NORWEGIAN ENVIRONMENT AGENCY

Permit for activities in accordance with the Pollution Act
for
NOAH AS

The permit is granted in accordance with the Act relating to protection against pollution and relating to waste of 13 March 1981, no. 6, section 11 cf. section 16 and amended in accordance with section 18. The permit is granted on the basis of the previous permit of 4 May 2009, the application for amendment of 28 April 2011, and information that came about during the handling of the application. The terms and conditions are set out on the following pages.

This permit is valid from 4 May 2009 with amendments of:

- 18 October 2011 (pt 1, 2.8, 2.9, 2.10, 2.11, 6, 12.1, 12.2 and 12.3)
- 28 November 2012 (pt 1)
- 8 July 2014 (pt 1, 2.11, 3, 4.1, 4.5, 5.1, 8, 10, 12.1, 12.4, 12.5, 13, 14.1-14.7, 16, 17 and appendix 1)

The company must clarify in writing in advance with the Norwegian Environment Agency changes that it wishes to make in relation to the information given in the application or in the handling of the case that can have environmental significance. If all or significant parts of the permit are not used within 4 years after the permit comes into force, the company shall send the Agency an explanation of the scope of the work so that we can assess any changes in the permit.

Company data

Company	NOAH as
Location/street address	Langøya outside Holmestrand
Postal address	Serviceboks H, 3081 Holmestrand
Municipality and county	Re in Vestfold
Company registration number	984902980
Land registration numbers	Gnr 8, bnr 1
NACE-code and branch	90.020 Collection and management of other waste
Category of work[1]	5.1 Facility for the disposal or recycling of hazardous waste 5.4 Facility for dumping non-hazardous inorganic waste

The Norwegian Environment Agency references

Permit number	Facility number	Risk class[2]
2009.121.T	0716.005.01	1

Tillatelse gitt: 04.05.2009	Endringsnummer: 1	Sist endret: 18.10.2011
Harald Sørby seksjonssjef		Katrine Hauglund rådgiver

Permit granted 04.05.2009	Amendment number : 3	Last amended: 8 July 2014
Ingvild Marthinsen Head of section		Eli Mathisen Chief engineer

(translation of boxed text above)

[1] Cf. the Pollution regulation's chapter 36 on handling permits in accordance with the Pollution Control Act
[2]Cf. The Pollution regulation's chapter 39 on fees to the treasury for the Climate and Pollution Agency's work with permits and checks in line with the Pollution Control Act

1. Production conditions/discharge conditions

1.1. Framework conditions for operations (Amended 18 October 2011, 28 November 2012 and 8 July 2014)

The company can accept 1,000,000 tonnes of waste each year for final processing at Langøya. The limit is regarded as the average over 5 years. The five-year period is consecutive and is updated at the end of every year.

The import of waste and acceptance of polluted material for dumping on Langøya shall at no time prevent the acceptance and dumping of Norwegian inorganic hazardous waste during the period of operation.

The limits apply to the weighed quantities upon acceptance of the waste.

The following categories of waste can be accepted and treated:

Waste category	**Quantity (tonnes per year)**	**Comments**	**Dumping category**
Inorganic hazardous waste, including inorganic acids and ash	500,000	Defined by the Waste Regulations chapter 11, ref. chapter 9, appendix II, including polluted material defined as hazardous waste	Hazardous waste disposal installation
Alum shale*			
Non-hazardousinorganic waste with max. 5% TOC	500,000	Polluted material such as polluted earth, crushed concrete, sludge and sediments	Non-hazardous waste disposal installation

* Receipt and dumping of alum shale at hazardous waste disposal installations is limited to 50,000 tonnes per year. The permit is valid up to and including 1 September 2019. After 1 September 2016 only acid-forming alum shale may be dumped at the hazardous waste disposal installation in Sydbruddet (the south quarry).

Non-hazardous waste may be used for the construction of roads, dams and similar in the hazardous waste disposal installation in Sydbruddet if there is not sufficient access to hazardous waste and alum shale. The prioritisation for the use of materials, as indicated in the application by NOAH, must be followed. The use of non-hazardous waste which may result in increased leakage from the disposal installation is not permitted.

Inorganic acids shall be referenced to 100% sulphuric acid or similar acid equivalents from other acids.

The types of waste that come under the definition of hazardous waste must be dumped at hazardous waste disposal installations. The gypsum disposal installation including the dump for embedding waste in concrete is defined as a hazardous waste disposal installation.

Polluted material that does not come under the hazardous waste category shall be dumped at the non-hazardous waste disposal installation with the following exceptions, which must be dumped at hazardous waste disposal installations:

- alum shale
- waste containing between 100 mg/kg and 1000 mg/kg mercury where the material is assessed to have poor qualities for binding the mercury.

A condition for this permit is that the work is carried out in line with regulation of the area in accordance with the Planning and Building Act.

2. General terms and conditions

Requirements in accordance with regulation 01.06.2004 on retrieval and treatment of waste (The Waste Regulations) chapters 9 and 11 apply in addition to the requirements in this permit.

2.1 Discharge limits

The discharge components from the work that are assumed to have the greatest environmental significance are expressly regulated through specific terms and conditions in point 4 and point 5 of this permit. Discharges that are not specifically regulated in this way are covered by the permit as long as information about such discharges was presented in connection with the case management or must be assumed to have been known about in some other way when the resolution was adopted. Nonetheless this does not apply to the discharge of prioritised materials listed in appendix A. The discharge of such components is only covered by the permit if it is expressly shown by the terms and conditions in point 4 and point 5, or they are so small that they must be regarded as being without environmental significance. In the event of significant changes, the company shall apply for changes to the permit even when the discharges lie within the fixed limits.

2.2 Duty to maintain limit values

All limit values shall be maintained within the fixed average times. Variations in the discharges within the fixed average times must not deviate from what results from normal operation to such an extent that they can lead to increased harm or detriment to the environment.

2.3 Duty to reduce pollution as much as possible

All pollution from the company, including discharge to air and water, as well as noise and waste, is undesirable in its own right. Even where the discharges are kept within the fixed discharge limits, the company is required to reduce its discharges as far as possible without unreasonable expense. The requirement also covers the discharge of components that are not expressly covered by the terms and conditions in point 4 and point 5.

For disposal installations where the discharges are proportional to the amount of waste accepted, any reduction in waste accepted in relation to that which forms the basis for case management shall entail a corresponding reduction in the discharges.

2.4 Measures in the event of increased danger of pollution

If as the result of abnormal operating conditions, or for other reasons, there is a danger of increased pollution, the company is required to implement the measures that are necessary to

eliminate or reduce the increased danger of pollution, including reducing or stopping operations if necessary.

The company must, as soon as possible, inform the agency of abnormal conditions that have or may have pollution-related significance. Warnings of acute pollution must be given in accordance with point 11.4.

2.5 Internal control

The company is required to establish internal controls for its operations in accordance with relevant regulations.[3] The internal control must ensure and document that the company adheres to the requirements in this permit, the Pollution Act, the Act on the control of products and consumer services, and relevant regulations to these acts. The company is required to keep the internal control updated.

The company is required at all times to have an overview of all activities that can lead to pollution and must be able to explain the risks.

2.6 Receipt of waste

The company can only accept waste that can be fully disposed of, possibly including prior treatment, on Langøya and which meets the requirements in the Waste Regulations chapter 9, appendix II.

Waste that is accepted for treatment on Langøya must be assessed by the company with a view to the environmental consequences of treating the waste in the short and long term. An assessment must be made as to whether the waste can be handled within the framework of the permit.

Over and above the requirements in the Waste Regulations, chapter 9, ref. Appendix II, the company shall have sufficient knowledge about:

- the type of substances that can form during treatment and dumping (such as gasses)
- the binding ability of the pollutants in the disposal installation.

It must be ensured that waste accepted from Norwegian sources is declared in line with chapter 11 of the Waste Regulations. Hazardous waste that is accepted must not be stored for more than 2 years.

[3] Systematic health, safety and environment work in businesses – regulation of 06.12 1996 no, 1127 (Internal control regulations)

2.7 Waste for which NOAH does not have a treatment solution

Types of hazardous waste that come under the categories that NOAH can accept but for which NOAH needs time to find a treatment solution, can be accepted by the company for temporary storage.

Waste that is not covered by the permit or waste that cannot be treated on Langøya but which may possibly occur as a result of the treatment or for other reasons, must be stored responsibly until the waste can be sent on for approved treatment.

Waste that is being stored for treatment or that is to be sent on must be marked so that the waste can be identified and must be secured so that the waste does not get out into the environment or become a hazard to employees or others in the area. Stores of waste awaiting treatment or to be sent on shall not exceed 5,000 tonnes and they must be physically separated from other waste as well. The waste that is to be treated by NOAH must be treated within two years unless other legislation requires a shorter treatment time. Waste that is to be sent on for other approved treatment or recycling shall be sent on as soon as possible and at the latest within 2 years.

2.8 Requirement for accounting when storing hazardous waste

Stored hazardous waste shall be included in the company's annual accounts in line with the Accounting Act so that the future costs of treating this kind of waste are shown in the accounts.

(Amended 18 November 2011)

2.9 Requirement for expertise

The company shall have competence at Master's degree level in chemistry/biology/ physics in the daily operation. Everyone who deals with hazardous waste must have documented training in such treatment. The company shall also have sufficient expertise to assess the environmental risk of its work.

(Amended 18 November 2011)

2.10 Requirement for preventative maintenance

In order to keep the non-hazardous discharges at the lowest possible level and to prevent other discharges, the company must ensure there is sufficient maintenance of equipment that may be of significance for discharges. Systems and routines for the maintenance of such equipment must be documented (cf. the Internal Control regulations, section 5 point 7).

(Amended 18 November 2011)

2.11 Storing hazardous waste

Hazardous chemicals and hazardous waste must be stored according to the applicable regulations[4]. The condition for the storage of hazardous waste in the permit applies regardless of volume when storing hazardous waste at treatment facilities for hazardous waste.

[4] Regulation on restricting pollution (The Pollution regulation), chapter 18: Storing hazardous chemicals and hazardous waste in tanks, 3 July 2013.

In addition to the requirements in chapter 18 of the Pollution regulation the following apply to the storage of hazardous waste:

Documentation:

- All storage of hazardous waste must be based on a risk assessment.
- The company must establish sufficient routines and systems to detect and rectify irregularities such as leakages quickly.
- The company must perform regular checks on the condition of tanks which contain hazardous waste.
- The company must have a documented overview of stored hazardous waste and this documentation must be stored for a minimum of 3 years.

Requirements for stores for hazardous waste:

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- Hazardous waste must be stored in such a way that pollution does not occur.
- Stored hazardous waste must have sufficient supervision at all times.
- All hazardous waste, regardless of volume, must be stored under cover and and on a sealed base with collection of any run-off. We can accept other storage methods if the company can document that the storage method chosen produces at least as low a risk and equally good environmental protection.
- The store must be secured in such a way that unauthorised persons cannot gain access.

Barriers:

- Tanks containing hazardous waste must have a collection system which can hold the volume of the tank as a minimum. When the collection system covers several tanks the capacity must as a minimum correspond to 110% of the volume of the largest tank.
- Tanks which contain hazardous waste must have a system which prevents overflow to the surrounding area.

Mixing waste

- Hazardous waste that in the event of being mixed/making contact can give rise to the danger of fire or explosion and/or the formation of hazardous substances must be stored at a safe distance.
- Mixing different types of hazardous waste, and mixing non-hazardous and hazardous waste must not occur unless this facilitates further treatment.
- Thinning hazardous waste in such a way that it becomes non-hazardous waste is not permitted.

External storage of hazardous waste in Norway:

- The Norwegian Environment Agency must be informed if hazardous waste is stored at permanent or temporary external facilities. The company must ensure that such storage has the required permit for storage and that the waste is covered by approved financial security, cf. point 2.6.
- The company must have a system for registering hazardous waste.

- The store for non-hazardous and hazardous waste must be labelled in such a way that it is evident what is stored.
- The company must have a map showing where different types of non-hazardous waste/hazardous waste are stored.
- The company must report accounts of waste every year which show an overview of non-hazardous and hazardous waste which has been stored, processed and sent on, cf. point 13.6.

(Amended 18 November 2011 and 8 July 2014)

3. Requirements for the disposal installations
(Amended 8 July 2014)

3.1 Time of dumping in the disposal installations at Nordbruddet and Sydbruddet finishing

Dumping in the disposal installation for hazardous waste at Nordbruddet is no longer permitted. Post-filling following consolidation in the disposal installation for hazardous waste at Nordbruddet is permitted up to contour 0 up to 2020.

Permission is granted for dumping in the hazardous-waste disposal installation at Sydbruddet up to the year 2026 or until the disposal installation for hazardous waste at Sydbruddet has been filled to the permitted level, cf. point 3.2.

Permission is granted for dumping in the non-hazardous waste disposal installations at Nordbruddet and Sydbruddet until the year 2024 and the year 2029 respectively, or until the filling height indicated in point 3.2 has been reached.

The disposal installations at Nordbruddet and Sydbruddet must be completely covered by the year 2027 and 2034 respectively.

3.2 Filling heights at disposal installations
NOAH shall assess and must be able to document which filling levels for gypsum disposal installations are environmentally responsible, based partly on knowledge of the gypsum's content of polluting elements, settlement characteristics, leakage potential and the hydro-geological conditions in the disposal installations. The filling levels in the disposal installations must be such that pollution does not spread from the disposal installations or lead to a danger of this happening. The design must be such that it prevents the material from slipping out.

After consolidation, the dumped gypsum material in Nordbruddet and Sydbruddet must not lie higher than sea level. The dumping of non-hazardous waste in the form of polluted material is allowed up to 18 metres above sea level in Nordbruddet and up to 16 metres above sea level in Sydbruddet. Essential coverings will in both cases be supplementary to this.

Filling above contour -5 m at Sydbruddet may not be initiated before the regulation plan for this area permits it.

The final landscaping of Sydbruddet must be clarified in association with the remaining planning work for completing Sydbruddet.

3.3 Geological barriers/Sealing the sides of the disposal installations for hazardous waste and the disposal installations for non-hazardous waste

NOAH must carry out adequate mapping and sealing off of weak zones and openings in the rock wall which surrounds the disposal installations. This forms the geological barrier surrounding the disposal installations. The geological barriers in the disposal installations for hazardous waste and the disposal installations for non-hazardous waste in Nordbruddet and Sydbruddet must meet the requirements set out in the Waste Regulation, chapter 9.

A geological barrier up to contour +3 m must be established for the disposal installation for hazardous waste in Sydbruddet. A concrete barrier up to the desired height is established where the barrier is lower than contour +3 m and where it is necessary to raise the barrier for other reasons. The concrete barrier must satisfy the requirements of the Waste Regulation, chapter 9, for disposal installations for hazardous waste. Hazardous waste must not be filled above contour +3 m.

The geological barrier in the disposal installations for non-hazardous waste in Nordbruddet and Sydbruddet must be established in such a way that the barrier is higher than the actual filling height in the edge zone of the disposal installation.Where the geological barrier does not meet the requirements set out in the Waste Regulation, chapter 9, it must be supplemented with concrete barriers up to the desired height. The concrete barrier must satisfy the requirements for disposal installations for non-hazardous waste in the Waste Regulation, chapter 9.

Following the establishment of geological barriers in Sydbruddet monitoring must be carried out in order to document that the barriers have the required properties. The entire rock wall surrounding the disposal installation must be checked in order to document that it meets the requirements in the Waste Regulation. Documentation that the geological barrier fulfils the requirements in the rules for disposal installations must be available before the disposal installation is filled higher than contour -5 m.

If the barrier turns out not to fulfil the requirements for disposal installations for hazardous waste measures must be implemented to fulfil this.

The company must set up a side seal in the disposal installation above contour 0 in Nordbruddet in the form of an artificial membrane.

3.4 Disposal installations for hazardous waste

All hazardous substances that are dumped in the gypsum disposal installation must be mixed into the gypsum material in such a way that the compounds are sufficiently stabilised in the gypsum or are rendered harmless in other ways.

Gypsum slurry shall contain a maximum 1% organic material (TOC measured as dry material).

The firmness of consolidated dumped material must be greater than 15 kPA.

3.5 Disposal installations for non-hazardous waste

Establishing disposal installations for non-hazardous waste above disposal installations for hazardous waste in Nordbruddet and Sydbruddet without establishing tight segregation between the disposal installations is permitted. Settling in the disposal installations for hazardous waste is dependent on applying upper layers in the form of drain sludge and later non-hazardous waste. The drain material and non-hazardous waste must be applied in layers so that uneven settlement does not occur in the disposal installation. A programme for filling which prevents uneven settlement must be produced before filling begins.

The waste that is dumped in the non-hazardous waste disposal installations must be chemically and geotechnically stable and have a low leakage potential. Fractions of waste which have a negative affect on or lead to increased leakage from the underlying disposal installation for hazardous waste may not be placed in the disposal installations for non-hazardous waste.

The waste must satisfy the following requirements:

- Dumping hazardous waste in the disposal installations for non-hazardous waste is not permitted.
- Limits for content of organic materials
- - The TOC content in the materials must not exceed 5%.
  - Materials that may come into contact with gypsum shall contain a maximum 1% TOC.
- The hazardous substance content of the waste must be below the limits for hazardous waste set out in the Waste Regulation, chapter 11, appendix 3.
- An assessment must be made regarding the concentrations of environmental toxins in soil which are considered to be hazardous waste in *Veileder: Helsebaserte tilstandsklasser for forurenset grunn (TA 2553/2009)* [Guide: Health-based classifications of the conditions of contaminated ground (TA 2553/2009)].
- In order to assess whether soil material should be considered hazardous waste when there is a mixture of different contaminants the additive concentration of the simple compounds must be assessed, cf. TA 2553/2009, appendix B.
- The firmness in consolidated material must be greater than 15 kPA
- The materials' content of mercury must be less than 100 mg/kg. Polluted material with a mercury content between 100 mg/kg and 1000 mg/kg can be dumped at non-hazardous waste disposal installations if this is deemed to be responsible, based on the other characteristics of the material (cf. point 1)
- Sludge to be dumped must have a pH of between 6 and 9 and its TOC must not exceed 5%.

3.6 Requirements for measures when establishing a disposal installation for non-hazardous waste above contour 0 in Nordbruddet and Sydbruddet

- The water level in the edge zone of the entire disposal installation must be kept below contour 0.

- The company must implement measures to ensure that unwanted pressure build-up in the pore water in the gypsum disposal installation does not occur when dumping above contour 0. The company must:
  - establish vertical drains that ensure that pore water is led out of the gypsum as required
  - establish a drainage layer in contour 0 that can capture pore water pressed out of the gypsum and lead it to a surrounding ring drain. The drainage layer must also act as a drainage layer for the disposal installation for non-hazardous waste above contour 0. The drainage layer must be designed to retain its function over time and to tolerate stresses caused by subsidence in the gypsum disposal installation.

- Establish a ring drain that collects pore water pressed out from the drainage layer and other run-off, and ensure that this is led off to the water cleaning plant. The ring drain must be designed so that it works for the whole lifetime of the disposal installation. The ring drain must be accessible for inspection and for any necessary improvement measures.

- The company must ensure that polluted water and seepage are collected and dealt with responsibly, even after extreme levels of rain.

- The disposal installation above contour 0 must be designed in such a way that the disposal installation is stable and that rainwater is led off to the ring drain during operations.

- How the above measures and functional requirements are to be met must be documented during internal controls.

3.7 Operating plan

The company must have an updated operating plan showing how the disposal installations are to be used for dumping waste. The plan must:

- include the location of different disposal installations for different types of waste
- describe any sectioning of the disposal installations if this will be environmentally advantageous (for example when dumping sea sediments)
- describe different environmental regimes for different waste types/disposal installations/sections
- include procedures and routines for the receipt, operation, maintenance, inspection and monitoring of the disposal installation in the operating phase in accordance with the requirements in the dumping regulations
- describe how the cleaning plant is run.

Completed (operating plan has been sent to the Norwegian Environment Agency)

3.8 Processing of seepage / pore water

Seepage from the disposal installations must be collected and led to the cleaning plant. The cleaning plant must operate up until the disposal installations have been completed, with final top sealing. Once the disposal installations have been completed with final top sealing and the post-operation phase has begun the cleaning plant and control station for excess water from the disposal installations must be run until the pollution level in the seepage is acceptable and well documented.

When the quality of the seepage / water from the disposal installations is satisfactory the cleaning plant can be taken out of operation and the water can be led direct to the sea, cf. point 14.3.

3.9 Water control

The company shall establish a programme for regular measurement/calculation of seawater that has leached into the south quarry during and after rock removal for the further operating period of the disposal installation.

Completed

3.10 Closure and post-operation

The disposal installations must be finished off once dumping has been completed. The aim of finishing off must be to re-establish Langøya as an outdoor recreation area, recreating the island's natural vegetation and ecology to the extent that is appropriate and environmentally responsible.

The disposal installations at Nordbruddet and Sydbruddet must be finished off with a top seal which fulfils the requirements of the Waste Regulation, chapter 9. A description of the composition of the top seal and of the materials which are to be used must be included in the closure and post-operation plan. The materials which are used above the top membrane must be natural earth, stone and loose materials, provided that these materials have the properties required for the materials in the top seal on the disposal installations.

Polluted materials, as defined in the Pollution Regulation section 2-3, letter a, must not be used in the uppermost part of the top seal.

The top seal must be robust enough to withstand forces caused by weather, wind, climate, settlement and the planned use of the area. Particular notice must be taken of the danger of erosion in the short and the very long term. The top seal must be established in such a way that it does not affect the disposal installation and the squeezing out of pore water in a negative way or contribute to uneven settlement. Further requirements for the top seal will be set when the closure and post-operation plan has been sent to us.

The plans for closure and subsequent use must include the post-operation period after the top seal has been established and until the excess water from the disposal installations is so clean that cleaning is no longer necessary. The company must ensure that there is maintenance, monitoring and control in the post-operation period according to relevant parts of the Waste Regulation, chapter 9 appendix III. The company must describe how post-operation is to be implemented.

At the end of the post-operational phase there must be no discharge in the form of polluted water above the stated criteria (cf. point 14.3), gas, unpleasant odours or other pollution from the disposal installation.

Other areas which have been used for waste processing must be reinstated/cleared in such a way that they are suitable for activities in line with the applicable regulation plan.

Closure and post-operation plans for Nordbruddet and Sydbruddet must be sent to the Norwegian Environmental Agency in good time before the planned completion of dumping. The plan for Nordbruddet must be submitted by **31 December 2014** and the plan for Sydbruddet must be submitted by **31 December 2018**.

3.11 Access control

The disposal installations must be secured to prevent free acess to the site.

4. Discharge to water

4.1 Discharge limits

Processing waste water must be discharged out to sea a minimum of **80** m from land at a minimum depth of 30 m. The distance from land is calculated as the horizontal distance from the shore line at mean water. Where there is shipping traffic, the company must obtain approval in accordance with the Harbours Act. Processing waste water is defined as all water that is discharged from Langøya, with the exception of sanitary waste water and rainwater that is not polluted.

Discharge **Component**	**Discharge limits** Concentration mg/litre (monthly mean, calendar)	Maximum annual discharge kg/year (calendar year)	**Applicable from:**
N (total)	140	73,000	8 July 2014
Total PAH*	0.003	1.5	8 July 2014
PFOS	70**	0.05	8 July 2014
PFOA	20**	0.015	8 July 2014
6:2 FTS	20**	0.015	8 July 2014
As	0.03	15	8 July 2014
Cr (total)	0.03	15	8 July 2014
Ni	0.07	25	8 July 2014
Cd	0.03	8.0	8 July 2014
Pb	0.03	15	8 July 2014
Hg	0.0008	0.40	8 July 2014

* Total PAH based on the US EPA's (United States Environmental Protection Agency) list of 16 PAH substances

** Concentration limit for PFOS, PFOA, 6:2 FTS is ng/litre

(Amended 8 July 2014)

4.2 Analyses

Analyses must be carried out on proportional amounts of daily mixed samples.
EOC1 and PAH must be analysed once a month on the basis of a proportional amount of a daily mixed sample.

Once a month a proportional amount of a daily mixed sample must also be analysed to check for the following compounds:

- PCBs
- halogenated aromatics and phenols
- tin organic compounds
- dioxins.

Cleaned waste water discharged to sea must have a pH ranging from 6.5-10 and turbidity must be measured continually. The company must prepare and set an alarm limit for turbidity in waste water and the measures that are to be implemented if the limit is exceeded. *Completed*

Sampling and analyses shall be carried out in accordance with Norwegian Standard (NS). If other methods are used it must be proven that the method used gives similar results to NS. If required the samples shall be preserved. Samples that are sent for external analysis shall be analysed by accredited laboratories for parameters where accreditation systems are to be found.

All samples and analysis results must be logged and all relevant conditions affecting the samples must be given (e.g. time, place, special weather or production conditions, the person taking the samples, laboratory).

4.3 Waste water containing oil from garages etc

Any waste water containing oil from garages or similar must be cleaned satisfactorily in oil separators or similar cleaning units.

4.4 Surface water

Run-off of surface water from the company's outdoor areas shall be managed in a way that does not cause damage to, or problems for, the environment.

4.5 Sanitary waste water

Sanitation is dimensioned for 30 person equivalents (PE). Sanitation runs to a septic tank with three chambers. The septic tanks are emptied regularly. Overflow runs directly to the sea.

(Amended 8 July 2014)

4.6 Dredging

If, as a result of the company's work, dredging should prove necessary, the necessary permit must be obtained from the pollution authority. Any dredging must be paid for by the company.

4.7 Cleaning nitrogen discharge

Omitted

5. Discharge to air

5.1 Discharge limits

The company must have procedures that ensure that all discharges to air are kept to a minimum and that no discharges occur that can cause harm to people or the environment. Various discharges from production processes and from outdoor areas, such as storage areas, areas for loading and unloading and cleaning facilities, which can cause damage or problems for the environment, must be limited as much as possible.

Examples of conditions to be safeguarded:

- when handling waste the company must implement measures to prevent mercury or volatile organic compounds spreading from the waste.
- discharge to air must be kept at a level low enough not to create any odours in the surrounding area.
- the work must not create any dust problems in the surrounding area.

The following discharge limits apply:

Source of discharge	**Discharge component**	**Discharge limit**	**Denomination**
Point discharge	Dust	25	mg/Nm^J
Point discharge	Hg	0.15	g/hour

The average time for discharge limits is the average daily operating time for the facility. The operating time must be defined in the internal control.

(Amended 8 July 2014)

5.2 Persistent organic pollutants (POPs)

The company must propose a measurement programme and implement this to reveal any evaporation of persistent organic pollutants from the disposal installations.
Completed

6. Testing and substitution of chemicals and raw materials

Here chemicals are taken to mean chemical substances and mixes of substances that are used in the work, including auxiliary chemicals such as detergents, hydraulic fluids, fire fighting substances etc.

For chemicals that are used in a way that may lead to danger of pollution, the company must prove that it has undertaken an assessment of the chemicals' health and environmental characteristics based on testing or other relevant documentation, cf. also point 2.5 on internal control.

The company is required to establish a system for the substitution of chemicals and raw materials. An ongoing assessment must be made of the danger of harmful effects on health and the environment of the chemicals and raw materials that are used, and whether alternatives can be found. Damaging effects linked to production, use and final disposal of the product must be assessed. Where better alternatives can be found, the company is required to use these provided that this can be done without unreasonable costs or problems.[5]

Substances on their own, mixtures of substances and/or products must not be produced, brought into circulation or used unless they are in accordance with the requirements in the REACH legislation.[6]

7. Noise

The company's contribution to external noise for any surrounding houses, hospitals, nursing homes, leisure buildings, education instituions, nurseries and recreation areas must not exceed the following limits, measured or calculated as free-field values at the facade that is most exposed to noise:

Day (07-19 hours)	Evening (19-23 hours)	Night (23-07 hours)	Sunday/holidays (07-23 hours)	Night (23-07 hours)
LpAekvl2h	LpAeq4h	LpAeq8h	LpAeql6h	LA1
55 dB(A)	50 dB(A)	45 dB(A)	50 dB(A)	60 dB(A)

The noise levels apply to all noise from the company's ordinary work, including internal transport in the work area, loading/unloading and possible rock extraction. Noise from building work and from ordinary transport of persons is not covered by the limits.

8. Energy

(Amended 8 July 2014)

8.1 Energy management system

The company must have a system for continuous, systematic and targeted assessment of measures that can be implemented in order to achieve the best possible energy-efficient production and operation. The energy management system must be part of the company's internal control, cf. condition 2.5 and comply with the principles and methods indicated in the Norwegian Standard for energy management.

The energy management system must be established by **31 December 2014**.

[5] Cf. Product Control, Act, 11.06.1979 no. 79 section 3a

[6] Directive on registration, approval and limits on chemicals (REACH), 30 May 2008.

8.2 Utilisation of surplus energy
Not relevant

8.3 Specific energy consumption
Specific energy consumption must be calculated and reported annually, cf. point 12.6.

9. Waste

9.1 General requirements
The company is required, as far as possible without unreasonable costs or disadvantages, to avoid waste being created as a result of its work. In particular the content of harmful substances in the waste must be limited as far as possible.

The company is required to ensure that all handling of waste, including hazardous waste, is done in accordance with current regulations for this as set by or in accordance with the Pollution Act, including the Waste regulation[7].

Inorganic hazardous waste and non-hazardous waste that occurs at the company can be disposed of by NOAH in cases where the company has a treatment solution. Furthermore the waste shall be dealt with in accordance with the waste regulations.

The company does not have permission to burn waste without specific permission from the Norwegian Environment Agency.

10. Financial security

10.1 Financial guarantee/ financial security
The company must have established a satisfactory financial guarantee or other similar security for the disposal installation in order to ensure that the obligations that result from this permit and the waste regulation, including the requirements for necessary measures in the closure and post-operational phase, can be fulfilled. The guarantee/security must be satisfactory even if the company ceases its work or in other ways is not in a position to handle the waste. In this context we refer to the contract between NOAH and the Norwegian Environment Agency of 21 December 2006.

This requirement applies until new financial security for the completion and post-operation of the disposal installations on Langøya has been set up, cf. point 10.2.

(Amended 8 July 2014)

10.2 Financial security for the completion and post-operation of the disposal installations on Langøya

[7] Regulations on the retrieval and treatment of waste, 01.06.2004, no. 930.

By **1 June 2015** NOAH must have set up new financial security for the disposal installations established on Langøya in order to ensure fulfilment of the requirements for the completion and post-operation in this permit and chapter 9 of the Waste regulation on the dumping of waste. Security must be lodged in the form of a bank account which must be pledged to benefit the Norwegian Environment Agency ("Blocked account").

The company must pay funds into the Blocked account which together with the interest earned are sufficient to cover all the costs for the completion of the disposal installations on Langøya and post-operation for a minimum of 30 years.

The size of the sum which must be lodged in "Blocked account", the size of the first deposit and the size of annual payments to the account will be determined when the basis of the financial security for the completion and post-operation of the disposal installations on Langøya has been approved by the Norwegian Environment Agency, cf. point 14.4.

All interest earned on funds lodged must be credited to Blocked account. Deposits and withdrawals, the balance and interest earned on Blocked account must be reported and documented annually to the Norwegian Environment Agency by an updated statement of account being appended to the company's self-check reporting.

Following approval by the Norwegian Environment Agency parts of the security may be lodged in the form of stone materials for completing the disposal installations. Stone materials which have been allocated for the completion and post-operation of the disposal installations on Langøya cannot be removed from Langøya or sold. This obligation must be registered as a liability on the property in order to ensure that the stone materials are used to complete the disposal installations. The company must at least every five years, or more frequently if required to do so by the Norwegian Environment Agency, assess whether the security is sufficient to cover the costs of completion and post-operation. When the assessment has been conducted it must be reported to the Norwegian Environment Agency in association with the company's self-reporting. If the operating period is changed the Norwegian Environment Agency must be informed immediately. The Norwegian Environment Agency reserves the right to change the size of the Annual deposit if new information or other conditions indicate that this is required. The Norwegian Environment Agency may also set requirements for additional security. If the Norwegian Environment Agency has any objections to the company's calculation of the size of the Annual deposit the Norwegian Environment Agency must notify the company about this and give the company an opportunity to comment.

All payments made from the Blocked account must be approved by the Norwegian Environment Agency. At the end of each calendar year the company can request that a sum corresponding to the documented costs incurred by the company for the completion and post-operation of the disposal installations on Langøya according to the applicable plan for completion and post-operation be paid out from the Blocked account. The Norwegian Environment Agency must pay out to the company within this framework. If the costs have been higher than forecast the Norwegian Environment Agency can reduce the payment in order to ensure sufficient financial security for the remainder of the post-

operation period. In such cases the Norwegian Environment Agency must notify the company and give the company the opportunity to comment.

When the post-operation period expires after 30 years the pollution authority will conduct an assessment of the pollution situation at the disposal installations on Langøya. If conditions are found to be satisfactory any funds which have not been used for the completion or post-operation of the disposal installations must be returned to the company.

Filling above contour -5 m cannot begin before security for completion and post-operation has been lodged in line with the requirements in the permit.

(Amended 8 July 2014)

10.3 Financial security for the storage of hazardous waste

From **31 December 2014** inclusive NOAH must have lodged financial security for the costs of handling all hazardous waste which has been stored at NOAH's facilities in case of closure, stoppage or payment problems.

Ths security must cover the maximum costs which may be envisaged to arise, seen in the light of which types and volumes of hazardous waste are stored at the facility. Security must take the form of an unconditional rolling claim guarantee from the bank, issued to the Norwegian Environment Agency with a guarantee sum corresponding to this sum. The guarantee must be drawn up in line with the Norwegian Environment Agency's template. For hazardous waste imported from Denmark an unconditional rolling claim guarantee from a bank issued to the Danish Environmental Protection Agency in Denmark in line with arrangement 1013/2006 article X is accepted as financial security for this waste.

NOAH has calculated the guarantee sum for Norwegian hazardous waste and imported hazardous waste from all countries other than Denmark to be NOK 10,500,000, cf. letter of 9 April 2014.

The company must assess whether the security is sufficient every five years or more frequently if required by the Norwegian Environment Agency. When the assessment is conducted it must be reported to the Norwegian Environment Agency in association with the company's self-reporting.

(Amended 8 July 2014)

11. Preventative and contingency measures for acute pollution

11.1 Environmental risk analysis

The company must carry out an environmental risk analysis of its work. The company must assess the results in relation to acceptable environmental risk. Potential sources of acute pollution of water, land and air must be charted. The environmental risk analysis must be documented and cover all situations at the works that can lead to acute pollution with danger to health and/or environmental damage within the company's area or beyond. The environmental risk analysis must be updated in the event of modifications and altered operating conditions.

The company must have an overview of the environmental resources that can be affected by acute pollution and the health and environmental consequences that such pollution may entail.

11.2 Preventative measures

On the basis of the environmental risk analysis, the company will implement risk-reducing measures. Both probability-reducing measures and consequence-reducing measures must be assessed. The company must have an updated overview of the preventative measures.

11.3 Establishing contingency measures

The company falls under the Major accident regulation. It must, on the basis of the environmental risk analysis and the implemented risk-reducing measures, carry out a contingency analysis and establish and maintain the necessary contingency plans for acute pollution. The contingency plan must be adapted to the environmental risk that the work represents at any time.

Contingency plans must be documented. As a minimum the contingency plan must contain:

- verifiable targets
- defined danger and accident situations (accident scenarios)
- routines for measures if the danger and accident situations involve reconfiguration of personnel and their skills, personal protection equipment, input material and response times
- a description of contingency cooperation with external parties
- a description of practice exercises.

Contingency plans for acute pollution must be practised at least once a year. The practice must be done in line with the fixed targets for contingency.

11.4 Warning of acute pollution

Warnings of acute pollution or the danger of acute pollution must be given in accordance with the current regulations[8]. The company must also inform the Norwegian Environment Agency in such cases as soon as possible.

11.5 Reporting in relation to the requirement for contingency plans

The company must report on the status and development of contingency plans in the event of acute pollution using standard forms that are sent out annually by the Norwegian Environment Agency. Reporting must be done in accordance with the Norwegian Environment Agency's guidelines on companies' self-reporting, see www.miljodirektoratet.no.

The Norwegian Environment Agency assumes that the company can present more detailed documentation, for example at inspection, about the company's activities linked to the environmental risk analysis, the preventative measures and contingency plans.

12. Discharge control and reporting to the Norwegian Environment Agency

12.1 Discharge control

The company must carry out measurements and calculations of discharges to air and water as well as noise to the surroundings. Measurements cover flux measurements, sampling, analysis and calculations.

Measurements and calculations must be carried out so that they are representative of the work's actual discharges and should cover, as a minimum:

- components that are expressly regulated through limit values in this permit or regulations or guidelines on monitoring of seepage water from waste disposal installations (TA 2077/2005)
- the following components which will normally be present in discharge water from the company: cyanide, EOCI, and the PAH substances: benzo(b)fluoranthene, benzo(k)fuouranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, anthracene, fluoranthene, benzo(ghi)perylene and dibenzo(a,h)anthracene, plus the PFASs: PFBA, PFPeA and PFHxA.
- other components that are covered by the reporting requirement in accordance with the guidelines from the Norwegian Environment Agency for companies' self-reporting. The guidelines can be found at www.miljodirektoratet.no.

The company must have a measurement programme that is included in the company's internal control. The measurement programme must be updated by 1 January 2012. *Completed*

(Amended 18 November 2011 and 8 July 2014)

[8] Regulations on warning of acute pollution or the danger of acute pollution, 09.07.1992, no. 1269

12.2 Measurement programme

When the company develops the measurement programme, it must:

- select sampling frequencies that give representative samples
- assess the contribution to uncertainty at the different stages of the measurements (flux measurement - sampling - analysis - calculations) and choose solutions that reduce the overall uncertainty to an acceptable level.

The measurement programme must describe the different stages in the measurements and justify the methods selected. The selected frequency for third-party control and for participation in ring tests must also be shown in the measurement programme. The measurement programme must indicate the uncertainty caused by the different stages.

(Amended 18 November 2011)

12.3 Quality assurance of the measurements

The company is responsible for ensuring that methods and implementation are appropriately quality-assured, including:

- carrying out measurements to a Norwegian standard. If this cannot be found, an international standard can be used. The Norwegian Environment Agency may also accept the use of other methods if specific conditions require this
- the use of accredited laboratories/services when sampling and analysis are done by external parties. The service provider must be accredited for the actual service

- participation in ring tests for the parameters that are regulated through limit values when the company does its own analyses
- verification of its own measurements using third-party control for the parameters that are regulated through limit values

(Amended 18 November 2011)

12.4 Keeping a journal

The company must keep a journal of hazardous-waste activities in which all required information for the reception, storage, handling and onward supply of hazardous materials is recorded. The journal must be easily accessible on inspection. It must be retained for at least 3 years. The Norwegian Environment Agency may require the company to send copies or summaries of journals to the pollution authorities or others decided by the authorities.

The company must ensure that a journal of additional sampling is kept. The journal and copies of reports on analyses must be retained for at least 3 years.

(Amended 8 July 2014)

12.5 Overview of waste

The company must produce an overview of waste every year which gives an account of volumes and types of hazardous waste and non-hazardous waste which have been:

- received
- processed
- sent on
- stored on the company's area at the end of the year (31 December)

This overview of waste is now part of the annual self-check reporting to the Norwegian Environment Agency. See also point 12.6.

(Amended 8 July 2014)

12.6 Reporting to the Norwegian Environment Agency

The company must report annual total discharges to the atmosphere, water and noise to the surrounding area by 1 March of the year after the year of discharge via www.altinn.no. The types and volumes of waste which are dumped, energy control and results from the monitoring programme (ref. section 9-13 of the Waste regulation) must also be reported. Reporting must take place according to the Norwegian Environment Agency's guidance for companies' self-reporting, see www.miljodirektoratet.no, and must cover the parameters set out in points 4, 5, 7 and 8 above.

In association with reporting discharge data to the Norwegian Environment Agency the company must indicate and comment on the uncertainty in the data material. Any deviations from applicable regulations and how deviations are followed up on must also be reported.

13. Monitoring in bodies of water and reporting to the Norwegian Environment Agency

The company must monitor how discharges from operations affect the environmental and/or chemical condition of bodies of water. Rolling monitoring must take place, where the interval for monitoring is set after the company has performed monitoring once.

Monitoring must be performed according to the provisions of the Water regulation. Monitoring must illuminate the effects of ongoing and previous discharges from the company. The affect of discharges from active disposal installations must also be monitored. The monitoring must illuminate the company's contribution to the overall condition of bodies of water.

The following elements must be monitored, if relevant:

1. Monitoring of **environmental conditions** (for discharges of organic materials, nutrient salts, suspended matter, toxic metals, for example copper) must include mapping of plant and animal communities (biological quality elements), i.e. the composition of species and volumes at community level. In addition relevant chemical parameters and physical-chemical support elements must be monitored.

If there is a type of effect (affecting eutrophy, oxygen consuming, acidifying/alkalising or creating sludge) then you must find the most sensitive quality element (plant plankton, fixed plants, bottom dweller or fish). If there is more than one type of effect you will probably have to measure using several biological quality elements.

Physical-chemical support elements are the substances which affect environmental conditions as stated above. You must measure these directly in the water phase. Physical-chemical support elements also cover temperature, oxygen conditions, conductivity, cf. the Water regulation's appendix V.

If the company has discharges of environmental toxins (so-called water region-specific substances), for example copper, chrome, zinc, PCB, which are **not** on the list of the EU-prioritised substances listed in the Water regulation's appendix VIII (45 prioritised environmental toxins) you must conduct measurements of the substances which you have discharges of in association with environmental condition. Depending on the substance you must measure it at the water phase, in biosamples and/or in sediment.

2. Monitoring of **chemical conditions** must cover the content/concentrations of EU-prioritised substances (cf. the Water regulation, appendix VIII [45 prioritised environmental toxins]) which the company has or may have discharges of and which may be of environmental significance. The substances which you have discharges of must be measured in water, biosamples and/or in sediments.

The monitoring programme must be drawn up in partnership with the necessary professional expertise, and the supervision must also be performed by independent professional expertise. It must follow the recommendations made in the Water regulation's monitoring guide (guide 02:2009 "Overvåkning av miljøtilstand i vann" ["Monitoring environmental conditions in water"]). The location of sampling points and the reasons for their locations, which substances will be analysed plus the intervals for sampling must be described in the programme. Reasons must also be stated for how and in which media (biosamples, sediments, etc.) the study will be conducted.

Data which are obtained from water monitoring, including sediments and biosamples, must be registered in the Vannmiljø ["Aquatic environment"] database (http://vannmiljo.miljodirektoratet.no/). Data are reported in Vannmiljø's import format: http://vannmiljokoder.miljodirektoratet.no . Import templates and an overview of what information must be registered according to Vannmiljø's code can be found here.

Requirement	**Deadline**
Submit proposed programme for water monitoring to the Norwegian Environment Agency for comment	01.10.2014
Have a monitoring programme in place	01.03.2015
Have implemented the monitoring programme	31.12.2015
Submit the results of the monitoring to the Norwegian Environment Agency	01.03.2016

When the results of the monitoring for 2015 are available the frequency/intervals of further monitoring must be assessed. This assessment must be sent to the Norwegian Environment Agency with the results of the monitoring.

(Amended 8 July 2014)

14. Studies and investigations

14.1 Establishing a system for processing water when dumping above contour 0 in Sydbruddet

When the disposal installation at Sydbruddet exceeds a certain height, most recently at contour 0, a new system must be established for collecting excess water which must ensure that the water level in the ring drain is kept below contour 0. The system must handle water which accumulates in the disposal installations via rain and waste. The positioning, design and capacity of the most important system components must be clarified in good time before filling above contour 0 in Sydbruddet begins. Documentation which describes the solution must be sent to the Norwegian Environment Agency, with a deadline of 1 year before filling above contour 0 begins.

An assessment must be conducted of what storage capacity is required to handle water which accumulates in the disposal installations via rain and waste in the various phases of the filling of Sydbruddet. The assessment must be conducted before **31 December 2016.**

(Amended 8 July 2014)

14.2 Assessment of non-hazardous waste for Sydbruddet

NOAH must assess which fractions of non-hazardous waste can be dumped in the disposal installation for non-hazardous waste at Sydbruddet, and which fractions of non-hazardous waste can be used for building roads, dams and similar in the disposal installation for hazardous waste at Sydbruddet without this having a negative affect on the underlying disposal installation and the waste which is dumped in the disposal installation for hazardous waste at Sydbruddet respectively. The assessment must cover drawing up criteria for what can be put in the disposal installation plus a description of reception checks on the waste that can be deposited there.

Assessments of waste for the non-hazardous disposal installation at Sydbruddet and of non-hazardous waste which can be used as building materials in the disposal installation for hazardous waste at Sydbruddet must be conducted and sent to the Norwegian Environment Agency for assessment by **31 December 2014.**

(Amended 8 July 2014)

14.3 Establish criteria for when seepage can be released directly into the sea

Seepage from the disposal installations must be collected and fed to the cleaning facility until the pollution level in the seepage falls to a level which is acceptable for release

directly into the sea. Assessments must be conducted which are linked to both the concentration of metals in the discharges and the volume discharged per year. Criteria must be established for when seepage can be released directly into the sea. The criteria must be sent to us for assesment. The criteria must be sent to us by **31 December 2014.**

(Amended 8 July 2014)

14.4 Produce documentation for financial security for the completion and post-operation of the disposal installations on Langøya

As a result of the changed completion of Sydbruddet a new assessment must be conducted of the financial security for the completion and post-operation of the disposal installations on Langøya.

Financial security must be established for the completion and post-operation of the disposal installations on Langøya. A draft of the account-pledge agreement with appendices in line with the Norwegian Environment Agency's template and basis for calculating the guarantee must be sent to the Norwegian Environment Agency for approval. Indications of the total sum and which calculations and documentation form the basis for the sum indicated in the financial security pledge must be attached.

The deadline for sending to the Norwegian Environment Agency is **31 December 2014.**

(Amended 8 July 2014)

14.5 Cleaning solutions and reducing PFAS

NOAH must investigate possible cleaning solutions for reducing discharges of PFAS from the cleaning facility to the recipient. The description must describe how much the discharge of PFAS can be reduced by with and without cleaning, various cleaning techniques and costs for the various solutions. The investigation must include a conclusion with a timetable for the solution which NOAH assesses to be best.

NOAH must obtain further information about discharges of PFAS from the cleaning facility in parallel to the work to investigate cleaning solutions to reduce discharges of PFAS from the cleaning facility to the recipient. Sufficient samples must be taken of waste arriving at the facility, seepage from the disposal installations and discharge from the cleaning facility to determine the size of the discharge of PFAS from Langøya.

The deadline for this is set as **30 September 2015.**

(Amended 8 July 2014)

14.6 Reducing Cd in discharge

NOAH must investigate how much the discharge of cadmium can be reduced by by optimising the operation of the cleaning unit.

The deadline for this is set as **31 December 2015**.

(Amended 8 July 2014)

14.7 Reporting PAH 16 (US EPA)

The discharge limit for PAH has been changed to cover PAH 16 according to the US EPA. NOAH must send in historical discharge data going back to 1990 for naphthalene and PAH 16 (US EPA).

The deadline for this is set as **31 December 2014**.

(Amended 8 July 2014)

15. Replacing equipment

If replacement of equipment is to be carried out at the site that makes it technically possible to mitigate pollution in a significantly better way than when the permit was granted, the Norwegian Environment Agency should be advised of this in advance.

All replacement of equipment must be based on the use of the best available techniques with a view to mitigating pollution.

16. Change of ownership

If the company responsible for operations is transferred to a new owner or acquires a new owner who has decisive influence over the company this must be reported to the Norwegian Environment Agency as soon as possible and at the latest one month after the change of ownership. A change of ownership does not mean any change/annulment in the security lodged by the company and/or the security lodged by a third party, including bank guarantee. On application by the company responsible for operations, owner or possible future owner the Norwegian Environment Agency can approve changes/exchange of guarantees and security pledged by the owner and/or bank, provided it is documented that this will provide satisfactory security.

If the company responsible for operations is to merge, demerge/split or be changed in some other way or the company is to transfer its polluting operations to a new responsible company this must be reported to the Norwegian Environment Agency. A new company responsible for operations may not operate according to the permit before the Norwegian Environment Agency has received and approved satisfactory new financial security from the new company responsible for operations. The previous company responsible for operations is responsible according to the permit until such approval has been granted.

(Amended 8 July 2014)

17. Closure

If the plant is closed down or if the work stops for a long period, the owner or the user must do whatever is necessary at the time to prevent the danger of pollution. If the plant or the work can lead to pollution occurring after the closure or stoppage, this must be notified to the Norwegian Environment Agency in good time in advance.

The Norwegian Environment Agency can specify the measures that are necessary to counteract pollution. The Norwegian Environment Agency can require the owner or the user to provide a guarantee to cover future costs and possible compensation liability. Security/guarantee already provided according to the permit runs on until the Norwegian Environment Agency approves a reduction and/or annulment of such security following an application by the company responsible for operations or the owner.

In the event of closure or stoppage, the company must ensure that waste, raw materials, processing aids, semi-manufactured or manufactured goods, production equipment and the actual disposal installations are dealt with in a responsible way. The measures taken in this context must be reported to the Norwegian Environment Agency within three months of closure or stoppage. The report must also contain documentation of the disposal of waste, left-over chemicals and unused chemicals and the name of any purchaser(s).

If an activity is discontinued the person responsible must ensure that the operations site is returned to an environmentally satisfactory condition.

If the work is to be restarted, this must be reported to the Norwegian Environment Agency in good time before the planned start-up date.

(Amended 8 July 2014)

18. Inspection

The company is required to allow representatives of the pollution authorities or persons authorised by them to carry out inspection of the facilities at any time.

APPENDIX A

List of prioritised substances, cf. point 2.1.

(Amended 8 July 2014)

The discharge of these components is only covered by the permit if it is expressly covered in the terms and conditions in point 3 onwards, or it is so small that it must be deemed to be without environmental significance.

Metals and metal compounds

	Abbreviations
Arsenic and arsenic compounds	As and As compounds
Lead and lead compounds	Pb and Pb compounds
Cadmium and cadmium compounds	Cd and Cd compounds
Chrome and chrome compounds	Cr and Cr compounds
Mercury and mercury compounds	Hg and Hg compounds

Organic compounds:

	Standard abbreviations
Brominated flame retardants	
Pentabromodiphenyl ether (diphenyl ether, pentabromo derivative)	Penta-BDE
Octa-bromide phenyl ether (diphenyl ether, octabromide derivative)	Octa-BDE, octa-BDE
Deca-bromide phenyl ether (bis(penta bromide phenyl)ether)	Deca-BDE, deca-BDE
Hexabromocyclododecane	HBCDD
Tetrabromobisphenol A (2.2',6,6'-tetrabromo-4,4' isopropyliden diphenol)	TBBPA
Chlorine-containing organic compounds	
1.2-Dicloretan	EDC
Chlorinated dioxins and furans	Dioxins, PCDD/PCDF
Hexachlorobenzene	HCB
Short chain chlorinated paraffin C_{10}- C_{13} (polychlorinated alkanes C_{10} – C_{13})	SCCP
Medium chain chlorinated paraffin C_{14} – C_{17} (polychlorinated alkanes C_{14} – C_{17})	MCCP
Chlorinated alkyl benzenes	CAB
Pentachlorophenol	PCF, PCP
Polychlorinated Biphenyls	PCB
Surfactants:	
Ditalg-Dimethyl-Ammoniumchloride	DTDMAC
Dimethyl dioctadecyl ammonium chloride	DSDMAC
Di(hydrogenated talg)dimethyl ammonium chloride	DHTMAC
Trichlorobenzene	TCB
Tetrachlorethylene	PER
Trichloroethylene	TRI
Triclosan (2,4,4'-trichloro-2'-hydroxydiphenyl ether)	
Tris(2-chloroethyl) phosphate	
Nitromusk compounds:	
Musk xylene	
Musk ketone	
Alkaline phenols and alkaline phenol oxalates:	
Nonylphenol and nonylphenol ethoxylates	NF, NP, NFE, NPE

Octylephenol and octylephenol silcates	OF, OP, OFE, OPE
Dodecylphenol with isomers	
2-4-6 tri-tert butylphenol	

Perfluorinated organic compounds (PFCs)	
Perfluorinated octane sulphate (PFOS) and compounds that contain PFOS	PFOS, PFOS-related compounds
Long-chain perfluorinated carboxylic acids	
Perfluorooctanoic acid	PFOA
C-9-PFCA – C14-PFCA	PFNA, PFDA, PFUnDA, PFDoDA, PFTrDA, PFTeDA
Tin organic compounds:	
Tributyltin	TBT
Triphenyltin	TFT, TPT
Polycyclic aromatic hydrocarbons	PAH
Diethyl hexyl sulphate (bis(2-ethylhexyl)phthalate	DEHP
Bisphenol A	BPA
Siloxanes	
Decamethylcyclopentasiloxane	D5
Octamethylcyclopentasiloxane	D4