

IN THE MATTER of a CONTRAVENTION
of the *OIL AND GAS ACTIVITIES ACT*
[SBC 2008] Chapter 36
before
The BC OIL AND GAS COMMISSION
Case File 2017-057

BETWEEN

The BC Oil and Gas Commission

AND

Canadian Natural Resources Limited

ADMINISTRATIVE FINDING

Before

Vice President, Operations,
Lance Ollenberger

Representing the BC Oil & Gas Commission

Enforcement Operations Officer,
Ken McLean

Representing Canadian Natural Resources
Limited

Vice President West Field
Operations, Ken Harke

Decision Date

June 27, 2018

Introduction:

1. On April 7, 2017, General Order 2017-010 (the Order) was issued to Canadian Natural Resources Limited (CNRL) to minimize sediment flowing into a stream and reestablish proper drainage structures, including culverts and ditches on CNRL's petroleum development road 165, known as the Mile 132 Road (the Road).
2. A Contravention Report (the Report) was sent to me on February 5, 2018 alleging that CNRL contravened section 82 of the *Oil and Gas Activities Act* (OGAA), section 13(1)(a) of the *Oil and Gas Road Regulation* (OGRR), and/or section 12 of the *Environmental Protection and Management Regulation* (EPMR).
3. The BC Oil & Gas Commission (Commission) sent CNRL a letter and the Report on February 7, 2018 informing CNRL that I was considering making a finding that it contravened section 82 of the OGAA, section 13(1)(a) of the OGRR, and/or section 12 of the EPMR. The letter informed CNRL of its opportunity to be heard in written form and advised that a finding of contravention could result in the Commission imposing an administrative penalty in accordance with section 63 of the OGAA.
4. CNRL provided a response in a letter dated March 19, 2018 (the Response).
5. The Commissioner of the BC Oil and Gas Commission has delegated me authority under sections 62 and 63 of the OGAA. I will be making a determination with regards to: whether CNRL contravened section 82 of the OGAA, section 13(1)(a) of the OGRR and/or section 12 of the EPMR; whether to impose an administrative penalty under section 63 of the OGAA; and the amount of the penalty, if any. I have reviewed the Report and CNRL's Response. In making a determination, I rely on these documents, and the applicable legislation.

Applicable Legislation

6. Section 82 of the OGAA states that a person to whom an order under this Act applies must comply with the order.
7. Maximum penalties for specific violations are set by regulation. Section 2(1) of the *Administrative Penalties Regulation* (APR) states that a person who contravenes section 82 of the OGAA in relation to an order issued under section 49 is liable to an administrative penalty not exceeding \$500,000.
8. Section 13(1)(a) of the OGRR states a road permit holder must ensure that road surface and slope drainage systems, including inlets, drainage structures, ditches, culverts, bridges, road crowning, insloping and outsloping, are functional.
9. Section 8(1) of the APR states that a person who contravenes section 13(1)(a) of the OGRR is liable to an administrative penalty not exceeding \$250,000.
10. Section 12 of the EPMR states a person who carries out an oil and gas activity on an operating area must ensure that the oil and gas activity does not result in any deleterious materials being deposited into a stream, wetland or lake.
11. Section 3 of the APR states that a person who contravenes any of sections 9 to 20 of the EPMR is liable to an administrative penalty not exceeding \$500,000.

12. Section 62(1) of the OGAA states that, after providing an opportunity to be heard to a person who is alleged to have contravened a provision of the Act, the regulations, a permit, an authorization or an order, the Commission may find that the person has contravened the provision.
13. Section 62(5) of the OGAA states, in part, that the Commission may not find that a person has contravened a provision of the OGAA or the regulations if the person demonstrates to the satisfaction of the Commission that they exercised due diligence to prevent the contravention.
14. Section 63(1) states that, if the Commission finds that a person contravened a provision of the OGAA or its regulations, the Commission may impose an administrative penalty. Section 63(2) of the OGAA sets out the factors that must be considered when determining whether to impose an administrative penalty under section 63(1) and the amount of the penalty. These include:
 - (a) previous contraventions by, administrative penalties imposed on, or orders issued to the person;
 - (b) the gravity and magnitude of the contravention;
 - (c) the extent of harm to others resulting from the contravention;
 - (d) whether the contravention was repeated or continuous;
 - (e) whether the contravention was deliberate;
 - (f) any economic benefit derived by the person from the contravention;
 - (g) the person's efforts to prevent and correct the contravention; and
 - (h) other prescribed matters.

Background

15. The Road is permitted to CNRL and is located approximately 120 kilometers northwest of Fort St. John. The Road is in a relatively remote location and is used by CNRL, several other oil and gas companies as well as private landowners that live in the area. There have been a number of maintenance and water management issues on the Road that have been subject to inspection deficiencies since 2013.
16. On April 5 and 6, 2017, the Road was inspected by Commission personnel and numerous road maintenance and water management deficiencies were noted at that time, namely, the culverts and take offs were plugged and not functional, ditches were not established, water was pooling on the road, the road prism was damaged and sedimentation was flowing into a nearby stream, a Cameron River tributary.
17. As a result, the Order was issued to CNRL on April 7, 2017 requiring it to minimize the sediment flowing into the stream at the bridge located approximately at kilometer 4.2; reestablish proper drainage structures, including culverts and ditches, from kilometer 3 to kilometer 5; and reestablish proper drainage structures, including culverts and ditches, from kilometer 5 to kilometer 19.5 of the Road.

Issues

18. The issues which I will decide are:

Section 82 of the OGAA

- Did CNRL fail to comply with the Order?
- Did CNRL exercise due diligence in its efforts to comply with the Order?
- Did CNRL contravene section 82 of the OGAA?

Section 13(1)(a) of the OGRR

- Did CNRL fail to ensure the road surface and slope drainage systems, including inlets drainage structures, ditches, culverts, bridges, road crowning, insloping and outsloping, were functional?
- Did CNRL exercise due diligence in its efforts to ensure the road surface and slope drainage systems, including inlets drainage structures, ditches, culverts, bridges, road crowning, insloping and outsloping, were functional?
- Did CNRL contravene section 13(1)(a) of the OGRR?

Section 12 of the EPMR

- Did CNRL fail to ensure that an oil and gas activity did not result in any deleterious materials being deposited into a stream, wetland or lake?
- Did CNRL exercise due diligence in its efforts to ensure that an oil and gas activity did not result in any deleterious materials being deposited into a stream, wetland or lake?
- Did CNRL contravene section 12 of the EPMR?

If CNRL is found to have contravened section 82 of the OGAA, section 13(1)(a) of the OGRR and/or section 12 of the EPMR what if any, administrative penalty to impose?

Section 82 of the OGAA

Did CNRL fail to comply with the Order?

19. The Order that was issued to CNRL was split into two parts to allow for works to be addressed on multiple sections of the Road. Item 1 of the Order concerned kilometers 3 to 5 of the Road with a completion timeline of April 9, 2017 and Item 2 related to kilometers 5 to 19.5 of the Road with a deadline of April 13, 2017. The Order required CNRL to minimize the sediment flowing into the stream. Minimize means to reduce to the smallest possible amount or degree. Best practices require permit holders to minimize impacts of heavy sedimentation entering a stream by implementing sediment control measures.
20. On April 10, 2017, after the first Order deadline, Commission personnel inspected the Road between kilometers 3 and 5 and observed that while some work had been completed, CNRL was still not in full compliance. Emails received from CNRL personnel on April 8 and 10 indicated that the culverts from kilometers 3 to 5 had been exposed and thawed so that water was no longer draining towards the creek, diversion weirs in the ditches had been repaired to original design and cleaning of the ditches was being done with a hoe. However, the follow-up inspection showed that only some of the culverts had been thawed out and cleared of debris, and the ditches were not diverting water but were still full of mud and debris and had not been reestablished. The photographic evidence confirmed that the flow of sediment had not been minimized and silt laden water was still flowing down into the stream. Kilometers 3 to 5 were re-inspected again on April 13, 2017, and while the culverts had been cleaned out and water was diverted off the surface of the road, the ditches still needed to be cleaned out and reestablished. Commission staff along with a CNRL representative walked down the unnamed streambed and noted that a thick layer of sediment had deposited in the streambed and on the banks downstream from the bridge.
21. CNRL states that it responded immediately upon issuance of the Order and dispatched multiple crews and equipment to work continuously to bring the Road into compliance and maintains that the timelines set out in the order were unachievable, given the weather conditions. However, in subsequent communications with Commission personnel, CNRL did not convey concern with the

timelines nor did it request an extension to the deadlines outlined in the Order to arrange or allow for more time to complete the works.

22. On April 19, 2017, CNRL informed the Commission that works were continuing on the Road including: hoes cleaning out ditches; culvert inlets and take offs; a grader plowing the Road; and a steamer thawing culverts from km 4 to km 19.5 and beyond. Follow-up inspections were completed to ensure compliance with the Order requirements had been achieved. It was not confirmed until the April 26 inspection that the culverts and other draining structures were functioning, the ditches had been reestablished and water was being kept in the ditches, and sediment from the road was minimized and no longer entering the stream.
23. Therefore, I find CNRL failed to comply with the Order in the required timelines.

Did CNRL exercise due diligence in its efforts to comply with the Order?

24. Pursuant to section 62(5) of the OGAA, I may not find that CNRL contravened section 82 of the OGAA if CNRL demonstrates to my satisfaction that it exercised due diligence to prevent the contravention. The test to be applied is whether CNRL has demonstrated that it took all reasonable steps to prevent the contravention. CNRL is not required to show that it took all possible or imaginable steps to avoid the contravention. The standard is not one of perfection, but rather of a reasonable person in similar circumstances.
25. The Report alleges that CNRL did not complete the requirements of the Order within the requisite timelines and that follow-up inspections showed that only some of the works were completed while others took longer. CNRL was required to minimize sediment flowing into the stream by April 9, however it took until April 26 before Commission inspectors verified that sediment was no longer entering the stream at the bridge. It is expected that erosion and sediment control measures be implemented during the maintenance of a prescribed road including keeping basic drainage structures functioning such as culverts and take offs, installation of silt fencing that is kept free of sediment and debris, installation of riprap to slow the velocity of ditch water and/or diversion of ditch water away from the stream.
26. CNRL states that it did what a reasonable person would have done under the circumstances except that weather conditions, including high amounts of precipitation and fluctuations in temperatures that caused both melting and freezing impeded its efforts. The changing weather conditions caused interruptions in the progress of work and made it necessary to have to redo some works. Given these conditions, CNRL states the deadlines in the Order were unreasonable.
27. A reasonable step CNRL could have taken would have been to contact the Commission to request an extension to the timelines of the Order if it felt they were unreasonable and not obtainable taking into consideration the weather conditions. At no time did CNRL discuss an extension or any other options with Commission staff, nor did it convey in any of its correspondence that it required more time to complete the works.
28. CNRL has failed to satisfy me that it took all reasonable steps to prevent the contravention.

Did CNRL contravene section 82 of the OGAA?

29. I find that CNRL failed to comply with section 82 of the OGAA. I am not satisfied that CNRL exercised due diligence to prevent the contravention. As such, I find that CNRL contravened section 82 of the OGAA.

Section 13(1)(a) of the OGRR

Did CNRL fail to ensure the road surface and slope drainage systems, including inlets, drainage structures, ditches, culverts, bridges, road crowning, insloping and outsloping, were functional?

30. The Report alleges that the road surface and slope drainage systems were not functional. The inspections conducted on April 5 and 6, 2017, indicated that at multiple locations along the Road: culverts were damaged, buried and/or plugged with snow, ice and sediment; ditches were full of debris or not present; and water was running along the surface of the road damaging the road prism and pooling in low spots. Photographic evidence shows silt laden water bypassing the plugged culverts, passing old silt fencing and then flowing downhill into the unnamed stream. The road surface had a large berm alongside it that would not allow water to flow off the road but rather resulted in the runoff remaining on top of the road itself causing saturation, erosion and pooling.
31. For those reasons, I find CNRL failed to ensure the road surface and slope drainage systems, including inlets, drainage structures, ditches, culverts, bridges, road crowning, insloping and outsloping, were functional.

Did CNRL exercise due diligence in its efforts to ensure the road surface and slope drainage systems, including inlets, drainage structures, ditches, culverts, bridges, road crowning, insloping and outsloping, were functional?

32. The maintenance issues have been ongoing for quite a substantial period of time, a fact that CNRL acknowledges in its Response stating that problems began in 2011 after heavy rainfall events and other weather anomalies. CNRL states that it has taken multiple steps to maintain the Road since 2011. It has: installed silt fences at various locations to divert runoff; placed rocks and more silt fences in the road shoulder; installed culverts; graded the road; placed riprap on either side of the bridge and added more rocks and riprap at the bridge. CNRL states that it has undertaken significant work and has incurred significant expense on maintenance for the Road from 2011 to 2017.
33. In its Response, CNRL confirms that it does not have a formal inspection program in place and does not maintain any records of road inspections because the regulations in British Columbia do not require it. Instead, it depends on field operators to report any issues they observe on the Road and submit requisitions for the repair work to be completed. Given the ongoing issues and deficiencies with the Road since 2011, it is reasonable to expect that CNRL would have implemented and formalized some sort of policy, procedure or program for scheduled routine inspections of the Road. Having a regular inspection program in place to monitor the Road would allow CNRL to be proactive in identifying issues such as plugged or frozen culverts, improper drainage or ditches, slopes and road crown.
34. Additionally, designation of a road inspector that would monitor the Road and identify any issues that need to be addressed and organize and coordinate repairs would contribute to the proactive repair and maintenance of the Road. Field operators working in the area may not be specifically looking for outstanding maintenance issues in their daily work which may lead to problems not being addressed until they escalate into larger issues such as those that led to the issuance of the Order. CNRL also identified that poor bridge design makes maintenance more difficult. Modifications or adjustments could have been made to improve the bridge design and alleviate this issue.

35. CNRL states that it exercised due diligence by imposing a road ban on the Road, but that it had difficulty obtaining compliance with the road ban by a couple of the main users. Although CNRL emailed notice of the road ban to road users and announced it on the local radio stations, a reasonable step CNRL could have taken was to hire security to monitor the Road at various access locations to ensure the ban was enforced.
36. CNRL has failed to satisfy me that it took all reasonable steps to prevent the contravention.
- Did CNRL contravene section 13(1)(a) of OGRR?
37. I find that CNRL has failed to comply with section 13(1)(a) of OGRR. I am not satisfied that CNRL exercised due diligence to prevent the contravention. As such, I find that CNRL contravened section 13(1)(a) of OGRR.

Section 12 of EPMR

Did CNRL fail to ensure that the oil and gas activity on an operating area did not result in any deleterious materials being deposited into a stream, wetland or lake?

38. CNRL is the permit holder for the Road. For the purposes of the OGAA, the construction or maintenance of a prescribed road is included in the definition of an “oil and gas activity”. In turn, Section 2 of the OGRR prescribes oil and gas roads (including the Road) for the purposes of the definition oil and gas activity. Further, the oil and gas activity (i.e. the presence of the Road) was conducted within an operating area. “Operating area” is defined in the OGAA as an area identified in a permit within which a permit holder is permitted to carry out an oil and gas activity.
39. During the inspections conducted on April 5 and 6, 2017, it was noted that mud and silt was flowing from the Road by the bridge into the unnamed stream. A follow-up inspection on April 10, 2017 showed that sediment laden water was running down the Road and depositing sediment into the stream. On April 13, 2017, a joint inspection was conducted by the Commission and a CNRL representative. It was noted that silt, mud and gravel had deposited in the channel and on the stream banks of the stream. In some places, it was determined the sediment measured over 12 inches in depth. CNRL advised in an email dated April 13, 2017 that they would clean-up the materials that had flowed into the creek by washing the silt from the banks of the creek and sucking up the slurry, and have crews walk downstream to “break off frozen chunks of silt and toss above the high water mark”.
40. The EPMR Guideline defines “deleterious material” as materials or operating techniques that could cause harm or damage to the environment or habitat. Further to this, the Fish-stream Crossing Guidebook (the Guidebook), which is specifically referenced in the Commission’s Oil and Gas Activity Application Manual, identifies on page 23 that sediment is a form of deleterious material.
41. The Fisheries Impact Statement dated November 1, 2017 states that the Cameron River system and its tributaries provide excellent grayling spawning habitat and juvenile rearing habitat. The introduction of sedimentation into streams can be harmful to the fish populations and can reduce the availability of their essential habitat. While the uppermost tributaries are mainly low flow streams, and the fish habitat varies by season, they can support fish as documented by the Commission officer’s site visit in October. The sediment deposited into the stream will be transported downstream during freshet and precipitation events where it can negatively affect potential rearing and spawning habitat.

42. I accept that the sediment that flowed from the Road into the unnamed creek is a deleterious substance.
43. CNRL does not dispute that mud, silt and debris flowed into the stream but states that the depositing of deleterious material is attributed to: poor bridge location and design; extremely high precipitation volumes and other commercial users who did not cooperate with road bans. The evidence and photographs before me substantiate the occurrence of materials accumulating along the banks and in the channel of the stream.
44. As such, I find CNRL failed to ensure that the oil and gas activity did not result in any deleterious materials being deposited into a stream, wetland or lake.

Did CNRL exercise due diligence in its efforts to ensure that the oil and gas activity did not result in any deleterious materials being deposited into a stream, wetland or lake?

45. In its Response, CNRL states that it exercised due diligence because it took reasonable steps to maintain the Road and that factors outside of its control negated the work that it had done to maintain the Road. CNRL indicates that in order to prevent deleterious materials from being deposited into the stream it installed silt fences to divert water in 2011, placed rocks in 2012 and 2013, installed culverts and placed riprap in 2014, put in more riprap and rock in 2015 and attempted to impose road bans in 2017. In addition, CNRL states that the non-existence of a road inspection program is not an indication that it did not exercise due diligence but stipulates that weather conditions impacted the ability to perform work on the Road.
46. The problems on the Road continued to reoccur each year. A step that CNRL could have taken would have been to increase monitoring and scheduled maintenance, such as frequency of grader maintenance to manage the ditches and the road crown to minimize the possibility of issues reoccurring. Additional erosion and sediment control measures could have been implemented by CNRL such as installation of containment logs, sediment traps or basins to prevent sediment from entering the stream or placement of sediment and erosion-control matting. It would be reasonable to expect that CNRL would keep the drainage systems such as take offs and silt fencing functional by cleaning and maintaining, keeping free of mud and debris or alternatively installing new fencing or equipment as required.
47. In correspondence sent to the Commission on April 13, 2017 from CNRL's construction supervisor, he indicates that there is a need to develop a monitoring/inspection plan upon completion of the work to ensure CNRL stays on top of the maintenance during spring conditions and suggested that the daily operator fill out a form that would be sent in daily. This would have been a reasonable step that CNRL could have taken before the issues arose to ensure it was monitoring the conditions of the Road to prevent the sediment from entering the unnamed creek. It is evident that CNRL was aware of the concerns with the road and drainage but did not complete reasonable steps to proactively prevent further issues.
48. CNRL has failed to satisfy me that it took all reasonable steps to prevent the contravention.
- Did CNRL contravene section 12 of EPMR?
49. I find that CNRL has failed to comply with section 12 of EPMR. I am not satisfied that CNRL exercised due diligence to prevent the contravention. As such, I find that CNRL contravened section 12 of EPMR.

If CNRL is found to have contravened section 82 of OGAA, section 13(1)(a) of OGRR, and/or section 12 of EPMR what if any, administrative penalty is to be imposed?

50. Section 63 of OGAA sets out factors that the Commission must take into consideration when determining whether or not to impose an administrative penalty. In the following paragraphs, I consider the applicability of those factors to this contravention.
51. CNRL has had one previous contravention for failing to comply with an order, no administrative penalties and eight previous orders issued.
52. The contravention is of moderate gravity and magnitude due to the lack of proper maintenance of the Road and the reoccurrence of the same issues each year. The gravity of depositing deleterious material into the stream is potentially serious, as defined in the Fisheries Impact Statement due to the possible degradation of fish habitat. The unnamed tributary can support fish at that time of year and transportation of sedimentation downstream can have negative effects especially when flow is increased during freshet and high precipitation.
53. There was no harm to others as a result of the contravention.
54. The contravention was not continuous but was repeated as evidenced by of multiple inspections with deficiencies and the issuance of two general orders relating to the same issues.
55. There is no evidence to show the contravention was deliberate.
56. CNRL did not derive any significant economic benefit as presented by the year by year breakdown of expenditures on the Road; however, it is suggested that perhaps more capital could have been spent during high risk periods such as spring break-up when additional vigilance and attention to monitoring and maintenance should be carried out.
57. CNRL did exert efforts to correct the contravention and had crews and equipment working on the Road. The requirements of the Order were eventually met and the Order was terminated.

Conclusion

58. I have found that CNRL contravened section 82 of OGAA, section 13(1)(a) of OGRR and section 12 of EPMR. Based on the above discussion of the various factors set out in section 63(2), I am imposing an administrative penalty of \$20,000.



Lance Ollenberger
Vice President, Operations
BC Oil and Gas Commission

Date: June 27, 2018