

Statement of Reasons

MR ANTHONY GURR AND MS BAO HUANG – DALY RIVER ROAD PYROLYSIS PLANT

PROJECT

Mr Anthony Gurr and Ms Bao Huang (the Proponents), submitted the Notice of Intent for the Daly River Road Pyrolysis Plant Project to the Northern Territory Environment Protection Authority (NT EPA) on 13 April 2017 for consideration under the *Environmental Assessment Act* (EA Act). The Proponents submitted additional information on 19 July 2017.

The proposal encompasses the construction and indefinite operation of a facility containing pre-fabricated pyrolysis plants that will process used tyres and plastic medical waste into carbon, steel and oil. The proposed location is on a property owned by the Proponents about 30 kilometres south of Adelaide River on unzoned freehold land in Silkwood Estate (Figure 1). The facility would be set back approximately 100 – 150 metres from the road.

Figure 1: Proposed location of facility

Source: NR Maps



The proposed development envelope is approximately 8 hectares (~ 1400 m² footprint) that would house two pyrolysis plants, ancillary infrastructure, input materials and resultant products. Internal storage capacity would allow for a maximum of 50 tonnes of tyres and 60 000 litres of crude oil product. Approximately 60 tonnes of tyres would be processed per week, with the plants operating from Monday to Saturday, up to 24 hours a day. Approximately 30 000 litres of crude oil would be generated per week.

Total water consumption would be approximately 650 000 litres per year, to be sourced from rainwater (stored in tanks) or purchased from a water supplier. Materials would be transported to and from the facility in semi-trailers. The Proponents have estimated approximately 552 heavy vehicle movements per year, not including the transport of water.

CONSULTATION

The Notice of Intent (NOI) and further information have been reviewed as a notification under the EA Act in consultation with Northern Territory Government (NTG) advisory bodies, in accordance with clause 8(1) of the Environmental Assessment Administrative Procedures.

JUSTIFICATION

Review of the Notice of Intent and further information identified the potential for significant environmental impacts associated with the proposed action. There is uncertainty surrounding potential environmental impacts according to the information that has been provided.

Inland Waters and Terrestrial Environmental Quality

The proposed site is located in a relatively undisturbed area with high quality surface water and groundwater. Surrounding soils are undisturbed. There is potential for significant impacts on the quality of surface water, groundwater and/or soil as a result of the Project if contaminated water or materials are released to the environment.

While it is proposed that the Project will not release any water or material to the surrounding environment, there is a possibility of leakages or spills of hazardous substances (e.g. hydrocarbons) from the facility or vehicles. The NOI states that this will be avoided by conducting regular maintenance and mitigated by the use of pollution traps, sump pits and spill kits. However there remains uncertainty around the volumes and nature of potential pollutants and robust methods for their effective management.

Air Quality and Greenhouse Gases

The Project is proposed to be located in a non-industrialised area where ambient air quality is very high. There is potential for a reduction in this air quality as a result of the Project due to emissions from the pyrolysis plants, dust, or smoke from a potential fire at the facility.

The Proponents have provided emissions test results from the pyrolysis plants that they intend to purchase. However, it is unclear if the samples tested are representative of the proposed input materials or if the test emissions are representative of the Project. It is also unclear if the results comply with the allowable exhaust gas emission concentrations defined in the NT EPA guide for Disposal of Waste by Incineration. The Proponents have stated that a plan for air emissions monitoring will be developed by air emissions consultants. Uncertainty remains on the potential emissions and sensitive receptors, extent of air quality impacts, and baseline and ongoing monitoring.

If a fire occurred at the facility, it could release contaminated smoke from tyres, medical waste and/or hydrocarbons that would reduce air quality in the area. The nearest 24-hour fire response unit with capabilities for such a fire is too distant (142 km, in Palmerston) for an emergency response. There is uncertainty about the proposed fire safety and response equipment to be maintained on site, and what training would be provided to staff for the operation of such response equipment.

Greenhouse gases will form a component of the emissions from the proposal. There is uncertainty about the level of these emissions and any measures to prevent, mitigate or offset their release.

Social, Economic and Cultural Surroundings

The Project is proposed to be located in an area that has recently been subdivided into smaller land parcels along the narrow, winding Dorat and Daly River Roads. Current land uses in the region include agriculture and rural living. Tourism developments are being considered and there is currently no industrial development in the area. The relatively undisturbed environment has significant social value to residents, landowners and visitors to the area. By introducing an industrial development to the area there is potential for a change in social values and land values.

There is potential for the proposal to create noise and air emissions that may alter the value of the natural environment for other land users. There is uncertainty about noise that would be generated from the Project. People may also be affected by the increase in local traffic that is required for the Project. The Proponents provided data indicating about a 6% increase in heavy vehicle traffic on Dorat Road due to the Project.

Human Health

There is uncertainty about the potential health impacts on nearby sensitive receptors and what pollution control measures may be required to meet health-based ambient air quality standards.

Conclusion

The NT EPA considers that the proposal has the potential to have significant impacts on the environment. A number of potential impacts and risks cannot be adequately characterised without further studies and a more comprehensive assessment.

DECISION

The Daly River Road Pyrolysis Plant is capable of having a significant effect on the environment and its potential environmental significance is such that an environmental impact statement is necessary with respect to the proposed action.



DR PAUL VOGEL
CHAIRMAN

NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

12 SEPTEMBER 2017