

Public consultation

***SAFE WORK INSTRUMENT
SPECIFYING REQUIREMENTS FOR
USING ETHANEDINITRILE (EDN)***

February 2020



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This document seeks public comment on proposed requirements for work using a potential new fumigant as a phytosanitary treatment of wood products, ethanedinitrile (EDN).

The Environmental Protection Authority (EPA) is considering whether to approve EDN under the Hazardous Substances and New Organisms Act 1996 (HSNO).

The EPA is responsible for approving new hazardous substances in New Zealand. When the EPA receives an application to approve a new hazardous substance, WorkSafe can assess whether the requirements that would apply to that substance in regulations under the Health and Safety at Work Act 2015 (HSWA) are appropriate for the risk it poses.

If WorkSafe considers they are not, a safe work instrument (SWI) is one way WorkSafe can address this gap. If the regulations that set requirements for a type of substance, its use, storage, or associated equipment contain provisions for a SWI, WorkSafe can develop a SWI to add to or modify the existing requirements or to specify new requirements.

Further information on EDN and the application to the EPA to approve this substance is available on the EPA's website: www.epa.govt.nz

What is a safe work instrument?

Safe work instruments (SWI) are provided for in section 227 of HSWA and can be used to support or complement regulations. A SWI can define terms, prescribe matters, or make other provision in relation to an activity or thing, including (without limitation) listing standards, control of substances, and competency requirements.

Regulations specify the purposes for which a particular SWI may be made, including to:

- prescribe detailed or technical matters or standards that change relatively frequently and will often be industry-specific
- set additional or modified requirements for the work-related use of hazardous substances approved or reassessed by the EPA
- provide an alternative means of complying with requirements in certain provisions of regulations
- support the effective operation of the health and safety regulatory framework, for instance by setting exposure monitoring standards or stipulating requirements for training, competence or safety management systems.

A SWI has legal effect only to the extent that it is referred to in regulations under the relevant health and safety legislation, such as the Health and Safety at Work (Hazardous Substances) Regulations 2017 (the Hazardous Substances Regulations).

A SWI may be developed by WorkSafe but must be approved by the Minister for Workplace Relations and Safety before it can take effect. More information about SWIs is available on WorkSafe's website.

Consultation for safe work instruments

Before approving a SWI, the Minister must be satisfied that the appropriate persons and organisations have been consulted on its subject matter.

For this reason, and to help WorkSafe determine whether the requirements we are proposing are appropriate for work with this substance, we are seeking your input.

How to have your say

Have your say by reviewing the proposed requirements and completing the submission form. The submission form is divided into five sections to facilitate your feedback.

This document provides additional background for most of the proposed requirements, which are numbered. When you provide feedback on a specific requirement, please state its number.

The deadline for receipt of all submissions is **5pm, Friday 10 April 2020**.

If you have any questions, please email WorkSafe: regulatory.frameworks@worksafe.govt.nz

Background

In developing the proposed requirements for EDN, WorkSafe evaluated the application documents provided to the EPA, the EPA staff report and science memorandum, subsequent additional information provided to WorkSafe, and additional modelling commissioned by WorkSafe to gain additional clarity on the likely air dispersion of EDN.

We considered how and where EDN is likely to be used; the requirements that apply to substances with a similar hazard profile, and the need for a precautionary approach in proposing requirements for a new substance of this nature.

Similarity to existing substances

The proposed use (fumigant for export logs), use location (ports), and hazard profile (class 6.1B fumigant) of EDN are similar to those of methyl bromide. The Hazardous Substances Regulations contain specific provisions on the use of methyl bromide for quarantine fumigation (regulations 14.32-14.40).

For this reason, we have adapted many of the proposed requirements from existing requirements for methyl bromide, taking into account the relevant differences between the two substances, such as the likely rate of absorption of the substance into the logs.

These differences have been determined based on information provided by the applicant to the EPA for the hazardous substances approval process, submissions and expert input into that process, subsequent information provided to WorkSafe, and air dispersion modelling commissioned by WorkSafe.

Air dispersion modelling

EDN is not currently used as a fumigant in New Zealand, and is used as a fumigant in relatively few jurisdictions. Where it is used elsewhere, it is under circumstances and requirements that may differ from those proposed in New Zealand. This means that there is limited useful information about its behaviour in the environment or about its potential effects on workers and others that can be used to generate workplace requirements.

WorkSafe developed a draft set of requirements and then commissioned air dispersion modelling to generate predictions about the substance's likely behaviour based on probable use patterns and locations and to test whether the draft requirements were likely to be appropriate.

The model uses end concentrations of EDN following fumigation to model dispersion in the prevailing meteorological conditions at a representative port (Tauranga) and a range of scenarios based on possible fumigation workloads at that port. This enabled the development of a series of predictions on the likely dispersion of the substance on ventilation.

Various scenarios of fumigated log volumes were modelled, from one to thirty log stacks. Where multiple stacks were modelled, the model predicts the potential cumulative effect of several log stacks being ventilated at one time or staggered over a determined period.

EDN is predicted to be absorbed into logs during fumigation. Information provided by the applicant indicates an end concentration below 500 parts per million (ppm) could be achieved at the end of fumigation. The modelling compares dispersion with ventilation at 500 ppm with other ventilation concentrations suggested during the application process.

Fumigant dispersion is lower during daylight hours, therefore the modelling also compares predicted dispersion from ventilation at any time of the day with ventilation between specified daylight hours.

It should be noted that the model represents potential likely worst-case scenarios based on the meteorological data for a specific port.

The modelling report can be found on WorkSafe's consultation website.

Ship's hold

Log fumigation with other fumigants such as methyl bromide is permitted in a ship's hold under the Hazardous Substances Regulations.

The WorkSafe-commissioned modelling included air dispersion from fumigations in a ship's hold. However, as the volume of logs in these fumigations is significantly larger, the requirements that would be required to manage the risk of fumigation are likely to be impracticable for the locations where fumigation would take place.

On this basis we are proposing to restrict fumigation with EDN to fumigation under sheets only and not to allow fumigation in a ship's hold.

Precautionary approach

As the use of EDN as a fumigant is new to New Zealand, we have followed a precautionary approach in setting requirements. These are intended to provide for the range of likely fumigation volumes, while requiring the person conducting a business or undertaking (PCBU) to ensure the health and safety of fumigation workers, other workers, and other persons, so far as is reasonably practicable.

The proposed requirements will also lead to a body of data being developed on the use of EDN, any incidents that have occurred, and the effectiveness of the requirements. They will allow us to compare the modelled prediction with actual data, and if necessary, revise the SWI accordingly.

Proposed requirements

WorkSafe does not consider that the default requirements in the Hazardous Substances Regulations that would apply to EDN are adequate to manage the risk posed by work with this substance, and that there is a need for a SWI to put in place additional and modified requirements.

We have grouped the proposed additional or modified requirements into four categories:

- use requirements: requirements, restrictions and conditions for the use of EDN
- prescribed exposure standards and health monitoring requirements
- record-keeping requirements
- notification requirements.

Definitions and abbreviations used in this document

TERN	DEFINITION
Buffer zone	In relation to a fumigation area, means an area extending outward in all directions from the perimeter of each enclosed space being fumigated.
Buffer zone period	The period starting when EDN is first applied in an enclosed space and ending three hours after ventilation has been completed.
Buffer zone monitoring location	In relation to a buffer zone, means the point on land at the edge of the buffer zone that is in the most downwind direction from the enclosed space being ventilated.
Discharge	Unintentional release of EDN into the open air.
Enclosed space	The space under a sheet.
Exposure level	The concentration of EDN in the air recorded at the buffer zone monitoring location.
Fumigation-related work	All work associated with the fumigation carried out inside the buffer zone during the buffer zone period, including monitoring.
HCN	Hydrogen cyanide, which is likely to accompany EDN in trace amounts as an impurity in the substance.
Location	In relation to fumigation at any site means the place on the site the fumigation is occurring (which may be recorded as either New Zealand Mapping Series grid references or on a map with a resolution of at least 1:10 000).
Tolerable exposure limit (TEL)	A concentration of a substance in an environmental medium as set in accordance with section 77B of the HSNO Act.
PCBU	Person conducting a business or undertaking.
Ventilate	The intentional release of EDN into the atmosphere following fumigation. Ventilation has a corresponding meaning.
WES ceiling	A concentration that should not be exceeded at any time during any part of the working day.
WES-TWA	The time weighted average airborne concentration of a substance calculated over an eight hour working day.

Use requirements

On the basis of the application documents provided to the EPA, additional information provided by the applicant, and the modelling WorkSafe commissioned on the predicted behaviour of the substance, we intend to allow fumigation using EDN under certain circumstances only.

1. WorkSafe is proposing, under regulation 13.46(4)(a), to make the use of EDN subject to the following requirements:
 - a. EDN may be used for log fumigation only.
 - b. Fumigation with EDN may only take place under sheets.
 - c. The sheets used for fumigation with EDN must meet the requirements in **point 8 below**.

Concentrations of EDN in the air

Regulation 13.17 of the Hazardous Substances Regulations prohibits using a class 6 substance in a manner that results in a concentration of that substance in the environment above its tolerable exposure limit (TEL).

The TEL is set by the EPA, and is a level of exposure to a substance at which adverse effects are considered unlikely for the majority of the population.

The prohibition in regulation 13.17 does not apply to methyl bromide (as long as it is applied in accordance with regulation 14.39), because when methyl bromide is used to fumigate export logs, the logs may be ventilated at the end of fumigation, releasing residual fumigant from the enclosed space.

Regulation 14.39 states that the TEL for fumigation with methyl bromide must not be exceeded at the boundary of the buffer zone, an area to a specified distance surrounding the fumigation into which access is restricted.

Our proposal is that EDN will be treated in a similar way.

2. We are proposing, under regulation 13.46(4)(b), to modify regulation 13.17 to remove the prohibition of the use of EDN in a way that results in its concentration in an environmental medium above the tolerable exposure limit for the substance, provided it meets the condition in **point 3 below**.
3. We are proposing, under regulation 13.46(4)(a), to require the PCBU to ensure that EDN is not used in a way that results in a concentration of EDN above the TEL at the boundary of the buffer zone.

Minimum buffer zones

For fumigation with methyl bromide, the Hazardous Substances Regulations require PCBUs to set buffer zones equal to or greater than the distance specified in the regulations.

The minimum buffer zones in the regulations are accompanied by a prohibition against using methyl bromide in a way that results in a concentration of the substance greater than the TEL in the specified environmental medium (that is, the air) at the buffer zone boundary.

This means that if the TEL is exceeded at a distance greater than the minimum buffer zone, a larger buffer zone is required.

We intend that these requirements will also apply to EDN.

WorkSafe commissioned modelling to determine the likely air dispersion of EDN in a representative port environment. This modelling shows that the area where the TEL is exceeded will depend on the volume of logs treated, the time of day, and the period over which log stacks are ventilated.

On the basis of the maximum amount of log stacks that are likely to be treated, and the modelling described above, we have determined the following minimum buffer zone.

4. We are proposing, under regulation 13.46(4)(a), to require the PCBU to set a minimum buffer zone of 50m for each fumigation.

However, the proposed requirement in **point 3 above** means that if the concentration of EDN is predicted or measured to be greater than the TEL at the minimum buffer zone, **the PCBU must set a larger buffer zone.**

In order to determine the size of the buffer zone, the PCBU will need to take into account, among other things:

- the volume of logs treated
- the location of other EDN fumigations occurring and overlapping buffer zones
- the time period over which they are ventilated
- the wind speed and direction.

Event modelling is recommended to predict potential exposures under specific conditions.

The buffer zone monitoring information recorded under **point 19 below** will also help to determine whether the requirement in **point 3 above** is being met.

Wind speed monitoring

The minimum buffer zone is required to manage the risk posed by dispersion of the substance during fumigation and ventilation, which may be affected by wind speed and direction. For this reason, we intend to ensure that the wind speed and direction is recorded throughout these activities, as currently required for methyl bromide.

5. We are proposing, under regulation 13.46(4)(a) to require the PCBU to take wind speed and direction measurements at the location every three minutes during the buffer zone period.

Entry restriction to the buffer zone

Buffer zones establish an area into which entry is restricted during the buffer zone period, due to the risk of the activity taking place in that area. The buffer zone period will begin when EDN is first applied into the enclosed space and end three hours after ventilation is complete.

We intend to require that only workers carrying out fumigation-related work (**definition above**) may enter the buffer zone, as under HSWA the PCBU has duties to ensure that these workers:

- are made aware of the risks,
- have the training and knowledge to deal with these risks, and
- are provided with suitable protection from the risks to which they might be exposed.

As fumigations are likely to take place on ports, this will mean that the PCBU in charge of the fumigation will need to ensure that other PCBUs working nearby are aware of the fumigation and ensure their workers do not enter the buffer zone.

6. We are proposing, under regulation 13.46(4)(a), to require the PCBU with management or control of EDN that the PCBU uses for fumigation to ensure that no person other than a worker carrying out fumigation-related work is in the buffer zone during the buffer zone period.

EDN will be used to treat logs for export at ports and it is likely that the minimum buffer zone will extend over water. The requirements that apply to the buffer zone on land will also apply to the area of the buffer zone that extends over water, as currently applies for methyl bromide.

7. We are proposing, under regulation 13.46(4)(a), to require the PCBU to:
 - a. keep the buffer zone under observation to ensure people do not approach the area within it by water; and
 - b. if a member of the public does enter the buffer zone, move that person out of it as soon as possible.

For the avoidance of doubt, no workers other than those carrying out fumigation-related work, and no other persons, may enter the buffer zone by boat or ship.

Requirements for the enclosed space

If approved, fumigation of log stacks using EDN will take place under sheets. However, these sheets will have to meet specified requirements to reduce the risk of discharges from the enclosed area, as is the case for methyl bromide.

8. We are proposing, under regulation 13.46(4)(a), that a PCBU with management or control of EDN that the PCBU uses for fumigation must ensure EDN is not applied under the sheets unless each sheet:
 - a. is in good repair without tears, rips, or visible holes
 - b. is made secure against likely weather conditions at the site
 - c. is sealed, and
 - d. has a gas permeability of less than 0.02 grams per square metre of fumigation sheet per 24 hours, multiplied by the dose in g/m³.
9. We are proposing to require that the PCBU must ensure the floor of the enclosed space is flat and impermeable to the fumigant.
10. We are proposing to require that the PCBU must continuously monitor all fumigations using EDN under sheets through a minimum of three monitoring tubes positioned within the enclosed space in order to:
 - a. measure concentrations of EDN in the enclosed space, and
 - b. detect changes in the concentration of EDN that may indicate a discharge from the enclosed space.

Requirements for ventilation

After fumigation, the sheets are removed from the logs and ventilation takes place, and the remaining fumigant in the enclosed space is released. Although a large proportion of the EDN is absorbed into logs during fumigation, residual amounts will be released on ventilation.

In order to minimise the residual amounts that are released and the associated risk, we intend to require the residual fumigant in the enclosed space to reach a specified level before ventilation.

11. We are proposing, under regulation 14.16(3), to require that ventilation does not begin until the concentration of EDN in the enclosed space is 500ppm or less.

Air dispersion modelling predicts that EDN disperses a smaller distance during daylight hours. We intend to restrict ventilation to these hours to limit the spread of residual fumigant released at the end of fumigation.

12. We are proposing to require that ventilation may begin no earlier than 8am and be completed no later than 3pm, to reduce the likely dispersion of the remaining EDN released on fumigation.

Restriction on log movement following ventilation

After the sheets are removed, time is required for any residual fumigant to fully disperse from the treated logs.

For this reason, and to mitigate the risk of large releases of fumigant when logs are moved from the site, the buffer zone period begins from the time the EDN is applied into the enclosed space until three hours after ventilation is complete.

Consequently, logs will not be allowed to be removed from the site until the end of this period.

13. We are proposing, under regulation 13.46(4)(a), to require that the logs are not moved until three hours after ventilation has been completed.

Signage

The Hazardous Substances Regulations set general signage requirements for all hazardous substances. These, as well as additional signage requirements for fumigants, will apply to EDN.

In addition to the above requirements, signs for fumigations with methyl bromide must contain specific text referring to the buffer zone to alert the public of the associated risk before they enter a buffer zone established for fumigation.

We intend similar signage requirements to apply to fumigations with EDN, in order to alert non-fumigation workers and other people before they enter the buffer zone established for EDN to protect them from accidental exposure.

14. We are proposing, under regulation 14.10(4), to modify the applicable signage requirements to require specific content for signs at every point of entry to the buffer zone, for the parts of it that extend over land. These signs will be required to:
 - state that fumigation is being carried out
 - identify which fumigant is being used and state that it is toxic to humans
 - describe the general type of hazard associated with the fumigant
 - describe the precautions to prevent unintended ignition if the fumigant is flammable
 - be readily seen by anyone who is approaching the buffer zone
 - state that access is prohibited for any person other than a worker carrying out fumigation-related work, and
 - be clearly visible and legible by people approaching the buffer zone from a seaward direction at any time, even during the hours of darkness.

Annual monitoring report

Because EDN is new to New Zealand, WorkSafe intends to require the PCBU to provide WorkSafe with specified information about the use of EDN, as required for methyl bromide.

15. We propose, under regulation 13.46(4)(a), to require the PCBU to produce an annual monitoring report containing the following information for each calendar year:
 - a. the number of fumigations using EDN carried out at the site
 - b. the total amount of EDN applied at the site
 - c. the types of equipment used to carry out the monitoring of EDN and HCN
 - d. the approximate total quantity of EDN discharged
 - e. the number of notifications made in accordance with **point 24 below**, identified by each monitoring location
 - f. how worker exposure is managed at the site;

- g. an anonymised summary of health monitoring results for workers carrying out fumigation related work, including at least two results for every worker who has been carrying out fumigation related work for a period of 12 months or more
 - h. any accidents or other issues related to non-compliance with any of the applicable requirements in this SWI or the Regulations, and
 - i. end concentration inside each enclosed space prior to ventilation.
16. We propose, under regulation 13.46(4)(a), that the PCBU with management or control of EDN that the PCBU uses for fumigation must provide this annual monitoring report to WorkSafe and the relevant medical officer of health by 31st March of the year following the calendar year to which the report relates.

Prescribed exposure standard and health monitoring requirements

Prescribed exposure standard

A prescribed exposure standard (PES) is a workplace exposure standard or biological exposure index that has the purpose of protecting persons in the workplace from harm to health. A PES can be prescribed in regulations or a SWI. It may also be contained in instruments made under the HSNO Act.

If a PES is set, it activates requirements in a series of provisions in the Hazardous Substances Regulations, including:

- 3.2 Managing risks associated with hazardous substances
- 6.6 Qualifications for authorisation
- 13.18 Duty of PCBU to ensure prescribed exposure standards for class 6 substances not exceeded
- 13.35 Requirements for stores other than indoor cabinets
- 14.16 Ventilation of fumigation area and safety of risk area
- 14.17 Completion of fumigation and notice of completion
- 18.14 Knowledge requirements for persons handling hazardous substances.

If prescribed under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 (the GRWM Regulations), it also activates provisions in those regulations including:

- 8 Duty to review control measures
- 29 Ensuring prescribed exposure standards for substances hazardous to health are not exceeded
- 30 When exposure monitoring required.

17. We are proposing, under regulation 13.18(3), and for the purposes of paragraph (b) of the definition of prescribed exposure standard in regulation 3(1) of the GRWM Regulations, to prescribe the current Worker Exposure Standard for EDN described in WorkSafe's [Workplace exposure standards and biological indices](#) 11th Edition. That is a 8-hour WES-TWA of three parts per million (ppm) (6.4mg/m³), and a WES-Ceiling of 5ppm (10.6mg/m³). [See above for definitions.](#)

Health monitoring

EDN is likely to be accompanied by hydrogen cyanide (HCN), which is present in trace amounts as an impurity in the EDN. Both EDN and HCN are acutely toxic, ototoxic (i.e. able to cause hearing loss), and respiratory tract irritants.

To identify whether the risks of working with this substance are effectively being managed, we intend to require health monitoring for workers carrying out fumigation-related work.

This will activate health monitoring provisions in the GRWM Regulations in the following regulations:

- 8 Duty to review control measures
 - 31 When health monitoring required
 - 33 Duty to inform worker of health monitoring
 - 34 Duty to ensure appropriate health monitoring is provided
 - 35 Duty to ensure health monitoring is supervised
 - 36 Duty to pay costs of health monitoring
 - 37 Information that must be provided to occupational health practitioner
 - 38 Duty to obtain health monitoring report
 - 39 Duty to give health monitoring report to worker
 - 40 Duty to give health monitoring report to relevant PCBUs
 - 41 Duty to give health monitoring report to regulator
 - 42 Health monitoring records.
18. We are proposing, under regulations 31(1)(a) and 34(1)(b) of the GRWM Regulations, to require a PCBU with management or control of EDN that the PCBU uses for fumigation to ensure audiometric and respiratory health monitoring are undertaken for workers carrying out fumigation-related work at least once every six months.

Record-keeping requirements

Regulations 13.3 and 14.18 of the Hazardous Substances Regulations require PCBUs to keep records for the application of toxic substances and fumigants, while regulation 13.4 specifies the matters to be included in this record. Because EDN is both toxic and a fumigant, these requirements will apply.

Methyl bromide is subject to additional record-keeping requirements that ensure data relevant to the buffer zone requirement is collected and kept. Because EDN will be used in a similar way to methyl bromide and will be subject to similar requirements, we intend that these additional record-keeping requirements also apply to EDN.

This will require the PCBU to develop a body of information about its use of EDN and management of the associated risk. The matters from this record that need to be included in the annual report provided to WorkSafe are described in **point 15 above**.

Records of buffer zone monitoring

19. We propose, under regulation 13.4 and 14.18(2), that the record required to be kept by a PCBU under regulation 13.3 or 14.18 must also include the following additional information, to be recorded at each buffer zone monitoring location (see definition above):
- a. the 24-hour exposure level for each ventilation
 - b. the number of times the exposure levels exceeded the TELair value
 - c. what risk mitigation measures were taken if a breach of a TELair value has occurred
 - d. exposure levels (definition above) for EDN and HCN, and
 - e. the type and location of monitoring equipment used to record exposure levels.

Records of application and ventilation

20. We propose, under regulation 13.4(2) and 14.18(2), that the record required to be kept by a PCBU under regulation 13.3 or 14.18 must also include the following additional information for each application and ventilation of EDN:
- the volume of logs in the enclosed space
 - the wind speed and direction measured in accordance with **point 5 above**
 - results from monitoring under the sheets (including end concentrations of EDN)
 - the date and time of each ventilation
 - the location where EDN was ventilated, and
 - the time log removal began.

Records of discharges

Discharges are unintentional releases of EDN into the open air. If these expose workers or others to a serious risk to their health and safety, they will be notifiable incidents under HSWA, requiring the PCBU to notify WorkSafe.

We intend to ensure a record is kept of all discharges, the conditions in which they occurred, why they occurred, how the risk was managed and how future discharges will be prevented.

Clause 15 above will require the PCBU to report the total amount of EDN discharged in the annual report that must be provided to WorkSafe.

21. We propose, under regulation 13.4 and 14.18(2), that the record required to be kept by a PCBU under regulation 13.3 or 14.18 must also include the following additional information for each discharge of EDN that occurs during fumigation:
- the date and time of each discharge
 - the approximate amount of EDN discharged
 - the location where EDN was discharged
 - the approximate wind speed and direction at the location when the discharge occurred
 - where the discharge occurred from
 - the reason why the discharge occurred
 - the volume of logs in the fumigation area
 - the name of each worker carrying out fumigation-related work and the physical address of the worker's workplace
 - all actions taken at the time to manage risk associated with the discharge, and
 - all actions taken to prevent future discharges.

How long do records need to be kept?

Although general records for the application of class 6 (toxic) substances and fumigants must be kept for three years, records for methyl bromide must be kept for seven years.

Given its similar proposed use and proposed requirements, and the fact it is a new substance in New Zealand, we intend the records for EDN to be kept for the same period and under the same conditions as those for methyl bromide.

22. We are proposing, under regulation 13.46(4)(b), to modify regulations 13.3 and 14.18 so that subclause (3) of each of those regulations requires the written record to be:
- a. kept for at least seven years after the fumigation that the record describes, and
 - b. available for inspection during that time.

Notification requirements

The Hazardous Substances Regulations set notification requirements to ensure people in surrounding areas know fumigation is going to take place. An existing SWI, the Health and Safety at Work (Hazardous Substances—Requirements for Specified Fumigants) Safe Work Instrument 2017, sets additional notification requirements for fumigation with methyl bromide.

We intend that these requirements also to apply to fumigation using EDN.

23. We propose, under regulation 14.7(4), that in addition to the applicable requirements in 14.7, the following notification requirements apply to EDN:
- If a marae is adjacent to a site, the PCBU who intends to carry out fumigation using EDN must make appropriate notification arrangements with local Māori.
 - A PCBU that intends to apply more than 100 kg of EDN in a 24-hour period must notify the occupants of each property within 100 m of the site, including moored boats, of its intention to fumigate not less than 24 hours before applying the EDN.
 - The PCBU must notify other PCBUs that have workers who work in the vicinity of the fumigation of its intention to carry out fumigation not less than 24 hours before applying the EDN.
 - However, the requirement to notify persons in the above circumstances will be treated as having been complied with if:
 - a. fumigation is carried out at the site weekly, and
 - b. the relevant persons are notified of the intention to carry out regular fumigations at the site before the initial fumigation, and after that annually, by a notice setting out:
 - i. where the fumigation will occur
 - ii. the time at which ventilation will normally occur (if this can be specified)
 - iii. the expected frequency of the fumigation, and
 - iv. any likely seasonal trends in timing and scope of the fumigation.
24. We also propose, under regulation 13.46(4)(a) to require the PCBU to notify WorkSafe and the relevant medical officer of health as soon as practicable, but within five working days, if the 24-hour exposure level recorded for the purposes of clause 18 above exceeds the 24-hour TELair value for EDN, as is also required for methyl bromide.

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