



Department of
Industry and Resources

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Dear Dr Gill

EXPLOSIVES AND DANGEROUS GOODS ACT 1961

**RE: CHLORINE STORAGE DEPOT AT MUNDARING WEIR
LOCATION: MUNDARING WEIR ROAD, VIA MUNDARING**

Recent enquiries and discussions with the Water Corporation, and the National Trust of Australia, regarding the CY O'Connor museum, revisited the issue of the chlorine drum storage depot relocation at the above premises. The issue of the usage of buildings near the chlorine storage depot, and access by visitors in line with the National Trust of Australia's requirements, was also discussed.

By letter dated 17 September 2002, the Water Corporation committed to the relocation of the chlorine storage depot from the above licensed dangerous goods storage site (licence S13446) by **April 2004**, to a location within the same lot some 350 metres away from the existing depot. This undertaking followed many years of protracted negotiation to reach an acceptable level of compliance with the relevant, prescribed safety standards in Western Australia.

At a meeting held between the Water Corporation and this Department on 29 August 2002, it was clearly indicated that a further extension would not be granted beyond the April 2004 deadline.

I am concerned that recent verbal advice from the Water Corporation indicates that the commitment to relocate the chlorine storage by April this year may not be met. Consequently, I will need to give consideration to restricting access to the public to adjacent areas operated by the National Trust of Australia.

Before I determine what conditions should be imposed on the dangerous goods licence for this facility, I seek your urgent advice of your intentions in relation to the chlorine storage facility.

Yours sincerely



Malcolm Russell
Chief Inspector of Explosives and Dangerous Goods
SAFETY, HEALTH AND ENVIRONMENT DIVISION

29 January 2004

Cc: M Johnsen - Water Corporation
N Herbert - Water Corporation

MUNDARING CHLORINE STORAGE – PUBLIC RISK ISSUE

Meeting Held: 20 May 2002 in the Swan Room

Attendees:

Neil Herbert
Keith Lynch
George Malita
Peter Minson
Sjoerd Sibma

Issues Discussed / Actions Required:

- 1) Letter from DMPR dated 3 May 2002:
The letter confirms:
 - WC's understanding that the risk level at the museum is unlikely to be acceptable to the DEP.
 - That a timetable for upgrade of the facility has to be developed and be acceptable to DMPR,The letter sets 1998 as the starting point for risk reduction and notes the commitment by the WC for relocation by 2002/03. DMPR also indicate that a target date of later than December 2004 may be inappropriate and request a revised schedule for the relocation.

- 2) Response – Short Term Options
It was agreed that there was a need to examine short term options to the risk issue as the current situation leaves the WC very exposed in the event of a leak event causing harm to the public.
As the existing facility has been upgraded as far as possible, in-line with the latest WC standards, the only option that could be identified to reduce risk further was the deployment of in-building fog nozzles. This option needs to be reviewed in terms of its technical feasibility, as well as, from a quantified risk perspective.
 - ⇒ NH to contact DNV Risk Consultants and brief on undertaking a Quantified Risk Assessment to determine the extent of risk reduction achievable.
 - ⇒ SS to discuss the option with AMS Branch personnel and to develop a cost estimate.

- 3) Response – Long Term Options
The current chlorine store is not compatible risk-wise with the museum, public amenities and the developments proposed by the Pipeline Trust. Relocation, as proposed in 1998, is still the only viable option for continued public access to the museum and amenities. Two possible options for relocation exist.
One site, which is some 300m to the west of the existing facility, could be made to satisfy the risk criteria by fencing off extensive sections of the river and altering internal road routes. A sub-option of this would be to use a Cunderdin style building (catastrophic rupture proof) which would reduce the amount of area that would need to be fenced off. The downside of either option, however, is that the facility would command the entry roads to the

public amenities. The ramifications of this are that if there was a chlorine leak, the gas cloud might prevent vehicular escape, forcing the public to flee east up the walk trails by foot. This option was not considered prudent as it would mean after spending ~\$500,000, the WC would still have a long term risk to manage.

The alternative option is to relocate the chlorine facility to the proposed Sawyers Valley WTP site where there is no public risk issue. This option, however, would require the relocation of the ammonia facility, thereby advancing capital expenditure (associated with the WTP) by two (?) years.

- 4) Implications for Current Operations at the Mundaring Chlorination Facility
The Dangerous Goods Licence for the Mundaring Chlorination facility is due for renewal in August. It is highly likely that the DMPR will attach conditions to the licence. These may be in terms of setting a shutdown date on the facility (eg the proposed relocation date) or requiring WC to limit public access to the vicinity of the chlorine facility – eg fencing to be established at a nominated distance and **possibly shutdown of the museum**. There is also a low possibility that the DMPR may refuse to re-licence the facility (as happened at the Australind WTP). In the event of this happening, WC would be forced to close the museum and public amenities instead.
⇒ SS and PM to brief Murray Johnsen and Keith Cadee about the current situation, and the ramifications on the operation of the museum and activities being undertaken/planned by the Pipeline Trust.
 - 5) Next meeting
To be advised.
- PS: ⇒NH to brief Craig Masarei.