
093 – Recommended guidelines for waste management in the offshore industry

FOREWORD

These guidelines are recommended by Offshore Norge's work group on waste management and has been approved by Offshore Norge's forum for climate and the environment.

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These Offshore Norge guidelines were prepared in collaboration with a broad range of participants from the Norwegian oil and gas industry, and are owned by the Norwegian oil and gas industry, represented by Offshore Norge. Administration has been assigned to Offshore Norge.

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1 INTRODUCTION

1.1 Objectives

These guidelines have been prepared to meet the industry's need for a common waste management standard.

The main objectives have been to:

- Incorporate a shared interpretation of regulations and definitions; understanding of waste prevention and use of waste categories to enable effective waste management; improve the quality of external and internal reports; and enable comparisons between Offshore Norge member companies, as well as with other domestic industries.
- Facilitate an improved and more chemically precise classification of hazardous waste from the offshore sector.

These guidelines apply for activities associated with exploration and production offshore. They do not cover the following:

- Refineries
- Decommissioned offshore installations
- Health and work environment aspects when handling radioactive waste
- Discharges to sea, which are covered by the operators' discharge permits
- Waste management after oil spill preparedness exercises

1.2 Terminology, definitions and abbreviations

Waste	"The term waste means movable property or substances that have been discarded, will be discarded or which are subject to discarding requirements. Waste water and exhaust gases are not considered to be waste." (Pollution Control Act)
ADR	European Agreement/Code concerning the International Carriage of Dangerous Goods by Road
Waste management	Generic term for reception, interim storage, treatment and other handling of waste
Waste control	All activities related to handling, managing and administration of waste
BAT	Best Available Technique
BEP	Best Environmental Practice
Mud slop	Liquid drilling waste with a low content of particles and oil
Bq	Becquerel: unit describing the activity of radioactive material, equal to the number of disintegrations or decayed particles per second in a certain substance volume
CoF/INLS	Certificate of Fitness/International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk
DSA	Norwegian Radiation and Nuclear Safety Authority
LoW/EWL / EWC	List of Waste/European Waste List / European Waste Codes (EWC)
EEE	Electric and Electronic Equipment (WEEE – Waste of EEE)
Energy utilisation rate	Utilising the waste's energy through incineration, pyrolysis or similar
Hazardous waste	Waste classified as hazardous based on Section 11-2 of the Waste Regulations, based on provisions in Chapter 11 of the Waste Regulations, appendices 1 and 2, with reference to EWL codes marked with asterisk or where the concentration of hazardous substances exceeds limit values

issued in a separate appendix to Chapter 11 of the Regulations

Dangerous goods	Dangerous goods are - according to ADR/RID, "those substances and articles the carriage of which is prohibited by ADR, or authorized only under the conditions prescribed therein" (ADR Ch. 1.2.1), and - according to IMDG, "the substances, materials and articles covered by the IMDG Code" (IMDG, 1.1.2.1, with reference to SOLAS, CH VII, Regulation 1 Definitions)
Recovery	Recovery is a common term for all types of waste disposal that utilise waste as a replacement for new materials or resources. This recovery can take place in the form of reuse, material recovery and energy utilisation.
Degree of recovery	Amount of recovered waste compared with the amount of delivered waste
G-OMO	Guidelines for Offshore Maritime Operations
Havtil	Norwegian Ocean Industry Authority
HSE	Health, safety and the environment
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
Non-hazardous waste	Waste that is not covered by Chapter 11 of the Waste Regulations, Section 11-2
IMDG	International Marine Dangerous Goods (covers the transport of dangerous goods by sea)
IMO	International Maritime Organization
Sealed radioactive source	Radioactive substance sealed in a capsule in order to prevent the radioactive substance from leaking to the surroundings. (Section 4 (m) of the Radiation Protection Regulations).
MARPOL	International Convention for the Prevention of Pollution from Ships
NFFA	Norwegian Association for Hazardous Waste (trade organisation for hazardous waste companies)
NORM	Naturally Occurring Radioactive Materials
Operator	Licensee in a production licence
PL	Production licence for petroleum
Radioactive waste	"Waste as defined in Section 2 (c) of Regulation No. 1394 of 1 November 2010 relating to the Pollution Control Act's application for radioactive pollution and radioactive waste." (Waste Regulations).
Radioactive source	radiation source containing a radioactive substance, i.e. a substance that emits alpha, beta, gamma or neutron radiation (Section 4 (q) of the Radiation Protection Regulations)
SoDir	Norwegian Offshore Directorate
Degree of sorting	Amount of sorted waste compared with the amount of delivered waste
RID	European Agreement/Code concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations

1.3 References

- Activities Regulations: Regulations relating to conducting petroleum activities (FOR-2010-04-29-613)
- Waste Regulations: Regulations relating to the recovery and treatment of waste (FOR-2004-06-01-930)
- The Norwegian Radiation and Nuclear Safety Authority's (DSA's) Guideline No.13: Guideline for radioactive pollution and radioactive waste from the oil and gas industry
- European Chemicals Agency (ECHA) database C&L Inventory for classification & labelling
- Regulations relating to the handling of explosive material (FOR-2002-06-26-922)
- Regulations relating to ground transport of dangerous goods (FOR-2009-04-01-384) and the ADR Manual
- Regulations relating to offloading, loading, storage and transport within the municipal maritime boundary and ports within the same area of hazardous substances and goods (FOR-2009-12-15-1543)
- Radioactive Pollution and Waste Regulations: Regulations relating to the application of the Pollution Control Act to radioactive pollution and radioactive waste (FOR-2010-11-01-1394)
- Regulations relating to infectious waste from human and animal health services (FOR-2005-10-11-1196)
- Pollution Regulations: Regulations relating to pollution control (FOR-2004-06-01-931)
- Pollution Control Act: Act relating to protection against pollution and relating to waste (LOV-1981-03-136)
- G-OMO: Guidelines for Offshore Maritime Operation
- IMDG Code: International Maritime Dangerous Goods Code
- Norwegian Environment Agency's TA2684 - Norwegian action plan for reducing emissions and discharges of mercury - 2010
- NFFA Guideline: "Hva gjør avfall farlig?" (what makes waste hazardous?) Guidelines with appendices prepared by NFFA and Forum for miljøkartlegging og -sanering (Norwegian forum for environmental mapping and remediation)
- NFFA Guideline: Deklarasjon og transport av farlig avfall på vei (declaration and transport of hazardous waste by road)
- NORSOK S-003: Environmental care
- Offshore Norge Guideline 132: Offshore Norge - Recommended guidelines for handling mercury
- Product Control Act: Act relating to the control of products and consumer services (LOV-1976-06-11-79)
- Radiation Protection Regulations: Regulations relating to radiation protection and use of radiation (FOR-2010-10-29-1380)
- Guide to characterisation and recipient control of waste for disposal (Norwegian Recycling and Circular Economy Organisation, Federation of Norwegian Industries, Norwegian Association of

Heavy Equipment Contractors - MEF)

2 REVISION HISTORY

2.1 Summary

Revision 4 in 2024 includes changes to the Guideline and Appendix 1. No changes have been made in Appendices 2-5:

- New sorting requirements
- New and changed definitions
- Changed structure of Appendix 1
- A few minor corrections

The entire Guideline and all appendices were subject to an extensive revision in 2012. A few minor changes were made in January 2014.

A new revision was undertaken in 2018. The background for this revision was the introduction of an electronic system for declaring hazardous waste, but this revision also led to the following changes to the Guideline and appendices:

- Guideline:
 - o Update concerning the authorities' goal (3.1)
 - o Requirements regarding waste management and waste management plans (3.8)
 - o Producer responsibility requirements - membership in producer responsibility organisations (3.9)
 - o Chapter 5 on classification and labelling. In addition to the part on electronic declaration (5.4.2), the chapter has been updated e.g. as follows:
 - Definition update (5.1)
 - Specification of delivery requirements (5.4)
 - Classification of hazardous waste (5.4.1)
 - Export (5.4.4)
 - o New sub-chapter on the choice of load carrier (5.7.4)
 - o Description of non-conformities and corrections (5.10)
 - o Update concerning reporting, particularly associated with tank cleaning waste (6.3)
- Appendix 1:
 - o Updated description of limit values for hazardous waste, with associated tables
 - o New section on demolition waste
 - o Updated section on blasting sand
 - o Updated description of drilling waste
 - o New section on gas-emitting waste, as well as a section on waste following offshore slop cleaning
 - o Updated section on tank cleaning waste
 - o A few minor adjustments and clarifications
- Appendix 2: the classification table has been split into two appendices as different groups of personnel will be using the content; 2a (table for classification of hazardous and radioactive waste) and 2b (table for classification of tank cleaning waste):
 - o Tank cleaning waste is moved to its own appendix along with a few extra fraction lines
 - o Fraction lines for non-hazardous waste removed from the table
 - o Changed classification of water-based waste

- Added a few fraction lines for drilling-related waste
 - Added fraction lines for waste from P&A activities
 - Added more fraction lines for lab waste, as well as a few other fraction lines
 - Some EWL codes has been substituted to ensure all EWL codes for hazardous waste are ones with an asterix (defines hazardous waste)
 - Changed proposed transport classification for a few types of waste
- Appendix 3:
 - Re-wrote the entire document following the introduction of electronic declaration of hazardous and radioactive waste
- Appendix 4:
 - Replaced example of hard copy of earlier declaration form with screenshot of example of electronic declaration
- Appendix 5:
 - No changes

3 AUTHORITY OBJECTIVES AND FRAMEWORK CONDITIONS

3.1 Authority objectives

The authorities' objectives and expectations for waste management are expressed in white papers (most recently Report No. 45 to the Storting (2016/2017)). The overarching national strategic goal for efforts involving waste and recovery is expressed as follows: *"...that waste shall cause the least possible harm to humans and the natural environment."* This white paper emphasises waste as a resource and does not substantially address the areas of hazardous and radioactive waste, where the number one priority is safe waste management. Norwegian waste policy has generally been focused on prudent waste management, but the focus has shifted in recent years toward waste prevention. In addition to focusing on waste reduction and resource utilisation, a strategy has also been established for marine plastic pollution and the spread of microplastics. The following goals have been stipulated regarding waste and recovery:

Performance measure 1

It is also a goal to ensure that the growth in the volume of generated waste is considerably lower than the economic growth, as measured by GDP.

Performance measure 2

It is furthermore a goal to ensure that 80 per cent of the waste is subject to sound resource utilisation through material recovery and energy utilisation.

Performance measure 3

The volumes of hazardous waste shall be reduced, and the hazardous waste shall be handled in a prudent manner.

There has been increasing attention aimed at utilising the resources in the waste, not least associated with the development of a circular economy. Ever more ambitious goals are also being set for the area through the EU's waste regulations. This shift from recovery in general to material recovery in particular is not currently reflected in the national objectives for the area. The Government will therefore study the consequences of supplementing the national objective for recovery with separate goals for material recovery that reflect goals in the EU's waste regulations. This study will take a point of departure in balancing considerations for the environment, resources and financial aspects, including costs.

3.2 Legal basis

The Pollution Control Act establishes ground rules for all offshore activities as regards storing/warehousing, handling, classification, labelling and transportation of waste, including hazardous and radioactive waste. The HSE regulations also provide a framework for how the offshore sector shall comply with regulatory requirements associated with safety, working environment and protecting the external environment.

The Norwegian Environment Agency uses the Norwegian term "levere med befriende virkning", "deliver with discharge from liability, for hazardous waste deliveries. This means that the waste producer is no longer responsible for the waste, provided the waste producer has fulfilled its compulsory waste declaration (according to Section 11-12 of the Waste Regulations) and delivered the waste to a licensed waste facility (according to Sections 11-6 and 11-7 of the Waste Regulations). The declaration obligation is considered to be fulfilled when the enterprise delivering hazardous waste has provided adequate information about the origin, content and properties of the waste, so that further waste management can take place in a prudent manner. Documentation for this shall be presented upon request. Relevant documentation will be the declaration, manifest or an annual report.

Non-hazardous waste shall also be delivered to licensed waste facilities unless it is recovered or reused in accordance with Section 32 of the Pollution Control Act. In this context, a licensed waste facility is a facility with a permit pursuant to Section 29 of the Pollution Control Act. The expression "deliver with

discharge of liability" can also be used here if the waste has been delivered in accordance with the regulations.

The operator is required to ensure that all waste management, including that of hazardous waste, takes place in compliance with prevailing regulations as stipulated in or in pursuance of the Pollution Control Act, including the Waste Regulations.

Chapter 11 of the Waste Regulations on hazardous waste and Chapter 16 on radioactive waste establish ground rules for delivery obligations, handling, storage, declaration and labelling, etc., of hazardous and radioactive waste.

Chapter 10A of the Waste Regulations concerning sorting and material recovery of certain types of waste establishes ground rules for what needs to be sorted out at the source. This chapter of the Regulations was implemented in January 2023 and for example, as of the date of these Guidelines, food waste and recyclable plastic waste shall be sorted out for material recovery.

The Norwegian Environment Agency published [guidelines](#) on enterprises' duty to sort waste in August 2023:

- The current sorting of plastic waste is considered to be sufficient to fulfil the new requirements. Monitoring and reporting volumes of plastic waste pursuant to Section 10a-8 is considered to be fulfilled through reporting and monitoring in line with Chapter 6 of these guidelines.
- The current practice of discharging ground food waste is considered to be in line with the requirements regarding lawful pollution as described in Section 8 of the Pollution Control Act and the Guidelines for Section 34 of the Management Regulations. This is because such pollution does not entail a significant disadvantage and can therefore take place without a permit. Regulation 5 of MARPOL Annex V expressly stipulates that ground food waste can be discharged from both fixed and floating platforms, in addition to ships, when this discharge occurs more than 12 nautical miles from shore and fulfils the requirement of a maximum particle size of 25 mm. This practice also satisfies the criteria for "ordinary pollution" as described in the Guidelines for Section 34 of the Management Regulations, which states that discharges that do not entail a significant disadvantage, e.g. sanitary waste water, can be considered to be ordinary pollution and thereby permitted without a special permit.

As of 1 January 2025, the regulatory requirement also includes other types of waste: Glass/metal packaging, textiles and corrugated cardboard/paper. The existing practice of sorting glass/metal packaging and corrugated cardboard/paper is expected to be sufficient to safeguard the regulatory requirement. However, it is important to be aware of the requirement to sort out and deliver textiles as a separate fraction; see also Appendix 1.

Section 72 of the Activities Regulations refers to the prohibition against discarding solid waste overboard. It also refers to the possibility of adding waste oil to the production flow, as well as permit requirements for doing this pursuant to Chapter 3 of the Pollution Control Act. Such disposal shall be recorded in accordance with issued permits.

3.3 Authority

The entire offshore industry is subject to conditions aimed to ensure that the external environment is protected in petroleum activities. These conditions are either established through regulations, consents granted by Havtil, discharge permits from the Norwegian Environment Agency or permits from the Norwegian Radiation and Nuclear Safety Authority (DSA). Companies handling this waste shall have the relevant permits to carry out services such as reception, storage and treatment. A permit is not required to transport the waste, but the transporter is subject to competence requirements. The Norwegian Environment Agency is the supervisory authority for waste and hazardous waste when such waste is aboard an installation. The county governor (reception and interim storage) or the Norwegian Environment Agency (treatment) are responsible for the supervision of activities carried out onshore. The municipal medical officer is the supervisory authority for infectious waste when such

waste is handled onshore. The DSA is the supervisory authority for all waste with activity exceeding the radioactive waste limit value (see Chapter 5.5), both on offshore installations and handling such waste onshore.

3.4 IMO requirements

The IMO's waste management requirements are expressed in MARPOL 73/78 Annex V (Regulation for the prevention of pollution by garbage from ships), which applies to all ships, as well as mobile and fixed installations (including supply vessels, platforms, flotels, drilling rigs anchored on fields, etc.). The IMO's requirements relating to waste sorting categories are considered to represent a minimum requirement for mobile units and do not conflict with Offshore Norge's recommended guidelines.

The IMO requires that waste shipped to shore and discharged waste be recorded in a Garbage Record Book. Nevertheless, according to the updated regulations, mobile installations carrying out petroleum activities on the NCS are not required to keep a Garbage Record Book, presuming that the installation has a system to log the waste management on board (Section 11 of the Regulations relating to amendment to the Regulations relating to environmental security for ships and mobile facilities). This is a change from the previous rules, which allowed for exemptions for fixed or floating platforms during exploration or production on the seabed (MARPOL, Annex V, Regulation 10, Item 4 (ii)).

Regardless of the above, service providers that receive waste from a shipping company or a supply base operator, will record and account for received and processed waste in accordance with requirements stipulated in the contract between the client and service provider.

Expanded IMO requirements for waste management entered into force on 1 January 2013, including requirements for updated waste management plans and posters. Waste posters shall, as a minimum, describe the discharge requirements in Regulation 5 in Annex V (ground food waste, excluding cooking oil, may be discharged to sea provided that the particle size is less than 25 mm). Waste management plans shall, as a minimum, include procedures to minimise waste, collection and handling, storage, sending waste onshore (disposing of garbage), responsibilities and equipment use.

When rigs are docked for upgrades or repairs, and when not under contract, the installation owner (rig or shipping company) is responsible for waste management (administration and handling) during this period. If waste generated during such a period is left onboard the installation at the start of the next assignment, that waste is still the installation owner's responsibility. When a rig/ship is not under contract with an Offshore Norge member company (operator), only IMO requirements and possibly domestic coastal waste requirements will apply.

3.5 IMDG Code requirements

When transporting dangerous goods from an offshore installation to an onshore base, the requirements of the IMDG regulations must be followed. As opposed to the ADR regulations, the documentation under IMDG shall include not only the UN number, hazard class, hazard label and packing group, but also the proper shipping name, shipper's declaration, EmS number and information as to whether the goods contain any marine pollutants.

Transport documentation requirements are covered by the multimodal dangerous goods form.

3.6 IBC Code requirements

When transporting dangerous liquid cargo in bulk from an offshore installation to an onshore base, the requirements of the IBC

Code must be followed. These provisions are codified in Chapter 20 of the Code. All OSV vessels certified to carry hazardous chemicals in bulk (INLS/CoF certificate) must deal with this through IMO Resolution A.673(16) (Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels).

3.7 G-OMO – common guidelines for transporting contaminated bulk cargo

Offshore Norge has collaborated with several parties to create a joint "good practices document" for safe management of offshore supply and rig movement (Guidelines for offshore marine operations). These Guidelines include a separate part (Appendix 10-F) to help operators describe the backloading of wet cargoes they want to ship onshore for treatment using the mud tanks on offshore service vessels. This includes a discussion of issues and measures, including measurements and documentation, to prevent incidents involving such cargo.

A brief description is provided in Chapter 5.4.3 of this Guideline. Chapter 10 of G-OMO, which concerns bulk cargo operations, is not described in further detail here.

3.8 Waste management

Section 72 of the Activities Regulations requires operators to prepare a waste management plan. Establishing a waste management plan and not least the minimisation of waste should be part of the planning work as early as in the design of the rig/platform, cf. Section 67 of the Facilities Regulations.

We recommend preparing a procedure or process that describes, in general terms, how to handle hazardous, radioactive and non-hazardous waste in the company. This should address the reduction of the volume of waste, source separation, recovery, recycling and potentially energy recovery, as well as selected KPIs.

Field or installation-specific overviews should also be prepared for sorting fractions and where the various waste sorting stations are located.

3.9 Other requirements - producer responsibility

3.9.1 Requirement for membership in producer responsibility organisations for WEEE waste

According to Section 1-10 of the Waste Regulations, importers and producers of EEE products are obliged to fund the collection and handling of WEEE, and this shall take place through membership in an approved producer responsibility organisation for WEEE. This membership shall cover the EEE products the producer imports or produces in Norway, but the membership need not be in the producer responsibility organisation that handles the WEEE directly from the operator. Remuneration paid to the producer responsibility organisations shall cover the collection and processing of WEEE waste that takes place today. The costs associated with membership in producer responsibility organisations is normally associated with the volume of EEE products added to the Norwegian market through imports and/or production. Fixed rates for remuneration/environmental fees have not been established by the authorities or the EE Register.

In this context, a producer is any entity that, for commercial purposes, imports or produces EE products in Norway for the Norwegian market (cf. Section 1-3 (1) (m) of the Waste Regulations). The

requirement enters into force as soon as the EE Register records that electric or electronic products have been imported. The EE Register acquires data about this from Norwegian Customs.

The provisions in this chapter do not cover EE products mounted in facilities that can be registered in the Petroleum Register pursuant to Act No. 72 of 29 November 1996 relating to petroleum activities.

3.9.2 Requirement for membership in producer responsibility organisations for packaging

According to Section 7-5 of the Waste Regulations, importers and producers of packaging (>1000 kg) are obliged to fund the collection, sorting, material recovery and other processing of used packaging and packaging waste. This shall take place through membership in a producer responsibility organisation approved by the Norwegian Environment Agency.

In this context, a producer is any entity that, for commercial purposes, imports or produces packaging or packaged products in Norway for the Norwegian market (cf. Section 7-3 (1) (d) of the Waste Regulations).

3.9.3 Requirement for membership in producer responsibility organisations for discarded batteries

According to Section 3-7 of the Waste Regulations, importers and producers of batteries are obliged to fulfil their producer responsibility through membership in an approved producer responsibility organisation for discarded batteries. In this context, a producer is any entity that, for commercial purposes, imports or produces batteries in Norway for the Norwegian market, including batteries built into other products.

This membership shall cover all battery categories the producer imports to or produces in Norway. Producers of batteries built into EEE products and which are members of approved producer responsibility organisations for WEEE do not need to be a member of such a producer responsibility organisation as regards these specific batteries.

4 WASTE PREVENTION MEASURES

Waste prevention involves preventing waste from being generated at all. Waste prevention is not primarily about waste, it is about resources, and how to better utilise these resources. The waste triangle (Figure 1) illustrates that by preventing waste from being generated, this will usually also reduce costs. At the same time, reduced costs also mean increased environmental gains.

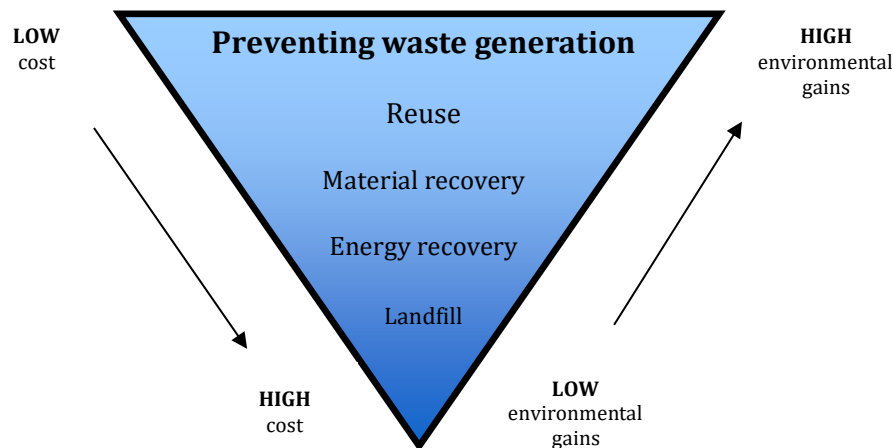


Figure 1. The waste triangle

A focus on waste reduction in procurement will give the best opportunity for environmental and financial gains. The following are important guidelines for product procurement:

- **Reducing** the consumption of **resource-intensive** products.
- Choosing products with a **long lifetime**.
- **Choosing** products that can be **recovered**.
- Choosing products made of **recovered materials**.
- Choosing products with minimal, but still adequate, packaging.
- **Reducing** the content of **hazardous substances** in waste by selecting alternative products that are less harmful to health and the environment.

Waste prevention involves being aware of all waste generated throughout the entire value chain. This is done not only by reducing consumption but must also include a change in the pattern of consumption.

Better resource utilisation will require a reduction in waste volumes and more reuse. One contribution would be for the industry to coordinate by finding joint solutions to prevent waste from being generated, e.g. by using standardised reusable plastic pallets. The following are examples of measures where the industry can find joint solutions to prevent the generation of waste:

- Requiring the use of BAT (cf. the IPPC Directive: Council Directive 96/61/EC concerning integrated pollution prevention and control).
- Being conscious of waste reduction requirements and establishing waste reducing processes in the design or engineering phase (e.g. cuttings, drilling and well fluids).
- Reducing waste generation by treating material streams and discharging to sea rather than collecting these materials and sending them onshore.
- Transitioning to chemicals with the least environmental impact, assessing volumes and hazard level (cf. the substitution obligation in Section 3a of the Product Control Act).
- Preventive maintenance.
- Start-up, shutdown and maintenance procedures that consider waste reduction.
- Avoiding corrosion with subsequent waste generation.
- Completely emptying packaging such as cans, barrels, bottles, sacks, etc.

- Proper labelling of packaging such as cans, barrels, bottles, sacks, etc.
- Establishing requirements in supplier contracts to include return schemes.
- Establishing requirements in supplier contracts to use suitable reusable packaging.
- Avoiding small/single packaging and preferring larger units.
- Reducing the use of single-use items such as plastic cups, polystyrene cups, plastic utensils, corrugated cardboard boxes, etc.
- Sorting leftover food (removing food waste from packaging, corrugated cardboard, etc., after canteen meals).

The following examples will reduce the volume of waste sent to final processing/landfill:

- Waste reclamation (by-products) for processes or products, e.g. reusing drilling fluids or used oils in the production flow.
- Assessing pros (possibility of pumping) and cons (increased waste) of slurrification of drill cuttings. Possibly also consider new technology for transferring cuttings from installations to vessels to both avoid slurrification and minimise lifting operations.
- Re-injection.
- Considering well designs for exploration drilling, e.g. use of “slimhole” drilling to reduce the volume of cuttings and use of drilling fluids.
- Establishing concrete requirements for disposal solutions for treated drilling waste (in accordance with BAT).
- Improved sorting/fractioning of waste that can be recovered to prevent landfilling and the associated environmental impact.

Reducing the volume by compacting and/or grinding waste will reduce transport needs and the number of lifting operations both offshore and onshore. Such volume reduction is also beneficial in the context of both logistics, saving space and handling. The cost of waste disposal is normally based on weight. The safety of personnel offshore and in the reception system must be taken into consideration when compressing certain waste categories.

5 CLASSIFICATION AND LABELLING

Correct classification of products and waste is vital for good waste prevention and control. It is the operator's responsibility to consider what is a product and what is waste. The operator/waste producer is also responsible for considering whether the waste is hazardous waste and thereby covered by the hazardous waste chapter of the Waste Regulations. In the event of doubt, the authorities can decide whether or not the waste is hazardous.

5.1 The definition of waste

Waste is defined as follows in Section 27 of the Pollution Control Act: "The term waste means movable property or substances that have been discarded, will be discarded or which are subject to discarding requirements. Waste water and exhaust gases are not considered to be waste."

The terms hazardous waste and non-hazardous waste are commonly used in English. Offshore Norge member companies and their service providers frequently use the Norwegian term "ikke-farlig avfall" for non-hazardous waste.

Radioactive waste is defined in Chapter 5.5.

Non-hazardous waste is addressed in Chapter 5.3, and hazardous waste in Chapter 5.4.

5.2 Waste or product

If an item/matter/fluid is considered to be neither waste, waste water nor an exhaust gas, this material shall be regarded as a product and is subject to the Product Control Act with associated regulations. This means that the material shall be accompanied by a Material Safety Data Sheet (MSDS) establishing that it is a product. It may also be difficult to determine when a used product (e.g. drilling fluid) no longer fulfils the product specifications and thus must be discarded. If the material is not intended for reuse, it is considered to be waste.

The person responsible for assessing a product is also responsible for ensuring that the product/waste determination is correct. In the offshore industry, this classification will also affect reporting routines, and which contractual regimes apply.

5.3 Non-hazardous waste

In order to achieve recoverable waste, it is important to focus on quality in the delivery of fractions. This is important in order to achieve national and internal company goals for increased waste recovery.

Appendix 1 contains examples of suggested waste categories and fractions. As regards non-hazardous waste, we recommend using the waste codes in the Norwegian standard NS-9431:2011, "Classification of waste". While the waste category classification applies to waste reception facilities and recovery systems as at the revision date of these Guidelines, the number and types of categories are subject to change in line with developments. This may also vary in accordance with local onshore recovery opportunities or other practical issues. Limited storage space or the volume of generated waste may be such a practical issue, but lack of storage space should not normally be used as an argument for choosing fewer fractions as a means of facilitation. Contractual issues may also affect the number of waste fractions. The examples given are non-binding suggestions.

5.4 Hazardous waste

Hazardous waste is waste containing substances that are hazardous to health and/or the environment, thus requiring special handling to prevent pollution, injuries, etc. The following are general requirements for handling hazardous waste:

- Identification
- Safe storage, packaging and labelling
- Prohibition against mixing with other waste, or other types of hazardous waste

Then:

- Hazardous waste declaration
- Transport
- Delivery to licensed waste facility

The delivery obligation requires that the waste be delivered to a waste contractor at least once per year. In practice, this means that hazardous waste cannot be stored for more than 12 months. According to Section 11-14 of the Waste Regulations, once the hazardous waste arrives at the supply base, it must be transported to the waste facility within 24 hours, or later if a permit is issued for this.

If there is no general permit to store flammable packed dangerous goods for longer than 8 hours, Section 8-3 of the "Regulations relating to offloading, loading, storage and transport within the municipal maritime boundary" stipulates that the local fire protection authorities shall be notified once these goods have been stored for more than 8 hours.

5.4.1 Classification of hazardous waste

The authorities require hazardous waste classification to be done in accordance with both the EU system (EWL codes) and the prevailing Norwegian waste code list (cf. Norwegian Standard NS-9431).

- The EWL code classification presumes source-specific classification. Certain EWL codes are specific for waste shipped onshore from offshore drilling and production.
- The Norwegian waste code classification is based on the various chemical properties of different types of waste. In practice, classification according to waste codes will therefore be determinative for further waste treatment and final processing.

Waste is classified as hazardous if this waste is described by an EWL code with an asterisk in Appendix 1 to Chapter 11 of the Waste Regulations, or if the concentration of hazardous substances exceeds limit values established in Appendix 2 to Chapter 11 of the Waste Regulations. Relevant limit values are listed in Table 1 and Table 2 in Appendix 1 to these Guidelines – Discussion of selected waste categories.

Offshore Norge has prepared a classification key for hazardous waste based on the practice identified for different types of waste from offshore activities (see Appendix 2a, Table for classification of hazardous waste and radioactive waste, and Appendix 2b, Table for classification of tank cleaning waste). During the preparation of these Guidelines, Offshore Norge received input from the Norwegian Environment Agency to the effect that existing EWL codes (not offshore-specific) shall be used for waste that is not a direct result of offshore production. The company's hazardous waste adviser can be consulted if there are any questions concerning waste classification. When information about waste in safety data sheets does not match the classification in Appendix 2a, the latter classification shall be used.

Hazardous waste shall not be diluted with the intent of circumventing the limit values for hazardous waste. This does not prevent dilution required for other reasons, e.g. slurrification, but this presumes that the waste is still handled as hazardous waste.

In the event of doubt, you can contact a waste facility for advice and guidance concerning classification and handling. A prudent downstream solution must nevertheless be ensured, as there is no guarantee that a reception facility will handle all waste.

5.4.2 Hazardous waste declaration

If the waste is defined as hazardous waste, it shall be declared in the electronic solution for declaring hazardous and radioactive waste, www.avfallsdeklarerer.no. This declaration shall be created electronically, signed and sent to the waste facility. One declaration shall be filled out per waste type per cargo.

- If hazardous waste is transported in general cargo/load carriers, a copy of the document shall physically accompany the actual waste from the installation to shore and then to the waste facility. This will reduce the risk of the waste being lost.
- When bulk cargo is shipped onshore, the declaration shall be signed and submitted electronically once the bulk transfer is complete. This will ensure that the declaration reflects the correct transferred volume.

We recommend assigning a dedicated position/person who is familiar with hazardous waste and the ADR/IMDG regulations; for example, the materials coordinator can fill out the declaration form and sign on behalf of the operator.

When multiple load carriers with the same type of waste are shipped onshore, and they are all covered by a single declaration, the declaration shall indicate which load carriers it covers. This could be in the field for more detailed descriptions or as skip list uploaded as an appendix to the declaration.

Supply vessels' self-produced waste shall be declared on the shipping company/vessel and shall not be mixed with the installation's waste, but separate declaration forms shall be completed.

Please note: The declaration form's declaration number is a serial number that serves as a tracking ID for the waste and shall therefore be written on the associated waste packaging, as required by the Regulations. The weight/volume shall be recorded on the declaration form offshore. It can frequently be difficult to accurately calculate the weight/volume, particularly for larger items that cannot be weighed until the waste is lifted from installation to vessel. The weight/volume will therefore always be verified by the waste facility onshore, and they will also correct the information on the declaration form. Information about all corrections is available for each declaration in the electronic solution.

See Appendix 2 and 3 for how to fill out the declaration form and suggested waste codes. Be especially aware of the fact that there are separate waste codes for radioactive waste for disposal and radioactive waste not for disposal. When liquid waste is transported in bulk, the G-OMO analysis form (see below) shall be filled out in addition to the declaration form.

When liquids are transported in transportation tanks, we recommend conducting gas measurements (H₂S and LEL) and adding the results to the declaration form. This could also be recorded on the G-OMO analysis form (see Chapter 5.4.3).

Waste re-injected at the same or other platforms shall not be declared in [avfallsdeklarerer.no](http://www.avfallsdeklarerer.no). Re-injection shall be covered by the permit issued by the Norwegian Environment Agency and shall be recorded as stipulated in said permit.

Any oily water and water with chemical residue generated on the installation, and which is not directly linked to the wellstream, is hazardous waste if this is returned to an onshore facility via a pipeline. The onshore facility must have a dedicated reception and treatment permit for hazardous waste in order to receive and process this waste

For certain types of waste, such as drilling waste, a third party will frequently be responsible for declaring the waste on behalf of the operator. For example, hazardous waste generated in connection with drilling and well operations is declared by the rig owner's personnel. In such situations, it is particularly important that all parties involved contribute necessary information about the waste fractions.

The operator, which is responsible for the waste, should establish formal requirements and establish regular routines, for example requirements in contracts and procedures, to ensure that information is shared as intended.

5.4.3 Other documentation

G-OMO:

Membership in Offshore Norge requires operators to comply with "Guidelines for Offshore Marine Operations (G-OMO)". Appendix 10-F to this document gives a recommendation for how to ensure best practice for transporting cargo contaminated with oil by offshore supply vessel. These guidelines were drawn up to ensure that liquid wastes are transported in a safe manner, especially as regards fire hazards and gas development. This means that the liquid wastes must be tested (flash point, LEL, H₂S, pH, etc.) on the installation prior to transport. The analysis form in these G-OMO Guidelines shall be made available to the captain, along with the hazardous waste declaration form, before the liquid wastes is transferred to the vessel. The captain shall reject the cargo if the documentation is insufficient, or if it is not suited for the ship's tanks. A copy of the declaration form and analysis form can be submitted electronically in advance for approval, to cut down on the waiting time. Original documents shall be transferred as before. Once return cargo has been agreed, the guidelines stipulate that a copy of the documentation shall also be made available to the onshore waste facility.

The H₂S level in the liquid wastes shall be zero before it is transferred from installation to ship. Onshore waste facilities shall conduct gas measurements (minimum LEL and H₂S) before the liquid is offloaded from the vessel. If any H₂S gas has developed during transport to shore, this shall be removed before offloading starts. A sample should also be taken from the liquid's upper layers to test the flash point. Under no circumstances shall liquids with a flash point of less than 60°C, or liquids that may contain crude oil/condensate, be transported by vessels that are not classed for such liquids. Should the LEL (lower explosive limit) test detect flammable gas, the test should be repeated once the liquids have settled for a while. In such situations, it is important to ensure that the test is representative for the liquid in the return cargo, which as a minimum shall contain the upper layers. Pre-defined contact persons of waste facilities shall receive reports of any non-conformities.

The Offshore Norge website links to the [G-OMO guidelines](#). Offshore Norge members are advised to implement this guideline in their governing documentation and ensure that it is always used when liquid waste is transported in a supply vessel's bulk tanks. The documentation requirement in G-OMO generally does not apply for transport in skips, mobile transport tanks and ISO tanks (including pneumatic blasting of cuttings). However, certain situations may arise where it may be deemed appropriate to require testing and documentation of the waste in line with G-OMO, including on mobile transport units. Regardless of the documentation format, there is a requirement to provide adequate information about the waste to the waste facility; see also information in Appendix 1, Item 4.5.

Multimodal dangerous goods form:

As regarding transporting hazardous waste that is also dangerous goods by sea, the waste shall also be accompanied by a multimodal dangerous goods form (see Appendix 4) in connection with transport from offshore installations to shore. The IMDG Code does not stipulate how the information shall be presented, as long as the required information is provided. Still, Offshore Norge recommends using the multimodal dangerous goods form for easy recognition and shared practice.

5.4.4 Exporting hazardous waste

Should an operator choose waste facilities abroad, they must comply with Chapter 13 of the Waste Regulations regarding transport across borders. This applies to both hazardous and non-hazardous waste.

The operator, which is responsible for export, will be responsible for applying for an export permit and the documents will list them as the exporter. These are complex regulations and entail, among other things, that permits are required from the pollution authorities in both the exporting and importing countries (in addition to any transit countries). These permits shall specify the relevant waste fraction to the waste facility in question with the chosen transporter. Hazardous waste cannot be exported to countries that are not OECD members.

According to the Norwegian authorities, oily water that is transferred to transport tankers for crude oil and which is then transported directly from an offshore installation to a foreign port will only be covered by Chapter 13 of the Waste Regulations regarding transport across borders and shall not be declared at [avfallsdeklarering.no](#).

If a waste facility is handling the paperwork and is listed as the exporter in the export documents, the waste does not need to be declared prior to export if the waste is not physically delivered to the facility onshore.

If an operator is handling the paperwork and is listed as the exporter in the export documents, but the waste will be temporarily stored onshore prior to transport to a foreign port, the waste shall be declared to a facility with a permit for interim storage of the relevant type of waste.

5.4.5 Waste containing mercury

Mercury from reservoirs may pollute materials in production systems during production. In order to prevent mercury from becoming an environmental issue in waste management, recycling and reuse, the companies must evaluate whether mercury content in equipment may represent an environmental issue in the value chain for each platform (potentially even more specific equipment).

Metallic mercury or mercury from scale, e.g. on process equipment, may represent an environmental issue for metal recycling, even when the total mercury content in the waste/metal does not exceed the limit values for hazardous waste. Unless the company can verify that the process steel waste is not contaminated with mercury, all process steel waste shall be handled as if it was contaminated. The chosen mercury cleaning method must be suitable for the relevant form of mercury. Disposal of mercury-contaminated waste must take place according to the Waste Regulations and must avoid the formation of dangerous mercury compounds. Steel recycling should be done at plants that treat the exhaust for mercury.

As regards assessments surrounding the handling of waste containing mercury in general (both metal and other waste with mercury), it will be relevant to both list concentrations measured in the atmosphere above the waste and the concentration in the waste itself.

When the purpose is whether or not to classify the waste as hazardous waste, the concentration in the waste itself will be decisive. In order to classify waste as waste containing mercury, the concentration must exceed the hazardous waste limit value for mercury. It will nevertheless be necessary to disclose that there is mercury in the waste.

When the purpose is to assess the working atmosphere and other risks, atmospheric measurements will also be relevant; see also Guidelines 132.

5.5 Radioactive waste

Radioactive waste can include both radioactive waste created in connection with petroleum activities, as well as radioactive sources (hereinafter referred to as radioactive sources) that shall be scrapped. Chapter 5.5 concerns radioactive waste generated in petroleum activities, while the handling of discarded radioactive sources is addressed in Chapter 5.6.3. As regards work with what is called low-level radioactive scale (LRA) in Norway, also known internationally as Naturally Occurring Radioactive Material (NORM), see also Offshore Norge's manual "Safe handling of naturally occurring radioactive material".

5.5.1 Definition and classification of radioactive waste

The Regulations relating to the application of the Pollution Control Act on radioactive pollution and radioactive waste defines what is managed as radioactive waste. Nuclide-specific activity limit values are listed in Section a in Appendix 1 to the Regulations. Waste that exceeds the limit values is considered to be radioactive waste.

Nuclide-specific limit values are also listed for specific and total activity for radioactive waste subject to a disposal obligation. Radioactive waste where both the specific and total activity exceeds the limit values must be sent to landfills specifically designed for such waste. Re-injection of the radioactive waste may be an alternative, provided this is in line with the issued discharge permit.

The values in the table below are limit values for when waste shall be considered radioactive waste, and when that waste is subject to a disposal obligation. The values shall be calculated as the sum of the three nuclides Pb-210, Ra-226 and Ra-228. Radioactive waste subject to a disposal obligation shall be sent to waste facilities with special permits for such waste.

Radionuclide	Limit values for radioactive waste	Limit values for radioactive waste subject to disposal obligation	
	Specific activity (Bq/g)	Total activity (Bq/year)	Specific activity (Bq/g)
Pb-210	1	10,000	10
Ra-226	1	10,000	10
Ra-228	1	100,000	10

Radioactive waste with activity exceeding 10 Bq/g is classified as Category 1 (e.g. 3035-1). Radioactive waste with activity between 1 Bq/g and 10 Bq/g is classified as Category 2 (e.g. 3035-2).

Waste deposited in the national NORM disposal site shall be subject to gamma spectrometry analysis prior to disposal. If gamma spectrometry analysis has been undertaken and the sum of individual nuclides is less than 1 Bq/g, the waste is ultimately deemed to be classified as free of radioactivity. In this instance, final disposal shall take place based on the waste's other chemical/environmental properties.

5.5.2 Principles for testing/identifying radioactive waste

If the presence of radioactivity in waste is suspected when production and drainage systems and pipelines are opened, as well as in connection with pulling well tools, tests shall be conducted to identify potential radioactive waste. Operational personnel shall be informed of potential risks and protective measures. A suitable instrument (Geiger counter with probe) shall be made available.

Activity identification (identification of Bq/g levels) shall be performed using quality-assured methods; either by screening storage containers, or representative samples taken using calibrated handheld equipment, or laboratory analysis of representative samples. The test results shall be used when filling in the waste declaration form. Specific activity for each nuclide, determined by gamma spectrometry, as well as oil content analysis of each item/barrel, is required for radioactive waste subject to a disposal obligation.

The Pb-210 nuclide content cannot be determined using handheld test equipment. The normal levels of radioactive lead are approx. 10-20% of the radium level. It is usually known in advance if a certain installation has abnormally high levels of radioactive lead.

5.5.3 Principles for handling radioactive waste

Radioactive waste shall not be mixed with other types of waste, and different types of radioactive waste shall not be mixed if this could cause a pollution risk or create problems for further waste handling. Radioactive waste shall not be diluted with the intent of circumventing the limit values for radioactive waste.

The waste handler (as in reception, interim storage, treatment and other handling of radioactive waste) shall hold a licence issued by the Norwegian Radiation and Nuclear Safety Authority (DSA). Facilities without hazardous waste permits that nevertheless handle radioactive waste not subject to a disposal obligation must have a permit issued by the DSA. All companies that handle radioactive waste must have a designated and trained radiation protection supervisor, as stipulated in Section 16 of the Radiation Protection Regulations.

Radioactive waste subject to a disposal obligation shall only be delivered to facilities with specific permits for receiving such waste. Radioactive waste shall be delivered to a waste facility at least once a year. The waste producer shall provide sufficient information regarding the waste's origin, content and

properties to ensure proper waste handling. The declaration form shall be filled out when the waste is delivered. The packaging shall be clearly marked with the declaration serial number. The labelling must be transport-proof.

The radioactive waste handler shall ensure that the waste it receives from businesses has been properly declared and shall also ensure that the declaration form accompanies the waste for all further transport.

The declaration form shall not be used for scrap metal and steel (pipes, valves, tubing) where radioactive scale/contamination is proven. The reason for this is that the weight of the radioactive coating is generally very low compared with the weight of the metal. The waste is not generated until the equipment has undergone decontamination (rinsing, mechanical/chemical cleaning), and this is the point when the declaration form requirement sets in. Such shipments must nevertheless be properly labelled as potentially radioactive waste. The waste must also be secured by, e.g., sealing it to prevent further dissemination of radioactive substances. Radioactive waste generated following the decontamination of scrap metal shall be declared with the operator as the waste producer.

5.5.4 Labelling and declaration requirements under the dangerous goods regulations

Regardless of the requirements in the hazardous waste regulations, the dangerous goods regulations (ADR/IMDG) require dangerous goods documentation for equipment contaminated with a radioactive coating when the specific activity exceeds 10 Bq/g for the nuclides Ra-226, Ra-228 or Pb-210. The same requirement will apply for bulk transport of radioactive waste subject to a disposal obligation, with activity over 10 Bq/g for the same nuclides. This means that both the dangerous goods form and the declaration form for hazardous waste and radioactive waste must be filled out.

5.6 Other types of waste

5.6.1 Infectious waste

According to the Regulations relating to infectious waste from human and animal health services, etc., infectious waste is defined as “waste from medical treatment or veterinary treatment and/or associated teaching, research and diagnostics that contains viable microorganisms or their toxins that can cause disease in humans or other living organisms”. Infectious waste will therefore, *as far as Offshore Norge is concerned*, primarily be waste from medical offices/medics containing infectious sharps such as syringes and scalpels, as well as blood-stained bandages or other wound cleaning waste. Infection control equipment is also relevant waste in this category.

Infectious waste must be collected and shipped in approved containers intended for this purpose. Infectious waste is not subject to Chapter 11 of the Waste Regulations concerning hazardous waste. The waste shall therefore not be accompanied by a declaration form for hazardous waste but must be classified for transport and labelled in accordance with ADR/IMDG and be accompanied by a transport document for dangerous goods.

Some facilities for hazardous waste do not hold a permit to receive infectious waste, and such waste cannot normally be re-packaged. The waste must therefore be packaged so that it can be shipped directly to final processing. Waste facilities can be contacted for advice on transport and local handling of this type of waste. Requirements for documentation and record-keeping for infectious waste must be fulfilled as described in Section 8 of the Regulations on infectious healthcare waste.

5.6.2 Explosives

Explosives, such as explosive charges, emergency flares and distress rockets, are subject to the hazardous waste chapter of the Waste Regulations, but they shall not be accompanied by a declaration form for hazardous waste, as such waste is not covered by Sections 11-5 through 11-18 of the Waste Regulations. These materials shall be classified for transport according to the ADR/IMDG regulations and shall be accompanied by other transport documents for dangerous goods. Discarded explosives

must be packaged properly, preferably in original packaging, be placed in clearly labelled boxes and shipped onshore to be returned to the supplier.

Those who produce, import or distribute explosive goods or products with any explosive content are required to accept the return of equivalent discarded products. Explosive goods and products shall be delivered to an approved return/disposal facility or an enterprise with the appropriate permits for destruction if the enterprise does not hold such a permit for destruction itself (see Section 16-2 of the Regulations relating to handling of explosive material). Facilities for hazardous waste disposal do not normally hold a permit to receive explosives. Waste facilities may be contacted for advice and guidance on transport and local handling of this type of waste, if the supplier of the materials is unknown, but the general rule is that explosives shall be returned to the supplier.

5.6.3 Sealed radioactive sources

Sealed radioactive sources that are removed from use, but which are not discarded, shall be returned to the distributor in line with the return obligation stipulated in Section 14 of the Radiation Protection Regulations. The equipment shall be returned to the supplier in line with the established return scheme and shall not be declared as radioactive waste.

Discarded sources that cannot be returned shall be disposed of in Norway and be handled in accordance with [Chapter 16](#) of the Waste Regulation relating to the recovery and treatment of waste. In such contexts, the waste shall be declared at avfallsdeklarerer.no (with waste code 3911-1). The radioactive sources shall be delivered to the Institute for Energy Technology's (IFE's) Radioactive Waste Facility at Kjeller.

The IMDG/ADR regulations for dangerous goods (class 7) apply for the transport of radioactive sources.

5.7 Packaging and load carriers

5.7.1 Use of packaging

All waste that must be classified according to the prevailing regulations on the transport of dangerous goods (ADR and IMDG) must have UN-approved packaging. It is presumed that packaging requirements stipulated in the mentioned regulations are satisfied. The following are a few general comments:

- The packaging shall not be filled to more than 90% of the total capacity.
- As a rule of thumb, all corrosive waste, e.g. acids or bases within ADR/IMDG Class 8, should be in plastic packaging.
- Another main rule for using barrels is to use clamp ring barrels for solid waste, and tight head barrels with bung holes for fluid waste.
- Do not use big bags to transport fluids, due to the spill risk. Drill cuttings and oily rags/absorbents may contain fluids and should not be transported using big bags.

5.7.2 Labelling packaging

All hazardous waste packaging shall always be labelled with:

- Declaration number

Hazardous waste that is also classified as dangerous goods shall have the following additional labelling:

- UN number
- Hazard label
- Proper shipping name (IMDG)

The packaging must have a printed label proving that it is UN-approved packaging. Eco-labelling and orientation arrows may also be required. It is also recommended that serial items be numbered (e.g. item 1/10, item 2/10, etc.)

Each item in a container shall be labelled with the declaration number (and potentially hazard label/UN number if it is dangerous goods).

5.7.3 Empty packaging

Empty, un-cleaned packaging from classified substances shall be classified as hazardous waste; packaging containing hazardous substances, with waste codes and EWL code as indicated in Appendix 2a. A more detailed explanation is provided in Appendix 1.

Empty and dry packaging shall be disposed of as plastic/metal according to the material of the packaging. This does not apply if the content was labelled "toxic".

5.7.4 Choosing a load carrier

When a load carrier is chosen, consideration shall be given to ensuring that the waste will be transported without a risk of spills and discharges on the vessel and further on through the logistics chain onshore. Also consider the fact that it shall be possible to empty the waste in a prudent manner. The following are a few clarifications:

- Liquid waste shall preferably be transported in bulk, or alternatively in units designed and approved for this purpose. For example, slop shall not be transported in mud skips unless they are sealed and designed for liquids and liquid waste. A load carrier should be chosen based on a risk assessment to prevent spillage, discharges and pollutants. When dangerous goods/cargo (for example flammable waste) is being shipped, the load carrier shall be UN-approved for this type of cargo.
- Compactors are not normally suitable for transporting chemical bulk bags, and neither shall they be used for oily waste, as such handling could result in spillage and challenges linked to cleaning once they are emptied.
- Waste shall be shipped in separate load carriers (cf. Chapter 5.3 of Offshore Norge Guidelines 116). This means that waste and products shall not be shipped in the same load carrier. For waste facilities, it will be appropriate for logistical purposes for hazardous waste and non-hazardous waste to be shipped in separate load carriers.

5.8 Basic characteristics of waste destined for landfilling

Specific guidelines concerning basic characteristics apply if an operator is shipping waste directly to landfill disposal, without further handling or treatment. These guidelines are described in the [Guide to characterisation and reception control of waste for disposal](#). The basic characteristics of all waste destined for landfilling shall be determined, and in some instances, a leakage test may also be required. The operator must follow up how the waste contractor handles this. The relevant types of waste are blasting sand, concrete, gypsum, insulation, etc.

5.9 Dangerous goods safety officer for road transport

All enterprises with activities that include transporting dangerous goods, or related packaging, loading or off-loading, shall have one or more designated safety officers for dangerous goods transportation. As such, operators handling, packaging or transporting dangerous goods, should have their own, or an associated, dangerous goods officer.

5.10 Non-conformities and corrections

Once waste is received by the waste contractor/facility and any errors are discovered (in relation to regulations, contractual demands, governing documentation, etc.) these errors shall be reported back to the waste producer. When errors are discovered in the handling of the waste which could result in a health or environmental risk, they shall be reported to the operator as non-conformities.

If a declaration is missing for any hazardous waste, this shall be recorded as a non-conformity. Delegated authority can be used if a declaration is missing. Declarations established based on delegated authority are displayed at avfallsdeklarering.no.

All changes at avfallsdeklarering.no are shown in the solution as corrected declarations. In other words, it is not necessary to record these changes as non-conformities as long as this will not have an impact on health or the environment.

The following are examples of situations that would normally be relevant to record as non-conformities:

- Lack of declaration form for hazardous waste
- Lack of GOMO form for bulk deliveries
- Hazardous levels of H₂S and/or LEL detected in slop deliveries
- Poorly secured or unsecured cargo
- Using the wrong type of load carrier
- Lack of or incorrect labelling of waste
- Mixed waste
- Spillage/leak from packaging or load carrier
- Damage to load carrier
- Other hazardous factors

The declaration form for hazardous waste is the basis for registration, billing and reporting of waste, and is normally the basis for the operator's environmental reporting.

If non-conformities in relation to internal waste management guidelines are discovered, this shall be reported internally in the company in the same manner as other reporting of non-conformities.

In the event of non-conformities that may have an impact on health, the operator should provide feedback to the involved parties, including the waste contractor, about the measures implemented.

5.11 Recovery

Recovery is a common term for all types of waste disposal that utilise waste as a replacement for new materials or resources, such as:

- reuse/recycling
- material / energy recovery
- incineration / destruction with energy utilisation

Recovery does not include the following means of disposal:

- incineration without energy utilisation
- landfilling (landfills with or without gas capturing)
- discharge to sea after cleaning/treatment

Use the following when calculating the degree of recovery:

- material recovery is considered to be 100% recovery unless otherwise specified
- incineration with energy utilisation should be based on last year's average degree of energy utilisation
- water discharged to sea after cleaning/treatment shall be excluded from the total volume*

* The recommendation is to report water discharged to sea as a recipient, e.g. described as "discharge of water to sea after treatment".

5.12 Colour-coding and labelling

The national system of sorting labels with standardised pictograms was developed through broad-based collaboration with over 50 actors.

It is advisable to use posters and labels with symbols and Norwegian/English text. Colour codes and rules for their use are described at <https://sortere.no/sorteringsmerker>. Information posters can be used for additional information, if necessary.

6 TARGET FIGURES, WASTE REPORTS AND ENVIRONMENTAL ACCOUNTS

6.1 Target figures

Target figures / performance indicators should be established for waste volumes and waste control in order to produce an overview of the progress on reducing waste volumes. The list below contains examples of target figures that can be used. Target figures must be chosen based on need or the type of activity.

Drilling-related fluids and other waste

Volume of waste per drilled metre
Volume of waste per section or well
Degree of recovery for drilling fluid
Degree of recovery for drill cuttings
Degree of recovery for liquid drilling waste

The last two will give an indication of how much oil has been recovered from cuttings and liquid drilling waste. Dry solids used as a top cover, or in other ways to substitute new resources, may also be considered recovery.

Other types of waste

Degree of sorting
Degree of recovery of non-hazardous waste and/or hazardous waste
Non-conformities
Volume of waste per day

Suggestions for different ways to calculate the degree of sorting can be found in Appendix 5.

Financial

Waste handling costs
Costs related to non-conformities
Costs per drilled meter or drilled well
Costs per day
Costs for each tonne/kilo of waste per produced barrel of oil

A waste report should be prepared (preferably monthly) for each waste-producing unit, such as offshore installations, supply bases, vessels, office buildings, etc., in order establish means to monitor developments. Feedback in the form of a waste report will allow for motivation and following up target figures, both onshore at the supply base and offshore, e.g. during HSE meetings. The waste report should present the results (statistics) both in numbers and graphs, and should also show trends, future focus areas, etc. A correct and educational presentation of the results will improve understanding and motivation.

Installation / waste-producing unit level:

- Non-conformities
- Degree of sorting
- Volume / waste volume frequency

Company level:

- Degree of recovery – total for all waste categories
- Costs

6.2 Environmental accounts

Environmental accounting is an important tool to gain an overview of a company's discharges and waste. It will also allow the company to measure and monitor developments over time, e.g. the effect of measures implemented to improve waste control.

Environmental accounts provide a historic knowledge base that can be used to assess the environmental status and to select the best environmental measures.

Environmental accounts shall, as a minimum, fulfil the requirements for external reporting (e.g. the Norwegian Environment Agency's annual report) and any internal requirements and needs in the company. This applies for all waste shipped to shore, injected waste and all discharges.

The recommendation is to register all waste in the company's environmental account. Such accounting should use databases, such as Excel, TEAMS or NemsAccount. The database should include all offshore installations, flotels, vessels and onshore facilities (process plants, offices, bases). Companies should agree with their waste contractor on the periods to be used in the reporting/registration, whether to use invoiced volumes or volumes completed at avfallsdeklarering.no (period when quarantine is complete). Another recommendation is to ask the waste contractor about volume reports at the declaration level to ensure a 1:1 match between declared and reported volumes.

6.3 Reporting

Only waste produced by offshore installations conducting drilling, well activity and/or production shall be included in the annual reporting to the Norwegian Environment Agency. This also includes installation-related flotel activity.

Waste generated as a result of cleaning tanks available to the operator on vessels (cf. Section 11-8 of the Waste Regulations) shall also be reported, since it is generated as a direct result of operations on the installation. This applies both for cleaning that takes place when vessels are at quay and when vessels clean tanks while they are under way. Classification according to Appendix 2b will help identify waste generated during this process.

Operators shall not report waste produced from pipelaying activity and support activity, such as from the supply and stand-by service (vessels, base activity), to the Norwegian Environment Agency.

Waste volumes shall be reported in tonnes.

The legal basis for the reporting requirements is Act No. 6 of 13 March 1981 relating to protection against pollution and relating to waste (the Pollution Control Act). Operators shall prepare discharge reports covering all operational discharges and all acute pollution. As regards fields with multiple installations covered by a single discharge permit, the figures shall be reported for each individual installation. Radioactive waste shall not be reported in the discharge report to the Norwegian Environment Agency, but shall be included in the annual report to the Norwegian Radiation Protection Authority.

Operators shall record all discharge data and all text necessary to generate the discharge report in the joint discharge database "Footprint" by 15 March the year following the reporting year.

The content of the reporting is described in the Norwegian Environment Agency's M-107 "[Retningslinjer for rapportering fra petroleumsvirksomhet til havs](#)" (guidelines for reporting from offshore petroleum activities) and the Norwegian Radiation and Nuclear Safety Authority's "[Retningslinjer for rapportering av radioaktive stoffer fra petroleumsvirksomheten](#)" (guidelines for reporting radioactive substances from petroleum activities).

Further guidance can be found in the EU's new Corporate Sustainability Reporting Directive (CSRD), which entered into force in 2024. It establishes stricter requirements for reporting sustainability

information than previous regulations. The Directive will also require the sustainability reporting to take place in line with a new, European standard. The CSRD introduced mandatory reporting requirements, as well as European Sustainability Reporting Standards (ESRS). The scope of the reporting is based on the principle of double materiality – an assessment of the impact of the company's activities on its surroundings (material impact) and the impact of various sustainability topics on the company's financial results (financial materiality). The primary objective of ESRS is to require the companies to report on consequences, risk factors and opportunities in a relevant and comparable manner. ESRS E5 is most relevant in this context. ESRS E5 stipulates reporting requirements linked to the company's use of resources, including resource efficiency and utilisation, sustainable procurement, use of renewable resources, as well as the handling of waste. Industry-specific guidelines are currently being developed to ensure best practice in the reporting.

7 CONTRACTUAL REQUIREMENTS

Most companies have standard contractual HSE clauses governing requirements for the contractor's management systems (e.g. ISO-14001), Magnet JQS pre-qualification (including NORSOK standard S-006), HSE target figures, etc., which will be sufficient for most contracts.

In an effort to achieve simpler operations, it could be practical if the waste contracts included options for third-party participation, thus allowing the operator to include other operators, in connection with exploration drilling (short-term regional assignments) or producing fields which need short or long-term services in the same region or from the same supply base. This should be done in cooperation with the service providers to ensure sufficient capacity. The contracts should also stipulate that the sender/waste producer shall give the waste facility advance notice of larger waste shipments sent onshore to allow the facility to plan its tank capacity and personnel.

Waste traceability shall be required for hazardous and radioactive waste.

The recommendation is that operators acquire an overview of the waste facilities utilised for the different waste fractions and ensure that they hold the requisite permits.