

APPENDIX I

AIR QUALITY CORRESPONDENCE BY TERRY BRADY CONSULTANTS

Jessica Thomas

From: Jorge Rodriguez <Jorge.Rodriguez@waikatoregion.govt.nz>
Sent: Friday, 6 November 2020 4:00 pm
To: Victoria Majoor
Subject: FW: conditions
Attachments: Attachment information; Draft Air Quality Conditions TJB.docx

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-----Original Message-----

From: terry@tbc.pl.net <terry@tbc.pl.net>
Sent: Thursday, 5 November 2020 4:35 PM
To: Jorge Rodriguez <Jorge.Rodriguez@waikatoregion.govt.nz>
Subject: conditions

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Hi Jorge

Changes in Track/Change

Overall, the main issues have been addressed in the evidence. I do have a number of technical issue disagreements with Andrew but they are not significant in the big picture.

I concur with his assessment of expected particulate and TSP/PM10 effects and that they should be no more than minor provided that the recommended mitigation procedures are followed

w.r.t. silica I agree with the conclusions that he has made that the measured silica in the water tank is most likely normal wind blown dust, dirt and sand from the general area. However he has not addressed the issue of crystalline silica i.e. quartz because they used the same coarse analytical method that the Cowan's used that does not differentiate between the different forms.

I am inclined to accept his assessment of the amount of water required but it is based on only locations within 300m of a residence. I need to be convinced that this is adequate given the very complex terrain in the area of the quarry that will cause significant swirling.

Bottom line, is that provided the proposed conditions are complied with, then the effects will be minor

I will put all my views and opinions in a more formal report for the hearing, and I should be able to get it sorted next week.

Regards
Terry

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Dust

1. The consent holder shall operate mining and associated processes and other operations in such a manner that the emission of dust, smoke and odours are reduced to a practicable minimum, in accordance with at least the following measures.
 - i. The use of water carts or sprays to suppress dust from coal extraction and handling, topsoil and overburden removal, handling and storage, and from site access roads, haul roads and other frequently trafficked areas, on an as required basis;
 - ii. The revegetation of disturbed land which is currently not being worked;
 - iii. The regrassing of topsoil stockpiles;
 - iv. Surface remediation of the OPA and any bunds to promote vegetation cover as soon as possible after working areas are completed
 - v. Where practical, locating topsoil stockpiles where they provide wind protection for exposed/excavated areas;
 - vi. Restricting vehicle speeds on dry days and during periods of strong wind
 - vii. The installation of a truck wash near the site exit, and construction and maintenance of a sealed section of road between it and the public road; and
 - viii. Covering or dampening of loads on vehicles leaving the quarry which could create a dust nuisance.
 - ix. Use of fixed sprinkler systems for dust control on and around the site offices and coal stockpiles

2. The consent holder shall ensure that no particulate matter resulting from activities authorised by this resource consent causes an objectionable or offensive effect beyond the boundary of the site being that land described as XXXXXXXXXXXXX

Note: For the purpose of condition 3 of this resource condition, the Waikato Regional Council will consider an effect that is objectionable or offensive to have occurred if any appropriately experienced officer of the Waikato Regional Council deems it so after having regard to:

- i. The frequency, intensity, duration, amount, effect and location of the suspended or particulate matter; and/or
 - ii. receipt of complaints from neighbours or the public; or
 - iii. relevant written advice or a report from an Environmental Health Officer of a territorial authority or health authority.

3. Should an emission of particulate matter occur that has an objectionable or offensive effect, the consent holder shall inform the Waikato Regional Council within 24 hours of the incident and provide a written report to the Waikato Regional Council within five days of being notified of the incident. The report shall specify:
 - i. the cause or likely cause of the event and any factors that influenced its severity;
 - ii. the nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and
 - iii. the steps to be taken in future to prevent recurrence of similar events.

4. The discharge shall not significantly impair visibility beyond the boundary of the land described in condition 3 above.

Dust Management Plan

5. The consent holder shall provide the Waikato Regional Council with a Dust Management Plan at least 20 working days prior to the commencement of activities authorised by this consent. This Plan shall be submitted to the Waikato Regional Council for its approval to ensure compliance with conditions of this consent. The aim of the Plan shall be to minimise any potential dust nuisance effects beyond the boundary of the property and shall address, but not necessarily be limited to, the following matters:
 - a) Procedures for undertaking a daily site inspection, including summarising the outcome of the inspection in a daily environment diary. This could also include but is not limited to:
 - a. Operation of watercart;
 - b. Any dust mitigation implemented; and
 - c. Any exceedance of dust monitoring alert levels and the result of any investigations in to the causes of the exceedance.
 - b) Procedures that will be adopted to ensure that fugitive dust emissions are minimised from the roadways, working areas and stockpiles, including wind speed triggers that shall initiate specific mitigation measures;
 - c) Details of the dust mitigation measures to be used on the site, including both fixed and temporary systems;
 - d) Identification of roles and positions of responsibility, including responsibility for ensuring the effective application of dust control measures identified in b) and c) above;
 - e) Provision and maintenance of 20 kph speed limit signs on all unsealed access roads;
 - f) Total Suspended Particulates ("TSP") or PM₁₀ particulate monitoring locations, alert levels and trigger levels and actions;
 - g) Details of how the nett TSP concentrations will be calculated.
 - h) Maintenance procedures for the TSP monitoring equipment and weather station;
 - i) Shelterbelts or windbreak fences to minimise dust issues for neighbouring dwellings.
 - j) Reporting procedures;
 - k) Dust Management Plan review procedures;
 - l) Complaint receipt and response procedures.

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6. The Dust Management Plan required by condition 6 shall be certified in writing by the Waikato Regional Council acting in a technical certification capacity prior to any works authorised by this consent commencing.
7. The consent holder shall undertake all works within the site in accordance with the certified Dust Management Plan. Any subsequent changes to the Dust Management Plan shall only be made with the written approval of the Waikato Regional Council, acting in a technical certification capacity and prior to the implementation of any changes proposed.
8. The consent holder shall ensure that a copy of the certified Dust Management Plan, including any approved amendments, is kept onsite and this copy is updated within 5 working days of any amendments being approved. The Dust Management Plan shall be produced without unreasonable delay upon request from a servant or agent of the Waikato Regional Council.

Monitoring and Reporting

9. Within two months of commencement of this consent, the consent holder shall install, operate, and maintain continuous dust monitoring equipment for Total Suspended Particulates (TSP) or PM₁₀ particulate. The methodology, number and location and of TSP the monitors shall be agreed with the Waikato Regional Council acting in a technical certification capacity and in accordance with the approved Dust Management Plan pursuant to condition 6 of this consent. Monitoring shall be carried out for a minimum period of one year at each location, after which time the methodology, frequency and location may be reviewed by the Waikato Regional Council.
10. The monitoring equipment shall be fitted with an alarm system linked to a site office, with the alarm set at a 'trigger level' approved in writing by the Waikato Regional Council requiring immediate action to be taken as necessary to reduce site dust emissions from the site.
11. Within two months of the commencement of this consent, the consent holder shall install and maintain equipment onsite that accurately monitors and records wind speed and direction at a location that will record wind patterns that are representative of the site environs. The consent holder shall keep accurate records of wind speed and direction throughout the period when soil is exposed on the site as a result of the exercise of this consent. The wind speed and direction sensors shall have minimum stall and start speeds of 0.5 metres per second. The meteorological station shall be serviced and maintained at least annually and in accordance with the manufacturer's instructions. A log shall be maintained of the meteorological data recorded under this condition. The log shall be made available to the Waikato Regional Council on request.
11.
12. Within two months of the commencement of this consent, the consent holder shall install and maintain a rain gauge onsite and shall record rainfall data on a daily basis. The consent holder shall keep accurate records of daily rainfall data.
13. The consent holder shall record the following in a daily log
 - i. Records of Total Suspended Particulate measurements;
 - ii. Any dust control equipment malfunctions and any remedial action(s) taken;

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- iii. Any visible emission of dust and the source;
- iv. ~~Wind direction;~~
- v. ~~iv.~~ The frequency of watercart use and the volume of water applied;
- vi. ~~v.~~ The volume of water used for dust suppression other than watercart usage; and
- vii. ~~vi.~~ The date and signature of the person entering the information.

14. A summary of all the information recorded shall be submitted to the Waikato Regional Council in the Annual Monitoring Report As required by condition xx of Schedule 1 General Conditions. Records shall be made available to the Waikato Regional Council within 10 working days upon request.

Targeted Dust Management Measures

- 15. The consent holder shall cease excavation and overburden placement activities within 400 metres of dwelling locations immediately north of the mine when the wind is blowing from the south and the wind speeds exceed 10 metres per second, as verified by the sites weather monitoring station
- 16. The consent holder must ensure that overburden placement, rehabilitation activities and the spreading of topsoil is avoided, within 400 metres of dwelling locations east and northeast of the OPA when the wind is blowing from the direction of the OPA towards those properties and wind speeds exceed 10 metres per second, as verified by the sites weather monitoring station.
- 17. The consent holder shall maintain 20 kph maximum speed signs along the access roads and ensure that these vehicle speed restrictions are complied with at all times.
- 18. Rehabilitation and re-vegetation of the site shall be conducted as soon as practicable, to minimise dust emissions.

Other Measures

- 19. The consent holder shall be solely responsible for maintaining on-site vehicles in good mechanical order so as to minimise nuisance exhaust emissions.
- 20. The consent holder shall undertake on-going consultation with potentially affected residents, in accordance with the Dust Management Plan required pursuant to condition 6 of this consent to ensure any reasonable concerns are addressed.