

5. Geophysical Activity Requirements

The geophysical activity section of this manual provides operating guidelines for regulatory requirements throughout the operations life cycle of the permitted activity. Construction activities are discussed in Section 4 of this manual. Associated oil and gas activities, if required in addition to the oil and gas activity permit, are touched on in Section 3.1 of this manual.

Please Note:

This manual is written as a whole and provided to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual

5.1 Geophysical Permitted Activities

All permit holders are ultimately responsible for ensuring they understand and meet all legal and regulatory requirements of the permit, including all conditions attached to the permit.

5.1.1 Geophysical Defined

Geophysical exploration is an oil and gas activity under the [Energy Resource Activities Act](#) (ERAA) and is specifically defined in the [Petroleum and Natural Gas Act](#) (PNG) Act as:

- Investigation of the subsurface by seismic, gravimetric, magnetic, electric and geochemical operations and by any other method approved by the Regulator, but does not include the use of geophysical well logs, vertical seismic profile surveys or other surveys obtained from a well.

5.1.2 Regulatory Requirements

Geophysical exploration activities must meet the design and operational requirements outlined in the [Energy Resource Activities Act](#) (ERAA), [Geophysical Exploration Regulation](#) (GER) and the [Environmental Protection and Management Regulation](#) (EPMR).

5.1.3 Guidance Requirements

Geophysical exploration activities should meet guidance recommendations in the following documents:

- [Environmental Protection & Management Guideline](#).
- [Horn River Basin and Muskwa-Kechika Management Area Guidance Document](#).

Permit Condition: Geophysical Line Shift Variances

Geophysical line shift variances provide the permit holder with the flexibility to adjust geophysical lines one way or another within the variance permitted. Providing line shift variances comply with buffer distances, permit holders have the ability to adjust geophysical lines without having to submit an amendment.

Applicants should consider geophysical line shift variances as part of the application to ensure flexibility to use during operation. Refer to the Regulator's [Oil and Gas Activity Application Manual](#) for further details. Permit holders must submit an amendment if changes are required for activities impacting any area outside of the line shift variance or if a variance was not established.

5.2 Geophysical Reporting

The Regulator is tasked with the management and oversight of the permissions and authorizations issued under ERAA and other statutes. As a result, ERAA and its regulations contain a series of fixed communication points ensuring the Regulator receives the necessary information, data or general communications required. Receiving this information allows for the reconciliation of permits, authorizations and most importantly ensures the Regulator is apprised of events and actions of a permit holder; therefore, influencing our ability to verify the status of each activity.

The following section provides a description of the processes and the means of submitting

relevant information, as well as providing some clarity on the regulatory expectations for geophysical reporting.

Date of Commencement

The geophysical regulation requires permit holders to define the actual date operations commenced. Unlike other oil and gas activities, the “Date of Commencement” as defined in regulation, does not require holders to notify the Regulator prior to initiating operations.

Under the geophysical regulation the “Date of Commencement” must be entered during the first Geophysical Project Report (i.e. the first Monday following commencement).

5.2.1 Geophysical Project Reporting (Weekly Report/Monday Report)

The Geophysical weekly project reports facilitate the Regulator's awareness of a program's development allowing for effective communication between operators and the Regulator. The process ensures the Regulator has sufficient information available to handle public and First Nations inquiries while also supporting effective communications between operators and the Regulator's compliance and enforcement staff.

The [Geophysical Exploration Regulation](#) (GER) has specific requirements for survey monuments, hole plugging, hole shots, misfired charges, flow of gas or water, refuse removal and campsite cleanup and restoration including actions to be taken. Permit holders are required to review these sections regularly. The Regulator recommends that (for the purposes of GER Section 5 (1) (c)), bentonite, at a minimum, is a suitable material to fill a shot hole above a plug on private land.

The Geophysical Project Report is submitted every Monday (before noon) following the date of commencement, and on each subsequent Monday while the project is in progress.

The Geophysical Project reporting process enables the submission of information required for public safety and may include:

- Flowing holes (water or gas flow released to surface as a result of drilling) according to Section 8 of GER.
- Misfired charge. Part of the Regulator's mandate is to ensure misfired charges are effectively managed for and reported to ensure future initiatives are made aware of potential hazards. Review Work Safe BC's [Misfired Procedures](#). Misfired charges are reported to the Regulator via

the weekly report (while programs are active). They are also included in the final plan submission (detailed on map).

- Handling requirements according to Section 7 of GER.
- Monument moved, damaged or destroyed.
- Land or property damage occurs.
- Temporary shutdowns if the temporary shutdown will last greater than five days. Report the shutdown start date and estimated re-start date (“shutdown Start Date”).

Reporting requirements are detailed in Section 2(2)(f) of GER. Submit the Geophysical Project Report through eSubmission. Access to eSubmission and documentation for using eSubmission is found on the [Online Services](#) page of the Regulator’s website.

Date of Completion

The date the acquisition of data is completed (i.e. recording 100 per cent complete). The submission of a completion date signifies the permitted activities are complete (permit granted is exhausted or no-longer required). The completion date is a precursor for the submission of a Final Plan.

Final Plans

Final Plans are required within 60 days of the completion of a geophysical project according to Section 2 of GER. All geophysical final plans are submitted through [eSubmission portal](#). Please see Section 2(6) of the GER provides detailed content requirements for Final Plan submissions.

Program Cleanup

As required in Sections 9 through 12 of GER, the submission of a Completion Date signifies a permit is spent and no additional geophysical harvesting, drilling or recording will be undertaken. Permit holders are responsible for any cleanup operations, regardless of the permit being deemed spent. The Regulator recognizes that winter conditions (for example: snow fall) may affect the cleanup stage; therefore, clean-up activities may require permit holders to revisit the site during snow free conditions.

Garbage

The Regulator expects field cleanup activities be carried out prior to June 1st following the previous winter.

Stream crossings

Restoration of stream crossings (for example: snow fills) is viewed as operational activity, meaning that crossing should be removed immediately following the completion of recording.