

Memorandum

To: Dr Allan L Freeth
Copy to: Dr Fiona Thomson-Carter, Gayle Holmes
From: Lee Bailey
Date: 11 April 2019
Subject: Pathway determination for reassessment of methyl bromide (APP203660)

Purpose

1. Stakeholders in Methyl Bromide Reduction Inc (STIMBR) lodged an application to reassess methyl bromide on Monday 25 March 2019. Following payment of their invoice and a completeness check on the application form, the application was formally received on 9 April 2019.
2. STIMBR want to amend the recapture and buffer zone controls in the approval HSR001635.
3. The purpose of this memo is to establish a pathway determination for this reassessment application – that is, what type of reassessment to conduct.

Recommendation

4. That the Chief Executive:

a.	notes the memo
b.	decides to use the EPA's discretion to conduct a modified reassessment (under section 63A of the Act)

Background

5. Methyl bromide, was approved under the Act on 29 October 2004, via the Hazardous Substances (Fumigants) Transfer Notice 2004, and has the HSNO Approval Number HSR001635.
6. It is used as a fumigant to treat a number of products prior to their export to selected countries, and for quarantine applications in imported goods, collectively known as quarantine and pre-shipment (QPS) uses.
7. The hazard classification of methyl bromide is: 2.1.1B, 6.1B (All), 6.1B (I), 6.1C (O), 6.6B, 6.8B, 6.9A (All), 8.2C, 8.3A, 9.1A (All), 9.1A (F), 9.2A, 9.3B, and 9.4A.

8. Methyl bromide was previously reassessed in 2010 following an application by the Chief Executive of the Environmental Risk Management Authority (ERMA, the EPA's predecessor agency).
9. The 2010 reassessment was heard by a decision-making committee (DMC). The DMC's decision included controls relating to buffer zones, and the need to recapture methyl bromide by 2020.
10. The DMC considered that recapture would be consistent with the intent of the Montreal Protocol, reduce the risks of direct effects on people, and reduce the indirect effects on human health and the environment.
11. In addition, the DMC considered that the recapture controls would allow for the continued use of methyl bromide, and would retain significant benefits (such as preventing the introduction of human disease vector organisms, preventing the introduction and establishment of exotic pest/diseases affecting natural ecosystems and agriculture, and allowing access to overseas markets (particularly for the export of logs)).
12. STIMBR applied for grounds to reassess methyl bromide in 2017 (APP203435). They provided evidence of a 50% increase in the use of methyl bromide between 2010 and 2016, alongside reviews of recapture progress. These grounds were granted by a DMC on 5 April 2018.
13. A second grounds application by the Pest Management Association of New Zealand to reassess the flammability classification (APP203435) was not granted. The information they provided was already known to ERMA/ EPA at the time of classification, and was therefore not "new information".
14. STIMBR provided an application form for the reassessment of methyl bromide on Friday 22 March 2019. The associated appendices were provided on Monday 25 March 2019. Their application, which aims to amend the recapture and buffer zone controls in the approval HSR001635, was lodged on 25 March 2019 upon receipt of these appendices.
15. The Hazardous Substances Applications Manager decided on a fee estimate of \$10,000+GST (excluding disbursements) on Friday 5 April 2019. The applicant was invoiced on Monday 8 April 2018. Their payment cleared overnight of 8 – 9 April 2019, at which point the application was formally received.
16. Between the 2010 reassessment of methyl bromide and STIMBR's grounds application being granted, the controls for methyl bromide were subject to a major regulatory change. The majority of controls on the use of methyl bromide are now listed in Part 14-6 of the Health and Safety at Work (Hazardous Substances) Regulations (HSW(HS)Regs), not the HSNO approval. This regime came into effect on 1 December 2017.
17. The requirement for users to recapture methyl bromide, however, remains within the HSNO approval. This control effectively requires all methyl bromide fumigations to use technology to recapture sufficient methyl bromide so as to leave less than 5 ppm in the head space of the treated enclosed space. This requirement is due to become mandatory on 28 October 2020.
18. Methyl bromide is an ozone-depleting substance that is controlled under the Montreal Protocol. All countries are urged to refrain from the use of methyl bromide and to use non-ozone-depleting technologies wherever possible. Where methyl bromide is used for QPS purposes, "Parties are urged to minimise emissions through containment and recovery and recycling methodologies to the extent possible."

Current reassessment

19. In their application to reassess methyl bromide, STIMBR has requested that the approval be changed to “clarify the current controls, specifically those relating to the performance target of recapture technology and feasibility of the controls” relating to recapture to:
- reduce the recapture target requirement to 80% of methyl bromide remaining at the end of fumigations
 - extend by 10 years the deadline for achieving recapture from ship hold fumigations
 - make refinements to strengthen buffer zone requirements at the completion of the recapture.

Recapture definition

20. STIMBR claim that the 5 ppm recapture requirement is not practicable and cannot be achieved by the October 2020 deadline. They state that methyl bromide fumigation for QPS purposes could therefore end after October 2020 if the recapture requirements are not amended. They then go on to claim that this will have a significant impact on New Zealand’s regional and national economy.
21. The application form discusses trials that STIMBR and a member company (Genera) have conducted on different recapture technologies. Based on these trials, they propose a new control requiring only 80% of the methyl bromide used is recaptured. Clarity on whether STIMBR’s proposal is for each fumigation to achieve the 80% recapture or if this is a cumulative effort across a company and/or country will form part of the s 52 further information request.
22. This proposal would need to be evaluated during the application and as part of the Decision-Making Committee’s (DMC’s) consideration.

Recapture timeline

23. STIMBR also claim that those fumigations which occur in ship holds cannot currently recapture methyl bromide. The applicant states this is because of difficulties generating enough airflow to achieve sufficient recapture. They ask for the recapture deadline for ship-hold fumigations to be extended by ten years (that is, to 2030) to allow further investigations for new technology in this area.

Buffer zones

24. The third change that STIMBR ask for relates to the buffer zones around methyl bromide fumigations. They have provided the results of dispersion modelling for the Port of Tauranga. Although they discuss the residual concentrations 20 m from the treatment zone, they have not stated what new buffer zones they want to achieve with the reassessment. It is highly likely that this modelling will need to be reviewed by a third-party contracted by the EPA.
25. The required buffer zone for methyl bromide QPS fumigations are now controls in the HSW(HS)Regs, not the HSNO approval. Regulation 14.38(1) sets the minimum buffer zones, with cross-reference to Schedule 18 (Table 4). Regulation 14.38(4) goes on to state that buffer zones do not apply to fumigations where recapture technology is used.
26. During their consideration, the DMC will need to consider all the effects associated with the reassessment, as well as best practice international practice and standards. As part of this requirement, they will need to be satisfied that any change to the recapture controls does not

result in an unacceptable increase in the risks within the current buffer zones, unless they are outweighed by the benefits of these changes to methyl bromide fumigation.

27. If the DMC requires new buffer zones to be set by Worksafe New Zealand (“WorkSafe”) before they decide on any new recapture controls, then this may pose a significant risk to a timely decision.
28. In order to have buffer zones reviewed, WorkSafe will need to be a key and integral party to the discussion, from a very early stage in the process. Any such changes are likely to need amendments to the HSW(HS) regulations or a new Safe Work Instrument that overwrites relevant sections of the regulations. Both of these are lengthy processes and outside the control of the EPA and the DMC.

Classifications

29. STIMBR have not asked for the classifications of methyl bromide to be reviewed. The application form and supporting information, however, discuss the possibility of methyl bromide being a potential carcinogen. The applicant’s toxicologist concludes that there is no reason to change the current “No” classification. It would be prudent for the reassessment to evaluate this information to confirm their conclusion.

Is there a desire to revoke the approval?

30. The only way to revoke a HSNO approval is via a full reassessment under section 63 of the Act.
31. The applicant has specifically asked for the approval to not be revoked, claiming it is an essential QPS fumigant in New Zealand.
32. Following the approval of STIMBR’s application for grounds to reassess methyl bromide, there was a series of articles in the Dominion Post / Stuff website discussing the future of methyl bromide in New Zealand. As part of this series, the Tauranga Moana Fumigant Action Group was quoted as wanting to “eliminate or at least contain [methyl bromide] to a purpose built facility”. This group might have a different view to the applicant on whether methyl bromide should retain its approval.
33. STIMBR claim that the current controls will mean that “all QPS fumigations with methyl bromide will cease” in October 2020. (Note: this does not appear to take into account the recapture of container fumigations, of which the EPA is aware currently occurs at selected ports.)
34. The argument put forward by STIMBR – that is, QPS fumigations will cease in 2020 with the current controls– has the same effect as a hypothetical decision to conduct a full reassessment and then revoke the approval. When the container fumigations are taken into account, this equivalence breaks down, though there is still likely to be a considerable reduction in the use and hence release of methyl bromide.
35. Should it be decided that the reassessment proceed as a modified reassessment and then to decline the requested modifications, then the current controls would continue to apply, with a similar result to both doing nothing and revoking the approval.
36. It is worth noting again that (i) the DMC hearing the 2010 reassessment considered that the benefits of recapture technology (including allowing access to market for the export of logs) were significant; and (ii) that the DMC for STIMBR’s 2018 grounds application considered that the use of methyl bromide has increased since then because of an increase in logs treated prior to export.

Other considerations

Is there sufficient information to evaluate the application?

37. Prior to formal receipt, the application form was checked for its mechanical completeness.
38. The application form raises several questions around the current and proposed uses of methyl bromide, the benefits to New Zealand from methyl bromide, and the reasons why recapture technologies or alternatives have not been progressed by STIMBR and the industry. Further information will be requested from the applicant before the application can be properly evaluated.
39. As there is some uncertainty in the application form about the benefits of the applicant's proposed new recapture definition, it is prudent to allow the review of the benefits of methyl bromide to be considered in the reassessment.
40. As the application form is complete, the additional information will need to be requested using sections 52 and 59 of the Act within 10 days of the application been formally received. A separate memo will be prepared seeking approval for this from the HS Applications Manager.

Bay of Plenty Regional Council concerns

41. Following the EPA granting grounds to reassess methyl bromide, the Bay of Plenty Regional Council wrote to the EPA in June 2018 raising concerns they had regarding (i) reporting requirements, (ii) monitoring locations, and (iii) recapture controls.
42. They expanded on their recapture controls with concerns around the recapture target concentration, and the lack of buffer zones, monitoring, reporting and notification of neighbours when recapture was carried out.
43. For clarity, these concerns do not part of STIMBR's application.
44. As noted above, many of the controls from the 2010 reassessment of methyl bromide are now in the HSW(HS)Regs. The record keeping and reporting requirements are now in HSW(HS) regulations 14.35 to 14.37, with notification requirements in regulations 14.7 to 14.10, and buffer zone requirements in regulation 14.38.
45. In order to have these controls reviewed, WorkSafe will need to be involved at an early stage as they are likely to need changes to regulations or prepare a new Safe Work Instrument to supersede the regulations. As noted above, both of these are lengthy processes and outside the control of the EPA and the DMC.
46. The recapture definition is discussed in paragraphs 19 to 22 above.

Recommendation

47. The changes requested by STIMBR in their reassessment application relate to changing the recapture definition, extending the timeframe for ship holds to meet the recapture requirements, and amending the buffer zones for methyl bromide treatment areas; that is, specific aspects of the approval.
48. These changes are specific to the approved hazardous substance, though they will affect related trade name products.

49. Taking the above into account, we consider that a full reassessment under s 63 of the Act is not appropriate because the reassessment will involve only a specific aspect of the approval.
50. Another consideration to be taken into account when considering if a modified reassessment is appropriate is whether a minor and technical amendment (under s 67A of the Act) is more appropriate. The changes being asked for by STIMBR are not considered to be an error in the original approval. Similarly, they are not considered to be minor in effect. As such, section 67A is not an appropriate mechanism to achieve the applicant's desired changes.
51. We therefore considered it appropriate to re-evaluate methyl bromide as a modified reassessment under s 63A of the Act.
52. Based on the above, we recommend that the specific aspects of the approval to be reassessed are:
 - hazard classification
 - benefits
 - controls on the use of methyl bromide (within the scope of the Act and excluding those within the Health and Safety at Work regime).
53. If you agree with our recommendation, we will prepare a further memo seeking your approval to reissue the methyl bromide approval using Schedule 7 of the Act.

Further documentation

54. The following documents are provided to assist in your decision:
 - current application form for the reassessment of methyl bromide, from STIMBR, dated 22 March 2019 (APP203660)
 - appendices for this reassessment (APP203600)
 - confidential appendices for this reassessment (APP203660)
 - letter from Bay of Plenty Regional Council (13 June 2018)
 - decision on the grounds for a reassessment of methyl bromide (APP203465).

Next steps

55. If you decide that methyl bromide can be re-evaluated via a modified reassessment, the EPA will need to decide whether to publicly notify the reassessment application or to consult with targeted, affected parties, in line with s 63A(4) and s 63A(5) of the Act. In contrast, a full reassessment under s 63 must be publicly notified in accordance with Act.

Decision on use of discretionary powers

- I have decided under section 63A(1) of the Act that the EPA will conduct a modified reassessment of methyl bromide. The specific aspects of the approval to be reassessed are:
- hazard classification
 - benefits
 - controls on the use of methyl bromide (within the scope of the Act and excluding those within the Health and Safety at Work regime).
- I have decided that the EPA will conduct a full reassessment of methyl bromide under s 63 of the Act.


Environmental
Protection Authority
Te Mana Rauhi Taiao

12 April 2019

Dr Allan L Freeth
Chief Executive

Date

Conflict of Interest Declaration

Identify whether a Conflict of Interest exists with the present application:

Yes No

If your answer is yes please provide comments below:

The information provided on this form is, to the best of my knowledge, a full disclosure of any known or possible conflicts of interest I hold with regard to my position as a decision maker of this application at the EPA.


Environmental
Protection Authority
Te Mana Rauhi Taiao

12 April 2019

Dr Allan L Freeth
Chief Executive

Date