



# **IXOM**

NSW Department of Planning and Environment

2022 Annual Report

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Revision: 1.0

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# 1 Executive Summary

## 1.1 The following approvals are currently held or operated under by the Ixom Botany ChlorAlkali Plant

Table 1: Current approvals and licences

| Approval No.                                 | Date last varied | Details of any changes made during reporting period |
|--|------------------|---|
| DA 35/98                                     | 26-10-2018       | No Change   |
| EPL 20547                                    | 19-05-2020       | No Change   |
| MHF 10358-01                                 | 11-02-2014       | No Change. Renewal.                                 |
| DG 35/03500 (held by Botany Industrial Park) | 07-07-2019       | No Change. Renewal.                                 |

IXOM Operations Pty Ltd, Botany ChlorAlkali Plant (CAP) is required to provide an Annual report to DPIE as per condition 47 and 48 of DA 35/98. The last variation of the DA 35/98 was on 26 October 2018, MOD 5 – Repack Facility. CAP is located within the Botany Industrial Park (BIP) in Sydney, New South Wales.

This Annual report covers the period between 1 December 2021 to 30 November 2022 and is following the Compliance Reporting – Post Approval Requirements (CRPAR) guidelines issued May 2020. The report presents those relevant conditions pertaining to the current operations of the plant.

In summary, the self-assessment Annual report as follow;

- There were no reportable incidents associated with IXOM CAP during the reporting incident.
- No non-compliance in environmental monitoring points.
- A 3-year periodic Independent Environmental Audit was conducted during the reporting period. The audit identified four (4) non-compliances to the conditions of consent DA 35/98. One non-compliance was identified against EPL 20547.
- Actual production is slightly lower than the previous year. This is due to the reduced plant uptime driven by high number of shut (recovering from COVID-19 delayed Preventive Maintenance Activities) and a number of plant reliability issues (brine issues on start-up, Electrolyser downtime).
- Effluent discharge increased from last year due to the highest rainfall recorded in Sydney. The increased in effluent is also contributed by the brine purge from start-ups following a shut. Botany CAP increased the number of shuts during the reporting period.

## 2 Introduction

### 2.1 Site Overview

**Table 2: Site Details**

|                            |  |
|----------------------------|--|
| Project Name and DA number | Replacement of Chlor-Alkali Plant at Botany, DA35/98 (Ref. R98/00010)  |
| Site Address               | 16-20 Beauchamp Road, Matraville NSW 2036  |
| Industrial Complex         | Botany Industrial Park (BIP)   |
| Local Government Authority | City of Sydney   |
| Site Area                  | BIP – 70 hectares<br>Site – 23 hectares  |
| Locality Map               | Appendix A   |
| Site Plan                  | Appendix A   |
| Current Use                | Botany ChlorAlkali Plant   |
| Lot No.                    | LOT 1101 DP 1227173, LOT 1102 DP 1227173, LOT 1103 DP 1227173, LOT 1104 DP 1227173, PART LOT 1115 DP 1227173 |
| Site Owner                 | Orica Limited owns approximately 40% of land at the BIP  |
| <b>Reporting Period</b>    | <b>1 December 2021 – 30 November 2022</b>  |

The facility manufactures chlorine and caustic soda from the electrolysis of salt. Hydrogen is produced as a by-product. The four main products produced are sodium hypochlorite (referred to as 'Hypo'), hydrochloric acid, caustic soda and ferric chloride.

The chlorine produced on site is used in the manufacture of hydrochloric acid, hypo and ferric chloride, with these downstream processes being collectively referred to as product plants. All chlorine produced at Ixom Botany ChlorAlkali facility is consumed in the product plants.

The plant can produce 31,200 tonnes per annum (TPA) of chlorine assuming 95% uptime. All chlorine is reacted to produce the following product range:

- HCl (~45,000 TPA)
- Hypo (~60,000 KLPA)
- Ferric chloride (~15,000 TPA)
- Sodium hydroxide (Caustic ~36,000 TPA as 50%) (co-product of chlorine manufacturing process).

### 2.2 Key Contacts for Environmental Management

**Table 3: Environmental Contacts for Ixom Botany ChlorAlkali Plant**

| Name           | Position                                       | Contact Details   |
|----------------|--|---|
| Ian Parker     | Regional Manufacturing Manager – NEA and WA    | 02 9352 2254<br>0400 686 047<br>Ian.Parker2@ixom.com        |
| Ben Pagarigan  | Compliance Manager NEWA                        | 02 9352 2123<br>0476 410 458<br>Benedick.Pagarigan@ixom.com |
| Richard Benson | Environmental Advisor & BIP Operations Manager | 02 8336 1357<br>0409 558 127<br>Richard.Benson@qenos.com    |

### 3 Compliance Status Summary

**Table 4: Summary of Non-compliances**

| Approval No. | Number of Non-Compliances | Identified During   |
|--------------|---------------------------|---|
| DA 35/98     | 21                        | Independent Environmental Audit (4)<br>Safework Visit (5)<br>MHF Post Licence Verification (12) |
| EPL 20547    | 1                         | Independent Environmental Audit   |

**Table 5: Monitoring Methodology (Relevant Conditions)**

| Approval No. | Conditions | Monitoring Methodology   | Evidence and Comments  |
|--------------|------------|--|--|
| DA 35/98     | 11         | Ongoing Hazards Management – Hazard Analysis due every 3 years | Non-Compliant – Completed in December 2021 (Due December 2020) |
|              | 12         | Incident Reporting   | Compliant - Refer to Section 6                                 |
|              | 13         | Hazard Audit – Required 3 every 3 years                        | Compliant – Completed in March 2021                            |
|              | 24         | Independent Environmental Audit – Required every 3 years       | Compliant – Audit conducted on December 2022                   |
|              | 47         | Annual report - Commercial Traffic Movements                   | Compliant - See Appendix A                                     |
|              | 48         | Annual report - Environmental performance                      | Compliant - See Appendix B                                     |
|              | 48         | Annual report - Community Complaints                           | Compliant - Refer to section 7                                 |

Appendix C contains the Compliance Table. Section 4 shows the non-compliances identified during the reporting period.

## 4 Non-Compliances

Table 6: non-compliances during the reporting period

| Condition          | Compliance Requirement  | Non-Compliance   | Non-compliance Date | Date Identified  | Source   | Action  | Due              | Status |
|--------------------|---|--|---------------------|------------------|----------|---|------------------|--------|
| Schedule 2 CoA 10D | Prior to commissioning, the Applicant must update the Fire Safety Study under Condition 9, and the Emergency Plan and Safety Management System under Condition 10 to include all aspects relevant to MOD 5. Commissioning must not commence until Fire Safety Study recommendations have been considered and, where appropriate, acted upon.  | Non-Compliance (2022 IEA NC 001) – The Fire Safety Study was not updated prior to the commissioning of MOD 5. It is noted that IXOM's Fire Risk Management Plan was updated prior to the commissioning of MOD 5, but it relied on the existing Fire Safety Studies undertaken in 2000 for Orica and the BIP. | October 10, 2022    | October 10, 2022 | 2022 IEA | Update the Fire Safety Study and where necessary the IXOM Fire Risk Management Plan based on the updated Fire Safety Study.   | June 30, 2024    | Open   |
| Schedule 2 CoA 11  | ONGOING HAZARDS MANAGEMENT<br>Three years after the commencement of operations of the proposed development or within such further period as the Secretary may agree, the Applicant shall update the hazard analysis for the Chlor-alkali and derivatives complex at the Applicant's expense. This analysis shall be forwarded to the Secretary for approval. Further updates will be required every three years or as may be requested by the Secretary. The analysis shall be prepared in accordance with the Department of Urban Affairs and Planning's Hazardous Industry planning Advisory Paper No. 6, Guidelines for Hazard Analysis. This report shall cover individual fatality, injury and irritation risk and societal risk using the most recently available population and meteorological data. | Non-Compliance (2022 IEA NC 002) - The 2020 Quantitative Risk Assessment (QRA) was not undertaken in 2020 as required. It was undertaken in 2021.  | December 21, 2020   | October 10, 2022 | 2022 IEA | This non-compliance was already addressed prior to the EIA. A Recurring velocity reminder was already set up for QRA to be conducted in 2024.   | October 10, 2022 | Closed |
| Schedule 2 CoA 18  | All parking spaces must be drained, sealed and line marked to the satisfaction of Botany Bay City Council.  | Non-Compliance (2022 IEA NC 003) - Site observations of the visitor's car parking area by the Auditor noted a number of areas where the bitumen/asphalt paving has degraded and become potholed. In addition, the line markings have faded.  | October 10, 2022    | October 10, 2022 | 2022 IEA | IXOM to advise landlord (Orica) of non-compliance with respect to the sealing and line marking requirements of Schedule 2 CoA 18 in relation to the visitor's carpark and request maintenance be undertaken to address the identified non-compliance. | April 30, 2023   | Open   |

| Condition          | Compliance Requirement   | Non-Compliance  | Non-compliance Date | Date Identified  | Source   | Action  | Due              | Status |
|--------------------|--|---|---------------------|------------------|----------|---|------------------|--------|
| Schedule 2, CoA 35 | No later than one month prior to the start of operation, the Applicant must prepare to the satisfaction of the EPA, a Noise Management Plan to address operating the proposed development in accordance with the Site Noise Reduction Program.   | Non-Compliance (2022 IEA NC 004) - The Auditor notes that IXOM has provided the EPA a copy of the Noise Management Plan on 7 June 2021 which is after the commencement of the Repack Facility (MOD 5) operations and not before as required by Schedule 2 CoA 35. | October 10, 2022    | October 10, 2022 | 2022 IEA | The Noise Management Plan was already submitted to EPA on 7 <sup>th</sup> June 2021.                                  | June 7, 2021     | Closed |
| EPL O1.1           | Licensed activities must be carried out in a competent manner.<br>This includes:<br>a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and<br>b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity. | Non-Compliance (2022 IEA NC 005) - During the on-site component of the 2022 IEA, the caged chemical storage area attached to the Flammable Storage Room was not secure (i.e. cyclone wire mesh panel missing from frame of gate/door).                            | October 10, 2022    | October 10, 2022 | 2022 IEA | Repair and secure the caged chemical storage area near the Flammable Storage Room (Completed on the day of the audit) | October 10, 2022 | Closed |

## 5 Previous report actions

Previous report actions which have been undertaken during the reporting period.

**Table 7: Actions required from previous Annual Review**

| Actions required                         | Source | Progress | Comments |
|--|--------|----------|----------|
| No actions required from previous report |        |          |          |

## 6 Incidents

During the reporting period there were no incidents or non-compliances against the conditions of any relevant permit, license or approval for the Ixom Botany ChlorAlkali Plant.

### 6.1 Incidents Register

**Table 8: Incidents Register**

| Nature of incident                                | Relevant conditions | Date of incidents | Status of Report |
|---|---------------------|-------------------|------------------|
| No reportable incidents for the reporting period. |                     |                   |                  |

## 7 Complaints

During the reporting period there were no incidents or non-compliances against the conditions of any relevant permit, license or approval for the Ixom Botany ChlorAlkali Plant

The Botany Industrial Park (BIP) maintains an up to date website for the public that provides the following information:

- Minutes of the BIP Community Consultative Committee (BIPCC)
- Community Hotline
- Contacts for Regulators
- Items of interest including updates where appropriate.
- Commitments to Safety



Ixom maintains an up to date public website that provides the following information:

- Information about the Botany ChlorAlkali plant
- Details of Licence conditions
- Contact details for more information on the facility
- Map of licensed discharge points
- Results of monthly air quality monitoring
- Safety Management system
- Emergency Response including PIRMP
- Actions for the public to take in the event of an emergency
- Pollution Notification Process

There were two BIPCCC meetings held in the reporting period, on 30<sup>th</sup> March 2022 and 19<sup>th</sup> October 2022. Ian Parker, Regional Manufacturing Manager for NEA and WA attended the meeting on March 2022, and Nick Brazil, Botany Operations Manager, attended as representative for Ixom on October 2022.

No public complaint recorded against Ixom via community hotline during the reporting period.

## 7.1 Complaints Register

**Table 8: Complaints Register**

| Nature of complaints                | Relevant conditions | Date of complaint | Status of Report |
|-------------------------------------|---------------------|-------------------|------------------|
| No complaints recorded against Ixom |                     |                   |                  |

## 8 Independent Environmental Audit

A three yearly Independent Environmental Audit was conducted at the Botany CAP site by WSP on the 10<sup>th</sup>-11<sup>th</sup> of October 2022. The requirement of an Independent Environmental Audit forms part of the Conditions of Consent relevant for the Development Action (DA) number 35/98, which specifies that the Applicant must submit an independent environmental audit of the development in accordance with ISO 14011 – Procedures for Environmental Auditing (or equivalent).

There are 5 findings in this audit. The details of this findings can be found in Table 4. 3 of the recommendations were closed, while the 2 open actions will be included in the next reporting period.

## 9 Appendices

### 9.1 Appendix A – Production and Truck Movements

#### 9.1.1 Production Metrics

The period covered by this report saw a slight decrease in production compared to the previous year and slightly below forecast. The plant achieved an uptime rate of 87%. Botany CAP conducted higher number of shutdowns during the reporting period to complete the delayed Preventive Maintenance activities impacted by COVID-19. A number of plant reliability issues were also encountered such as brine issues on start-up (2 weeks impact). The chemical composition of raw feed (salt) was changed due to the amount of rainfall received in March 2022. The salt is stored in an open area.

Truck movements (figures reported below include both inwards and outwards movements – i.e. one truck entering the facility to load then exiting is counted as two truck movements), the number of truck movements has increased in 2022. Table 9 and Figure 1 show a summary of key metrics for the facility over this reporting period compared to previous years.

**Table 9: Production Metrics Summary**

| Reporting Requirement                               | Limit | Previous reporting period (2021 actual) | This reporting period (2022 actual) | Next reporting period (forecast) |
|---|-------|---|-------------------------------------|----------------------------------|
| Traffic movements into and out of site              | N/A   | 18574                                   | 19504                               | 19624                            |
| Hours spent by loaded chlorine road tankers on site | 4380  | 0                                       | 0                                   | 0                                |
| Production (100% caustic)                           | N/A   | 30499                                   | 29798                               | 29981                            |

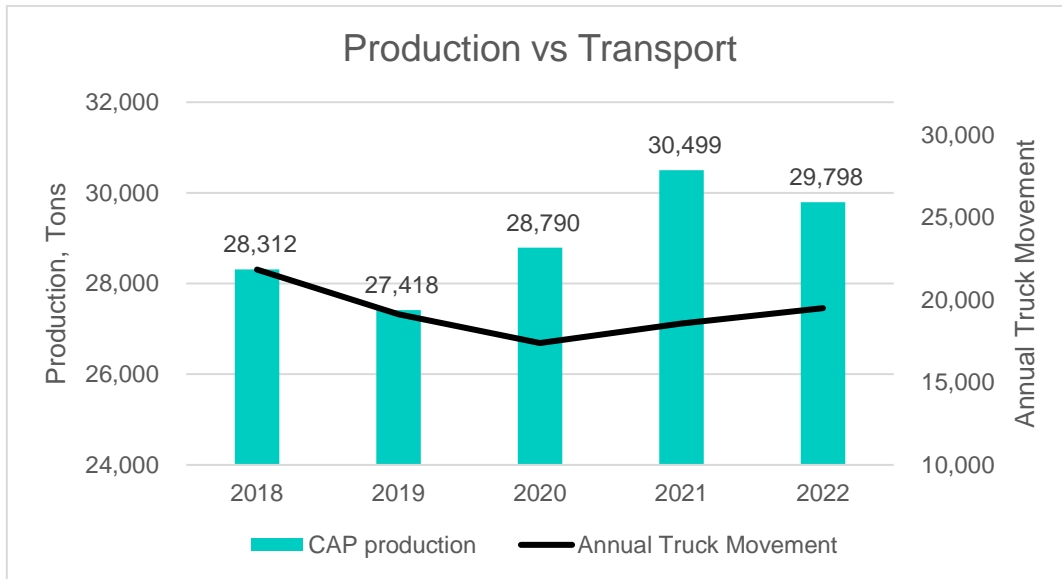


Figure 1: Truck Movements vs Production

## 9.2 Appendix B – Environment performance

### 9.2.1 Environmental Performance table

Table 10 details the key environmental performance parameters for the Ixom Botany ChlorAlkali Plant.

Table 10: Environmental Performance

| Aspect      | Approval criteria / EIS prediction  | Performance during the reporting period  | Trend / key management implications   | Implemented/proposed management actions |
|-------------|---|--|---|---|
| Noise       | Day – 65 LAeq<br>Evening – 55 LAeq<br>Night - 50 LAeq<br><br>(Limits from EPL 20547, Section L4.2).<br><br>Monitoring location 8 in the noise report, is the only location the receiver is impacted by Ixom Operations    | Compliant.<br>Noise monitoring from December 2021 to November 2022 was undertaken by Wolfpeak Pty Ltd<br>From the reports, the samplings at location 8 were observed to be below 50 dB(A) LAeq (15minute) when measured at the nearest residential receiver and complied with the applicable EPL conditions. | Based on the report comments the high results were dominated by sources not related to site Ixom operations. The main contributors were passing traffic (mostly dominant) | No action required                      |
| Air quality | There are 3 licenced discharge points at the Ixom Botany ChlorAlkali plant:<br><br><b>Point 1 (Figure 2)</b><br>Hypochlorite Backing Tower.<br>Discharge limit = 200mg/m <sup>3</sup><br>Chlorine, Monitored Continuously | Compliant.<br>Air quality data is reported on the Ixom website each month and is included as the weblink in this section of the report.  | Results are consistent with that of previous years. See graphs below.   | No action required                      |

|                 |  |   |                 |                    |
|-----------------|--|---|-----------------|--------------------|
|                 | <p><b>Point 2</b><br/>Absorption Tail Tower.<br/>Discharge limit =<br/>30mg/m<sup>3</sup> Hydrogen<br/>Chloride.<br/>Measured quarterly</p> <p><b>Point 3 (Figure 3)</b><br/>Emergency Chlorine Vent.<br/>No discharge limit in EPL,<br/>statutory limit from<br/>Schedule 4 of the POEO<br/>act of 200mg/m<sup>3</sup> used for<br/>reference.<br/>Monitored Continuously</p>   |   |                 |                    |
| Water           | See Section 9.2.3 of this report   |   |                 |                    |
| Biodiversity    | The EIS identified that there was no expected impact on Biodiversity from the operation of the Ixom Botany ChlorAlkali Plant   | No impact   | None identified | No action required |
| Heritage        | The EIS identified that there was no expected impact on Aboriginal, Natural or Urban Heritage items, relics or places from the operation of the Ixom Botany ChlorAlkali Plant  | No impact   | None identified | No action required |
| Flora and Fauna | The EIS indicated that no flora or fauna were expected to be directly affected by the operation of the Ixom Botany ChlorAlkali Plant   | No impact   | None identified | No action required |
| Amenity         | <p>The premises and operations shall be conducted in such a manner as not to interfere with, or materially affect, the amenity of the neighbourhood by reason of noise, vibration, smell, fumes, vapour, steam, soot, ash, dust, waste water, waste products, grit, oil, or otherwise.</p> <p>The occupier of the premises shall not cause, permit, or allow the emission of any odorous air impurity from the development such that it can be detected outside the property boundaries by its odour.</p> <p>(DA 35/98 conditions 37 and 38)</p> | <p>Compliant.</p> <p>There were no instances of material harm affecting the amenity of the neighbourhood by reason of noise, vibration, smell, fumes, vapour, steam, soot, ash, dust or waste products.</p> <p>There were no reports of odorous material from the development detected outside the property boundaries.</p> <p>There were no community complaints received in the reporting period related to the Ixom Botany ChlorAlkali Plant or its operation.</p> | None identified | No action required |

## 9.2.2 Air Monitoring

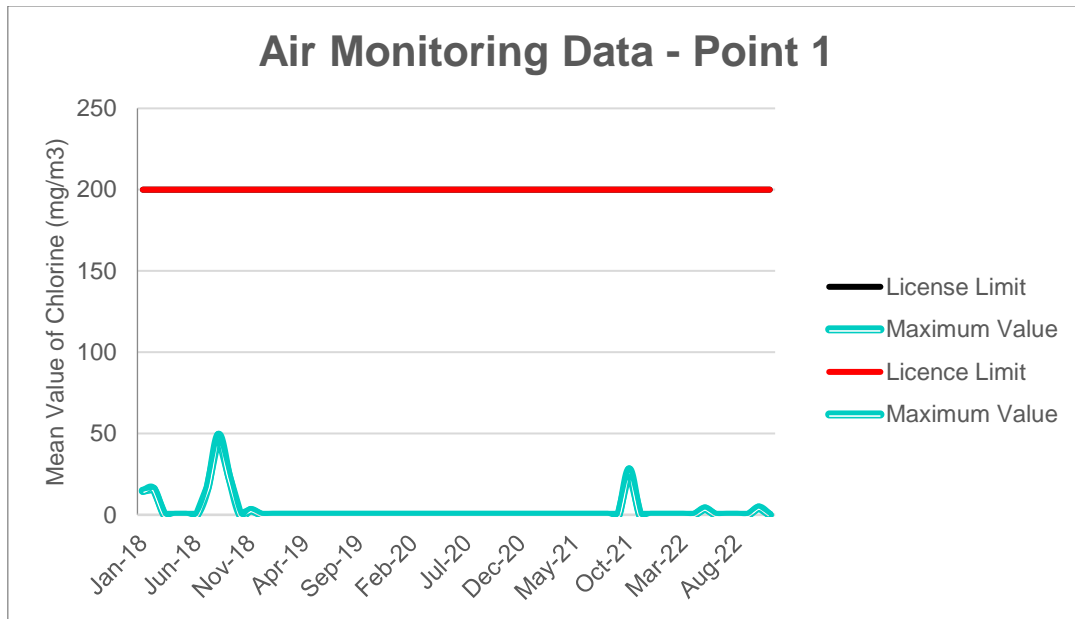


Figure 2: Point 1 Air Monitoring Data Jan 2018 - November 2022

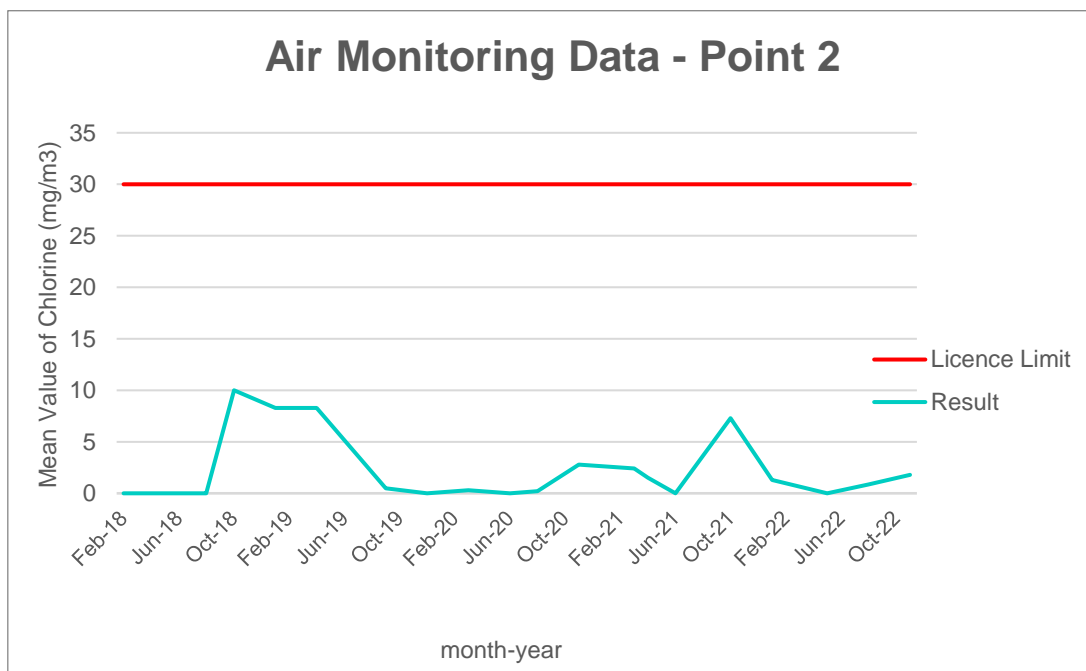


Figure 3: Point 2 Air Monitoring Data Jan 2018 - November 2022

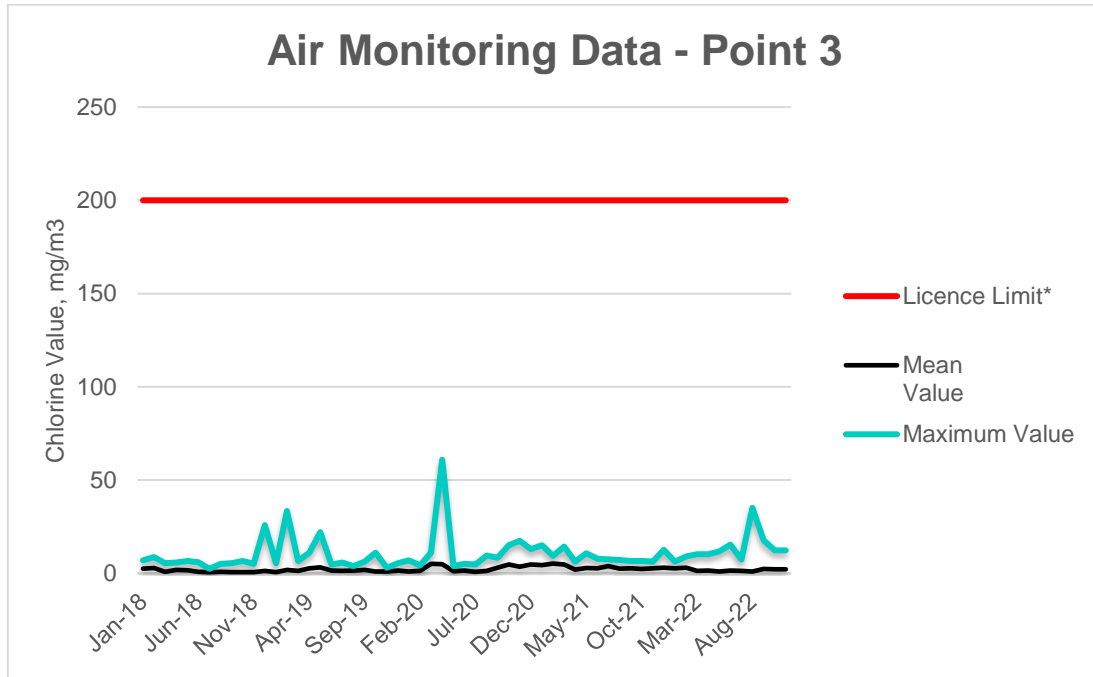


Figure 4: Point 3 Air Monitoring Data Jan 2018 - November 2022

\* Statute limit as per Schedule 4 of POEO (Clean Air) Regulation

Note: Historical data is available through the Ixom website: <https://www.ixom.com/being-responsible/environmental-monitoring-data/botany>

### 9.2.3 Water Usage

Potable water is supplied to the Ixom Botany site through the BIP Site Utilities. Water usage for the reporting period is shown in Table 11.

Table 11: Water Usage

|  | Previous Reporting Period<br>(Dec 2020 – Nov 2021) | Current Reporting Period<br>(Dec 2021 – Nov 2022) |
|--|--|---|
| Potable Water Consumed (KL)                        | 106,336  | 116,089   |
| Recycled Water Consumed (KL)                       | 153,443  | 108,319   |
| Water Incorporated in Product (KL)                 | 137,028  | 136,914   |
| Effluent Discharged to BIP Trade-Waste System (KL) | 64,807   | 91,767  |

The effluent discharged increased significantly due to the amount of rainfall received in 2022. The number of brine purge coming from start-ups following a shut.

The Site Stormwater and Effluent System are managed by BIP Site Utilities.

Effluent from the Ixom ChlorAlkali Plant is collected and processed in one of two automated effluent treatment tanks. These tanks each accumulate the plant effluent then dose acid or caustic into the tanks to control the pH to a consistent and acceptable level. When the target pH is achieved, the tanks are discharged to the EP6 effluent collection pit where flow and pH are continuously measured and recorded. The effluent then joins the other effluent streams from the other facilities at the Botany Industrial Park and flows to the Site Utilities effluent

system. In this facility, the effluent is monitored, and the pH adjusted where required to achieve permissible effluent standards before discharge from site.

The stormwater from the facility is collected through clearly labelled stormwater drains and flows to the Site Utilities stormwater system. The stormwater is continuously monitored for flow and pH. If the pH of the stormwater exceeds the permissible limits, the stormwater is automatically diverted to the Site Utilities effluent system where it is further treated through a pH adjustment in order to meet the required specifications prior to discharge.

Figure 5 shows the monthly effluent discharge for the reporting period. There was a spike of the line which was due to number of days having heavy rainfalls. According to the Bureau of Meteorology, 2022 was Sydney's wettest year on record.

### 9.2.4 Effluent Discharge

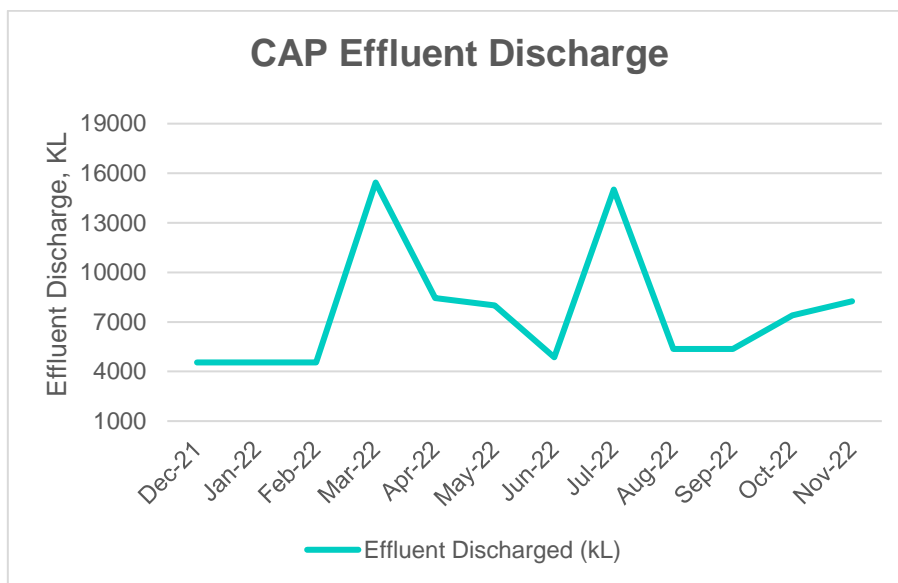


Figure 5: Effluent Discharged from Ixom CAP - Monthly

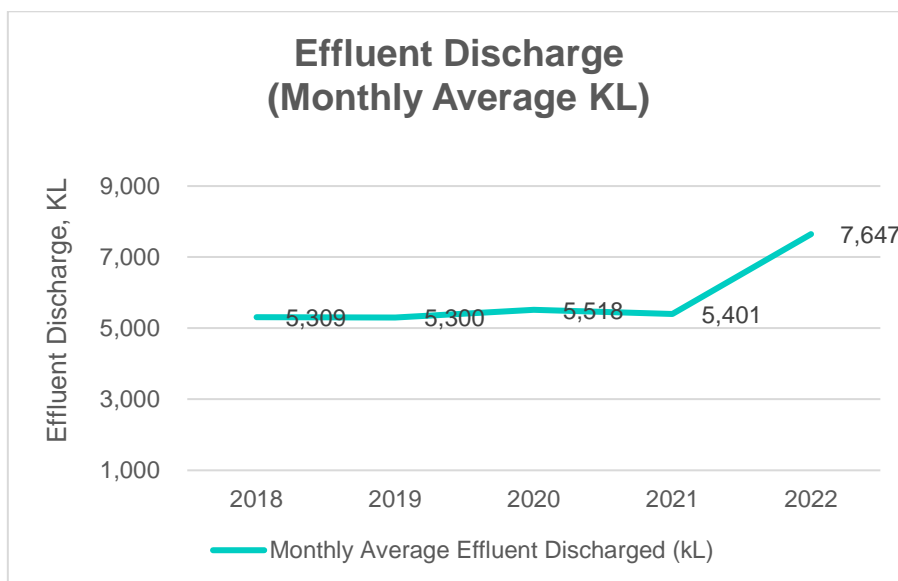


Figure 6: Year on year change in effluent discharged from site

## 9.3 Appendix C – Compliance Table

### Compliance Status Descriptors

**Compliant** Sufficient verifiable evidence to demonstrate that all elements of the requirements have been complied with.

**Non-compliant** A non-compliant with one or more elements of the requirements

**Not triggered** A requirement has an activation or timing trigger that has not been met at the phase of the development when the compliance assessment is undertaken, therefore an assessment of compliance is not relevant.

| Condition of Consent | Compliance Requirement   | Development Phase | Evidence and Comments   | Compliance Status |
|----------------------|--|-------------------|---|-------------------|
| Schedule 2 CoA 1     | The Applicant must carry out the development generally in accordance with:<br>a) the Environmental Impact Statement dated June 1998, prepared by Dames & Moore Pty Ltd and drawing number B73359 RevA;<br>b) modification application MOD-180-11-2005-i with respect to replacement of the sodium hypochlorite loading bays; upgrade of sodium the hypochlorite tank farm; and replacement of the technicians' changing room; and<br>c) modification application MOD-12-1-2006 with respect to the demolition of the decommissioned ChlorAlkali plant buildings at the Botany Industrial Park;<br>d) the letter to the Department dated 4 May 2006 prepared by Robert Evans, Site Environment Engineer, Orica relating to hazard reduction measures;<br>e) MOD 3 to relocate the sodium hypochlorite plant;<br>f) modification application 35/98 Mod 4, in relation to replacement of caustic tanks lodged with the Department of Planning and Infrastructure on 13 April 2012 and accompanied by an environmental assessment prepared by Parsons Brinckerhoff dated May 2012; and<br>g) modification request 35/98 MOD 5, including supporting documentation prepared by IXOM Operations Pty Ltd dated 27 June 2018, 31 August 2018 and 9 October 2018; and<br>h) the conditions of this consent. | At all times      | Refer to audit evidence associated with the 2022 IEA as documented against each of the conditions of approval associated with Schedule 2 of Development Consent 35/98 as presented in this audit checklist. | Compliant         |
| Schedule 2 CoA 1A    | If there is any inconsistency between the plans and documentation listed under Condition 1 above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this consent prevail to the extent of any inconsistency.   | At all times      |   | Not Triggered     |
| Schedule 2 CoA 1B    | The Applicant must construct the spill containment area of the caustic tanks in accordance with: AS 3780-2008 The storage and handling of corrosive substances.  | Construction      |   | Not Triggered     |
| Schedule 2 CoA 1C    | In addition to meeting the specific performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise harm to the environment that may result from the development.  | At all times      | EPA Annual Report submitted to the EPA. Internal procedure to conduct annual due diligence check and 3-yearly legal review of the report.   | Compliant         |



|                             |  |   |  |                          |
|-----------------------------|--|---|--|--------------------------|
| Schedule 2<br>CoA 1D        | The Applicant must comply with all written requirement(s) of the Planning Secretary arising from the Departments assessment of:<br>(a) Any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents); and<br>(b) The implementation of any actions or measures contained within these documents.  | At all times                              | 1. IXOM 2021 Annual Report for DPIE (January 2022, Rev 1.0).<br>2. IEA Report Submission through DPIE Major Projects Portal - document received 22/12/2022   | Compliant                |
| Schedule 2<br>CoA 1E        | The Applicant must ensure all buildings and structures, and any alterations or additions to the existing buildings and structures are constructed in accordance with the relevant requirements of the National Construction Code.  | Construction                              | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019).<br>Bayside Council Occupation Certificate dated 31 March 2020 (Certificate Number: CC- 2019/72) for Chemical Repack Facility.   | Compliant                |
| Schedule 2<br>CoA 2         | At no time must the existing Chlor-alkali plant and the proposed Chlor- alkali plant operate simultaneously.   | At all times                              |  | Not Triggered            |
| Schedule 2<br>CoA 3         | The existing bulk chlorine storage tanks must be purged no later than 6 months after the date of commissioning of the proposed development.  | Within 6 Months<br>After<br>Commissioning |  | Not Triggered            |
| Schedule 2<br>CoA 4         | Within 6 months from the date of this consent, the Applicant must prepare for the approval of the Secretary a report detailing the proposed timetable and procedures for decommissioning the existing Chlor-alkali plant and commissioning of the proposed Chlor-alkali plant.   | Within 6 Months<br>After<br>Commissioning |  | Not Triggered            |
| <b>COMPLIANCE</b>           |  |   |  |                          |
| <b>Condition of Consent</b> | <b>Compliance Requirement</b>  | <b>Development Phase</b>                  | <b>Evidence and Comments</b>   | <b>Compliance Status</b> |
| Schedule 2<br>CoA 5         | The Applicant must comply with all the reasonable requirements of the Secretary of Urban Affairs and Planning (the Secretary) in respect of the implementation of measures arising from the following conditions of development consent. Further, the Applicant must bring to the attention of the Secretary any matter that may require further investigation and the issuing of instructions from the Secretary. The Applicant must implement those instructions to the satisfaction of the Secretary within such time as the Secretary may specify. | At all times                              |  | Not Triggered            |
| Schedule 2<br>CoA 6         | The Applicant must meet reasonable requirements of all public authorities having statutory responsibilities in respect of the proposed developments.   | At all times                              | IXOM – Risk Based Licensing Documents (7 June 2021 email with attachments sent to NSW EPA. NSW EPA issued Environment Protection Licence (EPL) 20547. SafeWork NSW Licence to operate a major hazard facility. Licence Number: 20-15-61, date granted 22 December 2020, expiry date 23 December 2023, facility number 20-15. Notification of Dangerous Goods on Premises Form FDG01 (dated 4 July 2022) by Botany Industrial Park (BIP). | Compliant                |

| COMPLIANCE REPORTING |  |                   |                       |                   |
|----------------------|--|-------------------|-----------------------|-------------------|
| Condition of Consent | Compliance Requirement   | Development Phase | Evidence and Comments | Compliance Status |
| Schedule 2 CoA 7     | <p><b>PRE-CONSTRUCTION</b><br/>           At least one month prior to the commencement of substantial construction, or within such period as otherwise agreed by the Secretary, the Applicant must submit for the approval of the Secretary a compliance report detailing compliance with all the relevant conditions that apply prior to the commencement of substantial construction. The pre-construction compliance report should include:</p> <p>(a) the dates of submissions of the various studies and, or requirements of various conditions, and of their approvals and terms of approvals;<br/>           (b) action taken or proposed to implement the recommendations made in terms of approvals and/or studies.</p> | Pre-construction  |                       | Not Triggered     |
| Schedule 2 CoA 8     | <p><b>PRE-STARTUP</b><br/>           The Applicant must submit to the Secretary a report detailing compliance with Conditions 9 and 10(a) one month prior to the commencement of operation of MOD 3.</p>   | Pre-startup       |                       | Not Triggered     |
| HAZARD MANAGEMENT    |  |                   |                       |                   |
| Condition of Consent | Compliance Requirement   | Development Phase | Evidence and Comments | Compliance Status |
| Schedule 2 CoA 9     | <p><b>PRE-CONSTRUCTION</b><br/>           Prior to commencement of construction of MOD 4 the Applicant must prepare a Construction Safety Study consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 7 'Construction Safety Study Guidelines'.</p>  | Pre-construction  |                       | Not Triggered     |

|                             |  |                          |                              |                          |
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| Schedule 2<br>CoA 10        | <p><b>PRE-OPERATION</b><br/>At least two months prior to the commencement of operation of the proposed development, or within such further period as the Planning Secretary may agree, the Applicant must prepare and submit for the approval of the Secretary:</p> <p>(a) <b>Emergency Plan</b><br/>Prior to commissioning MOD 3, the Applicant must develop a new or updated Emergency Plan. The plan must be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 1 'Industry Emergency Planning Guidelines'.</p> <p>(b) <b>Safety Management System</b><br/>A comprehensive safety management system, covering all operations on- site and associated transport activities. The system should clearly specify all safety related procedures, responsibilities and polies, along with details of mechanisms for ensuring adherence to procedures. Records must be kept on-site and should be available for inspection by the Planning Secretary upon request. The Safety Management System should be developed in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9, Safety Management. Where there is an existing plant or site system, the condition of consent will be considered satisfied by the updating of that system.<br/>The Safety Management System shall also detail the procedures for testing and ensuring continuous time and date functionality of all systems including embedded systems associated with the Chlor-alkali and Derivatives complex.</p> | Pre-operation            |                              | Not Triggered            |
| <b>HAZARDS AND RISKS</b>    |  |                          |                              |                          |
| <b>Condition of Consent</b> | <b>Compliance Requirement</b>  | <b>Development Phase</b> | <b>Evidence and Comments</b> | <b>Compliance Status</b> |
| Schedule 2<br>CoA 10A       | <p><b>PRE-CONSTRUCTION</b><br/>Prior to the completion of detailed design, the applicant must consult with SafeWork NSW on the identification and implementation of the controls to reduce risks so far as reasonably practicable.</p>   | Pre-construction         |                              | Not Triggered            |

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| Schedule 2<br>CoA 10B | <p>The Applicant must prepare the studies set out under (a) and (b) below (the pre-construction studies). Construction, other than of preliminary works that are outside the scope of the hazard studies, must not commence until the study recommendations have been considered and, where appropriate, acted upon.</p> <p>The Applicant must submit the studies to the Planning Secretary no later than one month prior to the commencement of construction of MOD 5 (other than preliminary works), or within such further period as the Planning Secretary may agree:</p> <p>(a) CONSTRUCTION SAFETY STUDY<br/>Construction Safety Study for the MOD 5, prepared in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety' guideline. The study must include and not be limited to identifying hazards and safeguards relevant to commissioning of the Repack facility.</p> <p>(b) HAZARD AND OPERABILITY STUDY<br/>A Hazard and Operability Study for MOD 5, chaired by a qualified person, independent of the modified development, approved by the Planning Secretary prior to the commencement of the study. The study must be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'. The study report must be accompanied by a program for the implementation of all recommendations made in the report. If the Applicant intends to defer the implementation of all recommendations made in the report. If the Applicant intends to defer the implementation of a recommendations made in the report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.</p> <p>The study must be based on the detailed design of the facility and sufficiently cover all MOD 5 processes, including the operation of existing tanks, plant and equipment.</p> | Pre-construction           |  | Not Triggered |
| Schedule 2<br>CoA 10C | <p>PRE-COMMISSION<br/>Prior to operating the new operation under MOD 5, the Applicant must implement the controls required to reduce risk so far as is reasonably practicable.</p>  | Pre-commission             |  | Not Triggered |
| Schedule 2<br>CoA 10D | <p>Prior to commissioning, the Applicant must update the Fire Safety Study under Condition 9, and the Emergency Plan and Safety Management System under Condition 10 to include all aspects relevant to MOD 5. Commissioning must not commence until Fire Safety Study recommendations have been considered and, where appropriate, acted upon.</p>   | Pre-commissioning of MOD 5 | <p>Although not part of this year's reporting scope, the recent Independent Environmental Audit picked this as a non-compliance.</p> <p>Non-Compliance (2022 IEA NC 001) – The Fire Safety Study was not updated prior to the commissioning of MOD 5. It is noted that IXOM's Fire Risk Management Plan was updated prior to the commissioning of MOD 5, but it relied on the existing Fire Safety Studies undertaken in 2000 for Orica and the BIP.</p> | Non-Compliant |
| Schedule 2<br>CoA 10E | <p>The Applicant must comply with all reasonable requirements of the Planning Secretary on the implementation of any measures arising from the studies in respect of Conditions 10B and 10C within such time as the Planning Secretary may agree.</p>   | At all times               | <p>IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019).<br/>Velocity EHS (IXOM's database and task management system) for MOC-20181220-005 New Botany Repack Facility – Status Log.</p>  | Not Triggered |

|                             |  |                             |  |                          |
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| Schedule 2<br>CoA 11        | <p><b>ONGOING HAZARDS MANAGEMENT</b><br/>Three years after the commencement of operations of the proposed development or within such further period as the Secretary may agree, the Applicant shall update the hazard analysis for the Chlor-alkali and derivatives complex at the Applicant's expense. This analysis shall be forwarded to the Secretary for approval. Further updates will be required every three years or as may be requested by the Secretary. The analysis shall be prepared in accordance with the Department of Urban Affairs and Planning's Hazardous Industry planning Advisory Paper No. 6, Guidelines for Hazard Analysis. This report shall cover individual fatality, injury and irritation risk and societal risk using the most recently available population and meteorological data.<br/><i>Note: the Applicant shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the studies undertaken as a result of Condition 11 and shall implement those instructions to the satisfaction of the Secretary within such time as the Secretary may specify.</i></p> | Post Approval -<br>3 Yearly | <p>Although not part of this year's reporting scope, the recent Independent Environmental Audit picked this as a non-compliance.</p> <p>Non-Compliance (2022 IEA NC 002) - The 2020 Quantitative Risk Assessment (QRA) was not undertaken in 2020 as required. It was undertaken in 2021.</p> <p>There was a discussion with DPIE to align the IXOM QRA study frequency to BIP frequency (3 years to 5 years), but this was not concluded.</p> | Non-Compliant            |
| Schedule 2<br>CoA 12        | <p><b>INCIDENT REPORTING</b><br/>Within 24 hours of any incident or near incident with actual or potential significant off-site impacts on people or the biophysical environment, a report must be supplied to the Department outlining the basic facts. A further detailed report must be prepared and submitted following investigations of the causes and identification of necessary additional preventative measures.</p>   | At all times                | <p>Environmental Incidents Register (excel spreadsheet)<br/>IXOM Annual Returns (AR) submitted to EPA for EPL 20547:<br/>· AR (19 Feb 2021 – 19 Feb 2022)</p>  | Not Triggered            |
| Schedule 2<br>CoA 13        | <p><b>HAZARD AUDIT</b><br/>Twelve months after the commencement of operations of the proposed development or within such further period as the Secretary may agree, the Applicant shall carry out a comprehensive hazard audit of the proposed development and submit a report on the audit to the Secretary. This audit is to be carried out at the Applicant's expense by a duly qualified independent person or team to be approved by the Secretary. Further audits will be required every three years or as may be requested by the Secretary. Hazard audits should be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5, Hazard Audit Guidelines. The audit shall also contain confirmation that time and date functionality of all systems have been tested in accordance with the Safety management System specified in condition 10(b).</p>  | Post Approval -<br>3 Yearly | <p>NSW DPIE (now DPE) letter dated 21 January 2021 re: Approval of 2021 Hazard Auditor for the IXOM Chloralkali facility at Botany Industrial Park (DA 35/98)<br/>Hazard Audit Report 2021 IXOM Chloralkali Facility at Orica Australia's Botany Industrial Park (Doc Number: 31-B573, Rev 0, Planager Pty Ltd).<br/>IXOM 2021 Annual Report for DPIE (January 2022, Rev 1.0).</p>   | Compliant                |
| <b>BUILDING HEIGHT</b>      |  |                             |  |                          |
| <b>Condition of Consent</b> | <b>Compliance Requirement</b>  | <b>Development Phase</b>    | <b>Evidence and Comments</b>   | <b>Compliance Status</b> |

| Schedule 2<br>CoA 14  | <p>Prior to lodging an application for construction, the Applicant must seek the approval of Sydney Airport Corporation and the Civil Aviation Safety Authority (CASA) in respect of any structure, inclusive of vents, chimneys, aerials, TV antennae and construction which exceeds the height at which approval is required under the Civil Aviation (Buildings Control) Regulations. This includes any temporary structure and/or equipment planned to be used during construction. This application must include the following information:</p> <p>(a) The nature of the proposed structure/activity<br/> (b) The proposed location of the structure/activity relative to Mapping Grid of Australia 1994 (MGA94)<br/> (c) The maximum overall height of the proposed structure/activity relative to Australian Height Datum (AHD)<br/> (d) The purpose for which the structure/activity is intended to be used<br/> (e) The maximum height, relative to AHD of any temporary structure or equipment including construction cranes, intended to be used in the erection of the proposed building/structure<br/> (f) The period of the proposed operation and desired operating hours for any temporary structures.</p> | Pre-approval                   |  | Not Triggered     |
|-----------------------|--|--------------------------------|--|-------------------|
| TRAFFIC AND TRANSPORT |  |                                |  |                   |
| Condition of Consent  | Compliance Requirement   | Development Phase              | Evidence and Comments  | Compliance Status |
| Schedule 2<br>CoA 15  | No later than two months prior to the commencement of commissioning of the proposed development, or within such further period as the Secretary may agree, the Applicant must prepare and submit for the approval of the Secretary a Traffic Management Plan (TMP) outlining management measures to ensure that road tanker drivers will predominantly use the main arterial roads - namely Foreshore Drive, General Holmes Drive and Wentworth Avenue, except for local deliveries. The Applicant must endeavour to enter into contractual arrangements with transport companies to require their trucks to use the routes determined under the TMP.  | 2 months prior to commencement |  | Not Triggered     |
| Schedule 2<br>CoA 16  | On-site parking shall be provided for all vehicles associated with the operation and construction of the proposed development. This shall include vehicles transporting equipment, materials, contractors and workers. Under no circumstances shall vehicles transporting equipment or materials queue or park in neighbouring streets.  | At all times                   | Site observations by IEA Auditor on 10 October 2022<br>BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br>IXOM Environmental Management Plan (Document Number: SHE-BOT-MGT-ENV-001. Scope of Application: Botany CAP, Revision: 2, Issued: 23 <sup>rd</sup> September 2021).<br>IXOM Botany Traffic Management Plan Work Instruction Number (MCW-BOT-WKI- CAP-0006), Rev 3.0 dated 19 February 2020. | Compliant         |
| Schedule 2<br>CoA 17  | No more than one full (13 tonne) road tanker of chlorine must be parked on site at any given time. The total amount of time a full road tanker is present on site must not exceed 4380 hours in any 12-month period. The tanker is to be parked in a dedicated area away from any main thoroughfare.   | At all times                   | IXOM 2021 Annual Report for DPIE (January 2022, Rev 1.0).<br>Chlorine Inventory Monitoring   | Not Triggered     |

| Schedule 2<br>CoA 18            | All parking spaces must be drained, sealed and line marked to the satisfaction of Botany Bay City Council.   | At all times      | Site observations by Auditor on 10 October 2022 | Non-Compliant     |
|---------------------------------|--|-------------------|---|-------------------|
| <b>ENVIRONMENTAL MANAGEMENT</b> |  |                   |   |                   |
| Condition of Consent            | Compliance Requirement   | Development Phase | Evidence and Comments                           | Compliance Status |
| Schedule 2<br>CoA 19            | One month prior to commencement of construction work, the Applicant must prepare an Environmental Management Plan (EMP) in consultation with the Environmental Protection Authority (EPA) and Department of Land and Water Conservation (DLWC) for the approval of the Secretary. The EMP must be implemented during the construction phase of the upgrade to the satisfaction of the Secretary. The EMP should be submitted as a supporting document for the application of the Pollution Control Approval from the EPA.  | Pre-construction  |   | Not Triggered     |
| Schedule 2<br>CoA 19A           | Prior to the commencement of any demolition associated with MOD-12- 1-2006, the Applicant must update and implement the EMP (referred to in condition 19 above) to include a program for daily monitoring at atmospheric mercury concentrations for the demolition works. The program must include procedures for immediate stoppage of the offending activity on detection of emission levels exceeding the limit under the POEO (Clean Air) Regulations, of 0.2 mg/cubic metre. Work must not recommence until remedial measures have been initiated to the satisfaction of the Planning Secretary and the DEC.  | Before demolition |   | Not Triggered     |
| Schedule 2<br>CoA 19B           | Prior to the commencement of the construction of MOD 4, the Applicant must prepare a Construction Environmental Management Plan (CEMP) (in consultation with the EPA and to the satisfaction of the Secretary). The CEMP must reflect the works proposed as part of MOD 4 and shall include:<br>(a) the results of the recent soil sampling undertaken by Orica and documented in the Figure titled Orica Botany Caustic Tank Project and dated 02/08/2012;<br>(b) measures, such as additional sampling and/or remedial measures, to manage any areas of shallow soil contamination;<br>(c) details of the management strategy for the handling, treatment and disposal of any contaminated material;<br>(d) a defined heavy vehicle route restricted to the arterial road network and contractor induction requiring the use the defined route;<br>(e) construction noise and vibration management measures including;<br>- monitoring of heritage listed items during the use of any vibration intensive equipment; and<br>- safe working distances for the vibration intensive equipment;<br>(f) Soil sedimentation and runoff control measures;<br>(g) management measures to control dust; and<br>(h) waste management measures. | Pre-construction  |   | Not Triggered     |

|                          |   |                                   |   |               |
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| Schedule 2<br>CoA 19C    | <p>Prior to the commencement of construction of MOD5, the Applicant must prepare a Construction Environmental Management Plan (CEMP) for the approval of the Planning Secretary, which details relevant construction methodology and key mitigation measures. The CEMP for MOD 5 must include:</p> <ul style="list-style-type: none"> <li>(a) Controls for the potential direct exposure to soil potentially impacted by mercury;</li> <li>(b) Erosion and sediment controls including the management of any stormwater or groundwater that may accumulate in the development footprint;</li> <li>(c) Details of the management strategy for handling, classification and disposal of any contaminated soil;</li> <li>(d) An unexpected finds protocol which is to be enacted where mercury concentrations in the soil excavated during construction of MOD5 exceed the 893 mg/kg mercury threshold;</li> <li>(e) Construction and demolition waste management;</li> <li>(f) Traffic management; and</li> <li>(g) Construction noise and vibration management.</li> </ul> | Pre-construction related to MOD 5 |   | Not Triggered |
| Schedule 2<br>CoA 19D    | <p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) Not commence construction works required under MOD5 until the CEMP is approved by the Planning Secretary; and</li> <li>(b) Carry out the construction of MOD5 in accordance with the CEMP approved by the Planning Secretary.</li> </ul>  | Pre-construction related to MOD 5 |   | Not Triggered |
| Schedule 2<br>CoA 20     | <p>The EMP should address but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) Details of the soil and groundwater investigation to be carried out in the area proposed for earthworks</li> <li>(b) Details of the management strategy for the handling, treatment and disposal of any acid sulphate soils and any contaminated material</li> <li>(c) Soil sediment control measures</li> <li>(d) Surface run-off control</li> <li>(e) Dust management plan</li> <li>(f) Quality of excess water from construction site and monitoring</li> <li>(g) Methods and discharges or use of excess water including criteria for discharge of stormwater to sewer, stormwater or treatment</li> <li>(h) Groundwater protection</li> <li>(i) The manner in which air and noise management and environmental monitoring will be implemented in relation to the new facilities.</li> </ul> <p>No site works involving ground disturbance must commence prior to approval of the plan.</p>   | Pre-construction                  |   | Not Triggered |
| Schedule 2,<br>CoA<br>21 | <ul style="list-style-type: none"> <li>(a) Excavated material must be screened, tested and disposed of in accordance with the Department of Education, Climate Change and Water's Waste Classification Guidelines 2008. Testing must include, but not be limited to, mercury and hexachlorobenzene.</li> <li>(b) Materials found to be contaminated must be disposed of to an appropriately licensed facility and not reused on site for any purpose.</li> </ul>  | Construction                      |   | Not Triggered |
| Schedule 2,<br>CoA 22    | <p>The Applicant must ensure that the proposed development, during construction and operation, does not impact on the neighbouring rail embankments. Details of drainage and stormwater management must be discussed with Rail Access Corporation (RAC) and Rail Estate to ensure that there is no impact on the operation of rail.</p>   | At all times                      | BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br>IXOM Environmental Management Plan (Document Number: SHE-BOT-MGT-ENV-001. Scope of Application: Botany CAP, Revision: 2, Issued: 23 <sup>rd</sup> September 2021). | Compliant     |



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|  |  |                          | Site observations by Auditor on 10 October 2022   |                          |
| Schedule 2, CoA 23                             | The Applicant must submit for the approval of the Secretary, evidence that the environmental management of the proposed facilities has been integrated into the existing site Safety, Health and Environment Procedures.   |                          |   | Not Triggered            |
| Schedule 2, CoA 24                             | At 3-year intervals, from the date of commencement of operations of the development, or as required by the Secretary, the Applicant must submit an Independent environmental audit of the development in accordance with ISO 14011 - Procedures for Environmental Auditing (or equivalent).<br>The audit must be carried out at the Applicant's expense and be undertaken by a duly qualified independent person or team approved by the Secretary. The Applicant must comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the studies undertaken as a result of Condition 22 and must implement those instructions to the satisfaction of the Secretary within such time as the Secretary may specify. | Post Approval - 3 Yearly | NSW DPE Letter dated 21 September 2022 (ref: DA 35/98-PA-9)<br>NSW DPIE Letter dated 27 September 2019 (re: approval of AECOM to undertake the 2109 IEA).<br>IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019).<br>IXOM Chlor-Alkali Facility Independent Environmental Audit 2022 (WSP, 22 December 2022). | Compliant                |
| <b>POLLUTION CONTROL APPROVAL AND LICENSES</b> |  |                          |   |                          |
| <b>Condition of Consent</b>                    | <b>Compliance Requirement</b>  | <b>Development Phase</b> | <b>Evidence and Comments</b>  | <b>Compliance Status</b> |
| Schedule 2, CoA 25                             | The Applicant must obtain from the EPA all statutory approvals and licences required under the Clean Air, Clean Waters, and Noise Control Acts and must renew and maintain the licences for the life of the development.   | At all times             | NSW EPA issued Environment Protection Licence (EPL) 20547.  | Compliant                |
| <b>WORK COVER REQUIREMENTS</b>                 |  |                          |   |                          |
| <b>Condition of Consent</b>                    | <b>Compliance Requirement</b>  | <b>Development Phase</b> | <b>Evidence and Comments</b>  | <b>Compliance Status</b> |
| Schedule 2, CoA 26                             | The Development must comply with the requirements of the Dangerous Goods Act 1975, as administered by WorkCover NSW, and if necessary be licensed under this Act.  | At all times             | SafeWork NSW Licence to operate a major hazard facility. Licence Number: 20-15-61, date granted 22 December 2020, expiry date 23 December 2023, facility number 20-15.<br>Notification of Dangerous Goods on Premises Form FDG01 (dated 4 July 2022) by Botany Industrial Park (BIP).   | Compliant                |
| Schedule 2, CoA 26A                            | MOD3 must comply with Australian Standard AS3780 The Storage and Handling of Corrosive Substances.   | MOD 3                    |   | Not Triggered            |

| Schedule 2, CoA 27   | One month prior to the commencement of operation, the Applicant must inform the Secretary in writing of the dangerous goods requirements for the in-transit storage of Chlorine in bulk road tankers.  | Pre-commencement               |  | Not Triggered     |
|----------------------|--|--------------------------------|--|-------------------|
| Schedule 2, CoA 27A  | The Applicant must dispose of any asbestos contaminated materials in accordance with the requirements of WorkCover NSW.  | At all times                   | IXOM Asbestos Survey (Hibbs & Associates Pty Ltd) Reference No: S1228-R01, July 2022). No disposal of asbestos during the reporting period.  | Not Triggered     |
| <b>NOISE</b>         |  |                                |  |                   |
| Condition of Consent | Compliance Requirement   | Development Phase              | Evidence and Comments  | Compliance Status |
| Schedule 2, CoA 28   | No later than one month prior to the start of construction, the Applicant must develop, to the satisfaction of the EPA, a Construction Noise Management Plan. This must provide details of noise control measures to be undertaken during construction. This plan must be developed in accordance with the requirements of the EPA Noise Control Manual.   | Within 1 Month of Construction | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)  | Not Triggered     |
| Schedule 2, CoA 29   | All construction activities, likely to generate perceivable noise offsite, must be restricted to the hours 7.00am to 6.00pm, Monday to Friday, and 7.00am to 1.00pm, Saturday, unless otherwise agreed to in writing by the EPA on a case by case basis.   | Construction                   | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)  | Not Triggered     |
| Schedule 2, CoA 30   | The technique used for piling during construction must be "auger piling" to ensure that there will be no vibration effects on nearby buildings or surrounding properties.  | Construction                   | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)  | Not Triggered     |
| Schedule 2, CoA 31   | During construction the Applicant must ensure that the L10 noise level (measures over a period of not less than 15 minutes when the construction site is in operation) does not exceed the background level by more than 5 dB(A) at residential boundaries and beyond, under prevailing meteorological conditions weather conditions.  | Construction                   | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)  | Not Triggered     |
| Schedule 2, CoA 32   | The Applicant shall ensure that the noise emission from the operation of all plant and equipment associated with the proposed development shall conform to the Orica Pollution Control Licence No 2148 noise conditions. In addition:<br>(a) The operation of all new equipment in the Chlor-Alkali plant when assessed on any residential boundary shall not give rise to a sound pressure level that exceeds (LA10) 40bB(A) night time and (LA10) 50dB(A) day time.<br>(b) The operation of all reused equipment in the Chlor-Alkali plant when assessed on any residential boundary shall not give risk to a sound pressure level that exceeds (LA90) 47dB(A) night time and (LA10) 60dB(A) day time. New and reused equipment is as defined in the EIS "Replacement Chlor- Alkali Plant" (Dames & Moore dated 25 June 1998). | At all times                   | IXOM 2021 Annual Report for DPIE (January 2022, Rev 1.0).<br>BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br>NSW EPA issued Environment Protection Licence (EPL) 20547.<br>Monthly Noise Monitoring Reports (WolfPeak Pty Ltd) Botany Industrial Park (BIP) and Port Botany (December 2021 to November 2022). | Compliant         |

|                    |  |                                     |  |               |
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| Schedule 2, CoA 33 | <p>The Applicant shall ensure that the noise emission from the operation of all plant and equipment shall not give rise to a sound pressure level that exceeds LA10 65dB(A) (when assessed on any neighbouring commercial/industrial premises).</p> <p><i>Note for assessment purposes, LA10 sound levels shall be assessed over a period of 10-15 minutes. Where the sound contains prominent tonal or frequency varying characteristics or is impulsive, a correction factor of 5dB(A) shall be added to the measures level.</i></p> <p><i>The noise emission limits apply for prevailing meteorological conditions, except under conditions of temperature inversions. Noise impacts that may be enhanced by temperature inversions must be addressed by:</i></p> <p><i>(a) documenting noise complaints received to identify any higher level of impacts or patterns of temperature inversions;</i></p> <p><i>(b) where levels of noise complaints indicate a higher level of impact then actions to quantify any ameliorate any enhanced impacts under temperature inversions conditions should be detailed in the noise management protocol.</i></p> | At all times                        | <p>IXOM 2021 Annual Report for DPIE (January 2022, Rev 1.0).<br/> BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br/> NSW EPA issued Environment Protection Licence (EPL) 20547.<br/> Monthly Noise Monitoring Reports (WolfPeak Pty Ltd) Botany Industrial Park (BIP) and Port Botany (December 2021 to November 2022).</p>  | Compliant     |
| Schedule 2, CoA 34 | Where practicable, during the commissioning of the Chlor-alkali plant, the Applicant must ensure that test runs are conducted during daytime.  | Commissioning                       |  | Not Triggered |
| Schedule 2, CoA 35 | No later than one month prior to the start of operation, the Applicant must prepare to the satisfaction of the EPA, a Noise Management Plan to address operating the proposed development in accordance with the Site Noise Reduction Program.   | 1 Month Prior to Start of Operation | <p>Although not part of this year's reporting scope, the recent Independent Environmental Audit picked this as a non-compliance.</p> <p>Non-Compliance (2022 IEA NC 004) - The Auditor notes that IXOM has provided the EPA a copy of the Noise Management Plan on 7 June 2021 which is after the commencement of the Repack Facility (MOD 5) operations and not before as required by Schedule 2 CoA 35.</p> <p>IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)<br/> NSW EPA letter (ref: DOC21/477011, dated 10 June 2021, re: Environment Protection Licence (EPL) No. 20547 – Ixom Operations Pty Ltd, 16-20 Beauchamp Road, Matraville, NSW, 2036)<br/> IXOM – Risk Based Licensing Documents (7 June 2021 email with attachments sent to NSW EPA. IXOM Environmental Management Plan (Document Number: SHE-BOT-MGT-ENV-001. Scope of Application: Botany CAP, Revision: 2, dated 19 May 2020).<br/> NSW EPA issued Environment Protection Licence (EPL) 20547.</p> | Non-Compliant |

| Schedule 2, CoA 36   | All machinery must be installed and/or housed in such a manner as to prevent the emission of noise and transmission of vibration outside the premises.   | At all times      | Site observations by Auditor on 10 October 2022<br>BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br>Monthly Noise Monitoring Reports (WolfPeak Pty Ltd) Botany Industrial Park (BIP) and Port Botany (October 2019 to September 2022).  | Compliant         |
|----------------------|--|-------------------|---|-------------------|
| <b>AMENITY</b>       |  |                   |   |                   |
| Condition of Consent | Compliance Requirement   | Development Phase | Evidence and Comments   | Compliance Status |
| Schedule 2, CoA 37   | The premises and operations must be conducted in such a manner as not to interfere with, or materially affect, the amenity of the neighbourhood by reason of noise, vibration, smell, fumes, vapour, steam, soot, ash, dust, wastewater, waste products, grit, oil or otherwise. | At all times      | Site observations by IEA Auditor on 10 October 2022<br>BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br>IXOM Annual Returns (AR) submitted to EPA for EPL 20547:<br>· AR (19 Feb 2021 – 19 Feb 2022)<br>IXOM Environmental Management Plan (Document Number: SHE-BOT-MGT-ENV-001.<br>Scope of Application: Botany CAP, Revision: 2, Issued: 23 <sup>rd</sup> September 2021). | Compliant         |
| Schedule 2, CoA 38   | The occupier of the premises must not cause, permit, or allow the emission of any odorous air impurity from the development such that it can be detected outside the property boundaries by its odour.   | At all times      | Site observations by IEA Auditor on 10 October 2022<br>BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br>IXOM Annual Returns (AR) submitted to EPA for EPL 20547:<br>· AR (19 Feb 2021 – 19 Feb 2022)<br>IXOM Environmental Management Plan (Document Number: SHE-BOT-MGT-ENV-001.<br>Scope of Application: Botany CAP, Revision: 2, Issued: 23 <sup>rd</sup> September 2021). | Compliant         |
| Schedule 2, CoA 39   | All raw materials, manufactured goods and machinery must be stored wholly within the development and not in adjacent forecourts, yards, access ways, car parking areas, or on Council's footpath.  | At all times      | Site observations by IEA Auditor on 10 October 2022<br>BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)  | Compliant         |
| Schedule 2, CoA 40   | All work shall be carried out inside the development and not in adjacent forecourts, yards, access ways, car parking areas, or on Council's footpath.  | At all times      | Site observations by IEA Auditor on 10 October 2022<br>BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)  | Compliant         |

|                             |  |  |   |                          |
|-----------------------------|--|--|---|--------------------------|
| Schedule 2, CoA 41          | The Applicant must screen or direct all on-site lighting away from residences and roadways to the satisfaction of Council.   | At all times                                     | BIP Complaints Register (Excel File – BIP 2016-2022 Complaints)<br>IXOM Annual Returns (AR) submitted to EPA for EPL 20547:<br>· AR (19 Feb 2021 – 19 Feb 2022) | Compliant                |
| Schedule 2, CoA 42          | Prior to construction, a colour scheme for the Chlor-alkali plant must be prepared by the Applicant consistent with the aims and objectives of the Botany Bay City Council's "Environmental Improvement Program - Banksmeadow Industrial Area" submitted to and approved by the Secretary.   | Pre-construction                                 |   | Not Triggered            |
| Schedule 2, CoA 43          | Any temporary structure on the southern or western side of the site must be removed within 3 months of being completed. Further, the temporary parking area for the contractors must cease being used within one month of the plant commissioning being completed.   | 3 Months After Construction Completion           |   | Not Triggered            |
| <b>LANDSCAPING</b>          |  |  |   |                          |
| <b>Condition of Consent</b> | <b>Compliance Requirement</b>  | <b>Development Phase</b>                         | <b>Evidence and Comments</b>  | <b>Compliance Status</b> |
| Schedule 2, CoA 44          | Prior to seeking a construction certificate, the Applicant must prepare a detailed landscape plan for the development to be implemented within 6 months of the commissioning of the proposed development to the satisfaction of Botany Bay City Council.   | Prior to seeking construction certificate        |   | Not Triggered            |
| <b>UTILITY SERVICES</b>     |  |  |   |                          |
| <b>Condition of Consent</b> | <b>Compliance Requirement</b>  | <b>Development Phase</b>                         | <b>Evidence and Comments</b>  | <b>Compliance Status</b> |
| Schedule 2, CoA 45          | Any necessary alterations to public installations must be made at the Applicant's own expense and must meet the requirements of both the Council and the relevant authority/s.   | Any Modification Affecting Conditions of Consent |   | Not Triggered            |
| <b>HERITAGE</b>             |  |  |   |                          |
| <b>Condition of Consent</b> | <b>Compliance Requirement</b>  | <b>Development Phase</b>                         | <b>Evidence and Comments</b>  | <b>Compliance Status</b> |
| Schedule 2, CoA 46          | Any equipment or structure decommissioned or demolished as a result of this development consent should be fully documented. A report detailing the chemical and manufacturing processes should be maintained together with any oral history, flow diagrams of the manufacturing process, photographic records and documentation including scale drawings in accordance with the Guidelines from the Heritage Office. Three copies of this report to be forwarded to Council. | Decommissioning                                  | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)<br>Site observations by IEA Auditor on 10 October 2022                | Not Triggered            |
| Schedule 2, CoA 46A         | The Applicant must provide a supplementary report including a photographic record of any equipment or structure decommissioned or demolished as a result of MOD 4. Copies of the supplementary report must be provided to the Secretary and the City of Botany Bay Council prior to demolition.  | Decommissioning as a result of MOD 4             | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)   | Not Triggered            |

| ANNUAL REPORT        |   |                                     |   |                   |
|----------------------|---|-------------------------------------|---|-------------------|
| Condition of Consent | Compliance Requirement  | Development Phase                   | Evidence and Comments   | Compliance Status |
| Schedule 2, CoA 47   | The Applicant must submit an annual report to Secretary in respect of the implementation and effectiveness of the conditions contained in this consent and compliance with the EIS and shall bring to the notice of the Secretary those matters which the Applicant considers may require further investigation. The first report must be submitted one year from the date of this consent, and subsequent reports must be submitted on the anniversary of this date or such period as the Secretary may agree.<br>This report must include a record of commercial traffic movements into and out of the site annually from the date of commencement of operation. The report must also include details of the hours spent by loaded chlorine road tankers on site. | Post Approval - Yearly              | IXOM 2021 Annual Report for DPIE (January 2022, Rev 1.0).<br>DPIE email dated 3 April 2020 re: re: 2019 Annual Environmental Management Report- IXOM Chlor-Alkali Plant to IXOM.<br>Screenshot of IXOM's DPE Portal (Post Approval) for submission of 2020 Annual Report. | Compliant         |
| Schedule 2, CoA 48   | The applicant must prepare an annual report to be distributed to the public detailing environmental performance, details of annual vehicle movements including dangerous goods, and compliance with conditions of consent. This report must include details of the types and number of community complaints received during the year.   | Post Approval - Yearly              | IXOM 2021 Annual Report for DPIE (January 2022, Rev 1.0).<br><a href="https://www.botany.gov.au/ixom">Botany (ixom.com)</a>   | Compliant         |
| YEAR 2000 CONFORMITY |   |                                     |   |                   |
| Condition of Consent | Compliance Requirement  | Development Phase                   | Evidence and Comments   | Compliance Status |
| Schedule 2, CoA 49   | One month prior to the commencement of commissioning, the Applicant must provide to the Secretary a report confirming that all automated systems, including embedded systems, used for plant operation, pollution control, fire safety and monitoring have been tested in accordance with the most recent edition of BSI/DISC PD2000-1 to confirmed continuous time and date functionality of those systems.  | 1 Month Prior to Start of Operation | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)   | Not Triggered     |
| GENERAL              |   |                                     |   |                   |
| Condition of Consent | Compliance Requirement  | Development Phase                   | Evidence and Comments   | Compliance Status |
| Schedule 2, CoA 50   | Adequate provision must be made within the development for the storage, collection and disposal of waste and recyclable materials to the satisfaction of the Council of Botany Bay. A Waste Management Plan must be submitted to Council at the commencement of construction detailing the type and quantity of waste to be generated by the development; materials to be reused or recycled; facilities/procedures for the storage, collections and disposal of waste and on-going management of waste   | Commencement of Construction        |   | Not Triggered     |
| Schedule 2, CoA 51   | Prior to the commencement of construction, the Applicant must implement an advertised 24-hour telephone service to handle complaints from members of the public during the construction period.   | Pre-construction                    |   | Not Triggered     |
| Schedule 2, CoA 52   | During the construction period the Applicant must maintain a Complaints Register which shall be used to record details of all complaints received and actions taken by the Applicant in response to such complaints. The Register must be available for inspection to all relevant approval/consent authorities.  | Construction                        |   | Not Triggered     |

|                    |   |                  |   |               |
|--------------------|---|------------------|---|---------------|
| Schedule 2, CoA 53 | The Applicant must ensure the facility is built to withstand rail related vibration from the neighbouring rail yards.   | At all times     | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019)   | Not Triggered |
| Schedule 2, CoA 54 | The Applicant must also ensure that no adverse impacts from construction and operation of the development on the nearby rail corridor and railway land.   | At all times     | BIP Complaints Register (Excel File – BIP 2016-2022 Complaints) Environmental Incidents Register (excel spreadsheet)  | Compliant     |
| Schedule 2, CoA 55 | Any dispute arising between any of the parties in respect to these conditions must be referred to the Secretary for resolution.   | At all times     |   | Not Triggered |
| Schedule 2, CoA 56 | Before commencing construction, the Applicant must install and maintain vibration monitoring equipment in areas of vibration sensitive equipment on any neighbouring plants. This equipment must be maintained and monitored over the life of the construction and commissioning of the proposed development. | Pre-construction |   | Not Triggered |
| Schedule 2, CoA 57 | This approval and consent does not relieve the Applicant of the obligation to obtain any other approval under the Local Government Act, 1993 as amended, the Ordinance made thereunder or any other Act.  | At all times     | IXOM Chlor-Alkali Facility Independent Environmental Audit 2019 (AECOM, 19 December 2019). Bayside Council Occupation Certificate dated 31 March 2020 (Certificate Number: CC- 2019/72) for Chemical Repack Facility. | Compliant     |

## 9.4 Appendix D – Declaration

### Compliance Report Declaration form

| Table 12: Declaration  |   |
|--|---|
| Name of operation/ project   | Ixom Botany ChlorAlkali Plant   |
| Development consent / project approval #   | DA35/98 (ref R98/00010)   |
| Description of consent/ project  | Replacement of Chlor-Alkali plant at Botany                             |
| Development consent / project address  | 16-20 Beauchamp Road, Matraville NSW 2036                               |
| Name of Operator   | Ixom Operations Pty Ltd   |
| Compliance Report  | Annual Report 2022  |
| Annual Review End Date   | 30 November 2022  |
| <p>I declare that I have reviewed relevant evidence and prepared the contents of the attached Compliance Report and to the best of my knowledge:</p> <ul style="list-style-type: none"> <li>• the Compliance Report has been prepared in accordance with all relevant conditions of consent;</li> <li>• the Compliance Report has been prepared in accordance with the Compliance Reporting Post Approval Requirements;</li> <li>• the findings of the Compliance Report are reported truthfully, accurately and completely;</li> <li>• due diligence and professional judgement have been exercised in preparing the Compliance Report; and</li> <li>• the Compliance Report is an accurate summary of the compliance status of the development.</li> </ul> <p><i>Note.</i></p> <p>a) Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and</p> <p>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years' imprisonment or 200 penalty units, or both).</p> |   |
| Name of Authorising reporting officer  | Ian Parker  |
| Title of Authorised Reporting Officer  | Regional Manufacturing Manager NEA and WA                               |
| Signature of Authorised Reporting Officer  | <i>Ian Parker</i>   |
| Company and Address  | Ixom Operations Pty Ltd<br>1 Nicholson Street, East Melbourne, VIC 3002 |