



# Water Management

## ENV5 / Standard

This Standard defines how the Company shall manage its operations so as to minimise the effect on water resources. The company has a corporate objective to measure all water withdrawal and discharges and to use this data to generate company and site water balances for major water users (quarries, readymix concrete and concrete products). Site water balances will be used to identify opportunities to reduce water consumption and introduce water recycling and harvesting where appropriate.

Water is used within the majority of Ronez sites for plant and vehicle wash down, dust suppression and welfare facilities. Water is also added to some manufactured materials, predominantly as a constituent of concrete. The water used is sourced from the mains, abstracted from groundwater, surface waters and quarry dewatering or can be recycled water derived from onsite uses, surface water runoff or captured rainwater.

Surplus water, whether rainwater, surface water runoff, unused quarry dewatering or pre-treated process effluents, is discharged from sites.

Operational Management, in planning or carrying out any works, shall ensure that precautions are taken to prevent/ minimise the pollution of groundwater and controlled waters. Chemicals, fuels and other substances will be managed in accordance with ENV4/Chemical and Fuel Management so as to reduce the potential risk of pollution of water systems.

There should be a scheme in place for the inspection and maintenance of all plant infrastructure designed to prevent the pollution of water resources, including interceptors, storage tanks, wash down area, emergency response equipment etc. Refer to CPR56 – SP28 Fixed plant.

In accordance with MAN12/Emergency Preparedness, there should be emergency response procedures for the unplanned release of materials or substances that could cause pollution to waters. This will need to consider the requirements to isolate water discharges in the event of an incident.

### Site Water Management Plan

The site must develop and maintain a Site Water Management Plan and a water management diagram.

Where there is more than one operating unit at a site and the water infrastructure is shared or interdependent, there shall be a single Site Water Management Plan that covers all operating units present. This should be developed and maintained by the main water user/ largest land user on site (this will normally, but not necessarily, be the quarry operations) in consultation with all other water users on site.

### Scope

These requirements apply to all Ronez operations including those in the United Kingdom, Channel Islands and mainland Europe. In this document 'we', 'our' or 'us' refers to Ronez Limited.

### Responsibility

The responsibility for implementing this procedure rests with the line management of the business unit (e.g quarry, readymix, concrete product, sites etc) in some instances this may be cascaded downwards or upwards in the business, what is most important is that the procedure is implemented in a systematic manner and a clear audit trail to support the actions of the management.

### Records

- Site Water Management Plan.
- Site Water Management/ Services Diagram.
- Discharge Consent (Exemptions) / Environmental Permit for Discharge.
- Abstraction Licences / Exemption Flood Risk Assessment.
- Results of Water Discharge Monitoring.
- Daily Environmental Log.
- Calibration Records.

The Site Water Management Plan will be filed under the reference ENV5/001/site water management plan, and stored centrally within ENV5 folder of the site HSEQ filing system on the company intranet.

The Site Water Management Plan will be reviewed periodically to account for changes to the site layout or activities, changes in legislation or water management best practice.

The Site Water Management Plan will consider the risk of flooding on site including the effects on site drainage and water infrastructure, and the management of floodwater to prevent breaching of discharge limits. Further guidance on the information to be reviewed is provided here and also in MAN12/Emergency Preparedness.

### **Water Use**

All operational water withdrawal and discharge points will be metered in accordance with permits where required.

Site water withdrawals will be monitored regularly.

Wherever possible, surface water runoff should be captured for use on site in 'greywater uses'. Any process water wastes should also be captured and recycled where possible. The increased use of recycled water should be considered within the annual review of the Site Water Management Plan.

### **Abstraction**

Requirements for abstraction licences for each site will be as described in MAN4/Legal and Other Requirements / Legal register. Site management must inform the Estates Department of all new or changes to water abstraction at a site.

All abstraction points shall be managed in accordance with the licence requirements or general binding rules as appropriate.

Water abstraction must be metered and the volumes recorded where required. Metering should also be applied to pumps removing quarry water and this volume reported as quarry dewatering.

A copy of each abstraction licence shall be held on site, filed under the reference ENV5/004/Abstraction Licence and an electronic copy within IMS

### **Associated Documents**

- [Site Water Management Plan template.](#)
- [Site Water Management Plan key.](#)
- [Water Discharge Sampling.](#)
- [Site Flood Risk Assessment Guidance.](#)

### **Training**

Site personnel shall be trained on the key parts of the site water management arrangements, including emergency procedures, processes for collection and reuse of water and the water discharge requirements.

Personnel involved in the regular inspection and maintenance of water protection infrastructure shall be trained accordingly, including what to do in the event of a breach. All training should be recorded in the personnel training file.

**Quarry Dewatering** - Water removed by pumping or other mechanical means from a quarry (or pit) extraction area. The water may originate from a combination of precipitation, groundwater and surface water infiltration.

**Wastewater** - Water which has had its quality altered by any process (manufacturing process, domestic purpose etc.). Water which has had its temperature altered to a point that it cannot be reused in the process.

Abstraction for welfare, drinking water or for use in concrete manufacture may require additional treatment and controls depending on the water quality. The end use water quality requirements must be considered in the design of any water abstraction system.

### **Discharge**

All discharges shall be managed so as to minimise the potential for pollution of ground or surface waters (including drainage systems).

Discharges of trade effluent to sewer shall be covered by a Trade Effluent Discharge Consent where appropriate. A copy of the discharge consent shall be held at all sites where water is discharged to any controlled waters.

All drainage facilities shall be clearly identified to differentiate between surface water (blue triangle) and foul water drains (red rectangle), the relevant markings being applied to the drainage covers. Drainage must be clearly identified on the Site Water Management Plan.

There should be a separate area for wash-down activities at the site. All steam cleaning and wash-down shall be undertaken on properly constructed hard standings that are drained to an oil interceptor. The use of detergents shall not be permitted unless facilities are in place to prevent emulsified oil entering oil interceptors.

Septic tanks may require additional authorisation from the regulating authority depending on how these are discharged. If septic tanks are in place or proposed, the site manager should consult Manging Director to advise if consent is required.

### **Inspection and Monitoring**

Water discharges may need to be monitored regularly to demonstrate compliance with the site discharge license or operating permit conditions. A sampling regime shall be in place at the site that is commensurate with the requirements of the license and the site's pollution risks; this shall include testing of samples where appropriate. The form in appendix 3 should be used to record the results of all discharge monitoring. If the only test carried out is for pH the test results will be recorded on internal systems.

All discharge points shall be visually inspected daily unless otherwise specified in any regulatory requirement and the inspection recorded in the site derived Environmental Log (refer to Appendix 2 /ENV3 Guidance for site inspections).

A programme for the routine inspection of oil interceptors, drains, lagoons and settling ponds shall be maintained and implemented.

Results of inspections shall be recorded in the site Environmental Log.

**Water Balance** - Inventory of water based on the principle that during a certain time interval, the total water withdrawal must be equal to the sum of water consumption and process water discharge.

**Water Consumption** - Fraction of water withdrawal not returned to its proximate source. The consumption removes water from a water system and makes it unavailable for further use. Water evaporated, transpired, incorporated into products, vegetation (irrigation) or waste, lost via transmission (e.g. road maintenance), or consumed by man or livestock is considered as consumed.

**Water Purchased** - Water purchased in bulk from a third party to be used in the process.

**Water Recycling/Reuse** - The act of reintroducing wastewater generated by the site's operations back into the process, where otherwise, freshwater would have been used. Reused water is returned to the process without treatment whereas recycled water has been initially treated.

**Water Withdrawal** - Water drawn into the boundaries of the reporting organisation from all sources, including surface water, groundwater, quarry dewatering, precipitation and public water systems, for any use. However, precipitation and quarry dewatering are included in water withdrawal only if they are used for a specific purpose at the site. Water withdrawal is synonymous with abstraction, but not with Water Consumption or Water Used.

### **References**

- ENV4/Chemical and

Onsite monitoring equipment, including flow meters and testing equipment, shall be calibrated in accordance with the manufacturer's instructions. Calibration requirements should be documented in the Site Water Management Plan, with results in the calibration log (refer to Q8/Calibration for further details).

It is good practice to take at least one duplicate sample when sampling water quality to validate the accuracy of the laboratory testing. This should be submitted anonymously for the same testing. Site personnel should always collect a duplicate sample at the same time as a regulator collects a sample, and submit this for separate testing. This will likely lead to early notification of issues in advance of any results received from the regulator, but also acts as assurance of the regulator findings.

If any visual pollution is detected in the discharge, a sample shall be taken immediately and tested. The emergency procedure for discharge to waters should include measures to be taken in the event that visual pollution is detected in the discharge. All visual pollution (outside the compliance with a licence) must be investigated in accordance with MAN3/Incident Reporting and Investigation.

In the event of any malfunction with the plant equipment that gives rise to unplanned discharge to sewer or water course, the event details and remedial actions shall be recorded in the Daily Environmental Log. Where required as part of any permit conditions or in the event of a significant discharge (or potential discharge if appropriate), the site manager will notify the appropriate regulator.

Where sampling of offsite discharges identifies a breach in permit conditions, Operational Management shall record the issue and remedial actions in the Daily Environmental Log as well as notify the appropriate regulator. The incident should also be investigated in accordance with MAN3/Incident Reporting and Investigations.

Fuel Management.

- MAN3/Incident Reporting and Investigation.
- MAN4/Legal and Other Requirements.
- MAN6/Audits, Non-conformances and Action.
- MAN8/Objectives and Targets.
- MAN12/Emergency Preparedness.
- Q8/Calibration.

