</li> <li>8. Use leg muscles, not back. Wear gloves.</li> <li>9. None</li> <li>10. Ventilate, no smoking, proper container.</li> </ol>



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX IV

**APPENDIX IV**  
**HOW TO CONDUCT A ROOT CAUSE ANALYSIS**

1. Organize an Investigation Team.  
Team should consist of at least:
  - CONTRACTOR's Supervisor
  - CONTRACTOR's Safety Advisor
  - An ESSO's representative
  - Another member of work force (experienced/knowledgeable in process involved)
  - Injured party (if possible)
2. Interview those involved.  
Review with interviewees the purpose of Root Cause Analysis:
  - To enable us to take action to prevent a similar occurrence.
  - Root Cause Analysis does not blame people. Investigation Team will review data to uncover the system or process that needs to be corrected.
3. Interview promptly while memories are fresh and not influenced by discussions with others.
  - Team should interview witnesses one at a time. (One-on-one interviews may sometimes be needed, use judgment.)
  - Conduct interviews with minimal interruptions. Ask open-ended questions.
  - Ask questions to clarify. Ensure that witness's account and Team's understanding agree.
  - Encourage witnesses to contact one of the Investigation Team members later if they remember additional facts.
4. Visit accident scene. Collect any physical objects (e.g. tools, clothing, equipment, etc.).
5. Complete pages 1 through 3 of this form.
  - Re-interview if questions arise during this process.
6. Mail completed original form and supplemental photos, sketches, materials, etc., to ESSO.
7. Get concurrence on "Root Actions" from Field Superintendent and enter corrective steps in standard operating procedures.



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX IV

ROOT CAUSE ANALYSIS

- INJURY:    NEAR MISS:    PROPERTY DAMAGE:
- DATE OF EVENT:    TIME:    a.m./p.m.    WORK LOCATION:
- WEATHER:
- PERSON INJURED OR NEARLY INJURED:
- EXTENT OF INJURY:
- EXACT LOCATION OF EVENT:
- DESCRIBE WHAT HAPPENED:
  
- WHAT TASK DID THE INJURED PERSON PERFORM PRIOR TO THE ACCIDENT/NEAR MISS?
  
- DAYS WORKED IN FIELD:
- DAYS SINCE LAST DAY OFF:
- HOW MUCH EXPERIENCE DID THIS PERSON HAVE IN THE WORK BEING DONE?



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX IV

GETTING TO ROOT CAUSE

Step 1 Use this listing as an aid in identifying the factors that contributed to this event.  
Do not be limited by areas listed, add items as needed. Check all that apply.

PROCEDURES

- \_\_\_ • None Developed
- \_\_\_ • Developed-Not Followed
- \_\_\_ • Developed-Not Trained
- \_\_\_ • Developed-Not Understood
- \_\_\_ • Developed-Not Accurate
- \_\_\_ • Developed-Unable to Follow
- \_\_\_ • \_\_\_\_\_
- \_\_\_ • \_\_\_\_\_

IN A HURRY

- \_\_\_ • Verbally Implied Need
- \_\_\_ • Employee Perceived Need
- \_\_\_ • Friendly Competition
- \_\_\_ • Due to External Factors
- \_\_\_ • Workload too Heavy
- \_\_\_ • Lack of Teamwork
- \_\_\_ • Taking Shortcuts
- \_\_\_ • \_\_\_\_\_

HAZARD

- \_\_\_ • Created by Man
- \_\_\_ • Created by External Factors
- \_\_\_ • Documented but Not Repaired
- \_\_\_ • Unidentified
- \_\_\_ • Identified but Accepted
- \_\_\_ • Repaired but Deficient Repair
- \_\_\_ • Conditions Changed Without Proper
- \_\_\_ • Communication
- \_\_\_ • Lack of Documentation
- \_\_\_ • \_\_\_\_\_
- \_\_\_ • \_\_\_\_\_

TRAINING

- \_\_\_ • Recent Training Provided for Specific Task
- \_\_\_ • Circumstances Not Addressed in Training
- \_\_\_ • Tool Used Incorrectly
- \_\_\_ • \_\_\_\_\_
- \_\_\_ • \_\_\_\_\_

COMMUNICATION

- \_\_\_ • Insufficient Planning
- \_\_\_ • Breakdown in Communication Between Workers
- \_\_\_ • Breakdown in Communication Between Workers and Supervisor
- \_\_\_ • Breakdown in Communication Between Work Teams
- \_\_\_ • Confusion After Communication
- \_\_\_ • \_\_\_\_\_
- \_\_\_ • \_\_\_\_\_



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX IV

Step 1 (Cont'd)

FACILITIES/EQUIPMENT

- \_\_\_ • Faulty Equipment
- \_\_\_ • Poor Design
- \_\_\_ • Corrosion/Wear
- \_\_\_ • Ergonomic Factors
- \_\_\_ • \_\_\_\_\_
- \_\_\_ • \_\_\_\_\_

OTHER FACTORS

- \_\_\_ • Weather/Temperature
- \_\_\_ • Working Long Hours
- \_\_\_ • Physical Overexertion
- \_\_\_ • Personal Protective Equipment
- \_\_\_ • Improper Body Position
- \_\_\_ • \_\_\_\_\_
- \_\_\_ • \_\_\_\_\_

Step 2 From areas identified above, choose the major cause:

- \_\_\_ Procedures      \_\_\_ In a Hurry      \_\_\_ Hazard
- \_\_\_ Facilities/Equipment      \_\_\_ Training      \_\_\_ Communication
- \_\_\_ Other \_\_\_\_\_

Step 3

Major Root Cause \_\_\_\_\_  
(Identified in Step 2)

- \_\_\_ • Why did this happen? \_\_\_\_\_
- \_\_\_ • Why? \_\_\_\_\_
- \_\_\_ • Why? \_\_\_\_\_
- \_\_\_ • Why? \_\_\_\_\_



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX IV

Step 3 (Cont'd)

- Corrective Steps for Subcauses

---



---



---

- To ensure elimination of hazards identified above, corrective steps handled as follows:

- Added to standard operating procedures?

Yes \_\_\_\_\_ N/A (explain) \_\_\_\_\_

- Other follow-up method used (specify)

- Other follow-up method used (specify) \_\_\_\_\_

---

WE HAVE REVIEWED THE INFORMATION AND BELIEVE THE ROOT CAUSE HAS BEEN DETERMINED.

INVESTIGATION COMMITTEE:

INJURED PARTY:

\_\_\_\_\_ (Supervisor)

\_\_\_\_\_ (Name)

\_\_\_\_\_ (Safety Leader)

\_\_\_\_\_

\_\_\_\_\_ (Member)

\_\_\_\_\_

\_\_\_\_\_ (Member)

\_\_\_\_\_

REPORT REVIEWED

FIELD SUPERVISOR/STAFF MANAGER: \_\_\_\_\_

OPERATIONS SUPERINTENDENT: \_\_\_\_\_

OPERATIONS MANAGER: \_\_\_\_\_

Report received by Safety Coordinator and distributed to other locations.

INITIAL: \_\_\_\_\_ DATE: \_\_\_\_\_



GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX V

**APPENDIX V**  
**SUB-CONTRACTOR SAFETY QUESTIONNAIRE**

Contractor is required to provide ESSO with the detailed information requested below for each sub-contractor, in the format indicated, concerning the sub-contractor's safety performance for approval by ESSO prior to award of sub-contract:

◆ Total Number of Hours worked for each of the last 3 years.

1993\_\_\_\_ 1994\_\_\_\_ 1995\_\_\_\_

◆ Total Number of Employees who worked for your company during each of the last 3 years.

1993\_\_\_\_ 1994\_\_\_\_ 1995\_\_\_\_

◆ Number of Lost Workday Cases incurred at your work sites over the last 3 years.  
(Refer to Definitions/Criteria following)

1993\_\_\_\_ 1994\_\_\_\_ 1995\_\_\_\_

◆ Number of Recordable Cases incurred at your work sites over the last 3 years.  
(Refer to Definitions/Criteria following)

1993\_\_\_\_ 1994\_\_\_\_ 1995\_\_\_\_

◆ List the Number of Fatalities your company has experienced over the last 3 years.

1993\_\_\_\_ 1994\_\_\_\_ 1995\_\_\_\_

Submit an explanation for each Fatality that occurred along with company's action plan to prevent recurrence.



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX V**

◆List the Number of Safety Violations/Fines your company has received over the past 3 years.

1993 \_\_\_\_\_ 1994 \_\_\_\_\_ 1995 \_\_\_\_\_

Briefly describe the nature of these Violations/Fines, including the jurisdiction/entity imposing them.

◆Does your company have a written Safety and Health Plan?

YES  NO

If yes, provide a copy of the Table of Contents of the Plan as part of your response.

◆Does your company incorporate the use of Professional Safety Personnel at your construction job site?

YES  NO

Explain their functions within your company.

◆Indicate the frequency of safety meetings conducted by your company.

/per week/per mo./per year



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX V**

Definitions/Criteria Relating to Safety Information Requested:

Lost Workday Case:

These cases are generally the most serious non-fatal injuries and illnesses. They occur when the injured or ill employee experiences days away from the work site as a direct result of a work site injury or illness. In these situations, the injured or ill employee is affected to such an extent that (1) days must be taken off from the job for medical treatment or recuperation; or (2) the employee is unable to perform their normal job duties over a normal work shift. Injuries and illnesses are not considered lost workday cases unless they affect the employee beyond the day of injury or onset of illness.

Recordable Injury:

Recordable injuries are those which involve specific medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job. A work-related injury must involve at least one of these four conditions before it is deemed recordable. Minor injuries requiring only first aid treatment are not recordable.

The following are generally considered medical treatment which involve criteria for a recordable accident:

- Treatment of INFECTION
- Application of ANTISEPTICS during second or subsequent visit to medical personnel
- Treatment of SECOND OR THIRD DEGREE BURN(S)
- Application of SUTURES (stitches)
- Application of BUTTERFLY ADHESIVE DRESSING(S) or STERI STRIP(S) in lieu of sutures
- Removal of FOREIGN BODIES EMBEDDED IN EYE
- Removal of FOREIGN BODIES FROM WOUND: if procedure is COMPLICATED because of depth of embedment, size, or location
- Use of PRESCRIPTION MEDICATIONS (except a single dose administered on first visit for minor injury or discomfort)
- Use of hot or cold SOAKING THERAPY during second or subsequent visit to medical personnel
- Application of hot or cold COMPRESS(ES) during second or subsequent visit to medical personnel
- CUTTING AWAY DEAD SKIN (surgical debridement)
- Application of HEAT THERAPY during second or subsequent visit to medical personnel



**GENERAL PROJECT SPECIFICATION FOR  
PROJECT SAFETY REQUIREMENTS - APPENDIX V**

- Use of WHIRLPOOL BATH THERAPY during second or subsequent visit to medical personnel
- POSITIVE X-RAY DIAGNOSIS (fractures, broken bones, etc.)
- ADMISSION TO A HOSPITAL or equivalent medical facility FOR TREATMENT

The following are generally considered first aid treatment (e.g., one-time treatment and subsequent observation of minor injuries) and should not be recorded if the work-related injury does not involve loss of consciousness, restriction of work or motion, or transfer to another job:

- Application of ANTISEPTICS during first visit to medical personnel
- Treatment of FIRST DEGREE BURN(S)
- Application of BANDAGE(S) during any visit to medical personnel
- Use of ELASTIC BANDAGE(S) during first visit to medical personnel
- Removal of FOREIGN BODIES NOT EMBEDDED IN EYE if only irrigation is required
- Removal of FOREIGN BODIES FROM WOUND; if procedure is UNCOMPLICATED, and is, for example, by tweezers or other simple technique
- Use of NON-PRESCRIPTION MEDICATIONS AND administration of single dose of PRESCRIPTION MEDICATION on first visit for minor injury or discomfort
- SOAKING THERAPY on initial visit to medical personnel or removal of bandages by SOAKING
- Application of hot or cold COMPRESS(ES) during first visit to medical personnel
- Application of OINTMENTS to abrasions to prevent drying or cracking
- Application of HEAT THERAPY during first visit to medical personnel
- Use of WHIRLPOOL BATH THERAPY during first visit to medical personnel
- NEGATIVE X-RAY DIAGNOSIS
- OBSERVATION of injury during visit to medical personnel