

**Key Control Data Sheet**

Procedure Number: RSK-PRO-KCD-167

Scope of Application: Ok Tedi Mining Limited

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Document Owner: Manager – OHS & Training

**Why is the Control Important** –

Contaminated water sources may affect people and expose them to severe illness with the potential for fatality.

Potable or drinking water must be free of both pathogens (disease causing organisms) and chemical contaminants that have been known to cause undesirable health effects.

Where reticulated water is unavailable or unsuitable for drinking, potable water must be provided. Where water treatment systems are in operation, water sampling and testing must be done.

**Exemption** – This KCDS does not apply for water used for manufacturing process.

**Operational Requirements**

## Performance Metrics

|  |  |
| --- | --- |
| Where water treatment systems (e.g. chlorination, UV etc.) are operated, planned maintenance and calibration of equipment is carried out according to manufacturer’s recommendations. | Potable bottled or bulk drinking water is supplied when potable/drinking water is not available or water quality test results do not meet the standard.  |
| For water treatment system operations, water samples are taken at various locations and sent for laboratory testing as required by local drinking water standards. Test results are recorded and reviewed.  | Dedicated water tankers are used for potable water. Tanks and distribution system are cleaned and disinfected according to local drinking water standards.  |
| Personnel are notified immediately when drinking water fails to meet the standard. “Not safe to drink” signs are posted at all faucets, food preparation areas and shower facilities.  | Signage to indicate when water is non-potable - “not safe to drink” and signage to indicate potable water, “safe for drinking” on faucets, piping and storage tanks.  |

## Utilisation

Used for supply of potable or drinking water, (water treated on site or bulk water supplied by external company and stored in tanks on site or bottled water).

## Safety Critical Defeat Requirements

No defeats permitted.

## Testing & Verification

Compliance with this KCDS is checked as part of the annual HSE auditing cycle.

## Maintenance

Inspection, maintenance, calibration and testing of the potable water treatment system are carried out in accordance with manufacturer’s recommendations and are part of the Preventive Maintenance Program.

Instruments or equipment used to test water parameters (e.g. pH-meter, thermometer) are inspected, maintained and calibrated in accordance with manufacturer’s recommendations and are part of the Maintenance Program.

Water tanks are cleaned and disinfected according to local drinking water standards. If tanks are contaminated with water not meeting water quality standard, the cleaning and disinfection must be carried out immediately.

## Training & Competency

Personnel operating and monitoring potable or drinking treatment system must be trained and assessed competent in:

* Potable water parameters
* Water sampling methods
* Actions to take when potable water does not meet the standard
* Potable water standards according to local requirements
* Instructions on required adjustments and process control changes when parameters are not met
* The hazards and controls associated to hazardous chemicals used to treat water, as outlined in the Safety Data Sheets
* Local water borne pathogens (disease causing organisms), potential chemical contaminants and treatment requirements

**Task Requirements**

The following are the key day to day requirements operators/maintainers and supervisors must follow to ensure the control is being used correctly.

## Task Requirements

|  |  |  |
| --- | --- | --- |
| No. | Supervisor | Operator/Maintainer |
| 1 | Verify water treatment system maintenance is carried out according to the scheduled and Work Instructions. | Consume, prepare food and shower using potable water.  |
| 2 | Review water test results and provide alternative potable water when treated water does not meet the standard.  |  |

## Skills Requirements

Personnel operating and maintaining water treatment equipment must be trained and authorised.

## Permits

Not applicable.

## Task Specific PPE Requirements

PPE requirements for chemicals (e.g. chlorine) as defined / recommended in the Safety Data Sheets.

## Special Task Related Tooling

Glassware used to sample water must be washed and sterilized.

**Design Requirements**

## Design Standard

Statutory compliance with local water quality standards

## Safety Parameters

Foreign visitors must drink only bottled water.

Complete set of current SDS of all chemical substances being handled and stored must be available.

If high pressure water jet is used to clean internal surfaces of the tank, the pressure used must be approved by the Maintenance Manager.

## Design Life

Not applicable.

## Safe Separation

There must be a physical separation between potable water system or water storage tanks and chemical plant systems.

Chemical substances must be stored according to their compatibility and SDS requirements.

## Special Requirements

Washing of all internal surfaces must be carried out to remove all traces of detergent. Continuous flushing of the tank must be done until there are no longer traces of detergent in the water.