

NEW RECLAMATION STANDARDS FOR OIL & GAS WELL SITES AND PIPELINES IN THE AGRICULTURAL LAND RESERVE

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ABSTRACT

All uses of land by the petroleum industry in British Columbia's Agricultural Land Reserve are subject to the Agricultural Land Commission Act and require the approval of the Commission. The Agricultural Land Commission adopted General Order 293/95 on April 10, 1995, and the requirements of this Order are now in effect.

The purpose of General Order 293/95 is to streamline existing regulations and to clarify reclamation standards. The General Order will allow some oil and gas developments to proceed without making an application to the Commission, as long as the conditions of the Order are adhered to. The reclamation standards which have been adopted are similar to requirements currently in place in northwestern Alberta because similar landforms, soils, and land uses exist in the Peace River region of BC. In addition, adopting similar requirements provides consistency for the industry between adjacent jurisdictions, and allows BC to benefit from the years of experience and consultation with the petroleum industry which has occurred in Alberta.

General Order 293/95 applies only to land in the ALR contained in the Peace River Regional District and the Fort Nelson-Liard Regional District.

INTRODUCTION

All uses of land by the petroleum industry in British Columbia's Agricultural Land Reserve (ALR) are subject to the Agricultural Land Commission Act and require the approval of the Commission. The ALR was established in 1974 in partnership with local governments, and it totals approximately 1.5 million hectares (or 7% of the land) in the Peace River region of British Columbia. In general, the Commission views petroleum developments as temporary activities as long as the land is restored to its original or better condition, and the disruption to farm operations is minimal.

Agriculture and the petroleum industry have enjoyed a long relationship of mutual benefit and goodwill. As far back as 1982, the Commission passed General Order 132/82 to facilitate the development of well sites and pipelines. It is now generally accepted that, after 12 years, General Order 132/82 no longer meets the needs of the Commission or the petroleum industry. On April 10, 1995, a new order, General Order 293/95, was adopted and General Order 132/82 was rescinded.

The purpose of General Order 293/95 is to streamline existing regulations and to clarify reclamation standards. The General Order will allow some oil and gas developments to proceed without making an application to the Commission, as long as the conditions of the Order are adhered to.

NEED FOR CHANGE

Clear reclamation standards are required because of the increasing density of oil and gas developments, and the number of suspended wells which may be abandoned over the next few years. General Order 132/82 required that the surface lease be restored, "to its original or better topographical and soil condition prior to the issuance of a Certificate of Restoration by the Ministry of Energy, Mines and Petroleum Resources", but it did not specify standards for determining whether a particular site had been adequately reclaimed.

To date, the Ministry of Energy, Mines and Petroleum Resources has authorized over 9,100 well sites in British Columbia, and almost all of these developments have occurred in the Peace River region of the province. Based on an analysis of records for 1994, approximately 1/3 of these well sites are located in the ALR, and each well site normally requires a surface lease of about 2 hectares in size. Directional drilling, enhanced recovery techniques, and the granting of tenures at different elevations, have all combined to significantly increase the density of petroleum developments. The potential impact of these developments on agricultural soils and farm operations has increased with their increased density.

In addition, the petroleum industry often needs quick decisions from government agencies on land use applications due to volatile world prices and a competitive business environment. The length of time required to receive a decision from the Commission on an application has been a source of complaints from the petroleum industry. Therefore, the new General Order is intended to reduce the number of applications submitted to the Commission in addition to standardizing reclamation requirements.

PUBLIC CONSULTATION PROCESS

General Order 293/95 was developed in consultation with the petroleum industry, farm community, and local governments. The Commission distributed over 500 copies of a questionnaire in September 1994 requesting public input on a proposal to replace General Order 132/82. In response to the questionnaire, a meeting was held in Fort St. John between the North Pine Farmers Institute and representatives of the Commission, the Ministry of Energy, Mines and Petroleum Resources, the Ministry of Agriculture, Fisheries and Food, the Mediation and Arbitration Board, and the Peace River Regional District. The discussion at this meeting reflected other responses to the questionnaire which suggested that the density of petroleum developments is less of a concern than where the developments are located, and how they are constructed and reclaimed.

As a result, the first draft of the new General Order emphasized procedures to assess whether a site has been adequately reclaimed. It also created a provision for a landowner to require an application to the Commission be made if they object to the location of the proposed development. A total of 57 copies of this draft were distributed in January 1995 for comments and suggestions, and everyone who responded to the questionnaire received a copy. In addition, public meetings were organized by the North Pine Farmers Institute and the Nor' Pioneer Women's Institute in Montney and Cecil Lake respectively, to discuss the proposed General Order and other issues related to the petroleum industry. These meetings attracted approximately 100 farmers and local landowners, and resulted in numerous informal contacts. The proposed General Order was also discussed at a meeting hosted by the Ministry of Energy, Mines and Petroleum Resources on March 14, 1995 in Fort St. John to discuss current operating requirements for the petroleum industry. Approximately 50 representatives from petroleum companies and affected government agencies were in attendance.

By March 31, 1995, a total of 62 written responses had been received, and several significant revisions were made to the original draft. The role of landowners was strengthened, site assessment requirements were reduced, and some soil samples now require analysis by a laboratory. In addition to specific suggestions, two important areas of consensus were noted. Farmers and the petroleum industry agreed there is a need for clear reclamation standards, and that standards currently in place in northwestern Alberta should be considered as a basis for requirements in the Peace River region of B.C.

GENERAL ORDER 293/95

The Agricultural Land Commission adopted General Order 293/95 on April 10, 1995, and the requirements of this Order are now in effect. The reclamation standards contained in General Order 293/95 will be used to assess existing developments because the new Order is consistent with, and clarifies, the requirements of the previous Order, General Order 132/82. The following information is only a summary of the main elements of this new Order, and General Order 293/95 should be referred to in its entirety to ensure that proposed developments are in compliance with its requirements. Copies of General Order 293/95 are available from the Agricultural Land Commission, and the Fort St. John offices of the Ministry of Energy, Mines and Petroleum Resources and the Ministry of Municipal Affairs.

Geographical Extent

General Order 293/95 applies only to land in the ALR contained in the Peace River Regional District and the Fort Nelson-Liard Regional District. All petroleum developments proposed for land in the ALR outside of these two regional districts must make an application to the Commission for approval to proceed.

Special Cases

The following developments are allowed to proceed without making an application to the Commission provided that the land is restored to its original or better topographic and soil condition before a Certificate of Restoration is issued by the Ministry of Energy, Mines and Petroleum Resources:

1. geophysical exploration for oil and gas
2. drilling an oil or gas well on an existing surface lease if the site has already been disturbed
3. drilling an oil or gas well, or installing a pipeline less than 5 kilometers in length, where new soil information indicates, in the opinion of the Commission, these works would be located on muskeg soils

New Well Sites and Pipelines

The construction of a new oil and gas well, access road, a pipeline less than 5 kilometers in length, and ancillary pumping facilities can proceed without making an application to the Commission provided that the following conditions are adhered to:

- a. the owner of the land has consented to the development in writing, and
- b. the Regional Director of the Ministry of Agriculture, Fisheries and Food has no objection to the development, and
- c. no more than 2 wells will exist per quarter section and the combined area of the surface leases is less than 5 hectares, once the proposed development is constructed, and
- d. the development is located on a land parcel equal to or greater than 60 hectares, and
- e. a reclamation specialist is hired by the owner of the development, unless the owner of the land states in writing that the specialist is not required, who has a minimum of 2 years of related training and has experience in land restoration, to provide advice on the site assessment, construction of the development, and reclamation of the land, and
- f. the owner of the development files the following reports with the Provincial Agricultural Land Commission and the owner of the land prior to constructing the development;
 - i. a site assessment of the surface lease or right-of-way
 - ii. a report which provides evidence that the development complies with the above requirements
 - iii. a reclamation plan
- g. the owner of the development ensures that the surface lease is restored to the reclamation standards outlined in the General Order and files a report with the Provincial Agricultural Land Commission and the owner of the land prior to the issuance of a Certificate of Restoration by the Ministry of Energy, Mines and Petroleum Resources, or within 18 months of installing a pipeline, which provides evidence that these standards have been met.

Site Assessment

The soils of all new surface leases and right-of-ways must be documented prior to construction so that reclamation of the land can be planned effectively. The level of effort required to document soil conditions will vary depending on local conditions, but Schedule A of General Order 293/95 outlines the minimum requirements of a site assessment. Some of the key requirements of this assessment are:

- * soil conditions of a well site must be sampled in five locations: one sample near each corner of the surface lease and one from the center of the lease.
- * the A horizon from the five samples from a well site must be combined and analyzed at a laboratory for organic content, pH, and texture.
- * access roads and pipelines greater than 500 meters in length require one sample on the centerline of the right-of-way for every 250 meters in length.

Reclamation Standards

Schedule B of General Order 293/95 outlines the minimum standards which must be met when restoring land which has been disturbed by oil and gas developments. The standards which have been adopted are similar to requirements currently in place in northwestern Alberta because similar landforms, soils, and land uses exist in the Peace River region of BC. In addition, adopting similar requirements provides consistency for the industry between adjacent jurisdictions, and allows BC to benefit from the years of experience and consultation with the petroleum industry which has occurred in Alberta.

The reclamation standards outlined in General Order 293/95 do not address site contamination and the disposal of wastes because these matters are the responsibility of other government agencies. In addition, this Order recommends that the decommissioning and reclamation guidelines published by the Canadian Association of Petroleum Producers in September 1992 be followed when restoring surface leases and right-of-ways.

Some of the key requirements of the reclamation standards are:

- * the quantity and quality of soil replaced on a well site must be sampled by using a 20 meter by 20 meter grid. One sample must be taken from the middle of each square in the grid where the ground has been disturbed. The main purpose of the grid is to ensure that the soil has been replaced evenly over the disturbed ground.
- * the A horizon from five representative samples the grid from a well site must be combined and analyzed at a laboratory for organic content, pH, and texture.

- * a minimum of four control samples must be taken from undisturbed ground adjacent to the surface lease of the well, and compared with the samples from the grid.
- * the quantity and quality of soil replaced on right-of-ways must be sampled at 250 meter intervals for access roads and pipelines greater than 250 meters in length. Two samples are required at each location: one on the centerline of the right-of-way, and one 10 meters outside of the right-of-way on undisturbed ground.
- * the average replacement depth of the replaced soil must be equal to or greater than 80% of the depth of the average A horizon on the adjacent undisturbed ground. This requirement does not apply where the average A horizon depth on the undisturbed ground is less than 10 centimeters, but the soil must be replaced as evenly as possible over the site.
- * the average admixing of all the samples of the replaced soil, that is, inclusion of soil from the B horizon into the A horizon, must not be greater than 30%.
- * the average aggregate class of the replaced soil must be the same as the average aggregate class of the samples from the undisturbed ground.
- * the density of the subsoil of the undisturbed ground must not be more than 120% of the average density of the subsoil of the undisturbed ground.

Schedule B of General Order 293/95 also includes subjective criteria for determining whether the topography of the site has been restored to its original or better condition. Drainage, erosion, slope stability and the presence of debris must all be assessed. Subjective criteria are also established for evaluating whether vegetation has been adequately restored on the surface lease or right-of-way. The criteria must be met within 18 months of applying a seed mixture or introducing vegetation to the disturbed ground.

REFERENCES

Alberta Environmental Protection. 1994. Guide for Oil Production Sites, Pursuant to the Environmental Protection and Enhancement Act and Regulations. Alberta Environmental Protection, Land Reclamation Division, Edmonton. 75 p.

Alberta Environmental Protection. 1994. Guide for Pipelines , Pursuant to the Environmental Protection and Enhancement Act and Regulations. Alberta Environmental Protection, Land Reclamation Division, Edmonton. 78 p.

Alberta Environmental Protection, Land Reclamation Division. 1994. Reclamation Criteria for Wellsites and Associated Facilities. Information Letter C&R/1L/94-1. 46 p.

Alberta Environmental Protection, Land Reclamation Division. 1994. Environmental Protection Guidelines for Pipelines. Information Letter C&R/IL/94-5. 10 p.

Alberta Environmental Protection, Land Reclamation Division. 1994. Questions About the Reclamation Criteria for Wellsites and Associated Facilities. Information Letter C&R/IL/94-7. 3 p.

David Bromley Engineering (1983) Ltd. 1992. Decommissioning and Reclamation Guidelines for Small Oil and Gas Sites in Western Canada. Canadian Association of Petroleum Producers, Calgary. 123 p.

Sasaki, H. 1988. Surface Rights in British Columbia: A Guide to the Legislation and Regulations for the Petroleum and Natural Gas Industry. Ministry of Agriculture, Fisheries and Food, Victoria. 15 p.

CERTIFICATE OF GENERAL ORDER 293/95

**OIL & GAS EXPLORATION,
WELL SITES, AND PIPELINES IN THE
AGRICULTURAL LAND RESERVE**

WHEREAS Section 29(1) of the Agricultural Land Commission Act states that this Act and regulations are not subject to any other enactment, whenever enacted, except the Interpretation Act, the Environment and Land Use Act, the Waste Management Act and as provided in this Act or regulations;

AND WHEREAS Section 15(2) of the Agricultural Land Commission Act prohibits the use of agricultural land in any Agricultural Land Reserve for any purpose other than farm use, except as permitted by the Act, the regulations or an order of the Commission, on terms the Commission may impose;

AND WHEREAS Section 44 of BC Regulation 313/78 states that all Special Cases require approval from the Commission;

AND WHEREAS Section 44(e) of BC Regulation 313/78 describes the dedication or construction of new highway, road or railway rights of way as Special Cases;

AND WHEREAS Section 44(f) of BC Regulation 313/78 describes pipeline pumping stations, underground pipelines and any ancillary purpose as Special Cases;

AND WHEREAS Section 44(j) of BC Regulation 313/78 describes well drillings and access to well sites as Special Cases;

AND WHEREAS Section 44(m) of BC Regulation 313/78 describes surveying, exploring or prospecting for gravel, oil or minerals, provided all cuts, trenches and similar alterations will be restored to the natural ground level and all topsoil replaced, as Special Cases;

AND WHEREAS it is the objective of the Provincial Agricultural Land Commission to preserve agricultural land and to encourage the establishment and maintenance of farms;

AND WHEREAS the Provincial Agricultural Land Commission views some oil and gas developments in the Agricultural Land Reserve: as temporary activities as long as the land is restored to its original or better condition, and the disruption to farm operations is minimal and acceptable to the landowner;

NOW THEREFORE I hereby certify that the Provincial Agricultural Land Commission by Resolution #293/95 passed an Order of General Application pursuant to Section 15 of the Agricultural Land Commission Act to apply to all lands within the Agricultural Land Reserve in the Peace River Regional District and the Fort Nelson-Liard Regional District, to allow for the use of land without making an application to the Commission

FOR,

1. geophysical exploration for oil and gas, and
2. drilling an oil or gas well on an existing surface lease if the site has already been disturbed, and
3. drilling an oil or gas well, or installing a pipeline less than 5 kilometers in length, • where new soil information indicates, in the opinion of the Commission, these works would be located on muskeg soils,

PROVIDED THAT when the land is no longer required, the land disturbed by this use is restored to its original or better topographic and soil condition prior to its disturbance by oil and gas developments before a Certificate of Restoration pursuant to the Petroleum and Natural Gas Act is issued by the Ministry of Energy, Mines and Petroleum Resources,

AND FOR,

4. constructing an oil or gas well, access roads., a pipeline less than 5 kilometers in length, and ancillary pumping facilities ("the development") on a new surface lease

PROVIDED THAT,

- (a) the owner of the land has consented to the development in writing, and
- (b) the Regional Director, Central-Peace Region of the Ministry of Agriculture, Fisheries and Food has no objection to the development as outlined in a referral of an application for a well site or pipeline, and
- (c) no more than 2 wells will exist per quarter section and the combined area of the surface leases is less than 5 hectares, once the proposed development is constructed, and
- (d) the development is located on a land parcel equal to or greater than 60 hectares, and

- (e) a reclamation specialist is hired by the owner of the development, unless the owner of the land states in writing that the specialist is not required, who has a minimum of 2 years of related training and has experience in land restoration, to provide advice on the site assessment, construction of the development, and reclamation of the land, and
- (f) the owner of the development files the following reports, which must be developed in consultation with the owner of the land, with the Provincial Agricultural Land Commission and the owner of the land prior to constructing the development;
 - i. a site assessment of the surface lease which is completed in accordance with Schedule A, and
 - ii. a report which provides evidence that the development complies with paragraphs 4(a) to 4(e), and which includes a copy of the executed surface lease and related survey plan, and
 - iii. a reclamation plan outlining what actions will be taken to ensure that the standards outlined in Schedule B, or other standards set by the Commission, will be met before the surface lease is extinguished, and
- (g) the owner of the development ensures that the surface lease is restored to the standards outlined in Schedule B, or other standards set by the Commission, and files a report with the Provincial Agricultural Land Commission and the owner of the land prior to the issuance of a Certificate of Restoration by the Ministry of Energy, Mines and Petroleum Resources, or within 18 months of installing a pipeline, which provides evidence that these standards have been met.

Failure to comply with paragraphs 4(a) to 4(g) for works described in paragraph 4, may result in the Provincial Agricultural Land Commission taking further action pursuant to Section 34 and Section 35 of the Agricultural Land Commission Act.

This General Order in no way relieves the owner of the oil and gas development of the responsibility of adhering to all other legislation which may apply to the land. This includes zoning, subdivision, or other land use bylaws and decisions of any authorities which have jurisdiction.

Dated at Burnaby, British Columbia on the 10th day of April, 1995.



K.B. Miller ~~Chair~~
Provincial Agricultural Land Commission

GENERAL ORDER 293/95:

SCHEDULE A

SITE ASSESSMENT REQUIREMENTS:

The soils of surface leases must be documented prior to construction so that the reclamation of the land can be planned effectively. Surface lease means all leases, easements, and rights-of-way which may be required for a well site, access road or pipeline.

It is recommended that the owner of the development be familiar with the Weed Control Act and its regulations to ensure that the construction, management, and reclamation of the surface lease is in compliance with this Act.

The level of effort required to conduct site assessments will vary depending on local conditions, but the following requirements are the minimum information which must be ; filed with the Provincial Agricultural Land Commission and the owner of the land:

- Site Information:**
- * well name and well site approval number
 - * petroleum company
 - * location and legal description of property
 - * name and address of landowner
 - * date of site inspection
 - * name and address of person conducting the site assessment
- Site Description:**
- * a brief description of the surficial geology. This information is available from published soil surveys and government reports.
 - * the agricultural capability rating from published resource inventory maps, such as the Canada Land Inventory maps.
 - * a rating of the surface drainage as good, moderate or poor.
 - * a description of the site topography, indicating the gradient and aspect of slopes.

Sampling Procedures:

The primary purpose of the site assessment is to document the soil quality, quantity, and profile of the surface lease. Soil sampling can be done with hand tools, an auger, or construction equipment. The following procedures must be followed:

GENERAL ORDER 293/95: SCHEDULE A

Sampling Procedures - cont'd:

- * the soil conditions of a well site must be sampled at five locations: one sample must be taken 5 m inside from each corner of the surface lease boundary, and one sample must be taken at the center of the surface lease.
- * access roads and pipelines greater than 500 m in length require one sample on the centerline of the surface lease for every 250 m in length.
- * soil samples must extend 20 cm below the B horizon, or to a maximum depth of 100 cm below the surface of the ground.

Soil Assessment:

A visual analysis of the soil at each sample location must include the following information:

Sample Number	A Horizon:		B Horizon:	
	Depth (cm)	Description	Depth (cm)	Description

The A horizon is the upper portion of the soil profile that has been significantly altered by accumulation of organic matter and by weathering processes. This layer is commonly referred to as "topsoil". The B horizon is the soil layer below the topsoil that has been altered by weathering but has little or no visible accumulations of organic matter.

The description of each horizon must include its texture class, based on the Canadian Soil Classification System.

The A horizon from the five samples from a well site must be combined and thoroughly mixed. A portion of this combined sample must be sent to a laboratory for an analysis of its organic content, pH, and texture.

GENERAL ORDER 293/95: SCHEDULE A

Photographs:

Photographs must be taken which show the condition of the surface lease prior to disturbance. Each photograph should be labeled with the date and WA #, and should be numbered so that additional information can be summarized in the following table:

Photo #	Location	Direction	Comments

Sketch Map:

The site assessment must include a sketch map of the surface lease which shows the following information:

- * location of where the soil samples were taken
- * location and direction of the photographs
- * boundaries of the well site, access road, and pipeline right-of-ways
- * current vegetation and land use
- * topographical features such as, slope direction and drainage patterns
- * location and description of works required to prevent soil erosion from runoff

GENERAL ORDER 293/95:

SCHEDULE B

SITE RECLAMATION REQUIREMENTS:

The purpose of the following requirements is to ensure that the soil, topography, and vegetation of surface leases are restored to their original or better conditions after wells have been decommissioned and pipelines have been installed. Surface lease means all leases, easements, and rights-of-way which may be required for a well site, access road or pipeline. The requirements do not address site contamination and the disposal of wastes because these matters are the responsibility of other government agencies.

It is recommended that the decommissioning and reclamation guidelines published by the Canadian Association of Petroleum Producers in September 1992 be followed when restoring surface leases.

A report which documents that the following minimum requirements have been met must be filed with the Provincial Agricultural Land Commission and the owner of the land prior to a Certificate of Restoration being issued by the Ministry of Energy, Mines and Petroleum Resources, or within 18 months of installing a pipeline:

Definition of Surface Soil:

For the purposes of Schedule B, surface soil means the soil which has been salvaged, amended, and replaced onto the surface lease.

Sampling Procedures:

a. Well Site

No soil sampling is required for portions of the surface lease where no soil disturbance has occurred. Disturbance includes, but is not limited to, stripping, rutting, trenching, compaction, and erosion.

The quantity and quality of the replaced surface soil on a surface lease must be sampled using a 20 in X 20 m sampling grid. The edges of the grid should correspond to the boundaries of the surface lease, and grid should be adjusted to evenly cover the entire lease. A soil sample must be taken from the middle of each 20 m X 20 m grid, for each grid in the surface lease.

GENERAL ORDER 293/95: SCHEDULE B

Sampling Procedures - cont'd:

A minimum of four control samples must be taken from adjacent undisturbed ground; one each from the centerpoint of each side of the surface lease.

b. Access Roads and Pipelines

The quantity and quality of the replaced surface soil must be sampled at 250 m intervals for roads and pipelines > 250 m in length, and a minimum of two sampling locations is required for roads and pipelines less than 250 m in length.

Two samples are required for each sampling location. One sample must be taken from the centerline of the surface lease, and one sample must be taken from undisturbed ground 10 m outside the boundary of the surface lease.

Soil Assessment:

Each soil sample must penetrate 20 cm below the surface soil, or to a maximum depth of 50 cm. A visual analysis of each sample of the surface soil must include the following information:

Sample Number	Surface Soil: Depth (cm)	Description	Admixing %	Aggregate Size

The description of each sample must include its texture class, based on the Canadian Soil Classification System. The extent of admixing (i.e. mixing of the B horizon into the A horizon) must be recorded. The admixing classes are: 0-10%, 10-20%, 20-30% 30-40%, 40-50% and >50%.

The aggregate size distribution for each sample of the surface soil must be recorded. The aggregate size classes are: <2 cm, 2-5 cm, and >5-10 cm. No soil aggregates greater than 10 cm are allowed.

GENERAL ORDER 293/95: SCHEDULE B

Soil Assessment - Cont'd:

The surface soil from five representative samples from a well site must be combined and thoroughly mixed. A portion of this combined sample must be sent to a laboratory for an analysis of its organic content, pH, and texture.

A Visual analysis of each sample from undisturbed ground must include the following information:

Sample Number	A Horizon:		B Horizon:	
	Depth (cm)	Description	Depth (cm)	Description

The description of each sample must include its texture class, based on the Canadian Soil Classification System.

Soil Reclamation Requirements:

The following minimum reclamation standards; must be met:

a. Depth of Surface Soil

- * the required replacement depth (RRD) of surface soil is 80% of the depth of the average A horizon on the adjacent undisturbed ground.
- * the average replacement depth (ARD) is the average depth of all the surface soil samples. The ARD must be equal to or greater than the RRD.
- * the minimum replacement depth (MRD) is 80% of the RRD. All surface soil samples must be > the MRD, except for surface leases which were originally covered by native trees or shrubs. Sites which were covered by trees or shrubs may have three surface soil samples, which are not adjacent, that are: > 40% of the RRD.

The MRD requirement does not apply where the average A horizon depth on the undisturbed ground is <10 cm, but the available surface soil must be replaced as evenly as possible across the entire surface lease.



Provincial Agricultural
Land Commission

MEMORANDUM

April 18, 1995

RE: GENERAL ORDER 293/95

OIL & GAS EXPLORATION, WELL SITES, AND PIPELINES IN THE AGRICULTURAL LAND RESERVE

The Agricultural Land Commission adopted the enclosed Certificate of General Order 293/95 on April 10, 1995, and the requirements of this Order are now in effect. In addition, General Order 132/82 was rescinded on the same date.

The purpose of the new General Order is to streamline existing regulations and to clarify reclamation standards. The General Order will allow some oil and gas developments to proceed without making an application to the Commission, as long as the conditions in the Order are adhered to.

General Order 293/95 was developed in consultation with the petroleum industry, farm community, and local governments. The Commission distributed over 500 copies of a questionnaire in September, 1994 requesting public input on a proposal to replace General Order 132/82. A draft Order was subsequently prepared and distributed in January 1995 to people who responded to the questionnaire, and to key government agencies. The draft Order was discussed at public meetings in Montney and Cecil Lake, which attracted approximately 100 farmers and local landowners. It was also reviewed by more than 30 different representatives of the petroleum industry, including the BC Ministry of Energy, Mines and Petroleum Resources.

Responses to the questionnaire emphasized that the density of petroleum developments is less of a concern than where the developments are located, and how they are constructed and reclaimed. As a result, General Order 293/95 sets out procedures for comparing disturbed and undisturbed ground to determine if a site has been adequately reclaimed. The reclamation standards outlined in the Order are similar to requirements in northwestern Alberta.

I wish to thank all of the people who took the time to attend meetings and forward their comments during the development of General Order 293/95. We received numerous helpful suggestions which resulted in some significant revisions to the initial draft. The role of landowners was strengthened, site assessment requirements were reduced, and some soil samples now require analysis by a laboratory.

I believe that there is always room for improvement, and I look forward to your comments on the effectiveness of General Order 293/95. The Agricultural Land Commission intends on reviewing the standards and requirements contained in this Order in Spring '96.

Thank you for your assistance.

K.B. Miller - Chair
Agricultural Land Commission

(Distribution list attached)



Provincial Agricultural
Land Commission

MEMORANDUM

OIL & GAS EXPLORATION, WELL SITES, AND PIPELINES IN THE AGRICULTURAL LAND RESERVE

QUESTIONS ABOUT GENERAL ORDER 293/95

BACKGROUND

The Agricultural Land Commission adopted General Order 293/95 on April 10, 1995, and the requirements of this Order are now in effect.

The purpose of this new Order is to streamline existing regulations and to clarify reclamation standards. The Order will allow some oil & gas developments to proceed without making an application to the Commission, as long as the conditions in the Order are adhered to.

This newsletter answers some of the questions which were frequently asked during the development of this Order. If you need further information or clarification please contact the Agricultural Land Commission.

Additional copies of General Order 293/95 are available from:

Agricultural Land Commission
133 - 4940 Canada Way,
Burnaby, B.C. V5G 4K6
(604)660-7000

**Ministry of Energy, Mines and Petroleum
Resources - Engineering and Operations Br.**
P.O. Box 6880,
Fort St John, B.C. V1J 4J3
(604) 262-3300

Ministry of Municipal Affairs
Engineering and Inspection Branch
245 - 4299 Canada Way,
Burnaby, B.C. V5G 1H9
(604) 660-5960

Agricultural Land Commission

GENERAL QUESTIONS

Q1: Is this Order limited to the Peace River region of British Columbia?

Yes. An application must be filed with the Agricultural Land Commission for all oil & gas developments outside of the Peace River region, which are proposed for land in the Agricultural Land Reserve.

Q2: Does the Agricultural Land Reserve include Crown land covered by trees?

Yes. The boundaries of the Reserve are based on the agricultural capability of the soil, not on the current use or ownership of the land. The Reserve includes unsurveyed Crown land administered by BC Lands

Maps of the Reserve boundary can be viewed at the Fort St John office of the Ministry of Energy, Mines and Petroleum Resources. Additional information is available from the Agricultural Land Commission.

Q3: Do pipelines longer than 5 kilometers in length require an application?

Yes. The intent of the Order is to allow the construction of short pipelines in production fields without an application, as long as the reclamation standards are strictly adhered to.

All pipelines greater than 5 kilometers in length will continue to require an application because of their potential for significant impacts on agricultural land.

The threshold of 5 kilometers is based on information from the Ministry of Municipal Affairs which indicates that the majority of gathering, flow, and injection pipelines are less than 5 kilometers in length.

Q4: Does this Order set standards for the clean up of contaminated sites?

The BC Ministry of Environment, Lands and Parks administers the Waste Management Act and it has the responsibility for preventing and correcting environmental contamination.

Q5: What action can the Commission take if the requirements of the Order are not, or can not, be adhered to?

Failure to comply with the Order may result in the Commission prescribing additional remedies to restore the land, requiring a bond, or seeking a court injunction if the soil is not adequately protected.

Q6: Is an application to the Commission required if a right of entry order is issued by the Mediation and Arbitration Board?

Yes. The landowner has not consented to the development. The requirements of the Agricultural Land Commission Act must be met regardless of an approval granted pursuant to the Petroleum and Natural Gas Act.

CONDITIONS ON NEW DEVELOPMENTS

Q7: What does geophysical exploration mean?

Geophysical exploration in this Order has the same meaning as it does in the Petroleum and Natural Gas Act.

Q8: What is an existing disturbed surface lease?

This is an existing surface lease where the ground had been disturbed by oil and gas developments prior to April 10, 1995.

Q9: What should I do if the development will be located on muskeg soils?

Soil information must be submitted to the Commission which documents that the proposed development would be located on muskeg soils. If the soil is muskeg, in the opinion of the Commission, the development can proceed subject to Section 3 of the Order. No.

If the Commission is of the opinion that the soil is not muskeg, the development may proceed subject to Section 4 of the Order.

Q10: Are batteries and compressor stations ancillary pumping facilities?

No. Batteries and compressor stations are production facilities, and they are not ancillary to the extraction of petroleum and natural gas from the ground. Proposals to construct these facilities in the Agricultural Land Reserve require an application to the Commission.

Q11: In what form is written consent from the landowner required?

A copy of the signed surface lease agreement is evidence that the landowner has consented to the development.

Q12: What information must be sent to the Fort St John office of the Ministry of Agriculture, Fisheries and Food?

The referral must include all of the information required to make an application for well site to the Ministry of Energy, Mines and Petroleum Resources, and an application for a pipeline to the Ministry of Municipal Affairs, unless specifically not required by the Ministry of Agriculture, Fisheries and Food.

Q13: How can I determine if 2 wells will exist per 1/4 section when the development is proposed for unsurveyed land?

The permit and lease grid currently used by Ministry of Energy, Mines and Petroleum Resources to identify the location of a well site will be used to define the boundaries of a 1/4 section on unsurveyed land.

Q14: Are existing access roads and pipelines included when calculating the combined area of the surface leases?

Yes. All of these developments can have a negative impact on agricultural soils and farm operations.

Q15: What type of qualifications should a reclamation specialist have?

It is recommended that the reclamation specialist be either an agronomist who is a member of the BC Institute of Agronomists, or a land agent licensed in the Province of Alberta.

Regardless, the reclamation specialist must have completed post-secondary courses in soil science, land reclamation, and agricultural practices.

Q16: Is a reclamation specialist required for every development?

No. The landowner can state a reclamation specialist is not required if the landowner is capable and willing to fulfill the role of the specialist.

Regardless, a reclamation specialist or a landowner should make unannounced inspections to ensure that construction activities are in compliance with the reclamation plan.

Q17: Is the reclamation specialist the only person who can obtain soil samples and field information?

No, but the owner of the development must ensure that a competent person obtains accurate information, and that the resulting reports are to the satisfaction of the Commission.

Q18: Must site assessment and reclamation reports be filed with the landowner?

Yes. Landowners are directly affected by the proposed developments, and they must be consulted about construction methods and reclamation plans.

Q19: Why was the phrase, 'other standards set by the Commission' included?

This phrase allows the Commission to clarify or amend the standards to meet exceptional conditions on a specific surface lease.

These changes could be initiated by either the owner of the development or the Commission based on the site assessment, and they would require a resolution from the Commission.

Q20: What remedial options are available when the reclamation of a surface lease does not meet the standards of the Order?

It is the responsibility of the owner of the development to propose remedial options to the Commission. The Commission will decide what remedial action is required after meeting with the owner of the development, the landowner, and other affected parties.

It is recommended that the reclamation guidelines published in September 1992 by the Canadian Association of Petroleum Producers be used in identifying remedial options.

Fibrous materials, such as manure, peat, and straw, may be considered as acceptable soil amendments to improve soil structure and organic content

Q21: Does this new Order affect developments constructed under General Order 132/82?

Yes. The reclamation requirements in General Order 293/95 will be used to assess the reclamation of existing developments because these standards are consistent with, and clarify, the requirements of General Order 132/82.

General Order 132/82 required that the surface lease be restored, "to its original or better topographical and soil condition prior to the issuance of a Certificate of Restoration by the Ministry of Energy, Mines and Petroleum Resources".

LOCATION OF AGRICULTURAL LAND RESERVES IN BRITISH COLUMBIA

