ASSESSMENT REPORT

Section 75W Modification
Orica Ammonia Nitrate Emulsion Project, Richmond Vale
Water Tank and Storage Shed

1. BACKGROUND

Orica owns a Technology Centre (TC) on a site at Richmond Vale in the Cessnock local government area (see Figure 1).

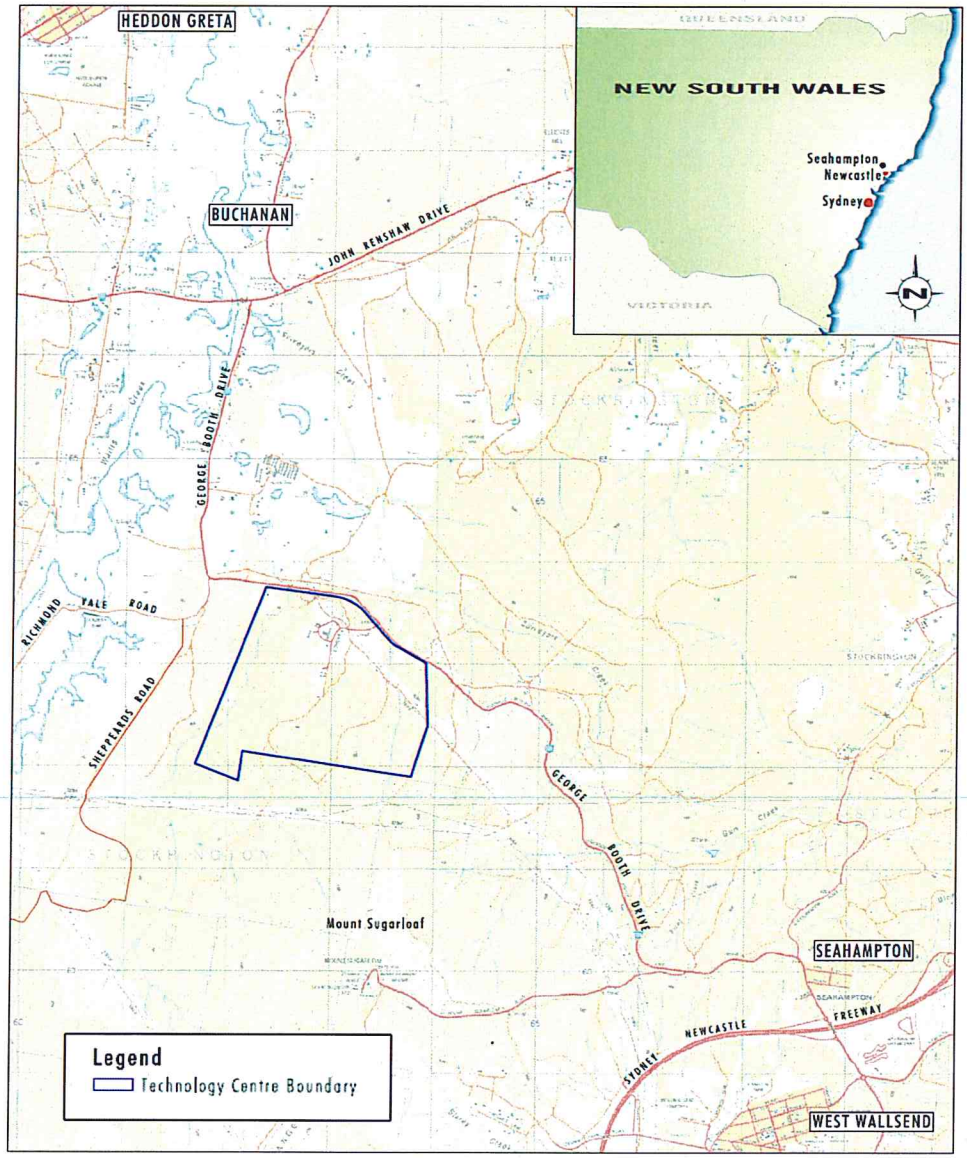

Figure 1: Regional context

The TC is used as an explosive research facility and commenced operations in 1991. Until 2010 (see below), the TC operated under three development consents issued by Cessnock City Council. Key components of the TC include:

- offices and amenities;
- explosives research and testing facilities;

- a manufacturing facility for specialised explosives; and
- storage of explosive magazines.

On 26 July 2010, the then Minister for Planning granted approval (MP 09_0090) to Orica Australia Pty Ltd (Orica) for the Orica Ammonium Nitrate Emulsion Project to the south of the existing TC operations (see Figure 2).

The project allowed for the continuation of existing operations at the TC, as well as the construction of new infrastructure to manufacture and distribute up to 250,000 tonnes per annum of Ammonium Nitrate Emulsion (ANE). Key components of the project included (see Figures 2 & 3):

- chemical storage tanks;
- an ANE manufacturing plant;
- truck loading facilities including weighbridge;
- a new internal access road to the ANE manufacturing plant;
- utilities and stormwater infrastructure; and
- an office, control and switch rooms and laboratories.

The ANE manufactured at the facility is sold primarily to the mining industry for use as an explosives precursor.

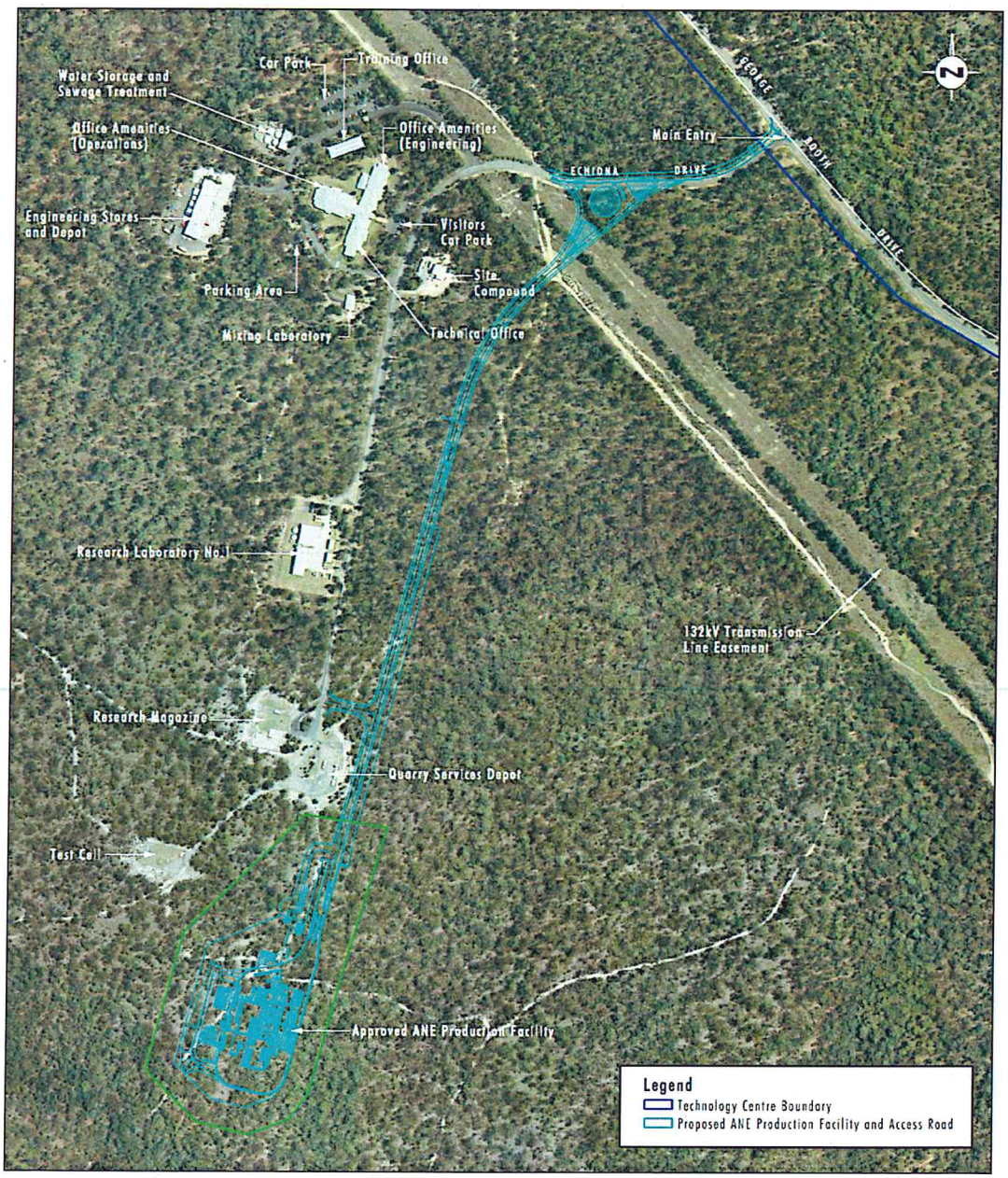

Figure 2: Existing TC and Ministerial approved ANE plant

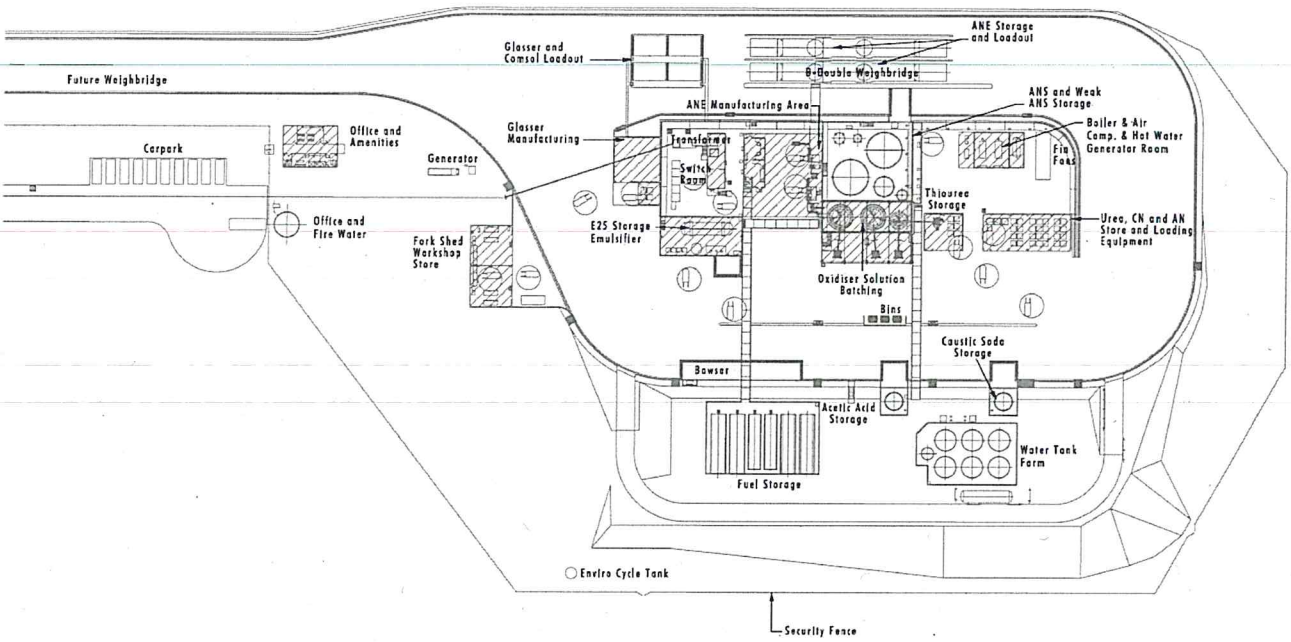

Figure 3: Approved conceptual ANE plant layout

Construction of the project was completed in 2011 and the ANE plant has been operational for about 12 months. Under the 2010 approval, Orica was also required to surrender all existing development consents for the TC within 12 months. These consents have now been surrendered.

The project (including the TC) utilises approximately 16 hectares within a broader 292 hectare site, which primarily consists of open forest.

The TC site is surrounded by a mix of land uses including rural industries, agriculture, the Sugarloaf State Conservation Area and transport corridors. The Tasman Underground Mine is also approximately 2.5 kilometres to the south-east of the TC off George Booth Drive. The nearest rural-residence is located approximately 1.8 km to the north-west.

Orica has recently been exploring options to improve the efficiency of its operations at Richmond Vale. Orica has identified a number of minor additions necessary to existing infrastructure at the site to:

- improve and increase rainwater capture for use in the ANE manufacture process; and
- improve the storage of ANE plant equipment.

2. PROPOSED MODIFICATION

On 11 October 2012, Orica lodged a modification application with the Department under section 75W of the *Environmental Planning and Assessment Act 1979* to construct:

- a water storage tank (20 metre (m) in diameter by 8m high) with a capacity of two (2) mega litres to be located to the north of the existing mineral oil tanks; and
- a new storage shed with an area of approximately 132m^2 (17.7m long by 7.4m wide by 4.75m high) to the south of the existing office and amenities for storage of spare parts, archives and safety equipment for the ANE plant.

The proposed modifications are illustrated in Figure 4 below.

The water storage tank would capture rainwater that falls anywhere within the bunded area around the ANE plant which at present, flows directly off-site into surrounding bushland during high rainfall events. Rainwater that falls in this area would be collected to a collection sump that pumps water directly to the tank.

Water collected in the new tank would then be pumped through a filter and sent back to the process water system for use at the ANE plant.

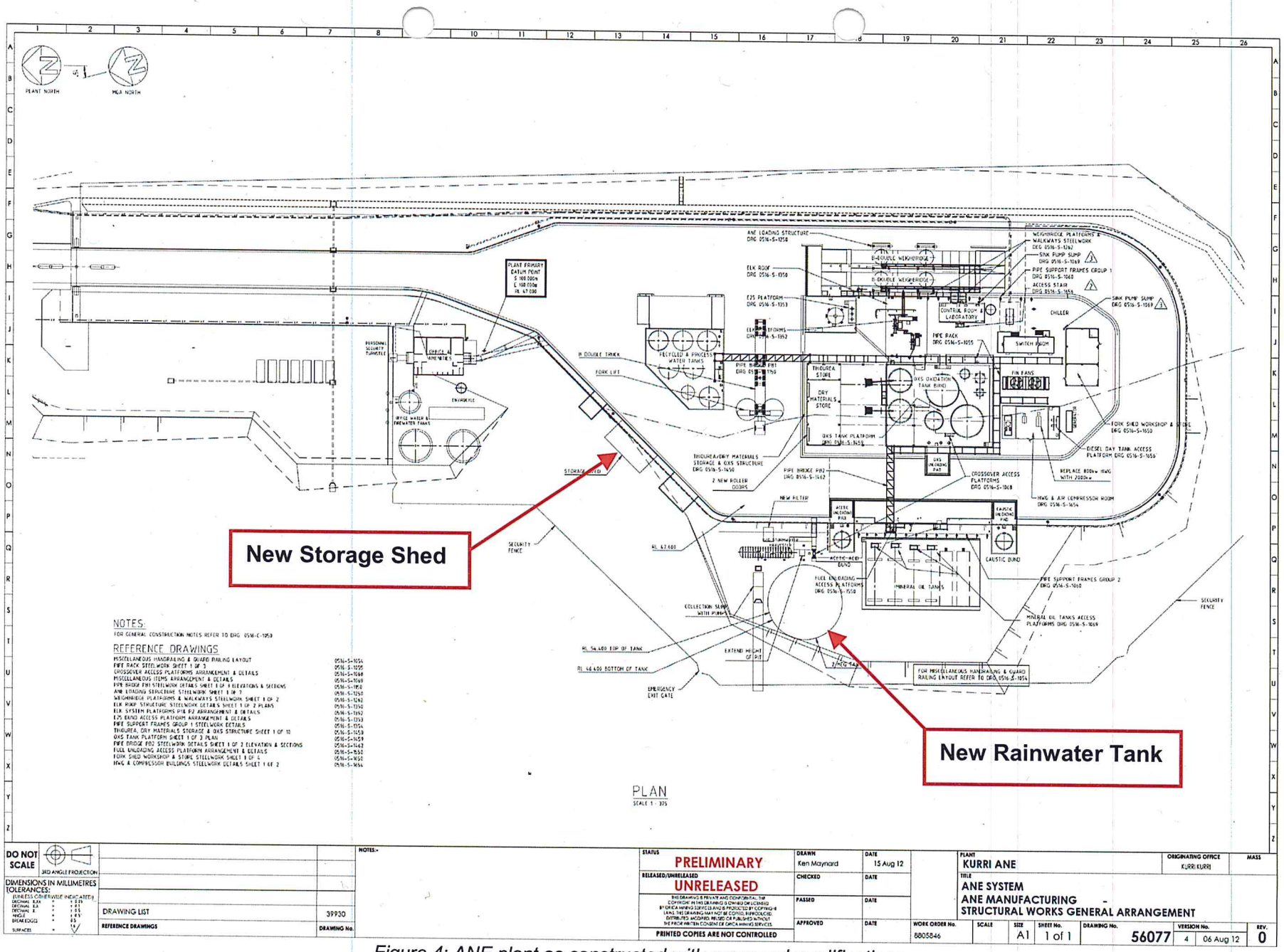

Figure 4: ANE plant as constructed with proposed modifications

The tank would be constructed using painted steel panels bolted together with an internal rubber bladder. A concrete ring beam would be constructed to mount the base of the tank to allow stabilised assembly of ring panels.

The storage shed would be a steel frame construction with sheet metal walls and roof and a 'roll-a-door' entrance.

Both new structures would be constructed to meet the relevant Australian Standards and would be certified by an appropriately qualified engineer.

3. STATUTORY CONTEXT

Approval Authority
The Minister was the approval authority for the original project approval, and is consequently the approval authority for this application.

The Executive Director, Major Projects Assessment, may determine this application on behalf of the Minister in accordance with the Minister's delegation of 14 September 2011, subject to the following:

- where the relevant local Council has not made an objection;
- where a political donations disclosure statement has not been made; and
- there are less than 25 public submissions in the nature of objections.

The Department is satisfied that the application meets the terms of the delegation and that the Executive Director may determine the application under delegated authority.

Section 75W
Under Section 75W of the EP&A Act, the Minister is obliged to be satisfied that what is proposed is indeed a modification of the original proposal, rather than being a new project in its own right.

The proposed modification would not increase the amount of ANE produced at the site and the development footprint of the approved facility would not change dramatically as a result of the proposal. In addition, the proposed modification is not expected to result in any environmental impacts beyond the approved facility. Therefore, it is considered that the proposed modification is within the scope of section 75W of the EP&A Act.

Consequently, the Department considers that the application should be assessed and determined under Section 75W of the EP&A Act rather than requiring a new development or project application to be lodged.

4. CONSULTATION

Under Section 75W of the EP&A Act, the Minister is required to make the application publicly available on the Department's website. Upon receipt, the application was placed on the Department's website and following a review of the application, the Department did not believe formal public notification of the application was necessary. Notwithstanding, the Department sought comments from Cessnock City Council (Council), the Environment Protection Authority (EPA) and WorkCover NSW (WorkCover).

Consultation with other neighbouring sites was considered unnecessary, as the environmental impacts of the proposal would essentially remain unchanged from the approved project.

Council made no objection to the proposed modification and raised no issues of concern.

The **EPA** made no objection to the proposed modification and raised no issues of concern.

WorkCover raised concern that construction of the proposed modification would be undertaken during normal operations and could result in on-site incident. WorkCover recommended two conditions of approval to manage on-site occupational health and safety risks in accordance with the *Work Health and Safety Regulation 2011* (WHS Reg).

5. ASSESSMENT

The application seeks to make minor additions to the approved infrastructure at Orica's ANE Plant at Richmond Vale. The Department has assessed the merits of the proposed modification in Table 1 below.

Table 1: Assessment of issues

Issue	Summary	Recommendation
Hazards and Risk	• The Department's original assessment of the ANE project concluded that based on the information provided in the original Environmental Assessment (EA), and assuming all safeguards are in place, the project would not pose an unacceptable off-site risk to the surrounding land uses. • The Department has reviewed the Environmental Assessment for the proposed modification and is satisfied that it does not involve hazardous components and therefore, would not result in increased off-site risk to surrounding land uses. • WorkCover recommended two conditions of approval to ensure on-site occupational health and safety risks are effectively managed in accordance with the WHS Reg. • The Department has incorporated WorkCover's request into the recommended conditions of approval (CoA) and WorkCover has reviewed and generally accepted the draft conditions.	Manage through existing conditions of approval which require Orica to: • undertake on-going Hazards Audits of the site operations (every three years); and • implement the approved Safety Management System (SMS) for the site. Require Orica to: • identify all hazards associated with the proposed modification and implement all controls necessary to reduce the risk to as low as reasonably practicable; and • carry out all construction works associated with the modification in accordance with the existing SMS for the site.
Soil and Water	• All new structures proposed as part of the modification would be constructed on hardstand areas or stabilised material within the existing approved ANE plant footprint. • The construction of the storage tank and shed would involve shallow excavations (~1m deep) which would not intercept groundwater and would be managed via the implementation of standard erosion and sediment controls. • The proposed modification would increase the capacity of the facility to capture, store and re-use rainwater on-site from 93 kilolitres to 2 megalitres. • The reduction in excess water discharged off-site is expected to have an insignificant impact on the hydraulic function (and ecology) of the receiving water catchment. This is because the additional area of the site from which runoff would be now captured (0.15 hectares) represents approximately 0.005% of the total catchment area. • The Department is therefore satisfied that the impacts of the proposed modification on soil and water would be negligible.	Manage through existing conditions of approval which require Orica to: • comply with Section 120 of the POEO Act; • ensure all chemicals, fuels and oils used on site in appropriately bunded areas; and • implement approved Stormwater Management and Erosion and Sediment Control Plan for the modified project.
Bushfire Risk	• The site is bushfire prone and as a result, a 30m wide Asset Protection Zone (APZ) was established around the ANE plant. • The new water tank would extend approximately 3 to 4 metres into the APZ on the western side of the ANE plant. • However, the Bushfire Threat Assessment (BTA) prepared as part of the original EA for the ANE project recommended an APZ of at least 25m on the western side of the ANE plant. • Therefore, despite the intrusion of the water tank into the current APZ of 30m, an APZ of 25m would be retained which is considered to be adequate to ensure the facility is not at risk during a bushfire. • In addition, the water tank would be constructed of concrete and steel and is not at risk of catching alight during a bushfire. • The Department is therefore satisfied that the proposed modification would not increase bushfire risk.	Manage through existing conditions of approval which require Orica to: • Implement the recommendations of the BTA included with the EA.
Dust	• The proposed modification would generate some dust from construction works, in particular, as a result of minor earthworks required to establish the foundations for new structures. • To minimise dust emissions during construction, Orica proposes to minimise soil disturbance during earthworks, suppress dust with water from water carts (where required) and re-use stockpiled soils for on-site filling works as soon as practical. • Construction works would be short-term (4 to 6 weeks) and the nearest residence is located approximately 1.8 km to the north-west. • As such, dust impacts from the proposed modification on nearby sensitive receivers are expected to be negligible. • The EPA did not raise any issues in relation to air quality. • The Department is therefore satisfied that dust generated from construction of the proposed modification would be negligible and can be effectively managed.	Manage through existing conditions of approval which require Orica to: • carry out all reasonable and feasible measures to minimise dust generated by the Project.

Construction Noise	• Construction noise impacts would be short-term (as above) from 7.00am to 6.00pm (Monday to Friday) and from 7.00am to 6.00pm on Saturdays (if required). • The nearest residence is located approximately 1.8 km to the north-west. • Given this separation, noise from the original construction of the ANE plant was predicted to be well below relevant construction noise goals. • As such, the Department is satisfied that construction noise impacts from those minor infrastructure additions associated with the proposed modification would be negligible.	• N/A
Construction Waste	• Construction works would result in the excavation of a small amount of material during earthworks which would be re-used on-site where possible. • The construction of the water tank and storage shed would require predominantly pre-fabricated modules, which are assembled off-site and transported to the site for installation. • The Department is therefore satisfied that waste generation from the proposed modification would minimal and can be effectively managed.	Manage through existing conditions of approval which require Orica to: • ensure all waste generated by the project during construction and operation is classified and disposed of in accordance with the EPA's *Waste Classification Guidelines.*
Flora and Fauna	• All construction work would be undertaken within the footprint of the approved ANE plant. • All vegetation was cleared within the footprint of the ANE plant during construction of the original project. • As such, the Department is satisfied that the proposed modification would not result in any adverse impacts on flora and fauna.	• N/A
Heritage	• As above, all construction work would be undertaken within the footprint of the approved ANE plant which has been highly disturbed as a result of the construction of the original project. • As such, the Department is satisfied that the proposed modification would not result in any heritage impacts. • Notwithstanding this, existing conditions are in place to manage unexpected finds.	Manage through existing conditions of approval which require Orica to: • cease works, notify the Office of Environment and Heritage and comply with their directions in the event that skeletal remains, or an Aboriginal object is identified during construction.
Traffic	• The Traffic Impact Assessment undertaken as part of the EA for the original project concluded that the construction of the ANE plant would have a minor impact on the local road network. • As such, traffic impacts from the construction of the minor infrastructure additions associated with the proposed modification on the local traffic network are expected to be negligible.	• N/A
Visual Amenity	• The site is immediately surrounded by open forest and is not visible from the nearest residents. • The additional infrastructure would be of similar bulk, scale and height to existing structures on-site and would be largely indistinguishable from the existing ANE plant. • As such, no adverse impacts on visual amenity would be experienced by nearby residents. • The Department is satisfied that the visual impacts of the proposed modification would be negligible.	• N/A

6. CONCLUSION

The Department has assessed the proposed modification in accordance with the requirements of clause 8B of the Regulations. This assessment has found that the proposed modification:

- would improve and increase rainwater capture for use in the ANE manufacturing process; and
- would improve the operational efficiency of the ANE plant by providing increased storage space for ANE plant equipment.

Orica and WorkCover have reviewed and generally accepted the draft conditions.

Consequently, the Department is satisfied that the modification should be approved.

7. RECOMMENDATION

It is RECOMMENDED that the Executive Director, Major Projects Assessment:

- **determine** that the proposed modification is within the scope of section 75W of the EP&A Act;
- **approve** the application subject to conditions; and
- **sign** the attached notice of modification (see Tag 'A').

Andrew Hartcher
Environmental Planner, Industry

9.11.12

Chris Ritchie
Manager – Industry
Major Projects Assessment

9/11/12.

Chris Wilson
Executive Director
Major Projects Assessment