

**IN THE MATTER** of the Hazardous Substances and New Organisms Act 1996 (“HSNO Act”)

**AND**

**IN THE MATTER** of the Decision-Making Committee with delegated responsibility for powers and functions related to the hearing and deciding of applications under the HSNO Act

**THE DECISION-MAKING** John Taylor (Chair)

**COMMITTEE** Ngaire Phillips

Kerry Laing

**DATE** 28 January 2019

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**DIRECTIONS AND MINUTES OF THE DECISION-MAKING COMMITTEE**

*Regards application APP202804; to import EDN (Ethanedinitrile), a fumigant for use on timber/logs under commercial conditions*

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1. This minute is to be documented and made available on the EPA website with the other application documents.
2. Following the conclusion of the expert conferencing process the resulting reports were made available to the public for comment. Submissions (3) were received on these reports from Bay of Plenty Regional Council, STIMBR and Tauranga Moana Action Group.
3. Following analysis of this new information the DMC sought further clarification from Dr Graham, as the consultant who undertook the assessment of the modelling (referred to in the Science Memo) and who participated in the expert conferencing process on technical matters pertaining to air dispersion modelling.
4. In order to address specific question raised by the DMC on the outcomes of the expert conferencing process on air dispersion modelling Dr Graham attended a conference call with members of the DMC and EPA staff on 18 December 2018.
5. The minutes of this call are publicly available and documented (APP202804\_DMWGT005\_Teleconference\_minutes\_Feb19).
6. Having considered all of the information the DMC now wishes to minute the following statement:
  - a. The DMC considers that an absence of sufficient data acquired through measurement of environmental EDN concentrations during appropriately scaled fumigation trials is a significant limitation in its consideration of the application.
  - b. The DMC considers that reliance on air dispersion modelling to predict environmental concentrations of EDN during fumigation, with the inherent uncertainties therein, (including significant uncertainty in the concentration of EDN assumed to be present under the tarpaulin at the time of ventilation), is by itself insufficient to ensure worker and public safety of the fumigant use without recapture at the Port of Tauranga.
  - c. The DMC believes that further measurement of environmental levels of EDN during quarantine trials at appropriate scale will be necessary to address these limitations. While the DMC acknowledges that a single large-scale fumigation trial was conducted at Kinleith by

Plant and Food (assisted by Genera and Draslovka) and the results submitted in support of the application by Draslovka, (Fumigation monitoring-Fumigas EDN™ commercial log trial to determine ethanedinitrile emissions. Hall et al, 2016), the DMC is reluctant to extrapolate the results of this trial to the proposed industrial use of EDN at the Port of Tauranga given the reduced rate of EDN application (50 g/m<sup>3</sup>), reduced time of fumigation (10 hours), ill-defined smaller stack sizes and loading rates and erroneous ambient air measurements inherent in this study.

- d. The DMC has become aware of at least one other study not currently referred to in the application or EPA staff report that has reported levels of EDN released during ventilation of fumigated log stacks at a distance of 5m to be nearly 10 times the concentrations reported by Hall et al, (see Lee et al, 2017, Pest Manag Sci 73: 1446–1452).
  - e. It is the DMC's view that these inconsistencies necessitate further environmental monitoring of EDN release during large-scale fumigation trials and submission of this data to the EPA.
  - f. The DMC has, in light of the above and taking into consideration those uncertainties that arise from the lack of sufficient measurement of EDN levels during fumigation trials, formed a preliminary view that the risks of EDN use as a fumigant may be able to be managed by recapture of the gas as a control applied to any approval. However the DMC recognises that there exists uncertainty, around the effectiveness, efficiency, feasibility and scalability of recapture technology available at this time.
7. The DMC notes that some technical information of the type the Committee considers necessary may now be available from the applicant's own research as suggested by presentations made at a recent industry (Methyl Bromide Alternatives Outreach) forum in November 2018 (<https://mbao.org/static/docs/confs/2018-orlando/papers/hnatek.pdf>), and STIMBR comments on the air dispersion modelling expert witness statement. STIMBR indicated that data from the trials in the Czech Republic could be made available to the DMC, if required.
  8. The DMC is also aware that the applicant intends to undertake efficacy trials in the near future and recommends that these incorporate measurement of EDN concentration released from the stack upon ventilation (also referred to in the Plant and Food presentation at the above MBAO conference). The DMC considers that, if further industrial scale trials of EDN efficacy are proposed, the applicant is made aware of the need for comprehensive measurement of EDN concentrations in the stack and in the environment during ventilation and that these measurements be incorporated in the trial to provide critical information that could be used in assessment of safety by Worksafe and the EPA. Such trials should give consideration to stack sizes, loading rates and fumigation dose (at the highest requested in the application as well as the effective dose determined from the insect fumigation studies).
  9. Having considered all relevant information provided to date and come to the views outlined above, the DMC has identified two options, noting its obligations under s7 of the HSNO Act<sup>1</sup>, it has available with regards to this application at this time:
    - i. Proceed to final consideration under s29 of the Act, noting that we must consider sufficiency of information with regards to all parts of that section including positive effects, adverse effects and any controls which may be imposed on the substance.

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<sup>1</sup> Section 7 Precautionary approach

*All persons exercising functions, powers, and duties under this Act including, but not limited to, functions, powers, and duties under sections 28A, 29, 32, 38, 45, and 48, shall take into account the need for caution in managing adverse effects where there is scientific and technical uncertainty about those effects.*

- ii. Extend the period of adjournment of the public hearing of the application on the basis that the DMC requires further specific information of the type identified above to inform the final decision.

Assessment of any information provided via this mechanism may require reconvening of the hearing.

10. The DMC notes also that while WorkSafe is responsible for the setting of hazardous substance workplace requirements under the Health and Safety at Work Act 2015 (HSWA) the DMC as decision maker under the HSNO Act are obligated not only to give regard to controls that might be set under HSWA but also to have some certainty over what those controls might be to inform our decision making.
11. Clarity about how any risks arising from workplace use will be managed is essential and integral to the DMC's consideration of this application.
12. To assist the DMC in reaching a decision on the options identified in part 9 of this Minute. I therefore direct that;
  - a. The applicant inform the DMC, and WorkSafe of the nature and scope of any field work that is likely to address the issues outlined herein and if and when that information can be provided.
  - b. WorkSafe inform the DMC whether it will proceed at this point with the development of a Safe Work Instrument (or other regulatory tool) as a means of managing the risks arising from EDN in workplaces.
  - c. That the applicant and WorkSafe, as respondents to the above direction, notify the EPA in writing by 22 Feb 2019.
13. In light of the information provided in the teleconference minutes (APP202804\_DMWGT005\_Teleconference\_minutes\_Feb19) and supporting documentation provided by Dr Graham, and the DMCs view presented in this Direction & Minute, we now invite written comment or provision of further information from the parties directly related to this additional information.
14. Written comments should be sent to EDN@epa.govt.nz and be received no later than 08 March 2019.
15. Information received shall be made publically available and provided to the parties. If appropriate it may be incorporated into an additional report by the EPA staff for provision to the DMC and other relevant parties, and it will be considered by the DMC.

**For the DMC:**



12 February 2019

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**Dr John Taylor**  
Chairperson

Date