



Hon Cheryl Edwardes (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

Dear Minister

WINDIMURRA VANADIUM PROJECT – CHANGE TO ENVIRONMENTAL CONDITIONS

Thank you for your letter of 22 December 2000 in relation to the Ministerial Conditions applicable to the Windimurra Vanadium Project (Ministerial Statement 481 published on 13 July 1998).

Your letter requested the Environmental Protection Authority (EPA) to consider pursuant to section 46(1) of the *Environmental Protection Act 1986*, Condition 4 that stipulates that the proponent shall implement the Environmental Management Program (EMP). The EPA has specifically considered the EMP in relation to the allowable nitrogen oxides (NO_x) emissions from the rotary kiln as detailed in Table 4D.1 – “Emission Parameters from Ausplume Modelling”.

Currently the EMP stipulates that NO_x emissions from the rotary kiln will not exceed an emission concentration level of 350mg/m³. This limit was based on a standard applicable to other gaseous fuel burning equipment described in the National Guidelines for Control of Emissions of Air Pollutants from New Stationary Sources – Australian Environment Council/ National Health and Medical Research Council (1985), as there were no guidelines for a vanadium processing kiln.

On 22 September 2000 you issued a Ministerial Order pursuant to section 48(4)b of the *Environmental Protection Act 1986*, allowing the proponent to operate at a higher level of 500mg/m³. This is effective until 31 December 2000 and is reflected in condition A10 of Licence 7385/2. After trialing a number of process related improvements the proponent has come to the conclusion that it is not possible to significantly reduce NO_x emission levels by process control means to meet the current tabulated level (emission concentration limit).

Discussions were held with the Department of Environmental Protection and it became apparent that an emission concentration limit is an incomplete measure for environmental performance of the rotary kiln. Rather, it is more appropriate to specify a mass emission limit that is correlated to ground level concentrations in the ambient environment.

Further modelling has been conducted for both the rotary kiln and all other NO_x sources on the site. The model indicates that nitrogen dioxide (NO₂) concentrations will be less than

29% of the National Environmental Protection Measure (NEPM) one-hour standard of 0.12ppm at the nearest residence.

Furthermore, I understand that the proponent's licence conditions will be amended by the DEP to ensure ambient NOx monitoring occurs for a limited time at the nearest residence, the Windimurra Homestead, to confirm the modelling results.

Accordingly, I recommend that you accept the NOx mass emission limits to be used for environmental performance criteria, rather than an emission concentration limit which is not appropriate for this type of plant.

Subject to your acceptance of the above recommendation, I recommend Ministerial Condition 4-1-4 be amended (changes in italics) to read:

“dispersion modelling to confirm that emission parameters are adequate to ensure that the Environmental Protection Authority objectives for ~~nitrogen dioxide and sulphur dioxide~~ will be met; and that the average level for NOx of any four stack-test results shall not exceed 19g/s and that no stack emission test result for NOx shall exceed 21g/s.”

Kind regards



Bernard Bowen

CHAIRMAN

28 December 2000