

Dr David Borthwick
Montara Inquiry
P.O.Box 1564
Canberra 2601

1 December 2009

Re: Submission re Petro-chemical disasters. Who is responsible and who is able to deal with these?

Dear Mr Borthwick,

Our company would like to make a submission related to nr 10 or 11 of the Terms of Reference of your inquiry

I write you for a related issue which I believe to also be of importance to your investigation.

In Australia we have oil refineries plus tank farms as well as various other tank farms storing chemical products. We all know that these facilities can explode and catch fire, often accompanied with injuries, fatalities and major damage to assets and the environment.

The industry refers to these facilities as MHF's (Major Hazard Facilities) and to potential disasters as "low probability, high impact" events.

Major disasters over the last four years include:

- BP Texas (US, 2005),
- Buncefield Oil Depot (UK, 2005),
- Caribbean Petroleum (Puerto Rico, 2009),
- Indian Oil Jaipur (India, 2009).

There is no reason why Australia – with its aging refineries and tank farms – is excluded from the risk of a major disaster. This is a risk associated with the petro-chemical industry and 'a fact of life'. Petro-chemical companies and fire brigades try their best to minimize this risk and so far mostly successful in Australia, but disasters still occur.

What is worrying that no entity in Australia is prepared to deal with major fires. Neither the companies, nor the fire brigades, EMA or the army have the tools for this.

Many other countries have prepared for this, either by procuring equipment for use by their fire brigades, army or other emergency service (e.g. UK's "New Dimension" program) or by demanding by law that the companies possess this equipment themselves (e.g. the Netherlands or Japan).

The structural problem for both companies and fire brigades is that the fixed water systems that nearly all MHF's have, typically gets destroyed by explosions that are part of the disaster. Unless there is a mobile high volume fire fighting system as a back up, fire brigades simply cannot fight such large fires. The water requirements are simply too big: for example, a substantial fire may

need 50,000 to 100,000 litres of water per minute continuously for hours, sometimes days, at a stretch. High pressure water plus foam is required to reach the top of the burning tanks while high pressure water is needed for cooling nearby tanks, to prevent these from exploding.

Not having back-up systems can result in more fatalities and injuries and in much greater environmental damage as the fire will need to “burn itself out”, as was the case last month with Indian Oil in Jaipur.

Our company distributes mobile Hytrans high volume pumps as owned by many European and Asian governments and petro-chemical companies (BP, Shell, ESSO, PEMEX etc) and we try to make the companies aware of the risks and their obligations to be prepared for disastrous incidents.

Australian legislators and company directors must make some serious decisions:

- Do we acknowledge that Australia is not prepared for “low probability, high impact events”?
- Do we want to create a capability in Australia to fight these large fires?
- Should the Government equip the Fire brigades/army/emergency services, or should legislation be made so companies equip for their own potential disasters?
- Should we learn from cooperation models in other countries?

I enclose 2 such letters which you may find of interest. Another interesting read is “Buncefield, Hertfordshire Fire and Rescue Services, Review of the Fire Response”, ISBN 0-11-703716-8.

We are of course available I case you want to discuss these issues and possible solutions in more detail.

Sincerely Yours,

Arnaud Diemont
Director

Enclosed: 2 letters relating to refinery fires in Puerto Rico and India