

18 March 2022

NSW Department of Planning, Industry and Environment
320 Pitt Street
Sydney, NSW, 2000

Via Major Projects Planning Portal
Att: Thomas Bertwhistle

Dear Thomas,

**RE: Orica Kooragang Island Expansion Project development consent (08_129):
Project Staging report Update (MOD5) – Condition 7C**

I refer to Orica Kooragang Island Expansion Project development consent (08_129), specifically the development consent as modified by Orica's Prill Tower Scrubber Modification Approval dated 29 October 2021 (MOD5), and Condition 7C(b) which requires:

- 7C. *The Proponent shall review and if necessary update and submit a revised Staging Report for the Project which has been prepared to the satisfaction of the Secretary (or advise the Secretary in writing that no changes to the Staging Report are required):*
- a) *no later than 2 months prior to the commencement of construction, commissioning and operation of development within each Project stage;*
 - b) within 3 months of any modifications to this approval; and/or**
 - c) *when directed to do so by the Secretary.*

Following the initial submission of the proposed staging plan as part of the 2021 AEMR on 12 December 2021, and subsequent feedback from DPIE, please find an amended staging plan in accordance with this requirement provided below in Attachment A. If you require any further information, please do not hesitate to contact me.

Yours sincerely,



Nathan Robinson
Senior Specialist – Environment

Attachment A – Revised Project Staging Plan (MOD5) – March 2022

Table 3 – Project Staging Plan (MOD5) (March 2022)

Phase	Stage	Description of Work	Sub-Stage	Approval Status	Estimated Construction Timing
Ammonia Plant Uprate					
1	1a	Ammonia Plant Expansion – Plant Air Compressor Building Construction of Plant Air Compressor building shell (compressor installed in Stage 1(b)).	Completed	Construction Complete and Operational	Completed
	1b	Ammonia Plant Expansion - Installation/Modification of Plant Installation of new equipment including new compressor, process vessels pipework and instruments in the Ammonia Plant.	Completed		
Proposed Trident Nitrates Expansion Project Construction Scheduling					
2	2a	OBL 1(a) – Nitrates Infrastructure & ANS Loadout Installation of new site infrastructure including the new site entrances, internal access roads, security and weighbridge facilities, ANS product storage and despatch facilities.	1. Internal access roads and minor civil works. 2. Site entrances, security offices and weighbridges. 3. Major civil works including piling and foundations. 4. New ANS storage vessel loading equipment	Approval for Construction granted / construction yet to commence.	Yet to be determined
	2b	OBL 1(b) – Nitrates Despatch & Support Infrastructure Construction of new AN Bag store, AN Despatch facilities and amenities, demolition of existing AN Bag store and despatch, construction of new AN Bulk Store, modification to existing AN bulk store, construction of WANS, construction of new control room and electrical infrastructure.		Approval to commence construction not yet granted by DoPI.	Yet to be determined
3	3a	NAP4 – Nitric Acid & AN Solution plants and Support Infrastructure Construction of the NAP4/ ANS Plant and tie-ins Construction of Nitrates support infrastructure including new Nitric Acid Storage, Ammonia Storage, Boiler, Cooling Tower, Demin Plant expansion Instrument Air upgrades, new Ammonia pumps, pipebridges & transfer lines.		Approval to commence construction not yet granted by DoPI.	Yet to be determined
	3b	AN3 – AN Prill Plant Construction of ANP3 Dry Section plant and tie-ins		Approval to commence construction not yet granted by DoPI.	Yet to be determined
Ammonia Management Improvement Program					
4	4	Ammonia Flares Construction and operation of three ammonia flares.	1. Nitrates Plant Flare 2. Ammonia Storage Flare 3. Ammonia Plant Flare	Approval to commence construction of the flares was granted on 23 June 2015. Ammonia Flares The nitrates flare became operational during February 2016 The ammonia storage flare became operational during April 2016. The ammonia plant flare was commissioned during April 2017.	Completed

Phase	Stage	Description of Work	Sub-Stage	Approval Status	Estimated Construction Timing
Nitric Acid Tank					
5	5	Nitric Acid Tank Construction and Operation of a nitric acid tank and associated scrubber, capable of exporting and importing nitric acid via the site's nitric acid wharf pipeline.		Approval to commence construction not yet granted by DoPI.	Yet to be determined
Boiler					
6	6	Construction and operation of new Site Boiler Construction and Operation of a new site boiler (to replace the decommissioned original site boiler)		Approval to commence construction granted on 27 July 2015	Construction completed 12 December 2019
Nitrates Effluent Tank					
7	7	Construction and operation of new Nitrates Effluent Tank (MOD4) Construction and Operation of a new Nitrate Effluent Tank (to replace the Nitrates Effluent Pond)		Approval to commence construction granted on 13 May 2021	Estimated to commence early CY 2022
Prill Tower Scrubber					
8	8	Construction and operation of new Prill Tower Scrubber (MOD5) Construction and Operation of a prill tower scrubber to remove particulate associated with the existing ANP1 Prill Tower		Approval to commence construction granted on 29 Oct 2021	Estimated to commence late CY 2022

Table 2: Reporting Requirements and Status (March 2022)

Orica Kooragang Island Ammonium Nitrate Expansion Project

Department of Planning, Infrastructure and Environment (DPIE) Reporting Requirements

✓ = Submitted to DPIE and Approved ✓ = Submitted to DPIE awaiting approval from DPIE or Other ✓ = Yet to be submitted to DPIE x = not submitted to DPIE NR = Update not required/triggered following review

Condition	Condition Requirement	Project Phase										Reports submitted to DPIE to date	
		Phase 1	Phase 2		Phase 3		Phase 4	Phase 5	Phase 6	Phase 7	Phase 8		TBD
		Ammonia Plant Uprate	OBL 1(a)	OBL 1(b)	NAP4 & ANS	ANP	AMI	Nitric Acid Tank	Boiler	Nitrates Effluent Tank	Prill Tower Scrubber		Ammonia Tank
Reporting Requirements for Commencing Construction													
14 (a)	A Fire Safety Study	✓	✓	✓	✓		NR*	NR	✓^	NR	NR	✓	<div>1. FSS Kooragang Island Site (21 June 2011)</div> <div>2. FSS Ammonia Uprate project (17 April 2010)</div> <div>3. FSS Phase 2 OBL 1(a) (17 February 2012)</div> <div>4. FSS Phase 2 OBL 1(b) (23 October 2012)</div> <div>5. FSS Phase 3 Nitric Acid and Ammonium Nitrate plants (7 January 2013)</div> <div>* No formal requirement for FSS associated with Phase, however reduction in ammonia inventories to be updated to site FSS in next FSS revision</div> <div>^ Boiler detailed in Site FSS. New location updated in Site FSS</div>
14 (b)	A Hazard and Operability Study	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	<div>1. Ammonia Plant Uprate (22 March 2010)</div> <div>2. Phase 2 OBL 1(a) (27 March 2012)</div> <div>3. Phase 2 OBL 1(b) (30 October 2012)</div> <div>4. Ammonium Nitrate Prill Plant (15 Nov 2012)</div> <div>5. Nitric Acid 4 and Ammonium Nitrate Solution 3 (28 Oct 2012)</div> <div>6. AMI HAZOP Report (dated 12 January 2015)</div> <div>7. KI Steam HAZOP Report (dated 22 June 2015)</div> <div>8. Nitrates Effluent Tank HAZOP (submitted 8 March 2022)</div> <div>9. Prill Tower Scrubber HAZOP (to be submitted)</div>
14 (c)	A Final Hazard Analysis	✓	✓	X			✓	X	NR	NR	NR	✓	<div>1. N/A</div>
14 (d)	A Construction Safety Study	✓	✓	✓	✓*		✓	X	✓	✓	✓	✓	<div>1. CSS for air compressor building (5 December 2009)</div> <div>2. CSS for ammonia plant uprate (29 March 2010)</div> <div>3. CSS OBL 1 (a) (3 December 2011)</div> <div>4. CSS OBL 1(b) (1 August 2012)</div> <div>5. CSS AMI Rev C (dated 2 April 2015)</div> <div>6. CSS Boiler Rev B (dated 15 June 2015)</div> <div>7. CSS Nitrates Effluent Tank (submitted 8 March 2022)</div> <div>8. CSS Prill Tower Scrubber (to be submitted)</div> <div>* Civil construction activities associated with phase 3 considered in OBL 1(b) CSS only</div>
36	Construction Traffic Management Plan	✓	✓				NR	NR	NR	NR^	NR^	NR^	<div>1. Ammonium Nitrate Facility Upgrade CTMP (March 2010)</div> <div>2. Ammonium Nitrate Facility Upgrade CTMP (September 2011)</div> <div>^ Incorporated in Project CEMP</div>
37	Water Efficiency Plan	✓	NR	NR	✓		NR	NR	NR	NR	NR	NR	<div>1. Water efficiency Plan Phase 1: Ammonia Plant Upgrade (April 2011)</div> <div>2. Water efficiency Plan Phase 3: NAP4 and AN3 (May 2013)</div>

Condition	Condition Requirement	Project Phase											Reports submitted to DPIE to date
		Phase 1	Phase 2		Phase 3		Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	TBD	
		Ammonia Plant Uprate	OBL 1(a)	OBL 1(b)	NAP4 & ANS	ANP	AMI	Nitric Acid Tank	Boiler	Nitrates Effluent Tank	Prill Tower Scrubber	Ammonia Tank	
38	Soil and Groundwater Contamination investigation					✓					NR	NR	1. Soil Management Plan (December 2009) 2. Targeted soil and groundwater quality assessment (13 April 2012)
42	Stormwater Management Plan					✓					NR	NR	1. Stormwater Nitrate Facility Upgrade Stormwater Management Plan Phase 1 (March 2010) 2. Stormwater Nitrate Facility Upgrade Stormwater Management Plan (November 2011)
45	Landscape plan					✓					NR	NR	1. Landscape Plan (3 June 2011)
49A	Construction Environment Management Plan					✓				✓	✓^	✓	1. Construction Environment Management Plan rev 2 dated September 2011 and updated periodically 2. Nitrates Effluent Tank Project CEMP (submitted 8 March 2022) 3. Prill Tower Scrubber Project CEMP (to be submitted) ^ Project specific CEMP prepared
Reporting Requirements for Commencing Commissioning													
15 (a)	Transport of Hazardous Materials Study	NR	NR	NR	NR	✓	NR	NR	NR	NR	NR	✓	1. Transport and hazardous materials study (22 April 2013) 2. Transport and hazardous materials study (March 2021) – updated in response to IEA recommendation, not a project phase
15 (b)	Emergency Plan			✓			✓*	X*	X*	NR	✓*	✓	1. KI emergency response plan (11 April 2011) *Update to approved ERP required for Phase
15 (c)	Safety Management System			✓			✓*	X*	X*	NR	NR	✓	1. Safety management system (December 2010) *Update to approved SMS required for Phase
16	Pre-Startup Compliance Report	✓	X	X	X	X	✓	X	✓	✓	✓	✓	1. Pre-Start up Compliance report Phase 1 Ammonia plant uprate (June 2011) 2. Pre-Start up Compliance report Phase 4 AMI (dated August 2015) 3. Pre-Start up Compliance report Phase 6 Boiler (dated August 2019) 4. Pre-Start up Compliance report Phase 7 Nitrates Effluent Tank (to be submitted) 5. Pre-Start up Compliance report Phase 8 Prill Tower Scrubber (to be submitted)
49B	Operational Environmental Management Plan					✓^					✓	✓	1. Environmental Management Strategy (December 2009) ^ update to approved EMS completed to meet additional requirements incorporated into Development Consent following the completion of modification approval processes.
Reporting Requirements for Commencing Operation													
17	Post-Startup Compliance Report	✓	X	X	X	X	X	X	✓	✓	✓	✓	1. Post-Startup Compliance report Phase 1 Ammonia plant uprate (May 2012) 2. Post-Startup Compliance report Phase 6 Boiler (Dec 2019) 3. Post-Start up Compliance report Phase 7 Nitrates Effluent Tank (to be submitted) 4. Post-Start up Compliance report Phase 8 Prill Tower Scrubber (to be submitted)
18	Further risk reduction program										NR	NR	Not required given updated PHA is now compliant
19	Hazard Analysis Update					X					NR	NR	3 years after the completion of the Project

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		Ammonia Plant Uprate	OBL 1(a)	OBL 1(b)	NAP4 & ANS	ANP	AMI	Nitric Acid Tank	Boiler	Nitrates Effluent Tank	Prill Tower Scrubber		Ammonia Tank
20	Hazard Audit of the Project	✓										✓	1. Hazard Audit (2013) 2. Hazard Audit (2016) 3. Hazard Audit (2019) * Three yearly schedule
23	Air quality verification study	✓	NR	NR	X	X	X	X	✓	NR	✓	NR	1. Ammonia Plant uprate air verification study (27 February 2014) 2. Boiler Air Quality Verification study (May 2021) 3. Phase 8 Air Quality Verification study (to be submitted)
27A	Air Quality Management Plan	✓	X	X	X	X	X	X	X	NR	✓	NR	1. Construction Air Quality Management Plan dated 15 January 2010 2. Operational Air Quality Management Plan (submitted to DPIE for review December 2021)
30	Noise Verification Program	✓										✓	Refer to Condition 32
32	Noise Management Plan	✓										✓	1. Noise Management Plan (August 2011 and updated 2021) 2. Annual Noise Audit (2010-current) * Initial quarterly noise testing compliance completed (2012-2013) * Noise management plan reviewed in 2021 * Annual noise audit report prepared and submitted in Appendix A
45	Landscape plan	✓										NR	1. Landscape plan (3 June 2011)
48	Waste Management Plan	✓	✓				✓	NR	NR	NR^	NR^	NR^	1. Ammonia Plant waste management plan (February 2013) ^Part of project CEMP
50	Annual Environmental Management Report	✓										✓	1. Annual Environmental Management Report (2010-current)
52	Independent Environmental Audit	✓										✓	1. Independent Environmental audit dated (2014) 2. Independent Environmental audit dated (2017) 3. Independent Environmental audit dated (2020) * 3 yearly audit schedule.

Staging Plan Review triggers

The Staging Plan shall be reviewed and if necessary updated:

- In accordance with requirements of Condition 7C
- As part of submission of the AEMR