

He tono nā



Te Rūnanga o NGĀI TAHU

ki te

**ENVIRONMENTAL PROTECTION AUTHORITY**

e pā ana ki te

**SUBMISSION ON APP203660 : Methyl Bromide – Application  
seeking a reassessment of certain controls**

**Date: 28 August 2019**

**Author:**

**Gerry Te Kapa Coates  
Ngāi Tahu HSNO Kōmiti member**

## **Recommendation**

**This application should be declined unless the time period extension is reduced from 10 to 5 years with controls.**

**We only wish to be heard in support of our submission if a hearing is convened for other submitters.**

## Moemoea (Lament)

Mātakitaki au ki te takutai o te raki  
 ki te pōkaikura e tauawhitia mai.  
 Ko Uenuku e tīwhanawhana ai ki runga  
 ko te Rau o Tītapu ki mua.  
 Ka whakapiki te hā ki te taumata kōrero  
 kia whakapuakiakihia mai ngā maunga  
 pepeha.  
 Ko tōku maunga Kākāpō e tū ake rā.  
 ko ahau te tangata e whakatika ki runga  
 Tū te ihiihi  
 Tū te wanawana  
 Tū te mauri ki waho  
 Tū te mauri ki roto.  
 Tāpuketia au kia mārama ai taku titiro  
 Ki aku umu tangata.  
 Puritia, tāwhia kia ita  
 Te mana tīpuna  
 Te mana whenua  
 Te mana tangata  
 Kia tūturu  
 Āwhiti whakamaua  
 Kia tina  
 Tina !  
 Hui eee Tāiki ee!

Look to the north where the coast  
 that embraces us glows a sacred red.  
 'Tis Uenuku that arches on high  
 and our leaders who move to the fore.  
 The essence of our ancestors rises up to  
 the pinnacle of oratory  
 as our mountains are recalled to remind  
 us of whence we came.  
 There stands the mountain of the  
 treasured Kākāpō  
 'tis I who can stand and claim my place.  
 I feel the dread  
 I feel the awesome prestige  
 As the life force is established  
 from within and without.  
 Bury me there so that I may gaze upon  
 those lands  
 Through the strength of my people.  
 Hold fast and firm  
 To my inherited authority  
 To my rights to this land  
 To my rights as a person

## Whakatauki (Proverb)

*"Te Toto o te tangata, he kai; te oranga o te tangata e whenua"*

While food provides the blood in our veins, our health is drawn from the land

## 1 Executive summary

The applicant, Stakeholders in Methyl Bromide Reduction Inc (STIMBR) was formed in 2008 to seek sustainable solutions to address the issue of the toxicity of methyl bromide (MB) in log fumigation at ports. It is a particular problem with recapture/destruction of MB remaining in the head space at the end of fumigation which STIMBR assert is “not possible.” Treatment of logs is required to meet the phytosanitary requirements of the importing countries, particularly China and India. This application is to reassess the controls that apply under EPA Decision HRC08002 that by October 2020 all applications of methyl bromide must use recapture technology such that only 5ppm of methyl bromide remains in the headspace prior to venting.

Annual consumption of methyl bromide has increased from approximately 400 tonnes in 2010 to around 600 tonnes in 2016. The applicant states that despite the efforts to date “there is no effective way to achieve the level of recapture specified” and that “ships used to transport logs provide a particularly difficult environment to recapture from.” They say it is now clear it is impossible to achieve the 2020 deadline despite spending \$30 million since 2010. The applicant proposes changes to the recapture controls that include revising the definition of recapture technology to reflect the highest practicable level of recapture, limiting the deadline for recapture technology to on-port and containers and a new deadline of 10 years for ship hold fumigations, and a change to data collection requirements so that if buffer zones are kept that “reflect the realities of a discharge <20% methyl bromide.”

Ethanedinitrile (EDN) appears to be the only realistic alternative treatment to methyl bromide according to the applicants Table 3. An EPA hearing was held for EDN in August 2018 and despite an ongoing series of additional documents and expert conferences had not reached a conclusion by 18 June 2019. Workplace controls that were once under HSNO have now been transferred to HSWA (Health and Safety at Work Act 2015) regulations.

The Ngāi Tahu has a major stake in the forestry sector with Ngāi Tahu Forestry having log export sales of \$12.7m in 2017 and the 2016 figures for log exports through ports in our takiwā total 14% of New Zealand’s total log exports. In addition, the forest sector is an important part of the economic, social and cultural fabric of the Ngāi Tahu takiwā and the tribe shares national concerns over the effects on climate change due to compounds such as methyl bromide and so wants to see the Government’s goal of phasing it out by 2020 achieved. To do that EDN is the only option for consideration. The only question is the time frame and whether a 10 year extension is warranted.

The applicant proposed changes to the recapture controls that reflect “the highest practicable level of recapture” to a residual level in any enclosed space is at least 80% less than that at the end of the fumigation period, and also a new deadline for recapture technology of 10 years be imposed on ship hold fumigations.

Te Rūnanga o Ngāi Tahu generally supports the reassessment application, with the exception of the 10 year time extension. We would like to have this restricted to 5 years, with controls on how any further extension can be granted or exercised being granted.

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## 2 Tāhuhu Korero (Introduction)

### Ngāi Tahu HSNO Kōmiti

The Te Rūnanga o Ngāi Tahu HSNO Committee is mandated by Te Rūnanga o Ngāi Tahu. The members of the committee are appointed by Te Rūnanga based on their knowledge and expertise in the areas of hazardous substances and new organisms.

### Ngāi Tahu Values

All Te Runanga o Ngai Tahu activities are informed by the following values:

#### Whanaungatanga (family)

Respect, foster and maintain important relationships within the organisation, within the iwi and within the community.

#### Manaakitanga (looking after our people)

Respect each other, iwi members and all others in accordance with our tikanga (customs).

#### Tohungatanga (expertise)

Pursue knowledge and ideas that will strengthen and grow Ngāi Tahu and our community.

#### Kaitiakitanga (stewardship)

Work actively to protect the people, environment, knowledge, culture, language and resources important to Ngāi Tahu for future generations.

#### Tikanga (appropriate action)

Strive to ensure that Ngāi Tahu tikanga of is actioned and acknowledged in all of our outcomes.

#### Rangatiratanga (leadership)

Strive to maintain a high degree of personal integrity and ethical behaviour in all actions and decisions we undertake.

## 3 Statutory obligations to Ngāi Tahu

This response is made on behalf of Te Rūnanga o Ngāi Tahu (Te Rūnanga). Te Rūnanga is statutorily recognised as the representative tribal body of Ngāi Tahu Whānui and was established as a body corporate on 24th April 1996, under section 6 of Te Rūnanga o Ngāi Tahu Act 1996 (the Act). We note the following relevant provisions of our constitutional documents:

Section 3 of the Act: This Act binds the Crown and every person (including any body politic or corporate) whose rights are affected by any provisions of this Act.

Section 15(1) of the Act: Te Rūnanga o Ngāi Tahu shall be recognised for all purposes as the representative of Ngāi Tahu Whānui.

The Charter of Te Rūnanga o Ngāi Tahu (1993, as amended) constitutes Te Rūnanga as the kaitiaki of the tribal interest.

Te Rūnanga respectfully requests that this response is accorded the status and weight due to the tribal collective, Ngāi Tahu Whānui, currently comprising over 70,000 members registered in accordance with section 8 of the Act.

Under the HSNO Act, the environmental and cultural health and well-being of Māori, and Treaty of Waitangi outcomes and values, must be considered when making decisions about introducing and using hazardous substances or new organisms into New Zealand.

Section 5(b) of the Act provides (amongst other things) for the:

“Maintenance and enhancement of the capacity of people and communities to provide for their own economic, social and cultural well-being”.

Section 6(d) of the Act requires that the Environmental Protection Authority of New Zealand (EPA), when exercising functions under the Act, take into account: “The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, valued flora and fauna, and other taonga”.

Section 8 of the Act requires that all persons exercising functions under the Act consider: “...the Principles of the Treaty of Waitangi” including the recognition of the special relationship between the Crown and tangata whenua.

## 4 Description of Application APP203660

Application APP203766 was submitted by Stakeholders in Methyl Bromide (MB) Reduction Inc (STIMBR). STIMBR was formed in 2008 to seek sustainable solutions to address the issue of the toxicity of methyl bromide in log fumigation at ports and means of recapturing it within acceptable residual levels. It is a particular problem with recapture/destruction of MB remaining in the head space at the end of fumigation which STIMBR assert is “not possible.”

The recapture requirement is due to come into effect on 28 October 2020, after which time recapture to certain standards must be used. Treatment of logs is required to meet the phytosanitary requirements of the importing countries, particularly China and India. This application is to reassess the controls that apply under Decision HRC08002 which states that by October 2020 all applications of methyl bromide must use recapture technology such that only 5ppm of methyl bromide remains in the headspace prior to venting. Fumigation of forest products currently account for 95% of methyl bromide use in New Zealand. Annual consumption of methyl bromide has increased from around 400 tonnes in 2010 to around 600 tonnes in 2016.

The applicant states that despite the effort to date “there is no effective way to achieve the level of recapture specified by the Decision (HRC08002). They also say that “ships used to transport logs provide a particularly difficult environment to recapture from.” Top-stowed logs are fumigated before loading, but in-hold fumigation has challenges such as the size of the hold, the large volume of logs stowed in the hold, the configuration of the stowed logs and an inability to agitate air within the hold to speed the process of methyl bromide desorption. Because the applicant claims that while the 10 year deadline set in 2010 “was a goal that served New Zealand well as a strong driver for innovation” it is now clear that it is impossible to achieve despite spending \$30 million since 2010 on looking for an approach that will meet the controls of the 2010 decision. This included funding a research programme commissioned by STIMBR to review potential fumigants and disinfection strategies, methods and techniques as quarantine treatments for New Zealand export logs.<sup>1</sup>

The applicant proposes the following changes to the recapture controls:

- The definition of recapture technology be revised to reflect the highest practicable level of recapture” such that the residual level of methyl bromide in the enclosed space is at least 80% less than that at the end of the fumigation period.
- The deadline for recapture technology be limited to on-port and container fumigations only and a new deadline of 10 years be imposed on ship hold fumigations.
- A change so that if buffer zones are kept so that data collection requirements “reflect the realities of a discharge <20% methyl bromide.

The applicant points out that the Montreal Protocol does not ban methyl bromide but only requires “suitable alternatives to be used when they become available.”

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<sup>1</sup> Armstrong et al. 2014 Comprehensive literature review of fumigants and disinfestation strategies, methods and techniques pertinent to potential use as quarantine treatments for New Zealand export logs.

## 5 Alternative Treatment Technologies

Ethanedinitrile (EDN) appears to be the only realistic alternative treatment to methyl bromide according to the applicants Table 3. An EPA hearing was held for EDN in August 2018 that despite an ongoing series of additional documents and expert conferences had not reached a conclusion by 18 June 2019.

Items 21 and 22 under the heading “Management of adverse effects of EDN through workplace controls” says that “workplace controls that were once in HSNO have now been transferred to HSWA (Health and Safety at Work Act 2015) regulations. HSWA provides significant and detailed regulation on the management of hazardous substances in the workplace. Therefore the DMC recognise that the responsibility and jurisdiction for the setting of such controls and requirements to manage adverse effects of a substance in the workplace now rest with WorkSafe. final Workplace controls that were once in HSNO have now been transferred to HSWA regulations. .... Therefore the DMC recognise that the responsibility and jurisdiction for the setting of such controls and requirements to manage adverse effects of a substance in the workplace now rest with WorkSafe.”

Workplace controls that were once in HSNO have now been transferred to HSWA

This reassessment process must now reconcile this change in responsibilities, as well as the points made in the application for a 10 year time extension period to implement them.

## 6 Position of Te Rūnanga o Ngāi Tahu on Application APP203620

Ngāi Tahu HSNO Committee was fortunate in having one of its former members (Dr Oliver Sutherland) on the Māori Reference Group (MRG) established to deal with the methyl bromide issue. His presence on the MRG provided valuable insights into the forestry industry, the port export arrangements and the risks and benefits of EDN, as well as being able to meet with representatives of the manufacturer of EDN, Draslovka a.s., Czechoslovakia.

The Ngāi Tahu 2018 submission on the the replacement of methyl bromide with EDN said it was not of immediate or direct concern to Ngāi Tahu as little or no fumigation of export logs is undertaken in the takiwā with only three South Island locations reporting use of methyl bromide in the years 2011 – 2015. However our iwi has a major stake in the forestry sector with Ngāi Tahu Forestry having log export sales of \$12.7m in 2017. The 2016 figures for log exports through ports in our takiwā are:<sup>2</sup>

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<sup>2</sup> Forest Owners Association “New Zealand Plantation Forest Industry 2016/17.  
[https://www.nzfoa.org.nz/images/stories/pdfs/Facts\\_Figures\\_2016\\_%C6%92a\\_web\\_version\\_v3.pdf](https://www.nzfoa.org.nz/images/stories/pdfs/Facts_Figures_2016_%C6%92a_web_version_v3.pdf)

Dunedin –	964,790 m <sup>3</sup>
Christchurch –	543,847 m <sup>3</sup>
Timaru –	403,160 m <sup>3</sup>
Invercargill –	531,846 m <sup>3</sup>
<b>TOTAL</b>	<b>2,443,640 m<sup>3</sup> (this is 14% of NZ log exports)</b>

In addition, the forest sector is an important part of the economic, social and cultural fabric of the Ngāi Tahu takiwā and thus we are certainly interested in the issue. The tribe shares national concerns over the effects on climate change due to compounds such as methyl bromide and so wanted to see the Government’s goal of phasing it out by 2020 achieved. To do that EDN is the only option for consideration. The only question is the time frame and whether a 10 year extension is warranted.

## **7 Reasons for our position on application APP203660**

We approach this application under a Kaupapa Māori lens, that includes assessment of the effects of “the substance” on six key areas. These include Te Aō Tūroa, Ōhanga, Hauora, He Tāngata, Tikanga ā iwi, Te Tiriti o Waitangi.

### ***Te Ao Tūroa (Environment)***

Te Ao Tūroa refers to the natural world, encompassing taonga species, te mana o te wai (all water bodies; ie: sea, freshwater, wetlands, estuaries), ngahere (native forest, bush), ecosystems and biodiversity. There are a significant number of fragile taonga species, and their habitats located in waterways and surrounding areas, which must be protected.

***Although port areas are not normally located near areas of high environmental value, water contamination by compounds with severe aquatic toxicity is always a possibility.***

### ***Ōhanga (Economy)***

The Ngāi Tahu economy allows for self-determination of Papatipu Rūnanga in the realisation of their aspirations.

***Ngai Tahu currently has plantation forestry interests amounting to some 20% of the total in New Zealand. It is not clear what quantities of methyl bromide are currently used.***

### ***Hauora (Public Health)***

The health and wellbeing of Ngāi Tahu whanau is interconnected with the health of the environment, in that mahinga kai (traditional food), and rongoa (traditional medicine) sources need to be free of toxins. Taonga – tuku – iho are prized resources passed down through the generations which Nga Papatipu Runanga in particular, continue to access and utilise for mahinga kai, medicinal purposes, for producing woven products and other uses.

***The discharge of contaminants such as methyl bromide however small can affect workers in the log export industry hence the change to bring them under the control of Worksafe.***

### ***He Tāngata (People and Communities)***

The broader social influences on a community which might include; recreational spaces, employment, housing, land usage, and other areas. Whanau do access waterways and surrounding environments for recreational purposes (ie, waka ama, swimming, sports), and as such, whanau must be able to safely access areas free of toxins.

***The potential for adjacent areas likely to be affected by discharges from log treatment facilities needs to be monitored.***

### ***Kaitiakitanga (Guardianship)***

Kaitiakitanga is about our responsibility as Te Rūnanga o Ngāi Tahu, both tribally and in our communities, to assess the cultural acceptability of a proposed activity. We are a part of the landscape and therefore have a responsibility to ensure its sustenance for this generation and for those to come.

The relationship between kaitiaki and taonga can be layered and complex. Different kaitiaki have different degrees of responsibility for taonga such as the kaitiaki of plants and mātauranga associated with them. The kaitiaki relationship can relate to the sustainability of the taonga itself, or to its components within the taonga that make it up, or to species, biota and environment surrounding the taonga.

***Our overarching responsibilities to the environment must take precedence over any commercial activities.***

### ***Te Tiriti o Waitangi (Treaty Principles)***

The Crown has an obligation to honour the Waitangi Treaty principles of Partnership, Participation and Protection.

The Ngai Tahu Settlement Act explicitly lists flora and fauna that are considered taonga to the iwi. This is not an intended to be an exhaustive list, as any organism sourced within Ngāi Tahu takiwā may be considered taonga, and at a minimum require some level of consultation.

Consultation with Treaty partner TRONT/ ngā papatipu rūnanga in relation to their taonga and the proposed application requires contact in the earliest stages of the application process through to its submission and, if approved, mutual agreement on conditions and ongoing monitoring mechanisms to ensure beneficial outcomes are achieved.

***We see consultations such as reassessments as between Treaty partners – the Crown and Ngāi Tahu***

## 8 Conclusions

- Treatment of logs is required to meet the phytosanitary requirements of the importing countries, particularly China and India. This application is to reassess the controls that apply under EPA Decision HRC08002 which states that by October 2020 all applications of methyl bromide must use recapture technology such that only 5ppm of methyl bromide remains in the headspace prior to venting.
- The applicant states that despite the effort to date “there is no effective way to achieve the level of recapture specified by the Decision (HRC08002).
- Fumigation of forest products currently account for 95% of methyl bromide use in New Zealand. Annual consumption of methyl bromide has increased from around 400 tonnes in 2010 to around 600 tonnes in 2016.
- Ethanedinitrile (EDN) appears to be the only realistic alternative treatment to methyl bromide according to the applicant. However an EPA hearing was held for EDN in August 2018 and despite an ongoing series of additional documents and expert conferences had not reached a conclusion by 18 June 2019.
- The applicant proposed the following changes to the recapture controls:
  - The definition of recapture technology be revised to reflect the highest practicable level of recapture” such that the residual level of methyl bromide in the enclosed space is at least 80% less than that at the end of the fumigation period.
  - The deadline for recapture technology be limited to on-port and container fumigations only and a new deadline of 10 years be imposed on ship hold fumigations.
  - A change so that if buffer zones are kept so that data collection requirements “reflect the realities of a discharge <20% methyl bromide.
- Te Rūnanga o Ngāi Tahu generally supports the reassessment application, with the exception of the 10 year time extension. We would like to have this restricted to 5 years, with controls on how any further extension can be granted or exercised.

## 9 Recommendation

Te Rūnanga o Ngāi Tahu generally supports the reassessment application, with the exception of the 10 year time extension. We would like to have this restricted to 5 years, with controls on any further extension being granted unless meaningful progress on approval of EDN is likely to occur (or have occurred) such that a positive approval decision can be achieved within any further 5 year extension. Such a decision should take account of what steps are also needed if the 5 year timetable is not likely to be met.

## 10 Hearing

- This application should be declined unless the time period extension is reduced from 10 to 5 years with controls.
- We only wish to be heard in support of our submission if a hearing is convened for other submitters.



Gerry Te Kapa Coates *MNZM*

Member, Ngāi Tahu HSNO Komiti