

Guidelines for Regulations relating to resource management in the petroleum activities

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Introduction

The Regulations relating to resource management in the petroleum activities (Resource Management Regulations) have a legal basis in the Act relating to petroleum activities and the Regulations to Act relating to petroleum activities. These Regulations establish provisions concerning the licensee's obligations as regards data acquisition and documentation, as well as reporting to the authorities. They also govern aspects associated with conducting geophysical surveys.

These Guidelines provide extensive comments on the individual provisions of the Resource Management Regulations. As of 1 January 2021, these Guidelines replace the comments on the Resource Management Regulations which were previously included as part of the Resource Management Regulations.

There are also separate guidelines for certain topics under the Resource Management Regulations, which can be found at <u>sodir.no/en/regulations/guidelines</u>.

These Guidelines indicate how to fulfil the requirements in the Resource Management Regulations. If format requirements are stated, this will be binding pursuant to Section 4 of the Resource Management Regulations. This means that the information must be submitted/made available in the indicated manner.

Re Chapter 1. Introductory provisions

Re Section 1. Objective

"Geophysical survey" means a survey conducted to procure geophysical data, e.g. seismic, electromagnetic, gravimetric and magnetic data.

Re Section 2. Scope

The scope of the Regulations is petroleum activity that is conducted pursuant to a licence under the Petroleum Act.

These Regulations do not apply for CO_2 storage (as part of or outside petroleum activities). Provisions concerning data acquisition and documentation for such activities are governed by Regulation No. 2003 of 13 December 2017 on materials and documentation in connection with exploration for and exploitation of subsea reservoirs on the continental shelf for storage of CO_2 (Regulations relating to documentation in connection with storage of CO_2 on the shelf).

Fiscal measurement provisions are covered by Regulation No. 1234 of 1 November 2001 relating to measurement of petroleum for fiscal purposes and for calculation of CO_2 tax.

Re Section 3. Definitions

Litra p) Exploration target: The objective of delineating what constitutes an exploration target is to avoid double recording of resources in the Resource Accounts.

Litra I) Discovery: The term discovery includes both commercial and technical discoveries.

Re Section 4. Format and units of measurement

"Clear identification" e.g., means using the Norwegian Offshore Directorate's unique identification codes (NPDID and designations for discoveries and wells.

Re Section 5. Responsibilities pursuant to these Regulations

This provision must be read in context with Section 10-6 of the Petroleum Act relating to the duty to comply with the Act and to ensure that provisions are adhered to, as well as Sections 56, 57 and 58 of the Petroleum Regulations relating to management systems. Please note that that the first subsection entails a material obligation to comply with the regulatory provisions, as well as a duty to do this by implementing necessary systematic measures.

Re Chapter 2. Surveys

The provisions concerning survey activity in these Regulations must be read in context with provisions laid down in Chapter 2 of the Petroleum Act, as well as Chapter 2 of the Petroleum Regulations.

Applications for and payments of the fee according to the Petroleum Regulations Sections 3, 5 and 9 must be submitted to the Norwegian Offshore Directorate.

The provisions in this chapter apply for survey activity pursuant to a survey licence, production licence and licence for installation and operation of facilities for transport and exploitation of petroleum. If the survey involves drilling deeper than 200 metres, consent must be obtained from the Norwegian Ocean Industry Authority in addition to registering the borehole with the Norwegian Offshore Directorate, cf. Section 25 of Regulation No. 1797 of 18 December 2015 relating to management and the duty to provide information in the petroleum activities and at certain onshore facilities (the Management Regulations).

Equipment testing is not covered by the Regulations.

Re Section 6. Notification in connection with surveys

This provision complements Section 6 of the Petroleum Regulations as regards what information to submit in connection with survey activity.

The requirement to report the names of vessels applies to all vessels involved in the survey.

When surveys are reported, the licensee shall normally choose if the survey shall be reported according to a production licence or a survey licence. Only when the licensees conduct a survey in their own licence pursuant to the production licence, and in addition are conducting a survey beyond their own licence pursuant to a survey licence, a survey shall be reported pursuant to both types of licenses.

Survey activity which comprises a seismic survey is considered to start when the source is activated.

Temporary suspensions pursuant to the fifth subsection do not need to be reported in the event of brief position changes.

The Norwegian Offshore Directorate's reporting system for surveys can be found at sodir.no.

Re Section 8. Requirements for conducting seismic surveys

Gradual start-up of the audio source (soft start) entails that the audio source starts at low power and gradually increases until full power is achieved (usually within 20 minutes).

Site surveys are one example of surveys where the conditions for deviating from the soft start requirement are satisfied, because it is not technically feasible to regulate the audio volume.

Section 6 of the Petroleum Regulations contains aiming to prevent potential conflicts of interest. If there is no fishery activity in the relevant area during the period in question, the seismic vessel may start its activity. As long as the vessel has its cables deployed, it is considered to be a vessel with "limited ability to manoeuvre", cf. Rule 3 litera g) in Regulation No. 5 of 1 December 1975 relating to preventing collisions at sea (Rules of the Road at Sea). Should fishing vessels appear in such situations, it must yield for the seismic vessels pursuant to Rule 18 litera c) of the <u>Rules of the Road at Sea</u>. Pursuant to the so-called lex specialis principle, the Rules of the Road at Sea supersede the general yield provision in these Regulations Section 8 as regards the seismic vessel's duty to maintain prudent distance to vessels conducting fishery activity.

Re Section 8a. Escort vessel for geophysical surveys

The fisheries expert on the vessel conducting the geophysical survey is responsible for communicating with fishing vessels in the area. If the geophysical vessel is assisted by an escort vessel, it must play a passive role.

The requirement for escort vessels to play a "passive role" entails that the escort vessel can only contact other vessels in the area in special circumstances. This could e.g. become relevant if a vessel maintains a course or makes a manoeuvre that is not compatible with safe navigation, and there are grounds to presume that this may cause harm to personnel, vessels, equipment or tools. It is a prerequisite that other available channels of communication have been attempted before the escort vessel is used as a means to avert harm.

Re Section 9. Requirement to have a fisheries expert on board vessels conducting geophysical surveys

According to the provision, "relevant regulations, documents and data shall be made available to the fisheries expert". This also means the licensee's survey licence or production licence, and any decisions made in connection with the specific survey, including terms and conditions and advice given in connection with the activity.

Re Section 10. Position reporting in connection with geophysical surveys

The Directorate of Fisheries' 24/7 Fisheries Monitoring Centre (FMC) is the point of contact for technical and practical information regarding installation and use of position reporting equipment.

Re Section 11. Requirements for fisheries experts on board vessels conducting geophysical surveys

Changed certificate requirements will apply for participation in courses starting from when the Regulations enter into force.

"Equivalent relevant experience" in the second subsection means documented experience with fisheries inspection at sea.

The manual for the fisheries expert can be found at sodir.no.

Re Section 12. Route surveys and other subsurface surveys

Section 12 is a special rule that makes certain exceptions from the general duty to report provision in Section 6. The first subsection clarifies the main rule that route and other subsurface surveys shall also be reported through the Norwegian Offshore Directorate's reporting system, cf. Section 6.

The second subsection governs when exceptions can be made from the duty to report for certain types of route and other subsurface surveys. The intent of the duty to report is to ensure cooperation at sea by weighing petroleum interests against the consideration for fish and marine animals, vulnerable areas and marine commercial interests. An exception from the duty to report will be relevant if the survey activity is presumed to have no, or very limited, impact on such interests. In general, this could be the case if the activity involves little audio volume and covers a limited area and a limited time interval. If the requirements in the second subsection are satisfied, the route/subsurface survey will not be subject to the duty to report. If one or more of these requirements remains unsatisfied, the duty to report will apply. Should there be a desire to exempt a reportable survey from the duty to report, an application for dispensation must be submitted to the Norwegian Offshore Directorate. The exception will e.g. comprise mapping with hull-mounted or ROV-mounted equipment, such as cameras, video cameras, multibeam echo sounders, penetrating echo sounders, sonar, side scan sonar, magnetometers and acoustic or electromagnetic pipe locators.

Re Chapter 3. Drilling and well activity, etc.

Re Section 13. Registration of wells, permit for exploration drilling and drilling programme

The provision supplements Section 46 of the Petroleum Regulations.

Information regarding what information shall be submitted can be found on the Norwegian Offshore Directorate's website, sodir.no.

The Norwegian Petroleum Offshore systems for well/wellbore designation and classification is described in separate topical guidelines and can be found on the Norwegian Petroleum Offshore website.

As regards the geoscience content of the drilling programme, reference is made to NORSOK standard D-010 Drilling and well operations, revision 4.

The programme shall include the following information for exploration wells and development wells with exploration targets:

- Well information: production licence, licensees, well designation, drilling rig (name, owner, water depth, the drill floor/rotary table (RKB), etc.), geographical coordinates, brief production licence history.
- Geological background: regional geological placement, map with scale and geographical coordinates over the production licence with a prospect outline and well placement, lithological column with depth, formations and explanatory text, pressure, temperature.
- Prospect information: map (time and depth), geological information, velocities, crossing seismic lines through the well, at least one geo-seismic section, completed prospect form and most recently updated prospect outline.
- Data acquisition: type and recipient (incl. the Norwegian Offshore Directorate), criteria (for e.g. coring, WL), table with planned formation evaluation.
- Organisation chart with position, telephone numbers and e-mail addresses.

Re Section 16. Technical geological and reservoir data acquisition in connection with drilling and well activity

When the provision uses the term "should" in connection with data acquisition, the licensee shall have a dialogue with the Norwegian Offshore Directorate to clarify the scope of this data acquisition.

Re Section 17. Information about formation test

The term "formation test" is defined in Section 3 litera k). Testing beyond 10 streamer days must be conducted according to the petroleum Act Section 4-4 and the Petroleum Regulations Section 18 concerning test production.

Information about formation tests shall comprise the following:

- The purpose of the test and how it will take place
- Allocation of produced petroleum
- Overview of costs and income from potential sale,
- Duration of periods with flow and shut-in,
- Estimated rates for oil and gas, as well as volume indication for emissions to air (burning and cold flaring) and discharges to water,
- Assessment of environmental impacts,
- Planned extraction and analysis of formation fluid,
- Potential planned production logging,
- Preliminary log evaluation (Computer Processed Interpretations (CPI)) in measured depth (MD) and true vertical depth (TVD) from the reservoir in scale 1:500.

Re Section 18. Reporting during drilling and well activity

Reporting pursuant to this Section shall take place to the Norwegian Offshore Directorate's and Norwegian Ocean Industry Authority's drilling database DDRS, in accordance with the format and specification provided in the user guideline for DDRS, see sodir.no and havtil.no.

Re Section 19. Classification of petroleum resources on the Norwegian continental shelf

Topical guidelines concerning resource classification have been prepared and are available at sodir.no.

Re Section 20. Designation of discoveries

The provision supplements Section 79 of the Petroleum Regulations.

Re Section 21. Designation of permanently placed facilities

The provision is an elaboration of Section 79 of the Petroleum Regulations.

"Permanently placed" means both mobile facilities that are permanently placed and bottomfixed facilities.

Re Section 23. Information concerning material changes

Should material changes arise in connection with drilling and well activity after documentation has been submitted, the Norwegian Offshore Directorate shall be informed about this as soon as possible. Material changes could be incidents in connection with implementing planned activity that lead to e.g. sidetracks, not possible to implement planned data acquisition, etc.

Re Chapter 4. Submitting materials and documentation

Section 10-4 of the Petroleum Act stipulates that material and information that the licensee has or is preparing in relation to planning and implementation of petroleum activities shall be available, and the authorities may demand that this be submitted. The provision also stipulates that this submission shall take place in the format decided by the Ministry, to the extent that this is found to be reasonable. Based on this provision, the Resource Management Regulations stipulate which materials and information shall be submitted and made available to the Norwegian Offshore Directorate. Format requirements for materials and documentation may be stipulated by the Norwegian Offshore Directorate, cf. Section 53 of the Petroleum Regulations. Guidelines and specifications concerning this can be found at sodir.no.

The guidelines indicate which types of materials and documentation shall be submitted to Diskos. Diskos is the Norwegian Offshore Directorate's national data repository for exploration and production-related information from the Norwegian shelf and an archive for certain types of data. Members of the Diskos Partnership have access to all public data in the database, as well as data Guidelines for Regulations relating to resource management in the petroleum activities

they own themselves. For non-members, there is a public portal with an index of all available public data. This data can be requested from Diskos' database operator at the cost of an administration fee.

Re Section 25. Geophysical data

This provision supplements the provisions in Section 6 of the Petroleum Regulations.

Materials and documentation mentioned in this provision, first subsection litera a) to c), shall be submitted to Diskos in accordance with the Guidelines for reporting geophysical data to authorities ("Yellow Book"), available at sodir.no.

Materials and information mentioned in this provision's, first subsection litera d), shall be submitted to the Norwegian Offshore Directorate.

The Norwegian Offshore Directorate may, upon application, provide dispensations from the routine data reporting requirements, cf. Section 39 of these Regulations. A potential exemption from the reporting requirement will be contingent on field data and pre-stack-data being satisfactorily stored and easily available for everyone requesting access to the data, and the data must also derive from marketable surveys. If the dispensation requirements are subsequently discontinued, the data shall be submitted.

Marketable data will be data collected for the sole purpose of making the data available for sale to a third party. It is a prerequisite that the data is marketable from when they are available to the owner. This means that the data must be available to everyone at market prices from when they are available to the owner and prepared for use. Data acquired for internal use in one or more production licenses is not considered to be "marketable".

Licensees that normally do not conduct surveys with the intent of reselling the data, must document their basis for requesting that a survey is classified as marketable while simultaneously submitting data pursuant to Section 6 (5) of the Petroleum Regulations, cf. Section 6 (8) (h) of the Resource Management Regulations.

Pursuant to this provision, licensees are obliged to submit data that are processed further after routine processing. Continuous adjustments of merges in connection with geophysical work where no material changes are made in the nature of the sub-components shall not be submitted. If a merge is adjusted pre-stack, this shall be submitted.

Re Section 26. Interpreted geophysical data

Interpreted geophysical data is not subject to mandatory reporting pursuant to this Section, but the Norwegian Offshore Directorate may, through individual administrative decision, require that such data be submitted.

Materials and documentation mentioned in this provision shall be submitted to Diskos in accordance with the Guidelines for reporting geophysical data to authorities ("Yellow Book"), available at sodir.no.

As regards the distinction between interpreted and not interpreted data reference is made to the guidelines for interpreted data at <u>sodir.no</u>, which define which data are interpreted data. The following is presumed: "Interpreted data means products that are the result of a discretionary professional assessment, and which are of sufficient quality to potentially form a basis for decisions in the production licence. Processed geophysical data, measured well data or visualisations thereof are not considered to be interpreted data".

Re Section 27. Geotechnical materials and documentation from production licences in the event of relinquishment, surrender, lapse and expiry

The status report requirement applies to production licenses awarded from APA 2006 and for production licences awarded from the 22nd round (in 2012).

A topical guideline describing the content in the report has been made and is available at <u>sodir.no</u>.

"Geo-technical materials and documentation" will comprise both well data and geophysical data.

Re Section 28. Information regarding changes in rights to reported data

Information regarding changes to entitlements for reported data shall be submitted to Diskos.

The objective for this provision is to ensure that the authorities have up-to-date information about who is entitled to data at any given time.

Re Section 29. Submitting samples and preparations from wells

This provision must be read in connection with Section 16 of these Regulations concerning geological and reservoir technical data acquisition in connection with drilling and well activity.

All sample depths shall be stated as measured depth in relation to the drill floor/rotary table (RKB). As regards fluid samples taken as downhole pressure samples, the date and name of the sample-taker shall be stated for both the pressure sample taken at the drilling facility and for subsequent opening of/sampling from the pressure sample in the laboratory. For fluid samples, depth interval is the same as perforation intervals. Standard sample bottles for fluid samples may be procured by the Norwegian Offshore Directorate.

A "rig set" means 10 - 20 grams of all drill cuttings samples in a well/wellbore. The samples are washed and dried on the rig.

Palynological preparations shall be made with a "permanent mounting medium". Glyceringelatin is not a permanent mounting medium and shall not be used as a mounting medium.

Materials and documentation mentioned in this provision's, second subsection literas e) and f) and third subsection literas c) and d), shall be submitted to Diskos in accordance with Guidelines for reporting well data to authorities after completion ("Blue Book"), which can be found at <u>sodir.no</u>.

Re Section 30. Well data

Materials and documentation mentioned in this provision, shall be submitted to Diskos in accordance with Guidelines for reporting well data to the authorities ("Blue Book"), available at <u>sodir.no</u>.

Re Section 31. Interpreted well data

For all types of wells, a geotechnical and reservoir technical final report, as well as the digital data mentioned in this provision shall be submitted to Diskos, along with reports on biostratigraphy, geochemistry and other special studies. The Discovery report shall also be sent to Diskos.

The duty to submit prognoses and results pursuant to litra b applies for production wellbores with discoveries and for all wildcat wells, not only wildcat wells with discoveries. The prognoses and results are to be submitted in digital format to the Norwegian Offshore Directorate. Information is available at sodir.no.

Materials and documentation mentioned in this provision, shall be submitted in accordance with the Guidelines for reporting well data to authorities ("Blue Book"), available at <u>sodir.no</u>.

As regards the distinction between interpreted and non-interpreted data reference is made to Regulations to Act relating to petroleum activities Section 85 fourth subsection, and the guidelines for interpreted data at <u>sodir.no</u>. This is also addressed under the notes on Section 26 of the Resource Regulation.

Re Section 32. Status report before start-up of production

This report shall provide the authorities with a status update on resource issues at the start-up date with emphasis on changes in basic data and any measures in relation to the original plans. The report shall also indicate the status of potential conditions issued in connection with approval of the plan for development and operation. The report will also form the basis for evaluating the future course of production for the field.

The report will serve as documentation both for application for production permit according to the Petroleum Regulation Section 23, and for application for consent to commencement according to the Petroleum Regulation Section 30a.

A topical guideline describing the content of the report is available at sodir.no.

Re Section 34. Monthly information regarding production data

This provision supplements Section 48 and Section 49 of the Petroleum Regulations.

Documentation mentioned in this provision, shall be submitted to Diskos in accordance with the Guidelines for reporting monthly production data. ("Green Book"), available at <u>sodir.no</u>.

Re Section 35. Content of annual status report for fields in production

This provision supplements Section 47 of the Petroleum Regulations.

The annual status report shall provide the authorities with updated information about individual fields and contribute information to facilitate evaluation of the field's production development and production strategy, etc. The status report will also constitute a basis for assessing a potential application for a production licence for the field and provide an overview of significant factors that affect production. It will also provide an evaluation of the production schedule related to adopted plans or production licences, and account for any deviations.

A topical guideline describing the content of the report has been prepared and can be found at <u>sodir.no</u>.

Re Section 37. Using geological sample material from the Norwegian Offshore Directorate

This provision applies for using geological sample material from the Norwegian Offshore Directorate's Geobank from boreholes, in the form of cuttings, cores and oil samples.

The Norwegian Offshore Directorate has prepared separate topical guidelines to explain how access can be granted to extracts from geological sample materials and the criteria for such access. This can be found at <u>sodir.no</u>.

Info

English version is only revised periodically and may not necessarily reflect recent changes.