

Chapter 1

INTRODUCTION

1.1 INTRODUCTION

Integrated Management System comprising International Management System standards ISO 9001: 2008 (Quality Management System), ISO 14001: 2004 (Environmental Management System), OHSAS 18001: 2007 (Occupational Health and Safety Management System), and ICAO's SMS (Safety Management System) has been implemented in Pakistan PAA. These standards require adherence from all the stakeholders to fulfill their respective obligations towards vital aspects of Safety, Quality, Occupational Health and Environment. This HSE Manual outlines the responsibilities of contractors, suppliers and concessionaires working for PAA or on the areas under PAA's jurisdiction

1.2 PAA IMS POLICY

Top Management commitment is demonstrated in IMS Policy, attached as **Appendix-A** (English version) and **Appendix-B** (Urdu version).

1.3 RESPONSIBILITY & AUTHORITY

1.3.1 RESPONSIBILITY FOR HSE COMPLIANCE:

- 1.3.1.1 PAA shall require Contractors and/or Sub-contractors / Suppliers / Concessionaires to affirm that all supervisors are responsible for ensuring that the works / activities are performed in accordance with all applicable health, safety and environmental rules, regulations and good working practices with equal diligence being paid to the fulfillment of the contractual technical specifications. PAA will require Contractors and Sub-contractors to advise such personnel of their safety responsibilities. Contractors / Suppliers / Concessionaires shall also provide PAA with their organizational setup for a particular contract / subcontract / renewal / bid invitation document, where applicable, specifying the areas of safety responsibilities of their supervisors.
- 1.3.1.2 **All DDGs** shall ensure imparting necessary directions and establish requisite monitoring & evaluation mechanism in their respective area of responsibilities to fulfill the vision and the objectives contained in this manual.
- 1.3.1.3 **The concerned Directors / Additional Directors / Airport Managers / Chief Operations Officers / Location Heads / Sectional Heads**, involved / engaged in the purchase of materials, services and contracts (including sub-contracts, if any), shall ensure effective implementation of this manual. They shall also be responsible to designate **Contract Coordinators** where applicable especially on large scale projects.
- 1.3.1.4 **Contract Coordinator** (a designated PAA Employee) shall be responsible for the on-site implementation of HSE requirements by the contractors and their officials / workers. He shall also be responsible to record on-site management activities and meetings specific to the HSE issues.
- 1.3.1.5 **Deputy Management Representatives (DMRs)** shall be responsible to oversee the implementation and effectiveness of this manual at their respective Airports / ATS Units / Locations.
- 1.3.1.6 The concerned **Directors / Additional Directors / Airport Managers / Chief Operations Officers / Location Heads / Sectional Heads**, involved / engaged in the purchase of materials, services and contracts (including sub-contracts, if any), shall ensure incorporation of specific clause(s) on Safety, Health & Environment in the contract agreements or their renewals / bid invitation documents indicating the need for compliance with the detailed guidelines as outlined in this manual.



- 1.3.1.7 All Safety, Health and Environment requirements contained in this manual shall also be made part of the bid invitation documents / contracts.
- 1.3.1.8 Any specific requirements not covered in this manual and in the existing HSE clause of the contract / lease agreement may be specified in the contract / lease documents by the respective PAA functions, in consultation with Additional Director SQMS (REG/CF), Additional Director SQMS (ANS/APS) at HQPAA and concerned DMRs at Airports / ATS Units / Locations. These may include but not limited to:
- Working procedures
 - Risk / impact assessment of the job
 - Requirements of transporting carrier, machinery / equipment and tools
 - Handling / packaging identification requirements
 - Information about the product composition
 - Compliance to the related Safety, Health & Environment procedures for performing the activity
 - Usage of Personal Protective Equipment (PPE)
 - Competence / training requirements of workers
 - Handling and disposal of waste, etc
 - The need to obtain Permit To Work (PTW), where required
 - Emergency procedures
 - Accident / incident reporting
 - Legal requirements
- 1.3.1.9 The **concerned Directors / Additional Directors / Airport Managers / Chief Operations Officers / Location Heads / Sectional Heads** may ask the supplier / contractor / concessionaire to carry out a **risk assessment** before awarding a contract for high-risk tasks, where applicable.

1.3.2 ONSITE MANAGEMENT OF CONTRACTORS FOR MEGA / MAJOR PROJECTS:

- 1.3.2.1 The **concerned DDGs / Directors / Additional Directors / Airport Managers / Chief Operations Officers / Location Heads / Sectional Heads** shall ask the contractor / supplier / concessionaire to designate a **Safety Officer** wherever applicable, depending upon the quantum of contract, who shall be the focal person and responsible for on-site implementation of HSE requirements on part of contractors / suppliers / concessionaires. For Contracts / Agreements of smaller quantum, the contractor / supplier / concessionaire shall be directly responsible in this regard without having the need to designate such representatives.
- 1.3.2.2 The **concerned Directors / Additional Directors / Airport Managers / Chief Operations Officers / Location Heads / Sectional Heads** shall be responsible to nominate a representative (**Contract Coordinator**) for on-site management of contractors for mega / major projects. The contract coordinator / representative shall monitor the HSE compliance by the contractor / supplier. This includes monitoring of:
- Controls to prevent HSE risks
 - Contractor equipment for appropriateness
 - Compliance of work procedures
 - Waste Disposal & Record keeping



- e. Compliance of regulatory requirements, to this HSE Manual or their own HSE Manual(s) if exceeding the requirement stipulated by the PAA and PTW by contractors / suppliers / concessionaires
- 1.3.2.3 **Regular on-site meetings with the contractor** must be convened / held to discuss the HSE compliance and related aspects of the job. Records of such meetings and on-site management activities must be maintained by the Contract Coordinator.
- 1.3.2.4 **HSE audit or on-site inspections** shall be carried out randomly by the authorized Inspectors of SQMS Directorate in coordination with the concerned Directorate / Branch at HQPAA and concerned Section at airports / locations for checking HSE compliance. IAR (Improvement Action Report) on **PAAF-002-MSXX** shall be raised / generated in case any non-conformity is observed or if any corrective or preventive action is required. All proceedings of the audit or on-site inspections shall be documented by the respective inspectors.
- 1.3.2.5 All the works, purchase / supplies and services being carried out / rendered by Contractors / Suppliers / Concessionaires shall be liable to monitoring and supervision by PAA's authorized / designated official(s) to ensure their HSE-worthiness. Surprise inspection may be carried out at any time by SQMS Officials.
- 1.3.2.6 The monitoring / supervision so required shall be made under the relevant clause(s) of the contract. The performance monitoring data of contractors with regard to compliance to HSE manual and PAAO will be collected / maintained and documented on periodical basis by the respective DDGs as well as by SQMS Directorate / SQMS teams at locations, to develop necessary corrective / preventive actions accordingly. This significant data of a particular contractor / supplier / concessionaire, will be critically observed and be given due consideration at the time of awarding / continuation / renewals etc of any contract.
- 1.3.2.7 All potential Contractors, Suppliers and Concessionaires shall be informed about the availability of HSE manual which would require compliance from them. The latest version of this Manual shall be posted on the PAA's Official Website www.caapakistan.com.pk.
- 1.3.2.8 The concerned Directorate / Branch / Airport / Location shall provide the hard copy of the latest version of HSE Manual to the Contractors / Suppliers / Concessionaires at the time of signing of the Contract Agreements / License Agreements / Lease Deeds / Purchase Orders / Supply Orders, etc.
 - a. No work be executed without supervision of concerned representation of OPI Section / Branch, especially at aerodrome.
 - b. The representation of OPI section / function shall ensure implementation of preventive control measures during execution of work and corrective measures in case of any abnormal / emergency situation.
 - c. All food concessionaires shall preferably be certified in Food Safety Management System ISO 22000: 2017.
- 1.3.2.9 In case of existence of any Contractor's, Supplier's and Concessionaire's HSE Manual having provisions more stringent to this HSE manual, those shall be applicable as far as the currency of that particular contract is concerned.
- 1.3.2.10 All the Contractors, Suppliers and Concessionaires shall be responsible to provide and update bare minimum training / awareness on HSE to their employees and subsequent implementation. Any breach / violation thereof by any of such employee(s) shall be construed upon to be on behalf of that very Contractor, Supplier and Concessionaire. Records pertaining to HSE related training / awareness shall be maintained and provided to concerned PAA official(s) designated by the OPI and/or Representative(s) of PAA's SQMS team.



- 1.3.2.11 The training / awareness described above shall include but not limited to the following: -
- a. Site acquaintance (i.e. Aerodrome / Building layout, Building Evacuation Procedure, etc).
 - b. General aerodrome layout & hazards and handling of standard equipment.
 - c. HSE related operational hazards / environmental aspects and risks / environmental impacts associated and related control measures with the particular contract / agreement.
 - d. Basic First Aid and other corrective measures.
 - e. Application of Permit to Work / Lock Out and Tag Out.
 - f. Special MSDS, classification / composition of hazardous material for handling of hazardous material.
 - g. Incident(s) / accident(s) including environmental incidents (spills, etc) reporting.
 - h. Waste management.
 - i. Basic Fire Fighting.
 - j. Safe driving.
 - k. Response in emergency.
 - l. Personal Protective Equipment (PPE).
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Chapter 2

GENERAL INFORMATION

2.1 BASIC SAFETY & SECURITY RESTRAINTS

2.1.1 The following are some basic safety & security restraints. In case of violation of any of these, Contractors / Suppliers / Concessionaire shall be dealt with in accordance with **Rule 91 (Section 10) of CARs 94**:

- 2.1.1.1 Possession or use of alcoholic beverages or illegal drugs.
- 2.1.1.2 Possession of un-authorized explosives, firearms, ammunition, and other weapons.
- 2.1.1.3 Violation of any safety or security rules or requirements as laid down in **Part VIII, Section 10 of CARs, 94 (Rule 92-110)**.
- 2.1.1.4 Illegal dumping, handling, or disposal of hazardous materials.
- 2.1.1.5 Demolition or removal, without written permission, of any property belonging to PAA.
- 2.1.1.6 Intimidating, threatening, harassing, impeding or interfering with PAA employee(s) or designated representative(s).
- 2.1.1.7 Misuse of fire prevention and protection equipment.
- 2.1.1.8 Unauthorized removal or destruction of a safety barricade, handrail, guardrail, warning sign, fall protection, or other warning devices intended to protect employees or property.

2.2 SAFETY PERMITS

2.2.1 All PAA contractors, suppliers or concessionaires shall obtain prior approval for PTW from PAA's authorized / designated official(s) and follow all the safety requirements, precautions, controls of PPEs classified as PTW related tasks as any of the operations mentioned below may present a hazard to people, property and environment.

- 2.2.1.1 Performing burning, welding, cutting, soldering, or other hot work.
- 2.2.1.2 Working on fire protection / detection systems.
- 2.2.1.3 Working on electrical, steam, chilled water systems or other energized systems.
- 2.2.1.4 Installing a temporary electrical service
- 2.2.1.5 Working with hazardous chemicals (including solvents and paints).
- 2.2.1.6 Handling, transporting or generating hazardous wastes (including hospital biological waste, waste oil, chemicals, condensate, etc).
- 2.2.1.7 Using a gas, diesel, or LPG (such as Propane) powered engines.
- 2.2.1.8 Working on gas pipe lines or associated equipment.
- 2.2.1.9 Operating a power vehicle or self-propelled work platform.
- 2.2.1.10 Excavation / trenching.
- 2.2.1.11 Using radioactive sources or conducting field radiography (x-ray).
- 2.2.1.12 Working with asbestos & asbestos – containing materials.
- 2.2.1.13 Working on security systems.
- 2.2.1.14 Working with compressed air / gases.
- 2.2.1.15 Working on heating, ventilation, or air conditioning equipment.

2.2.1.16 Working with chemicals, polishing or grinding.

2.2.1.17 Working at heights of more than 06 feet or on roofs.

2.2.1.18 Entering or working in confined spaces like fuel tanks, trenches, service shafts, sewer system, etc.

2.2.1.19 Lifting or hoisting with cranes or hoists.

2.2.1.20 Blasting operations, etc.

2.3 **PERFORMANCE MONITORING**

2.3.1 The Contractors / Suppliers / Concessionaires shall monitor HSE performance of their employees and activities.

2.3.2 They shall in addition monitor all those performance monitoring actions agreed between PAA and the Contractors / Suppliers / Concessionaires.

2.4 **HOUSE KEEPING**

2.4.1 All Contractors / Suppliers / Concessionaires shall maintain good housekeeping by keeping work areas neat, clean, orderly, free of excess trash, debris and shall block walkways, stairs, exits, or create a tripping hazard. Poor housekeeping at a job site may lead to an increased potential for safety hazards and an increased frequency of accidents, falls, cuts, spills, leaks, fires or electrocution.

2.4.2 Tools, wires, materials shall not be left or haphazardly spread out at the work place.

2.4.3 Open holes, trenches, or excavations into which people may fall shall be identified, covered or provided with guardrails.

2.4.4 In order to protect the employees and environment, safety blinding shall be provided at all works execution sites, where necessary.

2.5 **REPORT OF ACCIDENT, INCIDENT, INJURY OR ILLNESS**

2.5.1 The area representatives of contractor shall inform fire, electrical, civil inquiries officials each day before start of work.

2.5.2 All work related accidents, incidents, fatalities, injuries, and illnesses must immediately be reported to the PAA authorized / designated officials.

2.5.3 Every incident / accident happened during execution of contractors work shall properly be analyzed as per **PAA0-015-MSXX** and if fall in Major / Catastrophic categories be published / mentioned in IOU report by the OPI Section / Branch.



Chapter 3

HAZARDOUS WASTE

3.1 HAZARDOUS WASTE MANAGEMENT

- 3.1.1 Hazardous waste generated by a Contractor / Supplier / Concessionaire as part of its work must be properly identified, stored and disposed in accordance with applicable laws / rules / regulations. The Contractor / Supplier / Concessionaire must coordinate with PAA representative(s) of relevant sections to provide a list of hazardous waste(s) which is / are likely to be generated during the project / activity, and to determine the location(s) for hazardous waste storage.
- 3.1.2 The Contractor / Supplier / Concessionaire must also ensure, at a minimum:
 - 3.1.2.1 Proper labeling in terms of MSDS.
 - 3.1.2.2 Adequate secondary containment.
 - 3.1.2.3 Segregation of incompatible materials.
 - 3.1.2.4 Routine inspection of storage areas.
- 3.1.3 In addition, all hazardous waste containers shall be constructed of a material compatible with the waste, in sound condition, and kept securely closed to avoid spill or leakage.

3.2 WASTE DISPOSAL DOCUMENTS

The Contractors / Suppliers / Concessionaires shall be responsible for completing all waste disposal documents as per statutory / regulatory requirements, where applicable and as required by PAA. This may relate to PAA's own waste that is periodically removed for further disposal purposes, or waste created by Contractor / Supplier / Concessionaire while performing a task at PAA premises / areas under PAA's jurisdiction. OPI shall also ensure all normal wastes are also removed by the contracts.

3.3 TRAINING

Contractor / Supplier / Concessionaire must ensure that their employees are appropriately trained in hazardous waste management procedures. In the event a Contractor / Supplier Concessionaire encounters unidentified material that is reasonably believed to be hazardous (radioactive, volatile, corrosive, flammable, explosive, magnetic, infectious, toxic), the Contractor / Supplier / Concessionaire shall immediately stop work in the affected area and report the condition to the PAA's authorized / designated official(s). At no time shall such material be disposed in chutes, drains, pipes or in any other unauthorized manner.

3.4 TRANSPORTATION AND DISPOSAL OF HAZARDOUS MATERIALS

- 3.4.1 Transportation of hazardous materials on PAA property shall be conducted in accordance with PAA specified instructions. It shall not be disposed to burn or be used in a manner that is harmful to people or environment. While transporting hazardous materials, Contractor / Supplier / Concessionaire shall ensure that no harm is done to people or environment because of poor containers, packing, covering, lashing, fixing, loading, stacking or improper vehicle or mode of transport.
- 3.4.2 All transportation of dangerous / hazardous goods and materials by air shall be conducted strictly in accordance with provisions of Part XVI, Sections 1-3 and 5-6 of the Civil Aviation Rules, 1994.

3.5 SPILL PREVENTION AND CONTROL

- 3.5.1 Based on the inventory of oil and hazardous chemicals that will be brought on-site, the Contractor / Supplier / Concessionaire shall have available equipment (e.g., secondary containment pallets, absorbent pads, absorbent booms, speed-dry etc.) that is suitable and sufficient to control a potential spill / release.

- 3.5.2 The Contractor / Supplier / Concessionaire is responsible for identifying outlets to the environment (e.g., sumps, sewers, storm / floor drains, etc.) and adequately minimizing spill potential to these areas.
- 3.5.3 The Contractor / Supplier / Concessionaire is responsible for the proper storage of all flammable and combustible chemicals that are brought and/or stored on site to complete the work. Such storage may require the use of safety containers, safety cabinets, and/or secondary containment.
- 3.5.4 The Contractor / Supplier / Concessionaire shall also ensure that any incompatible chemicals are safely segregated. The Contractor / Supplier / Concessionaire is Responsible for maintaining and securing all chemical containers and all chemical storage-areas. This requires selecting locations and methods to minimize exposure to rainfall, surface water, and the ground surface or subsurface.
- 3.5.5 The Contractors / Suppliers / Concessionaires must ensure that their employees are adequately trained in spill control procedures and are aware of the use of spill control kits.
- 3.5.6 In the event of a release or spill, the Contractor / Supplier / Concessionaire must immediately inform PAA's authorized / designated official(s).

3.6 AIR EMISSIONS

- 3.6.1 Any conditions discovered which could result in an increase in air pollutant emissions must immediately be reported to the PAA's authorized / designated official(s).
- 3.6.2 Contractors / Suppliers / Concessionaires activities should not cause unacceptable level of emissions (emissions not meeting NEQS – National Environmental Quality Standards).
- 3.6.3 Contractors / Suppliers / Concessionaires shall immediately notify the PAA's authorized / designated official(s) whenever they become aware of any unintentional or intentional release of CFCs (Chloro-Fluoro Carbons), Halons etc.

3.7 WASTE WATER DISCHARGES

- 3.7.1 Waste water must NOT include any corrosive, flammable, or toxic substances / hazardous liquid, etc.
- 3.7.2 Contractor / Supplier / Concessionaire must ensure no waste water is discharged that violates NEQS.

3.8 BIOLOGICAL / CHEMICAL / RADIOACTIVE HAZARDS

- 3.8.1 Some PAA operations may involve the use of biological, chemical, or radioactive material that can be hazardous to persons or property, if not handled or disposed safely. Contractors / Suppliers / Concessionaire will mark the areas where work with biological, chemical, or radioactive materials is being performed with proper signs.
- 3.8.2 The Contractor / Supplier / Concessionaire shall not disturb damage or otherwise handle any suspected asbestos containing material.
- 3.8.3 The Contractor / Supplier / Concessionaire shall not sweep, dust, vacuum or mop dust / debris which are the product of a suspected asbestos containing material. The Contractor / Supplier / Concessionaire shall also not pick up or throw away any suspected asbestos-containing waste or trash.
- 3.8.4 Sand blasting, grinding, drilling, brazing, scraping, polishing of floors and other dust emitting surfaces will be done by persons wearing appropriate PPEs.

3.9 HAZARDOUS MATERIALS AND HAZARD COMMUNICATION

- 3.9.1 Hazardous materials shall not be handled or used by the Contractor / Supplier / Concessionaire without providing training to the concerned employees.

- 3.9.2 No solvents, paints, or similar flammable, toxic, or irritating materials shall be used in PAA premises / areas under the jurisdiction of PAA unless specifically authorized by PAA.
 - 3.9.3 Adequate ventilation shall be maintained when paints or solvents are used.
 - 3.9.4 Flammable solvents and materials shall be used with extreme caution.
 - 3.9.5 It shall be ensured that flammable paints and solvents are isolated and stored in approved locations, if inside the building.
 - 3.9.6 The Contractor / Supplier / Concessionaire shall submit an inventory of all hazardous chemicals / liquids / materials that are brought on-site or sold to PAA. These should be accompanied by MSDS.
 - 3.9.7 The Contractor / Supplier / Concessionaire shall also ensure that all containers that are brought on site for the storage of hazardous chemicals (e.g., gas, paint, etc.) are labeled and inspected for correctness.
 - 3.9.8 The Contractor / Supplier / Concessionaire shall remove at earliest all hazardous chemicals that it brings on-site when work involving a specific hazardous chemical has been completed.
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Chapter 4

SPECIFIC SAFETY REQUIREMENTS

4.1 CONFINED SPACE ENTRY

- 4.1.1 Contractor / Supplier / Concessionaire will obtain Confined Space Entry Certificate before entering / working in confined spaces. If during the course of work, the Contractor / Supplier / Concessionaire encounters a confined space that has not been previously identified by the PAA, it must immediately bring the space to the attention of the PAA's authorized / designated official(s), and delays entry until the space is examined by the PAA's authorized / designated official
- 4.1.2 When PAA and Contractor / Supplier / Concessionaire personnel are working in or near confined spaces, the Contractor / Supplier / Concessionaire shall coordinate all operations, with likely-to-be-affected PAA personnel before entry.
- 4.1.3 Prior coordination shall also be required on entering a confined space with or without a PAA employee

4.2 LOCK-OUT / TAG-OUT (WHERE APPLICABLE)

- 4.2.1 As part of PAA's Electrical Isolation / De-Isolation permit requirement, standard locks and tags are used to control the start-up of equipment that is being serviced or maintained by its employees. At no time shall the Contractor / Supplier / Concessionaire or its employees override any locks or tags that they encounter during the performance of their work.
- 4.2.2 The Contractors / Suppliers / Concessionaires are responsible for developing, implementing and maintaining their own Lock-out / Tag-out Program.
- 4.2.3 The Contractor / Supplier / Concessionaire shall submit a copy of its Lock-out / Tag-out Program to the PAA's authorized / designated official(s) before the start of any work.

4.3 GENERAL ELECTRICAL SAFETY

- 4.3.1 Temporary electrical connection(s), where required, shall be obtained from PAA as per the prescribed procedure only.
- 4.3.2 Only qualified electricians are permitted to work on electrical systems and equipment that use or control electrical / power.
- 4.3.3 Electrical tools or equipment shall not be operated in wet areas or areas where potentially flammable dusts, vapors, gases, or liquids are present, unless specifically approved.
- 4.3.4 Should a circuit breaker or other protective device "trip," it is to be ensured that a qualified electrician checks the circuit and equipment and corrects problem before resetting the breaker. Moreover, there should always be a provision for safety isolation of the circuit where needed
- 4.3.5 Barriers and post warning signs shall be erected to ensure that the non-authorized personnel stay clear of the work area.
- 4.3.6 Hazards (lack of protective guards or covers, damaged equipment, etc.) shall be reported to the PAA's authorized / designated official(s) immediately.
- 4.3.7 Electrical boxes, switch gear, cabinets, or electrical rooms shall not be left open when not directly attended.
- 4.3.8 It shall be ensured to insulate energized parts when have been removed or doors are closed. Use of cardboard, plywood or other flammable to cover energized circuits is prohibited.
- 4.3.9 Proper grounding / earthing and arc quenching, where required, shall be ensured.

4.3.10 The size of the cable / conductor should match with the actual on-site requirement.

4.4 COMPRESSED GAS CYLINDERS

The following measures must be taken for the protection of persons and property:

- 4.4.1 All the cylinders brought in by the Contractors / Suppliers / Concessionaires shall have valid test certificates performed by a certified testing agency.
- 4.4.2 Pressure and leak testing shall invariably be carried out and documented in all jobs associated with compressed gas or liquid handling.
- 4.4.3 Valve protection caps must be in place when compressed gas cylinders are transported, moved, or stored.
- 4.4.4 Cylinder valves must be closed and valve covers must be replaced when work is complete and when cylinders are empty or moved.
- 4.4.5 Compressed gas cylinders must be secured in an upright position in a welding cart or to a solid object (using chains, straps, or a rigid retaining bar).
- 4.4.6 Compressed gas cylinders must be secured on an approved carrier while being transported.
- 4.4.7 Cylinders shall be kept at a safe distance or shielded from welding or cutting operations. Cylinders shall not be placed where they can contact an electrical circuit.
- 4.4.8 It shall be ensured to keep oxygen and flammable gas regulators in proper working order and a wrench in position on the acetylene valve when in use.
- 4.4.9 If a leak develops in a cylinder and it cannot be immediately corrected, the cylinder shall be moved to a safe location outside the building / away from the location of work.
- 4.4.10 Cylinders must not be taken into or stored in confined spaces.
- 4.4.11 Empty & filled cylinders must be kept separately.
- 4.4.12 Hoses and regulators must not be stored in unventilated or closed containers or areas.

4.5 WELDING, CUTTING AND BRAZING

The Contractors / Suppliers / Concessionaires shall ensure the following:

- 4.5.1 Obtain PTW.
- 4.5.2 Inform PAA's authorized / designated official(s) prior to the start of any welding / cutting / brazing work.
- 4.5.3 Remove combustible materials from the area before beginning work.
- 4.5.4 Install anti flashback (safety / check) valves in both the oxygen / acetylene hoses at the regulator.
- 4.5.5 Shield adjacent areas with welding partitions.
- 4.5.6 Persons involved are adequately trained in using portable fire extinguishers.
- 4.5.7 Have a second person trained in basic firefighting as standby with an approved fire extinguisher for welding and cutting operations.

4.6 CRANES AND RIGGING

- 4.6.1 Each crane or hoist brought onto PAA property must have a valid inspection testing performed by a certified testing agency.
- 4.6.2 The operator is responsible for the proper placement of the crane in relationship to the load to be handled and the landing area so as to obtain the best rated lift capacity, and the installation and maintenance of crane swing radius protection.
- 4.6.3 All operators must possess a valid crane / hoist operating / driving license as applicable.

4.7 **FITNESS**

- 4.7.1 Suppliers / Contractors / Concessionaires shall ensure that all their personnel working in PAA premises are medically fit to perform their assigned tasks.
- 4.7.2 If requested by PAA, Contractors / Suppliers / Concessionaires shall provide the fitness / health certificates of their employees.

4.8 **DRIVING**

- 4.8.1 All Contractors' / Suppliers' / Concessionaires' vehicles while in PAA premises or performing PAA duties shall adhere to speed limits (applicable in that particular zone), and also comply with all other traffic and road safety regulations of PAA.
- 4.8.2 The drivers should be in possession of valid driving license.
- 4.8.3 All Contractor / Supplier / Concessionaire vehicles should have:
 - 4.8.3.1 Standard seat belts. The seat belts should be neat and clean and in proper working condition.
 - 4.8.3.2 Standard fire extinguisher.
 - 4.8.3.3 Standard first aid box.

4.9 **INDEMNITY**

Suppliers / Contractors / Concessionaires shall keep harmless and indemnify Pakistan PAA against all losses, damages, injuries, death of any person, claims, actions, third party action arising out of acts and omissions by their employees/ personnel or non-compliance with the terms and conditions as stated herein and/or any applicable laws and regulation. Contractor shall take clearance with concerned offices before handing / taking over the area to be restored on the same condition(s) as was/were before start of work (as per contract agreement).

