EXPRO National Manual for Projects Management

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Project Drinking Water Procedure

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1.0 PURPOSE

The purpose of this procedure is to outline the precautions required to maintain the quality of drinking water provided to workers.

2.0 SCOPE

The scope of this procedure applies to all works performed under the National Project Management Organization throughout the Kingdom of Saudi Arabia.

3.0 DEFINITIONS

Definitions	Description
Cooler	A cooler is defined as a portable container equipped with a faucet, capable of being tightly closed, also designed, constructed, and serviced so that sanitary conditions are maintained.
PSIG	Pounds per square inch gauge (**psig**), indicating that the pressure is relative to atmospheric pressure.
OSHA	Occupational Safety and Health Administration
CFR	Code of Federal Regulations
PPE	Personal Protective Equipment
HSSE	Health Safety Security and Environment

4.0 REFERENCES

- OSHA 29 CFR 1910.141 Sanitation
- OSHA 29 CFR 1926.51 Sanitation
- EPM-KSH-PR-000006 Project Labor Accommodation Sanitation and Hygiene Procedure.
- EPM-KSH-PR-000002 Project Occupational Health and Industrial Hygiene Procedure
- EPM-KSS-PR-000001 Project General Safe Working Requirements Procedure
- EPM-KSS-PR-000003 Project Personal Protective Equipment Procedure.

5.0 RESPONSIBILITIES

5.1 Project Manager

Project Manager's responsibilities include the following:

- Overall responsibility for this procedure and for supporting this process and verifying all Project entities actively participate.
- Providing the personnel, facilities, and other resources necessary to effectively accomplish this procedure.

5.2 Site Construction Manager

The Site Construction Manager is responsible for monitoring that the site complies with applicable Health, Safety, Security and Environment HSSE requirements by:

- Providing the resources to implement the requirements of this procedure.
- Communicating with management concerning Project HSSE expectations concerning project drinking water delivery and dispensing practices.
- Providing leadership regarding HSSE requirements and expectations for Managers, Project Supervisors, Superintendents and other leadership.

5.3 HSSE Manager

Site HSSE Manager's responsibilities include the following:

- Auditing this procedure.
- Confirming that this procedure meets the government requirements and regulations in the location of the Project facility.

5.4 Project Personnel

Project personnel's responsibilities include the following:

- Knowing and understanding the Environmental Safety and Health requirements of this Procedure that apply to the work they perform.
- Requesting additional information and further clarification before starting work if personnel receive assignments they do not understand.
- Complying and abiding by this drinking water procedure requirement Procedure for any work they perform.

6.0 RISK ASSESSMENT

Before the start of the Project a risk assessment must be completed to capture the potential risk associated with Drinking Water.

Some of the items that require to be captured/address are and not limited to the following:

- Housekeeping.
- Sanitization requirements.
- Personal and Industrial Hygiene.
- Transportation of potable water.
- PPE (Personal Protective Equipment) requirements.

7.0 PROCEDURE

7.1 General Requirements

During the pre-job planning phase, consideration shall be given to the provision of drinking water for employees and others associated with the tasks to be performed.

Provision of sufficient drinking water should also be a key factor in the on-site health and hygiene arrangements.

Consideration shall be given to those working in extreme conditions, prevailing weather conditions, or remote locations.

Hygiene and sensitization practices is an important aspect when providing drinking water. As a minimum water, should come from an authorized provider by the governing Saudi national body such as local municipality:

- The use of community cup/glass should not be allowed.
- Only personal or disposable cups should be used.
- Personnel handling the cleaning, filling and distribution of drinking water must be trained, and should be subject to pre-deployment medical clearance and periodic health checks thereafter.
- It is recommended for Projects conduct periodic audits on their suppliers to ensure compliance with the hygiene practices and processes.

7.2 Drinking Water Supply and Distribution

The following requirements pertain to the provision of drinking water:

- Only potable water will be used for drinking water.
- Only approved potable water systems shall be used to distribute drinking water.
- Drinking water shall be tested at least monthly, or in accordance to project requirements, for water quality. Valid records of the necessary certification must be maintained.

Note: *In case of a water supply interruption due to a broken line, perform a water quality test before the line is placed in service. Contact* **HSSE (Health Safety Security and Environment) D***epartment for test and results.*

7.3 Disposable Cups or Bottles

Where water dispensers or coolers are not available, arrangements shall be made to provide disposable cups or bottles of water. Special considerations shall be given to those working in remote locations, conditions, etc. Use of a "community cup/glass" (i.e., only one cup/glass for use by all employees) is prohibited.

7.4 Filling Coolers

The following requirements pertain to the use of coolers on Projects:

- Fill coolers directly from the potable water spigot or a hygienically clean hose system.
- Observe the following precautions when filling coolers:
    - Clean and disinfect utensils used to fill coolers just as coolers are cleaned and disinfected.
    - Practice proper personal hygiene always when handling drinking water and ice.
    - Use PPE (latex gloves and a rubber apron) when handling, filling with ice, and filling with water. Wear foot protection when using block ice.
    - Use only cleaned and disinfected coolers.
    - Rinse outside of coolers before opening lid.
    - Place required amount of ice in cooler (seasonal) and replace lid.
    - Place cooler on back of truck (wash down truck bed before placing coolers on truck bed.)
    - Remove lid and fill cooler with potable water individually using an approved water hose.
- Always keep coolers off the ground.
- Place the cooler away from toilets, trash collection areas and work activities that creates dust.
- The filter cartridge must be replaced every two months as a minimum or as indicated by the manufacturer.
- Proper drainage measures must be taken to prevent excess/spilled water from accumulating.
- When using bottled drinking water dispenser, only bottles that are sealed by the manufacturer must be mounted on the cooler. Bottles should not be refilled except by the manufacturer.
- Coolers must be cleaned periodically at least every 6 months, refer to the manufacturer recommendation in the service manual.

8.0 CLEANING AND DISINFECTING COOLERS - GENERAL

The following are best practices for cleaning, filling and using water coolers:

- Coolers should be filled directly from the potable water spigot or a hygienically clean hose system.
- Coolers and utensils used to fill coolers should be clean and disinfected.
- Always use proper personal hygiene practices when handling drinking water and ice.

- PPE (latex gloves and a rubber apron) must be used when handling, filling with ice, and filling with water.
- Trucks used for transportation must always be clean.
- Coolers must be stored off the ground, lids must be kept closed when being stored.
- Clean and disinfect coolers used to dispense drinking water at least every 2 days
- Clean and disinfect coolers used to dispense power surge electrolyte every day.
- Clean and disinfect utensils used for mixing, filling, and cleaning every day.
- Store utensils used for mixing and filling in a closed container when not in use.
- While cleaning and disinfecting, use PPE consisting of safety goggles, rubber apron, and latex gloves.
- Use a mild biodegradable soap and water mixture as a cleaning solution.
- Scrub outer surfaces of the cooler with a brush and wipe with a clean sponge. Disinfect the sponge and brush daily.

8.1 Disinfecting

- Remove cooler spigot from the cooler and scrub with a toothbrush and bottlebrush using disinfecting solution.
- Make up the disinfecting solution daily before usage. This solution will be two-thirds cup of bleach in 3.8lt of potable water.
- Pour 1.9lt of disinfecting solution into the cooler to be disinfected.
- Cover cooler tightly and shake it so that the solution contacts the entire inside surface.
- Let stand for 30 seconds.
- Scrub the inner surfaces of the cooler with a brush.
- Transfer the solution to the next cooler to be disinfected.
- Rinse empty cooler once.
- Then add 59ml of baking soda to the inside of the cooler with 1.9lt of potable water
- Cover cooler tightly and shake it so that solution contacts the entire inside surface.
- Rinse cooler thoroughly (2 or 3 times) with potable water.
- Air dry.

8.2 Dispensing Coolers

Observe the following precautions when dispensing coolers:

- Keep cooler off the ground at all times.
- Place the cooler on cooler stands, tables, gang boxes, etc.
- Locate the cooler away from portable toilets, trash dumpsters, and work tasks that generate dust.
- Dispense only coolers that are clearly labelled with the words “Drinking Water.”

8.3 Storing Drinking Water Coolers

Observe the following precautions when storing drinking water coolers:

- Keep coolers off the ground while in storage.
- Store coolers not in use with lids in place.
- Store coolers that have been cleaned and disinfected away from dirty or in-use coolers.
- Prior to using, re-clean and disinfect coolers that have been in storage for more than 7 days.

9.0 ICE MACHINES - GENERAL

- Practice proper personal hygiene at all times when handling ice.
- Remove ice from machine with an ice scoop only.
- Do not allow clothing or skin to come in contact with ice.
- Wear latex gloves and rubber apron when handling ice.
- Keep doors locked when not in use or unattended.

9.1 Exterior Cleaning

- Use cleaning sponge with mild biodegradable soap solution to remove any dirt or dust from the outside of the machine.
- Wipe dry with a clean cloth.
- Keep the area around the ice machine clean and free of standing water.

9.2 Interior Cleaning and Sanitizing

- Clean and sanitize ice machine every 6 months (minimum).
- Follow the manufacturer's recommendations in the service manual for cleaning and sanitizing.

9.3 Air-cooled Condenser Cleaning

- Clean the condenser every 6 months (minimum).
- Contact the service Supervisor/Provider to schedule cleaning.

9.4 Filter Cartridge

- Replace the primary filter cartridge every 2 months (minimum).
- A reading of below 20 psig on the filter gauge indicates when replacement is necessary.

9.5 Block Ice Storage Machines

- Use cleaning sponge with a mild biodegradable soap solution to remove any dirt or dust from the outside of the machine.
- Wipe dry with a clean cloth.
- Keep the area around the block ice storage machine clean and free of standing water.
- Clean and sanitize block ice storage machine every 2 months (minimum).
- Follow the manufacturer's recommendations in the service manual for cleaning and sanitizing.

10.0 WATER SERVICE AREA

Observe the following precautions in the water service area:

- Always practice proper personal hygiene at all times.
- Keep area clean and free of standing water.

11.0 ATTACHMENTS

N/A