HUTCHISONPORTS

PPE Technical Specification

A. Personal Protective Equipment: (Refer to the PPE guideline)

- The last line of defense that we cannot rely on our own is personal protective equipment.
- Nonetheless, it remains one of the control hierarchies that we must never overlook, and we must always ensure that the workforce is dedicated to wearing personal protective equipment (PPE) appropriately and has received the necessary training.
- The PPE required for each job, as determined by the job risk assessment and the site assessment prior to performing the task, is shown in the table below. The table emphasizes the minimum requirements and necessary PPE for each type of job, but it also depends on the intricacy, order, and conditions of each activity.

Activity	Mandatory PPE
Transportation	
Excavation	
Working at height Scaffolding	
Electrical work LOTO Mechanical work	
Lifting process	
Chemical handling and storage	
Confined space	
Hot work	
Hand work Manual handling activities	
Walking	
Office work	
Working Near Water	

PPE

- **Definition**

Personal Protective Equipment: Equipment worn or used by any contractor, and visitors to control exposure to hazardous substances or conditions that might cause specific types of occupational illnesses or to prevent accidental injuries or serious harm to employees working in hazardous or potentially hazardous conditions or areas.

- **Personal Protective Equipment**

i. Head protection

I. Hard hat (MSA , 3M , equivalent class E NON vented V guard)

Head protection (Helmets) shall be worn if potential for injury from falling Objects exist. All head protection shall:

- Be used according to manufacturer's instructions
- Not be altered in any way
- Include bump caps as an appropriate alternative (if exposure to scalp injuries exist)
- Employees exposed to falling or flying objects, or hazardous chemical Substances, and/or electrical shock and burns shall wear a hard hat for Head protection.
- Hard hats shall meet the applicable requirements and specifications Established by the American National Standards Institute (ANSI) Standard ANSI Z89.1-2014

➢ **How To Wear**

- The hard hat must be worn so that it provides maximum impact protection.
- It must not be tipped backwards, forwards, or to either side.
- It must not be worn backwards.
- Caps or other head covering must not be worn under hard hats.
- The headband suspension system must be adjusted to the proper size to provide sufficient clearance between the shell and headband.
- Never store objects between the headband and head.
- Never wear hardhat without headband suspension, as this offers no protection.
- When chinstraps are used, they shall be adjusted so that the hard hat stays positioned properly on the head.

➢ **Replacement:**

❖ Helmet will change every 5 years with considering Hutchison port internal regulation

Note: ALL PPE items must be controlled through PPE matrix

II. Helmet's shield (Fas-Trac III Hard Hat Suspension)

- Helmet's shield shall meet the applicable requirement and specifications established by the European Standard (EN), Standard (EN 397:2012).
- Examine the suspension before and after each use for loss of flexibility, cracks, breaks, frayed straps, or damaged.
- If the suspension shows any signs of wear or damage, replace it immediately.
- The fit of the helmet must be tight and centered on the user's head.
- Do NOT keep gloves, cigarettes, earplugs, or other objects between the suspension and the hat

➢ **Replacement**

❖ Provider recommends replacing the suspension after one year of use. To supply maximum protection,

III. Helmet's Chinstrap:

- Helmet's Chinstrap shall meet the applicable requirement and specifications established by the European Standard (EN), Standard (EN 397:2012).
- Chinstrap has a design function that secures the head and helmet to prevent it from rolling of specially during working at heigh

➢ **Replacement**

❖ Provider recommends replacing the suspension after one year of use. To supply maximum protection,

IV.Eye & Face Protection:

- Employees who work where there is a risk of receiving face and eye Injuries such as punctures, abrasions, burns or contusions because of contact with flying particles, hazardous substances, projections, Pesticides, or light rays in connection with welding operations shall be protected with appropriate face and eye protection. Appropriate face and eye protection means using safety glasses, Goggles, or face shields suitable for the expected hazard and shall Meet the applicable requirements and specifications established by the American National Standards Institute **(ANSI/ISEA) standard Z87.1-2010**

➢ **All eyewear shall provide:**

- Eye and side protection (detachable or permanent)
- Protective devices to be worn over prescription eyewear, if needed
- A proper and comfortable fit

Note: ALL PPE items must be controlled through PPE matrix

Selection Guidelines for Eye and Face Protection

Activity	Required Protection
Work creating flying particles such as: • Abrasive blasting • Buffing • Chipping • Cutting • Grinding • Sanding Scraping	• Impact goggles. **Note:** A face shield is required if the activity creates a realistic potential for injury to the face. • **Face Shield** Shall meet the applicable and requirement and specification of American National Standard Institute ANSI Z87.1-2015 for high impact (Z87+)
Using pneumatic tools.	• Safety glasses w/ side shields, or • Impact goggles. ANSI Z87.1-2015 for high impact (Z87+)
Activities creating dusts, chemical vapors, or airborne powders such as: • Direct handling, **OR** Presence in the immediate vicinity where materials are handled.	• Splash-proof goggles, **OR** • Splash shield. • Filter: EN141:2000. (Face cover) body: ANSI Z87.1-215
Inspecting equipment, tubing, fittings, or piping while under pressure.	Impact goggles. ANSI Z87.1-2015 for high impact (Z87+)
Working near people performing work that requires Impact or splash goggles	Impact or Splash-proof goggles depending on hazard.
Acetylene gas cutting. **Note:** Shaded welding and cutting lenses **must** be protected by clear cover glass.	The Welder must wear: • Cutting goggles with Number 5 or 6 shade lenses, **OR** • Number 5 or 6 shade full-face shield with helmet. ANSI Z49. 1-2015 The Helper must wear: • Cutting goggles with Number 4 shade lenses, **OR** • Number 4 shade full face shield or welding helmet.
Electric arc welding (arc current less than 250 amps). **Note:** Anyone observing welding operations or in the area during night welding operations **must** wear proper eye protection (same as Helper).	The Welder must wear: • A welding helmet with Number 10 or darker shade lenses, **OR** • A hand shield with Number 10 or darker shade lenses plus safety glasses with side shields or goggles.

	• The Helper must wear cutting goggles with Number 6 or darker shade lenses. ANSI Z87.1-2003/ANSI Z49.1-2005

➢ **Replacement**

❖ Based on provider for each type; eye protection maximum use for 2 years except welding shield must comply with the manufacturer instructions

ii. Hearing Protection:

- Working staff should wear hearing protection when exposed to noise levels more than 85 db(A) for an eight-hour time-weighted average.
- Staff may be required to wear hearing protection in designated areas or while performing specific tasks.
- Post a "Hearing Protection Notice" at the Facility, which describes specific operations when hearing protection is required to be worn
- Employees exposed to hazards affecting the ear, or noise levels that may
- Cause hearing loss must be provided with appropriate hearing protection.
- Hearing protection devices come in many forms. The most common are
- Earplugs and earmuffs, as well as variations of each style.

I. Earplugs

- Are inserted in the ear canal. They may be pre-molded (preformed), moldable, rolldown foam, push-to-fit, or custom molded. Disposable, reusable, and custom earplugs are available.

⌘ **Reusable earplugs**

- Will be cleaned thoroughly after each use with mild soap and water and stored in a clean protective container.

⌘ **Disposable earplugs**

- Are discarded after each use and should not be taken in and out frequently during their use.

II. Semi-insert earplugs

Which consist of two earplugs held over the ends of the ear canal by a rigid headband.

III. Earmuffs:

- Consist of sound-attenuating material and soft ear cushions that fit around the ear and hard outer cups. They are held together by a head band.
- Provide attenuation of sound as well as some protection for the outer ear in particularly dirty situations. Muffs may be used along with earplugs in extremely noisy environments.
- It shall meet the requirements and specifications in American National Standard ANSI/ASA S12. 71-2018

Note:

If the noise exposure is intermittent, earmuffs are more desirable since it may be inconvenient to remove and reinsert earplugs.

iii. Respiratory protection:

Site specific ventilation or exhaust systems are effective engineering control tools. For procedures on both mandatory and voluntary use of respirators,

Provisions for respiratory protection equipment must consider the following minimum requirements:

- Proper selection based on the work needs, protection factors, and potential hazards involved,
- Equipment is readily available to those who use it,
- Emergency planning needs,
- Medical evaluations include fitness and stress tests to verify physical ability to wear the equipment; record keeping; documentation, re-certifications, etc.
- Special communication devices such as voice enunciators, or radio communication links for use with SCBA during special situations, i.e., confined space & fire rescue, & other toxic atmospheric releases, equipment storage & maintenance.

- All compressors used to supply breathing air either directly via airline, or to cylinders must comply with: **ANSI/US Compressed Gas Association Commodity Specification G-7.1-1989 (not less than Grade 'E' air with a maximum water content of 50 (p.m.)**

OSHA standard:
OSHA respirator standard 29 CFR 1910.134, 1910.134 (c)(1), 1910.134 (k)(6), 1910.134 Appendix D and 1910.1020.
OR
Respirators **must** have BSI, EN or US NIOSH/MSHA approvals.
Mixing components from different types of respirators or using non-approved components is **prohibited**.
The following table lists the two classes of approved respirators and corresponding selection criteria.

Class	TYPE	USE
Air-purifying • Must be fit tested. • Cartridge selection **must** be based on air contaminant Medical fitness, stress screening is prerequisite.	Half-mask dual **cartridge/ particulate**	Dusts, mists, fumes, paint spray, organic vapors, acid gases, and pesticides. Nuisance dusts, and metal fumes.
Air-Supplied	Egress Unit	Emergency escape **only**. (Available with 5- or 10-minute air cylinder.)
Air-Supplied	Self-contained Breathing Apparatus (SCBA)	Emergency response and limited work. (Available with a 30-minute or one-hour capacity cylinder.)
Air-Supplied	Airline Respirator	Working for long periods but is **not** approved for atmospheres considered immediately dangerous to life or health (IDLH)
Air-Supplied	Airline Respirator with Auxiliary Self-contained Breathing Air Supply.	Working for long periods and is approved for atmospheres considered immediately dangerous to life or health (IDLH).

For use a compressor for breathing activities shall be equipped with a compressed air filtration system that meet (OSHA) Standard 29 CFR 1910.134(I) (1) to achieve the below points.
-Oxygen content (v/v) of 19.5% - 23.5%.
-Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less.
-Carbon monoxide (CO) content of 10 parts per million (ppm) or less.
-Carbon dioxide (CO2) content of 1,000 ppm or less, "with no noticeable odor"

iv. **Hand and body protection**

I. **HAND protection:**

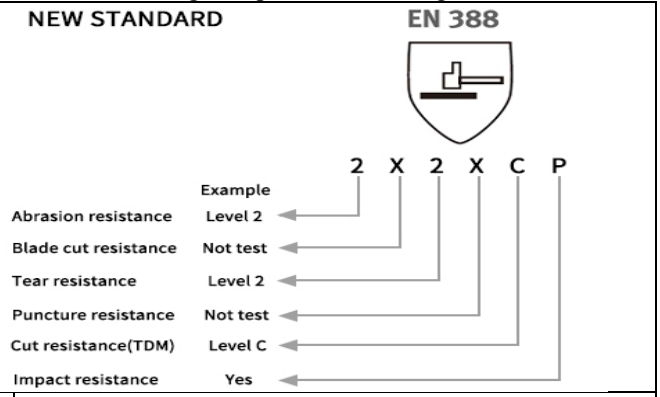
Employees who may be exposed to hazards to the hand such as cuts burns, harmful physical or chemical agents which can cause injury or impairments shall be provided with hand protection. Hand protection, such as gloves, shall not be worn where there is a danger of the hand protection becoming entangled in moving machinery or materials Gloves are the most common form of hand protection.

When selecting gloves, always consider:

- Size, style, material, thickness, and design,
- Potential hazards associated with material or equipment being handled.
- Personnel working around rotating or moving equipment **must not** wear gauntlet-type gloves or gloves that fasten around the wrist and shall exercise caution using other types of gloves that might cause the hand to become caught or pulled into a dangerous area.

Examples

The table below summarizes the types of protective gloves and their corresponding usage in drilling, field, and plant operations:



Glove Type	Purpose	Uses
Cotton, Canvas, and Cloth	• Protects from abrasion. • Provides warmth. Cleanliness.	Light work such as handling pipe, small hand tools, and materials with abrasive or dirty surfaces. Lashing and unlashing.
Leather or Leather Reinforced	Protects from: • Abrasion, • Lacerations, and Puncture.	Handling of rough, rigid, or abrasive materials during activities such as wire-rope handling, grinding, and abrasive blasting.
Leather, Reinforced with Metal or Metal Stitching	Protects from: • Abrasion, and Lacerations.	Handling edged tools for cutting, such as knives, chainsaws, and electric circular saws.
Leather Insulated, Heat or Cold Resistant	Protects from thermal (cold or hot) burns.	Welding, operating, or maintaining cryogenic equipment or other equipment around engines, boilers, and steam lines.
Electrical Insulated	Protects from: • Electrical burns, and Electrical shock.	Work on electrical equipment.
Chemical Resistant	Protects from: • Chemical burns, • Chemical contact, and Skin absorption and/or irritation.	Handling chemicals such as acids, caustics, soda ash, and most hydrocarbons. **Note:** Nitrile, Viton, and Neoprene are recommended for these chemicals and substances. However, no material is suitable for every situation. Refer to the Material Safety Data Sheets (msdss) for proper selection criteria.

Glove Selection for Chemical Handling (DIN EN 374-3:2003)

The table below provides information on the recommended glove type(s) for handling specific chemicals in operations.

Chemical/Product Name	Recommended Glove Type
Acetone	**Butyl Rubber**
Amines	**Nitrile**
Brexit's with Naphtha, Toluene, and Xylene	**Polyvinyl Alcohol**
Chlorine	**Neoprene**
Cleaning Solvents	**Nitrile**
Corixid(s) with Isopropanol	**Nitrile**
Corexit(s) with Glutaraldehyde	**Neoprene**
Crude Oil, Condensate, and ngls	**Nitrile**
Diesel Fuel	**Nitrile**
Ethylene Glycol	**Nitrile**
Gasoline	**Nitrile**
Greases	**Nitrile**
Inorganic Acids (Sulfuric Acid)	**Neoprene or Nitrile**
Inorganic Bases (Caustic)	**Neoprene or Nitrile**
Lube Oils and Naphtha's	**Nitrile**
Methanol	**Butyl Rubber**
Methyl ethyl Ketone	**Butyl Rubber**
Pesticides	**Nitrile**
Sulfur Compounds	**Neoprene**
Trichloroethane, 1,1,1	**Polyvinyl Alcohol**
Varsol Solvents	**Nitrile**

Cleaning of Chemical Resistant Gloves Chemical resistant gloves **shall** be cleaned in accordance with manufacturer's recommendations.

Soap and water **shall** be used to clean the inside of gloves.

II.Body protection:

Examples	Examples of activities that may require special protective clothing include: • Electrical work, i.e., flash suits when it is necessary to work on energized systems, etc., • Firefighting, i.e., bunker gear, helmets, etc., • Handling of hazardous chemicals or substances, • Welding operations and/or, • Handling or working in the vicinity of cryogenic liquids. **Note:** 1. Special protective equipment for hazardous materials response and clean-up activities shall be considered in the facility emergency plans, as appropriate. 2. As previously described in this standard, long sleeve flame retardant coveralls are required in operating and hydrocarbon areas of the facilities. 3. As previously described in this standard, long sleeve flame retardant coveralls are required in operating and hydrocarbon areas of the facilities.

v. **Welders Protection Clothes:**

- **OSHA, standard 1915.152** details PPE for welders
- ISO detailing the requirements of protective clothing. **ISO 11611 & ISO 9150** which covers the resistance of materials to molten splatter.
- **ASTM 6413** conveys manufacturing standards regarding the flame resistance of PPE.
- Clothes being worn during welding operations must be resistant to heat, free from oil, grease, or any other flammable materials.

vi. **High Visibility Vest:**

- High visibility vests must be worn all the times in work site.
- Vest will be distributed based on **PPE matrix** and upon request based on situation

vii. **Fall Arrest Equipment:**

This process is considered mandatory for those activities that meet the following criteria:

1. Working at or above 1.8 m height.
2. Working above live plants or equipment.
3. Working above uneven, rocky surface.
4. Working inside the confined spaces.
5. In emergencies.
6. Working surfaces that are more than six feet above ground or more than six feet above an adjacent platform or work surface:

Must be equipped with protective handrails/guard-rails, **OR** Another means of fall protection must be provided

Climbing and Working at Elevations Greater Than Six Feet	Appropriate fall protection **must** be always used while personnel are working at elevations greater than six feet above the ground or an adjacent platform/working surface. Personnel climbing to or from such working surfaces **shall** use: • A ladder • Stairs, or an appropriate means of fall protection, i.e., safety climbs, etc. **Exception:** This rule does not apply when working from portable ladders less than 20 feet in length when they are properly braced, angled, and / or secured.
Fixed Ladders More Than 20 Feet Tall	Fixed, single run ladders more than 20 feet in length **must** have: • A fixed climbing cage, • A climbing safety device, **OR** • Some other appropriate means of fall protection used by the person climbing or working on the ladder approved by QHSE.

viii. **Foot Protection:**

- Employee footwear must be appropriate for the hazard to which the Employee will be exposed and provide protection from hot & corrosive substances, falling objects, crushing, or penetrating actions which may cause Injuries to the foot.
- It shall meet the requirements and specifications in Europe National Standard EN **20345S** (2, 3) requiring minimum test of 150 ft. Lbs. 200 Jules.
- Safety Shoes will be delivered for all working staff every 2 years / when defect or needed.

ix. **Safety harness:**

- A **safety harness** is a designed to safeguard the user from injury or death from falling
- Full body harness is the only used type inside the Terminal with reference to ANSI/ASSP Z359. 11-2021
- Harness must be attached with shock absorber with reference to EN 355
- Safety harness must use double connection lanyards

x. **Reflective vest**

For Hi Visibility uniform:

- **Coverall must be Type R class 3 with reference to** (ANSI/ISEA 107-2020)
- **Vests must be TYPE R class 2 with reference to** (ANSI/ISEA 107-2020)
  - ❖ All reflective clothes must be stamped with company logo and name from behind
  - ❖ All working staff must wear coveralls for all working hours with long sleeves
  - ❖ Office workers to wear orange vest / company uniform (must be reflective as referred before
  - ❖ Visitors wear double colored vest yellow/orange with name visitor on its back

- **PPE Delivery:**

Each company representative must issue full PPE based on the job hazard
And each employee must sign on delivery note for receiving and learning how is the proper way
Of usage for each part as below

Table NO: 1

Table 1

لقد استلمت مهمات السلامه الخاصة بي بناء على تقييم المخاطر الخاص بعملي طبقا لقانون العمل المصري البالب الخامس رقم 12 لسنة 2003 قانون 14 لسنة 2025

	إسم الشركة
	إسم الموظف
	الوظيفة
	رقم البطاقة

تم تدريبي بمعرفة مسؤل السلامة الخاص بالشركة على الاستخدام الأمن والصحيح لمهمات السلامه الخاصة بما أقوم به من أعمال
التوقيع :.....

لا تعتمد إلا في وجود الختم الخاص بالمقاول/الشركة وإمضاء مسؤل السلامة

Table 2

PPE matrix