



Overview of Soil and Groundwater standard

Purpose

To manage potential *Impacts*¹ to soil and groundwater.

Who is this for?

- *Managers*;
- *Competent Persons* in soil and groundwater assessment and Persons who are involved in soil and groundwater remediation.

What situations are covered?

This standard addresses potential *Impacts* to soil condition and/or groundwater, e.g. through oil impact. In addition, it addresses *Impacts* to groundwater hydrology by physical structures (foundation, line object trench etc.) and/or other disturbance which may result in barrage effect, ice formation, percolation, and/or change of flow direction, swamping.

Refer to Land Management Standard² for requirements relating to erosion and reinstatement following disturbance of soil structure and integrity e.g. following construction or maintenance.

Refer to Waste Management Standard for requirements to manage Risks of Waste handling and disposal.

Requirements – General

Managers are *Accountable* for requirements 1 to 8 in their own organisation:

1. **Manage Risks** due to Soil and Groundwater *Impact* in compliance with:
 - a. Russian Federation law (overview is provided in Legal Requirements for Soil and Groundwater) including relevant Approvals, and
 - b. Lender and Shareholder requirements defined in International Requirements for Soil and Groundwater.
2. **Implement roles and responsibilities** as defined in Roles and Responsibilities for Industrial Environmental Control.

Requirements

3. **Impact Assessment** shall be conducted prior to all new activities or significant modifications to existing facilities in accordance with Managing Risk standard and Procedure for Impact Assessment.
4. **Site Assessment**. Assess the Risk of soil and groundwater *Impact* and review it with the Competent Person to determine what investigation, control or remedial action is required, according to the Soil and Groundwater Monitoring and Assessment specification.
5. **Remediation**. Where *Impact* is identified, review and approve the Remedial Action Plan (see Soil and Groundwater Monitoring and Assessment specification) and implement it to completion.
6. **Operational Controls**. Implement the requirements of the Soil and Groundwater Operational Controls specification.
7. **Monitoring**. In accordance with the Soil and Groundwater Monitoring and Assessment specification and HSE Monitoring and Review standard, implement soil and groundwater monitoring programme to determine whether operational controls and remedial actions are effective in managing risks to ALARP.
8. **Assurance**. Review and verify implementation in accordance with Soil and Groundwater Assurance specification.

¹ Italicized terms in this document are included in the Sakhalin Energy HSE Glossary.

² Underlined items in this document refer to Sakhalin Energy Controlled Documents.

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