



Environmental
Protection Authority
Te Mana Rauhi Taiao



Methyl Bromide Regulation in New Zealand



Rob Forlong – *Chief Executive*



Presentation outline

- Introduction to methyl bromide and its uses
- Reassessment process
- CentrePort 2012



Context

- Fumigants are hazardous.
They are designed to kill pests
- Biosecurity tool
- Widely used for fumigation of imported and exported goods for Quarantine and Pre-Shipment purposes (QPS)
- Many export markets require goods to be treated with methyl bromide



Risks from Methyl Bromide

Ozone depleting substance

- International ban on all uses **other than QPS and critical uses** under the Montreal Protocol

Acute toxicity – quite high
(toxic = poisonous)



Chronic toxicity

- concern about reproductive and developmental toxicity and impacts on the nervous system
- Allegations in NZ of links to MND

Alternatives

- Alternatives are actively being sought worldwide
- Ethanedinitrile (EDN) currently being assessed by EPA
- Alternatives also highly toxic
- Alternative non chemical disinfestation techniques e.g. heat treatment currently being researched by Scion



Methyl bromide reassessment

- Commenced in 2008
- Notified in November 2009
- 95 submissions received
- Hearings in Wellington, Nelson, Picton, Tauranga and Auckland
- Expert evidence
- Public health physician on Decision Making Committee
- Decided November 2010



Key Outcomes

- Revoked two approvals for formulations used mainly for soil fumigation
- Allowed the continued import and use for biosecurity purposes
- Applied stricter controls
 - Tolerable Exposure Limits (TELs) set
 - air quality monitoring
 - annual reports
 - imposed buffer zones
 - notification
 - recapture within 10 years



Export Markets

- Many countries require particular products to undergo mandatory fumigation prior to export
- In many situations the only treatment accepted by an overseas country is methyl bromide
- For quarantine purposes methyl bromide may still be the most appropriate fumigant



CentrePort 2012

- All sites using >500 kg/year must produce an annual report
- CentrePort has two fumigators on site using more than 500 kg in one year
- Fumigators used a total of 3265 kg of methyl bromide in 2012
- There were no breaches of the TELs
- In 2012 one incident occurred at CentrePort. Due to the Seddon earthquake a container holding cylinders of methyl bromide fell into the harbour.
 - All cylinders were recovered intact, no methyl bromide was released





The importance of fumigation

- Fumigation protects the natural environment of New Zealand and other nations from unwanted pests
- New Zealand's bio-security requirements are unique and are guarded vigilantly by government agencies
- Methyl Bromide is the most effective environmental protection agent (fumigant) currently available





Ports and fumigation

- Ports are international border gates ('places of first arrival')
- Border biosecurity must occur at ports (Biosecurity Act)
- Fumigation is an essential part of border biosecurity
- Port security requirements and available land space readily enables compliant fumigation operations
- The debate is not about whether fumigation should occur, but what fumigants to use – this is a national issue (MPI and EPA)





CentrePort's role

- Our role in the fumigation process is limited
- We set the operating procedures for permitted on port activity following industry guidelines and monitor compliance as the site owner
- We do not contract or conduct the activity
- We do not decide the fumigants to be used (that is directed by the Ministry for Primary Industries)
- The key relationships are between MPI, the cargo owner and the fumigator
- The fumigators are independent companies licensed by the EPA



Current fumigation

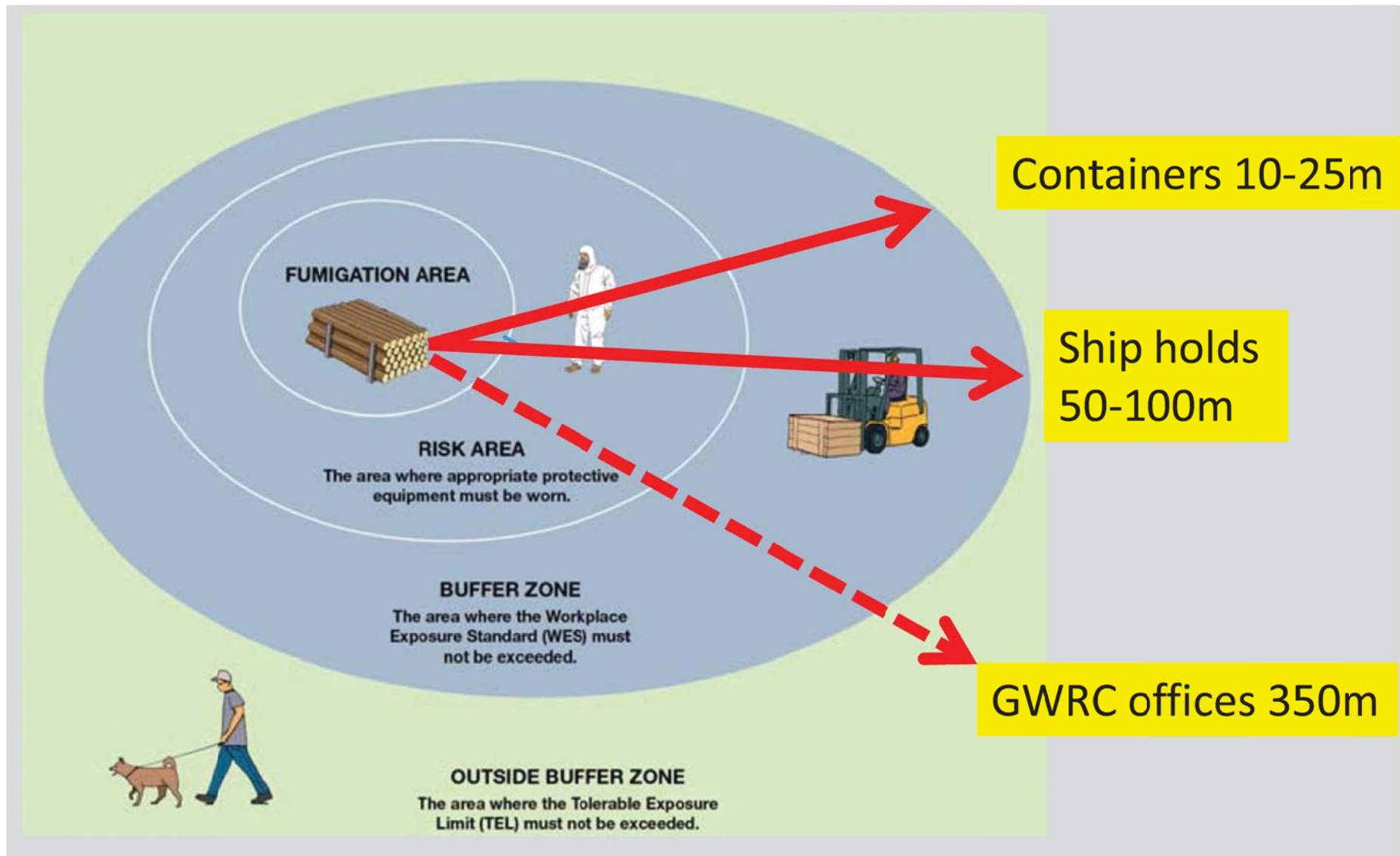
2012 CentrePort Reported Methyl Bromide Use (kgs)

Containers (701)	2178kg (ave. 3kg/container)
Ship holds (2)	1086kg

- Mainly used for container fumigation – mainly imports
- Other smaller scale applications (e.g. chests)
- Ships holds for logs – currently limited (2 in the last 2 years)
- Under tarp use suspended in 2009, however still may be required
- Fumigation takes place in specific areas with clear buffer zones, which CentrePort and the EPA monitors



Buffer zone distances (HSNO Act)





Monitoring and compliance

- Stringent requirements introduced following 2010 Reassessment under HSNO Act
- CentrePort has duties as a ‘person in charge of site’
 - Monitoring and record keeping
 - Exposure level breach notifications
 - Emergency response
- Use is monitored by fumigator during application and results reported monthly and quarterly (exceedance of TELs reported within 24hrs)
- Large quantity use (ship holds) reported to GWRC
- Annual reporting by CPL to EPA required
- Licensing of fumigator by EPA and random auditing by MPI



Industry initiatives

- Codes of Practice for the control and safe use of fumigants (Pest Management Association of NZ), which CPL relies upon
- Stakeholders in Methyl Bromide Reduction (STIMBR) – CPL a member
- Replacement (e.g. phosphine for logs in ship holds; others e.g. heat treatment are under investigation)
- Recapture (currently limited to containers)



Recapture (post fumigation)

- Required by 2020 for all Methyl Bromide use to avoid ozone depletion (Montreal Protocol)
- Introduced at CentrePort from 1 December 2013 - second port in NZ
- Recapture limited to containers only (most fumigation at CentrePort is done inside containers)
- Charcoal waste to be disposed at Silverstream landfill (expecting 0.5 tonne/mth)
- No technology solution available for logs (in holds) yet
- Monitoring and reporting will continue





Summary

- Fumigation is a necessary part of border biosecurity
- Use of methyl bromide is allowed under the HSNO Act (formally reassessed in 2010) and is currently required by MPI
- Strict conditions apply to its use, such as buffer areas and monitoring
- NZ is moving to recapture of methyl bromide
- CentrePort plays its part to ensure methyl bromide use at the port is compliant with relevant regulations
- CentrePort has moved early to introduce recapture and will continue to do what we can to minimise risks from fumigant use



CPL environmental performance (SCI measures)

- EMS consistent with AS/NZS ISO 14001:2004
- Legislative compliance reviewed annually – compliant as at May 2013
- Greenhouse gas emissions managed – verified by Deloitte
- Discharges monitored (noise and stormwater)
- Incidents and complaints monitored and improvements actioned – public complaints at low levels (ave 3/annum over last 5 years)
- Environmental Consultative Committee – active community and stakeholder engagement
- Sustainability improvements – ongoing initiatives e.g. energy efficiency