MOTORSPORTS COMPLEX, RISK OF ESCAPING GAS

101. Dr EDWARDS to the Minister for the Environment:

(1) Will the Minister confirm that on Monday 15 May 2000, TiWest reported a leak from their Kwinana plant which resulted in a cloud of gas escaping from the company boundary?

(2) Will the Minister confirm that the gas cloud was titanium tetrachloride?

(3) If not, what was the composition of the gas cloud?

(4) Will the Minister confirm that as a result of the gas cloud from TiWest, workers at BOC Gasses were taken into refuge?

(5) How many workers from BOC Gasses were taken to the Prime Health Medical Centre?

(6) What were the symptoms of those workers who were taken to the medical centre?

(7) Will the Minister confirm that due to the prevailing wind direction the gas cloud would have crossed Rockingham Road near the corner of Thomas Road?

(8) Given that the corner of Rockingham Road and Thomas Road represents the boundary of the Motorplex development site, does the Minister acknowledge that it was highly likely that the gas cloud passed over the Motorplex site?

(9) If not, why not?

(10) Is the Minister concerned that such an incident occurring while the Motorplex is packed with spectators could cause widespread panic?

(11) If not, why not?

(12) Given that the gas cloud of titanium tetrachloride passing over the Motorplex site is the kind of risk which was identified in the initial risk analysis report undertaken for the Motorplex site, will the Minister now order a review of the risk analysis for the Motorplex site?

(13) If not, why not?

(14) Was the escaping gas cloud from TiWest detected by the relevant sensors?

(15) If not, why not?

(16) How many sensors are operated by TiWest to detect such gas clouds?

Mrs EDWARDES replied:

(1) At 12:20 p.m. Monday 15 May 2000, Tiwest Joint Venture (Tiwest) staff informed the Department of Environmental Protection's (DEP) Kwinana Regional Office of a spill of titanium tetrachloride (approx. 5 - 10 litres). Following initial mixing and reaction, resulting chemicals comprised a mixture of hydrogen chloride aerosol and titanium oxide particulates (not gases), that subsequently drifted off-site.

(2) The cloud was not titanium tetrachloride.

(3) Composition of the cloud was a mixture of hydrogen chloride aerosol and titanium oxide that forms a visible white plume. Modelled results indicate that at the Tiwest boundary, the concentration of hydrogen chloride aerosol to be less than 0.05 parts per million or 1% of the threshold limit value - time weighted average (TLV-TWA) ground level concentration stipulated in the National Occupational Health and Safety Commission (NOHSC).

(4) In accordance with standard emergency response procedures, workers at BOC Gases were directed to refuges on noting a visible cloud.

(5) Following the incident, four contractors working on the adjoining BOC site accepted an offer for a medical examination at the Prime Health Medical Centre. The offer was made for the peace of mind of those involved and as a precautionary duty of care measure.

(6) I am unaware of the symptoms exhibited by the contractors who attended the medical centre. However in a report to the Department of Minerals and Energy, symptoms of mild throat irritation and stinging eyes were described. Tiwest reported to the DEP that the doctor who examined the contractors in each case, issued a "final clearance certificate."

(7) The particulate cloud drifted in the direction of the Thomas Rd and Rockingham Rd intersection.

(8) No. As explained in answers to questions 1, 2 and 3, there was not a gas cloud.

(9) Extrapolation of the model results indicates that a very low concentration of titanium oxide particles may have passed over a portion of the Motorplex development site. The results of atmospheric modelling undertaken to determine the possible impacts of the release indicate that:· The emission would appear opaque out to a distance of 155 metres from the source, which is still inside the Tiwest boundary; concentration of hydrogen chloride beyond 175 metres from the source was less than 0.05 parts per million (1% of NOHSC ground level concentration TLV-TWA limit), which I believe is also within the Tiwest boundary; concentration of titanium dioxide particles was below 0.05 milligrams per cubic metre beyond 264 metres from the source, which I am informed is about 60 metres outside the Tiwest boundary and just inside the BOC property. For comparison purposes, I am informed that the closest boundary of the Motorplex site is about 1,400 metres from the source of the release.

(10) No

(11) I am concerned at the potential for unreasonable impacts upon the public of any industrial emission. However, an event of the size described does not have the potential to impact on the Motorplex complex and accordingly, any members of the public who may have been present on that site.

(12) There is no need to reconsider the risk analysis undertaken for the Motorplex site on the basis of the size of event referred to in this question.

(13) In the assessment of public risk associated with the development of the Motorplex site, incidents with the potential to cause acute health effects are considered. Occasional low-level releases, although undesirable, are possible over the life of the project.

(14) No.

(15) The small size of the release and the concentrations of hydrogen chloride that resulted were below the limit of detection of the ambient chlorine detectors located in the immediate vicinity of and immediately down-wind of the release site. Although these sensors are cross sensitive to hydrogen chloride aerosols, their primary function is to detect chlorine gas.

(16) There are 7 ambient chlorine detectors located within the perimeter at the Tiwest premises.