

Health, Security, Safety and Environment (HSE)

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1. Objective

This directive describes our HSE policy, lays down our ambitions, commitments, values, requirements and our HSE management system.

2. Application and Scope

2.1 Application of HSE Directive with underlying documents.

This Directive with underlying documents such as procedures and appendixes is mandatory for all entities that are wholly-owned by Hydro.

Local legislation will supersede this Directive in areas of conflict. Where local legislation does not require an adequate level of HSE performance, activities are conducted in a manner consistent with this Directive and relevant international HSE standards, practices and guidelines such as issued by International Finance Corporation (IFC), World Bank Group or similar.

2.2 Scope of HSE Management system

The HSE Management system is an integrated part of Norsk Hydro's Management system. This directive applies to aspects and activities that have a potential to affect HSE throughout the entire lifecycle from business development to operation and closure.

For entities in which Hydro has an interest of less than 100 percent and for contractors, suppliers and commercial contracts we shall exert our influence to create consistency with this directive, acting reasonably and with respect for other owners' legitimate views in order to make the directive apply.

3. Framework for our HSE Management system

HSE leadership in Hydro is based on our policy and the principle of continuous improvement. The figure illustrates the content of the HSE management system and how it fits into the Plan-Do-Check-Act (PDCA) methodology

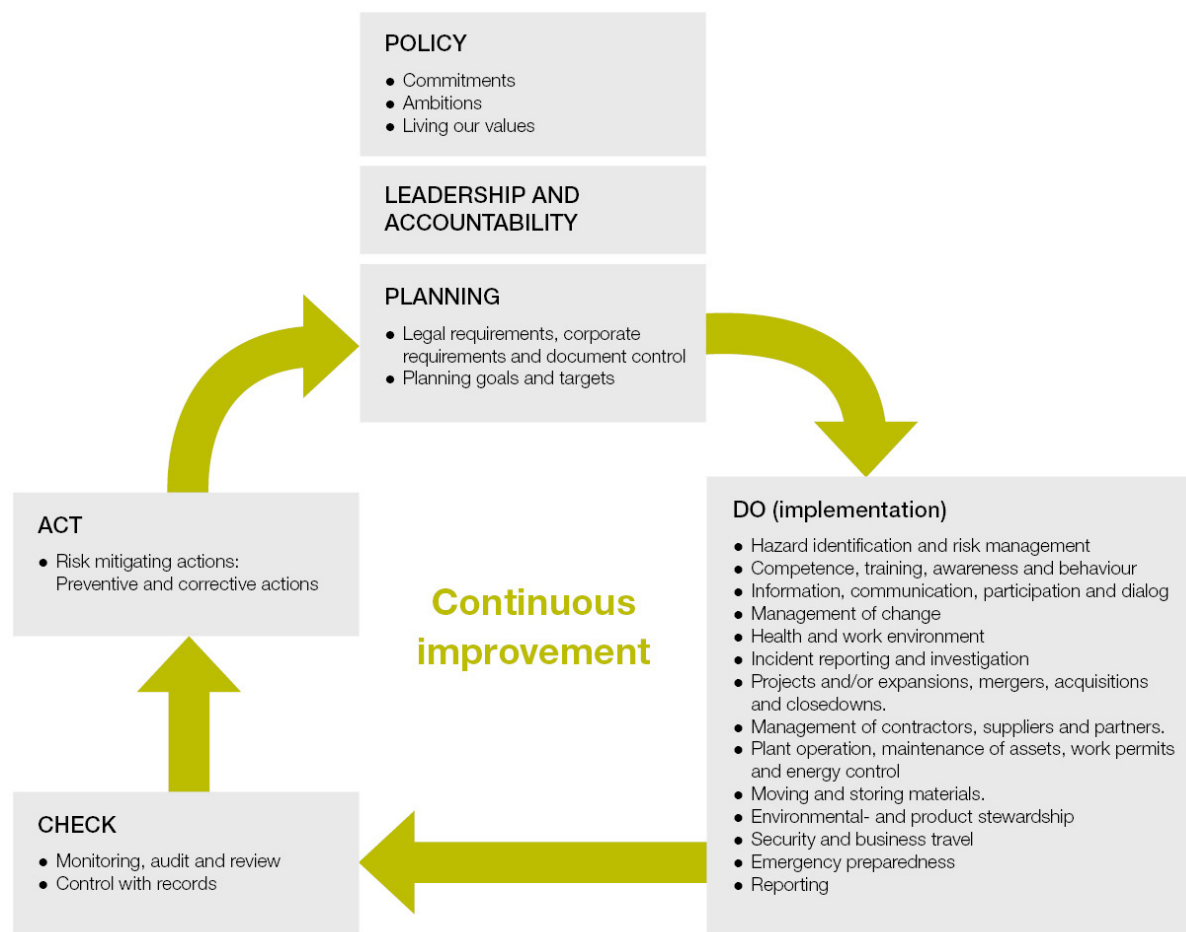


Figure 3.1 Hydro's HSE management system model

4. Our Policy

4.1 Ambitions

Our ambition is to set health, safety, security and environment as core elements of Hydro's identity and business success. The company will be recognized for its world class performance which demonstrates a strong sense of responsibility for people and the environment. Through innovation and efficient production, we will contribute to the creation of a more viable society.

4.2 Commitments

At Hydro, our health, safety, security and environmental performance is an integral part of our everyday business. HSE are essential elements in our partnerships with suppliers and customers. We demonstrate our commitment to HSE through the way we are organized, make decisions, operate and cooperate.

We are committed to:

- Identify, assess and manage risks to employees, contractors, visitors, the environment and our host communities.
- Set clear and ambitious HSE targets
- Ensure that the HSE management system and tools continually improve our performance
- Demonstrate HSE commitment through hands-on leadership and behaviour
- Be transparent in all HSE issues through active engagement with stakeholders

- Contribute to development of sustainable and environmental friendly technology for manufacturing of aluminium metal and products

4.3 Living our values

- With **respect** for energy and resources, invest in innovation so our activities and products have a minimum adverse impact on the environment
- Have the **courage** to set ambitious goals for HSE performance during acquisitions processes and when signing commercial agreements with our partners
- Through **foresight**, strive to prevent injuries on our premises and avoid occupational illnesses, property damage and production loss
- Communicate our goals, promote transparency in our HSE reporting and engage in **cooperation** with interested parties
- Demonstrate **determination** in protecting personnel, premises and activities against conscious and negligent unauthorised actions, balancing the company's need for protection and the integrity of employees and third parties.

5. Leadership and accountability

Corporate Management Board (CMB) shall:

- Assist the CEO in deployment of Hydro's policy concerning Health, Security, Safety and environment, and for the elaboration of corporate HSE steering documents that are deemed necessary to make Hydro's policy operational.

All managers shall:

- Demonstrate visible leadership and proactive commitment to HSE excellence through personal examples, by promoting initiatives, encourage people to work in a safe manner, conduct site inspections, reviews and behavioural observations
- By involvement of all employees build a sustainable culture and integrate applicable HSE practices into the business
- Be accountable for compliance with statutory requirements as well as with Hydro's corporate steering documents and HSE performance in line with Hydro's policy and targets.
- Ensure resources and competence essential to establish, implement, maintain and improve the HSE Management System.
- Show determination and commitment to HSE by driving a continuous improvement process.

Site Manager shall:

- Be responsible for defining the need for and scope of local procedures, and document it. Scope shall be built on identified hazards, and their associated risks to be assessed and managed. Systems to handle risks associated with planned or unplanned changes shall be in place.

All employees (including managers and contractors)

- Shall understand their responsibility and commitment to health, safety, security and environment and contribute to achievement of Hydro's obligations and goals as core elements of Hydro's identity and business success.
- Are responsible for their own health, security and safety by being familiar with the risks and controlling measures and for executing his or her task in a secure, safe, healthy, environmental friendly and efficient manner in compliance with applicable requirements and guidelines.
- Immediately report any accident or incident that may cause injuries or damage

- Have the right to and the responsibility to stop unsafe behaviour or refuse to work in situations that causes harm, and immediately bring these situations to the attention of those at imminent risk and to the management.

Corporate HSE staff shall:

- Provide governance within the HSE area,
- Have a system in place to ensure that Hydro's activities are carried out in compliance with this directive and underlying documents
- Ensure ownership of the Health, Security, Safety and Environment processes
- Assist in making information concerning HSE available
- Facilitate cooperation by running an efficient HSE network
- Facilitate the exchange of best practices

As a guiding principle, health, security, safety and environmental issues shall be resolved at the appropriate organizational level, i.e. as low as possible and practical.

6. Planning

6.1 Legal and Corporate requirements, commitments and document control

- A system shall be in place at site level to identify and assess all applicable HSE laws, regulations, approvals, licence, permits and corporate requirements. Documents shall be kept updated.
- Compliance with legal and other requirements shall be demonstrated through the implementation of documented procedures on relevant organisational level
- A document control system shall be in place, which fulfils the following requirements:
 - Documents shall be approved, maintained updated, accurate, legible and identifiable.
 - Documents shall be securely stored and readily accessible at all locations required for its effective application.
 - Retention time shall be based on legal requirements or as required in corporate procedures.
 - Obsolete documentation and data are properly removed and protected from unintended use.

6.2 Planning, goals and targets

- HSE shall be an integrated part of business planning based on identified significant HSE issues, risks and opportunities.
- As a result of the business planning process and HSE assessments, the relevant organisational level shall provide a prioritized list of HSE challenges, set long term goals, key performance indicators and targets.

7. Implementation and Execution

7.1 Hazard identification and risk management

- Hazards and risks for routine and non routine activities shall be identified, assessed, prioritised and managed as appropriate HSE impacts of the operation. The assessment shall take into account health, security and safety, the surrounding physical, environment, biodiversity, applicable legal requirements and financial implications.
- Environmental aspects and impacts for all our products shall be fully identified and assessed throughout the lifecycle of the product.

- Hazards and risks shall be assessed by the appropriate level of management consistent with the significance of the risk.
- Management is responsible for setting acceptance criteria for a risk. Risk management decisions shall be documented and the implemented mitigation actions shall be tracked.
- Risk associated with planned and unplanned changes shall be managed, recorded and documented whether they are temporary, permanent or due to incremental change. The required system shall address change events including changes in personnel, organisation, processes, facilities, physical environment, equipment, technology, procedures, laws, regulations, standards, materials, intermediates, products, systems and services.
- HSE risks shall be reviewed in order to verify effective and efficient mitigation control. For major risks the verification shall take place whenever required.

7.2 Competence, training, awareness and behaviour

- Managers shall ensure that any person(s) under its control performing tasks that can impact on HSE is (are) competent on the basis of appropriate education, training or experience and shall retain associated records.
- Inductions comprising Hydro's HSE objectives, expected behaviour on our premises, on site hazards, risks and controls shall be conducted for employees, contractors and visitors at the commencement of their employments or visit.
- Managers shall establish, implement and maintain a procedure to make persons working under its control aware of consequences, actual potential of work activities and behaviour, roles and responsibility, importance of compliance with our procedures including emergency preparedness.
- Employees shall be engaged at all levels in the organisation to make on the job behavioural observations to reinforce desired HSE behaviour and correct at risk behaviour.

7.3 Information, communication, participation and dialog.

- The Management shall communicate relevant HSE information including legal or other requirements to persons working under the control of the organisation and external interested parties.

7.3.1 HSE information to the public

- Each site with the risk of an injury or damage extending beyond the site's boundaries as a result of a major accident, shall inform the public of the risk entailed by the site's operations and the potential off-site consequences.
- The information shall be repeated and updated at intervals of not more than three years, or in the event of modifications that may have significant effect on the risk and potential off site consequences. The information shall be made permanently available to the public.

7.3.2 Dialogue with the public

- Concerns and complains from neighbours and/or interested parties shall be registered, acknowledged, investigated and timely responded to.
- Conflicts shall be resolved through consultation and participation whenever possible.

7.3.3 Internal communication and involvement

- HSE Policy and procedures, plans, goals, targets and HSE matters in general shall be communicated throughout the organisation.
- Employees shall be invited to participate in development, implementation, review and improvement of our HSE programs.

- HSE performance feedback shall be effective and address key issues. The feedback shall include HSE incidents and occupational illnesses.
- The business area shall as a part of their HSE performance review, present a quarterly report. The report shall have focus on progress towards targets, deviations from targets and corrective measures taken.

7.4 Management of Change

- The management of change shall include an assessment of the impact on HSE systems and performance ensuring that any negative effect on HSE is mitigated and those HSE improvement potentials are captured. The change management system shall ensure that change management actions have been completed, their intended outcome validated and any unintended or additional risks are identified and managed.
- Change shall timely be communicated to and understood by those who may be affected.
- When organisational changes are planned, management shall consider ability to achieve HSE objectives, targets and goals

7.5 Health and work environment

- Systems, plans and programmes shall be established and implemented to identify, analyse, evaluate and enhance the health and well being of workers and contractors through providing a work environment where occupational health hazards are managed and reduced to a minimum

7.6 Incident reporting and Investigation

- The management culture shall ensure the recognition, response, reporting and analysis of incidents including near misses.
- Appropriate corrective actions shall be implemented and applicable learning shall be shared within the company.

7.7 Projects and/or- expansions, mergers, acquisitions, sales and closedowns.

- Hazard identification and management of HSE risks and opportunities is an integral part of all projects through planning, design, approval, procurement, construction, commissioning and decommissioning.
- Environmental Impact Assessments (Environmental studies) shall be carried out for new major projects/major expansions, mergers, acquisitions, sales and closedowns, and shall be done in accordance with national and/or international validated standards or methodologies.
- When determining viability of a new business case for Hydro in a geographical area with no existing operations ongoing, a high level review of all relevant HSE aspects shall be done.

7.8 Management of contractors, suppliers and partners

- The contracting of services, the purchase or lease of equipment and materials, and activities with partners shall be carried out so as to minimise any adverse HSE consequences.

7.9 Plant operation, Maintenance of assets, Work Permits and Energy Control

- All plants and equipment shall be operated, maintained, inspected and tested using systems and procedures that manage HSE risks.

7.10 Moving- and storing materials

- All storage facilities shall be designed operated and maintained in accordance with local and national regulations, recognised codes and standards and shall comply with the engineering and operational standards for the owner of the storage facility.

- When commodity is loaded, transported and unloaded, company regulations, national and international laws shall be adhered to.
- A Hydro representative shall be in control of the process of transporting goods, and be physically present when relevant.

7.11 Environmental and Product Stewardship

On Climate we are committed to being in the forefront in the framework design, in our own emissions reductions and in the development of sustainable systems. We will continue to develop our business, products and solutions in a way that will support global green house gas emission reductions in a life cycle perspective. We will limit emissions from our production through better operations and through development and implementation of new technologies. When we make major investment decisions we will take into account the expected future cost of green house gas emissions in order to support the choice of climate benign solutions. We will develop a trading capacity to manage our green house gas portfolio and to provide incentives to reduce operational emissions.

On Biodiversity we will respect the IUCN classification of protected areas and management regulations applicable to them. We will take actions to avoid or mitigate impacts on biodiversity from our operations. This will include compensatory measures to conserve biodiversity in sensitive areas. When we do our Environmental and Social Impact Assessments we will consider primary and secondary effects on biodiversity. In connection with our activities we will monitor biodiversity. We will contribute to the development of a better knowledge on the effects on biodiversity of our business, actively support the development of frameworks on biodiversity conservation and engage in partnerships and stakeholder dialogue to meet our ambitions.

Our ambition is to manage our use of freshwater in a sustainable way. We will assess and manage water use and discharges as a part of our environmental management system. We will take available water resources and competing demands for these resources into consideration for new projects as well as for existing production facilities. We emphasize consultation with stakeholders when developing business ventures which require significant amounts of water. We also support the development of effective water governance frameworks and build up of local capacity

For our value chain we will:

- The lifecycle HSE impacts associated with resources, materials, processes and products shall be minimised and managed.

7.12 Security and business travel

- Security hazards shall be identified and associated risks assessed and managed.

7.13 Emergency Preparedness

- Procedures and resources shall be in place to effectively respond to crises and emergency situations.

7.14 Reporting

- Data for HSE incidents, work related illness and sick leave shall be identified, classified and reported at BA/Sector/Unit/Site level.

8. Monitoring, audit and review

The intent of monitoring, audit and review is to drive continuous improvement.

- HSE performance shall regularly be measured, monitored, recorded and analysed with results and reported according to fixed schedules to Corporate Management Board and others as appropriate.
- Corporate HSE staff shall conduct self assessments for monitoring of compliance with corporate HSE procedures. Based on the self assessment results, the Business Area shall eventually prepare and execute improvements plans.
- Systems shall be in place to identify and report non-compliances.
- Local Managers and Sector Managers shall annually review the suitability, adequacy and effectiveness of their HSE- system and procedures.
- Internal and external audit results, incident reports, performance reports and relevant views from stakeholders shall be included in the review. Reviews shall be documented with recommendations for improvement. Corporate- and BA/Sector HSE audits will be conducted according to an annual plan

9. Control with records.

Records are established to provide evidence of compliance with requirements.

- Managers shall establish and maintain records as necessary to demonstrate compliance to legislation and our HSE management system.
- Managers shall have in place a procedure for identification, storage, protection, retrieval, retention, and disposal of records.
- Medical records shall be stored according to national legislation. (In case of sale or closedown of a production plant, all records shall be securely retained and maintained by Hydro, unless otherwise agreed in sales contract

10. Risk mitigating actions

- Based on risk assessments and reviews, Managers shall plan and implement preventive actions in order to avoid non-compliances.
- Managers shall respond to and manage non-compliances by investigating causes, plan and implement corrective actions.
- Managers shall review and document effectiveness and efficiency of such actions to avoid recurrence.