

AMENDMENT TO EXEMPTION RECOMMENDATION

To: Phil Parkes, Chief Executive, WorkSafe New Zealand
From: Paul Hunt, Chief Inspector, Extractives
Date: 3 June 2020
Prepared by: Marcela Fuentes, Senior Policy Advisor, Regulatory Frameworks
Subject: **Request from Te Kāhui Whakamana Rua Tekau mā Iwa - Pike River Recovery Agency for an amendment to an existing exemption (Notice Number 2019-au5626) from Regulation 170(4)(a) of the Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016**

Recommendations

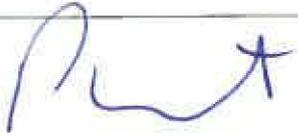
I recommend that you:

- a. **note** that on 3 December 2019, WorkSafe granted an exemption (under section 220 of the Health and Safety at Work Act 2015 (the Act)¹) to Te Kāhui Whakamana Rua Tekau mā Iwa -Pike River Recovery Agency (PRRA) from a requirement in Regulation 170(4)(a) of the *Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016* (the Regulations);
- b. **note** that Regulation 170(4)(a) requires a mine operator to ensure that at least one of the escapeways at an underground coal mining operation is designated as the primary escapeway, and is an intake airway or a combination of adjacent intake airways;
- c. **note** that the exemption under section 220(3) of the Act was subject to terms and conditions that required a phenolic plug to remain in place and effective during the re-entry and recovery operation;
- d. **note** that on 29 April 2020, the PRRA requested an amendment to the terms and conditions of the exemption. The request is to remove the words 'phenolic plug' from each place they appear in the terms and conditions and insert in their place the words 'VCD2' (Ventilation Control Device);
- e. **note** that PRRA considers the VCD2 will provide a more robust barrier between the drift and the mine workings, and a greater protection and safety for workers in the drift;

¹ Exemption Notice Number 2019 – au5626 granted on 03 December 2019

- f. **note** that my conclusion is that the change the PRRA is proposing would satisfy the requirements for an amendment to an existing exemption under section 220 of the Act; this is because:
- the amendment sought is not broader than reasonably necessary and will increase the level of health and safety of workers and other persons. The standard of the seal the PRRA is intending to install is higher than the phenolic plug and compliant with the Regulations; and
 - the amendment to the exemption would not change the other existing arrangements previously considered when granting the exemption.
- g. **note** that I recommend that the drafting of the amendment is slightly different from that proposed by the PRRA. But it reflects the intent of the request, being that the phenolic plug may be replaced by a VCD2 seal, once that seal has been installed and a design engineer has accepted that it will comply with its rating;
- h. **note** that my analysis of this request has been based on the original supporting information for the exemption, current information sent by PRRA (see Appendix 1), and the advice from a well-known specialist;
- i. **note** that I also recommend that, to avoid doubt, the exemption also be amended to clarify that none of the terms and conditions are intended to prohibit entry into the area beyond the phenolic plug or seal, so long as the entry takes place in full compliance with the requirements in the Regulations;
- j. **agree in principle** to amend the exemption as requested, subject to:
- a. the suggested drafting as described in paragraph (g) and (i), and attached as Appendix 3; and
 - b. consultation with the PRRA on the drafting of the proposed amendment.

Agreed / Not Agreed

Signature endorsing the recommendations	 Paul Hunt, Chief Inspector, Extractives WorkSafe New Zealand
Date	3/6/20
Signature of the decision-maker	Phil Parkes, Chief Executive, WorkSafe New Zealand
Date	

Purpose

1. I have prepared this memorandum to inform your decision on the application submitted by PRRA for an amendment to the terms and conditions of the exemption² for its Pike River mine, which was related to regulation 170(4)(a) of the Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016 (see Appendix 2).

PRRA's application

2. Te Kāhui Whakamana Rua Tekau mā Iwa -Pike River Recovery Agency was granted an exemption (under section 220 of the Act) from regulation 170(4)(a) of the regulations. The exemption was in respect of the re-entry and recovery of the drift, and it came into force on 5 December 2019.
3. Regulation 170(4)(a) imposes a duty on a mine operator of an underground coal mining operation to ensure that there is a primary escapeway that is an intake airway.
4. The exemption included the following terms and conditions:
 - the exemption applies only in respect of re-entry and recovery of the drift up to the phenolic plug; and
 - during the re-entry and recovery up to the phenolic plug, the phenolic plug must:
 - a) remain in place; and
 - b) maintain a sufficiently high atmospheric flow resistance and low leakage flow to allow the area between the roof fall and the phenolic plug to:
 - i. be positively pressurised relative to the ventilation in the open drift and the old mine workings; and
 - ii. remain nitrogen filled.
 - if there is a change that could have a significant impact on how the PRRA can safeguard the health and safety of workers and others, PRRA must:
 - a) respond in accordance with the critical controls included in its principal control plans, principal hazard management plans, and associated standard operating procedures and trigger action response plans; and
 - b) inform WorkSafe immediately of any significant change.
5. On 29 April 2020, the PRRA requested an amendment to remove the words 'phenolic plug' from each place where they appear in the terms and conditions of the exemption, and insert in their place the word 'VCD2'.

² Notice Number 2019-au5626

6. VCD2 is a Ventilation Control Device that PRRA is planning to install about 10 metres out-by³ of the current phenolic plug. The PRRA considers the VCD2 will perform the same function as the phenolic plug, but it will be much safer.
7. PRRA also affirms the VCD2:
 - will withstand greater pressures and environmental conditions;
 - provide a more robust barrier between the drift and the mine workings; and
 - provide greater protection and safety for workers in the drift.
8. PRRA also considers that the requested amendment:
 - narrows the extent of the exemption and so satisfies the requirement the exemption is not broader than reasonably necessary (section 220(2)(a) of the Act);
 - provides greater protection for workers and so satisfies the requirement the exemption is not inconsistent with the purpose of section 220(2)(b) of the Act, and
 - will secure the health and safety of workers and workplaces by protecting mine workers against harm to their health, safety, and welfare by:
 - eliminating or minimising risks arising from the re-entry to the drift more effectively than the original exemption (section 3(1)(a) of the Act);
 - having regard to the principle that mine workers should be given the highest level of protection from hazards and risks arising from the re-entry to the drift as is reasonably practicable (section 3(2) of the Act).
9. Therefore, PRRA's views is that the requested amendment better satisfies the requirements for an exemption than the original application.

Analysis – alignment with exemption provisions in the Act

10. Under section 220(2) of the Act, WorkSafe can grant an exemption (or an amendment to an exemption) only if satisfied that:
 - the extent of the exemption is not broader than is reasonably necessary to address the matters that gave rise to it (section 220(2)(a) of the Act), and
 - the exemption is not inconsistent with the purpose of the Act (section 220(2)(b)).

³ The direction away from an underground point towards the surface from any point of reference

11. WorkSafe may amend or revoke an exemption under section 220(3)(b) of the Act.
12. PRRA is seeking an amendment that applies to the terms and conditions of an existing exemption. I believe the amendment the PRRA is proposing would satisfy the requirements for an amendment to an existing exemption under sections 220 of the Act.
13. This is because the amendment sought is not broader than reasonably necessary and will increase the level of health and safety protection for workers and other persons compared with the current exemption.
14. The PRRA is planning to replace a temporary seal (the phenolic plug) with a pressure rated VCD2. I note that the reference to VCD2 is specific as this indicates the actual reference name given to a particular seal in the PRRA design. For the purpose of this analysis, I consider the VCD2 would:
 - be superior in performance, suitable as a long term structure and compliant with Type C seal⁴ in Schedule 4 of the regulations. This ensures an effective sealing of disused areas in a coalmine;
 - provide a significant improvement (compared to the phenolic seal), to the control of hazards caused by the migration of methane, oxygen or noxious gases between the sealed area of a mine and the ventilated working area of the mine.
15. I support the intention of replacing the words 'phenolic plug' with the word 'VCD2' in the terms and conditions of the exemption. However, I recommend that while reflecting the intent of the request, the drafting of the amendment is slightly different from that proposed by the PRRA. This is the phenolic plug may be replaced by a VCD2 seal, once that seal has been installed and a design engineer has accepted that it will comply with its rating. I understand that the intention is to maintain one of the seals at all time with no periods where there is no seal in place.
16. I note that :
 - once the VCD2 is constructed and effective, there is no reason to maintain the phenolic plug or any practical way to do so, as the plug will effectively be isolated from the general working area and inaccessible for normal work;
 - the option to replace the phenolic seal with the VCD2 would only be practicable after the drift has been fully recovered. The PRRA are planning to do this work at the earliest opportunity.
17. I reached the conclusion to support the intention of the amendment, based on my assessment of the PRRA's original information and current supporting information (see list in Appendix 1), as well as the advice provided by Chris Strawson.
18. Chris Strawson is a Mining, Ventilation and Geotechnical Engineer with 7 years of experience on seals and structures, and more than 20 in the mining industry.

⁴ Capable of withstanding an overpressure of 140kPa

Chris supports the claim that VCD2 would offer a better barrier to old mine workings than the existing phenolic plug.

Other relevant considerations

19. I note that a solid separation to the old workings was originally envisaged and required by WorkSafe. PRRA subsequently agreed to the installation of a temporary seal (i.e. the phenolic plug).
20. PRRA have always included in the recovery plan the task to construct a rated seal, compliant with the regulations, at the furthest point of the recovered drift to replace the phenolic plug. This task would be achieved by the construction of the VCD2 at a suitable point as close to the phenolic plug as possible. This will become the end-point of the recovered drift.
21. The out-bye drift would still require ventilation and therefore the PRRA would still need the continuation of the exemption that allowed forcing ventilation of the recovered drift up to the VCD2.

Clarification –Scope of the exemption and the amendment

22. PRRA have indicated to Worksafe they may wish to visually examine the area beyond the VCD2 after it is constructed, through the phenolic plug, up to the rockfall area.
23. The Regulations anticipate this type of activity and it has occurred occasionally at mines in the past. Any mine undertaking such activities is required to notify WorkSafe prior to any of the work commencing, and WorkSafe would then review the plans and controls being proposed for the adequacy of them.
24. The existing exemption applies to the type of ventilation used in the re-entry and recovery of the drift up to the phenolic seal. Therefore, the exemption only has application to the work area that is recovered and ventilated, and does not refer to the unventilated sealed off areas of the mine.
25. However, to avoid any doubt, I recommend that the amendment to the exemption clarify that the exemption does not prohibit this type of work, when carried out in compliance with the Regulations.

Recommendation

26. Based on the above analysis, PRRA's information and other relevant considerations, I recommend that you agree in principle to the amendment to the exemption request, in the manner recommended in this memo, subject to consultation with the PRRA on the wording of the amendment.

Next steps

27. If you agree to grant this amendment, I will prepare a letter consulting PRRA on the proposed amendment prior to your final decision.

Consultation

28. This memorandum has been prepared in consultation with:

Team	Description
Legal Group	Provides effective legal services and advice to WorkSafe
Marketing and Communications	Delivers high-quality internal and external communications
Regulatory Frameworks	Ensures legislative tools are fit for purpose, works closely with MBIE's policy team for the regulatory reform programme, and represents WorkSafe's interests on external regulatory frameworks which could impact WorkSafe

Appendix 1: PRRA SUPPORTING DOCUMENTS

PRRA provided four new documents specific to the amendment request, which supplement the documents already supplied to support the Exemption.

1. Plans for VCD2 "17095-A000-ME-EGA- A0001 (VCD2 20psi Rated Sealing)", 11 September 2019
2. Rating of VCD1 and 2 by Chris Strawson, Rock Doctors Consulting, 11 September 2019
3. Inspection of construction of VCDs by Chris Strawson, Rock Doctors Consulting, 15 March 2020
4. VCD Discussion, Chris Strawson, Rock Doctors Consulting, 23 April 2020

DRAFT

APPENDIX 2: PRRRA's APPLICATION

DRAFT

APPENDIX 3: AMENDMENT TO EXEMPTION DOCUMENT

DRAFT