FINAL

COMPLIANCE AUDIT REPORT

ORICA AUSTRALIA PTY LTD
16-20 BEAUCHAMP ROAD
MATRAVILLE NSW 2036

DECEMBER 2011

This report has been prepared to present the findings of the audit carried out and no responsibility is accepted for its use in any other context, or for any other purpose.

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EXECUTIVE SUMMARY

An Environment Protection Authority (EPA), Compliance Audit was undertaken at the Orica Australia Pty Ltd premises located at Matraville. The site was audited as part of a state-wide program of audits focusing on the management of major environmental risks associated with the activities undertaken at the site. The audit also focussed on emergency management procedures to be used by the licensee in the event of an incident occurring that is or is likely to impact on the environment or on the local community. The main objectives of the audit were to assess compliance with the requirements of Environment Protection Licence 2148 relating to the management of major environmental risks and emergency management planning, and to recommend an action program to be implemented by the licensee to address any non-compliance identified during the audit.

Assessment of compliance was undertaken using information collected during a detailed audit inspection, information supplied by the enterprise, and a review of records and documentation relating to the premises. The procedures and protocols for conducting compliance audits are detailed in the EPA *Compliance Audit Handbook*. The audit inspection was carried out by officers of the EPA on 27 and 28 September 2011.

The findings of the audit indicate that the enterprise was not complying with some conditions attached to Environment Protection Licence 2148 issued under the Protection of the Environment Operations Act 1997.

The non-compliances related to:

- Recording of pollution complaints; and
- Advertising the telephone complaints line to the public.

The following issues of concern were identified through further observation:

- Risk assessment for iron salts facility
- Management of spill kits for chlor-alkali plant
- Storage of caustic for chlor-alkali plant
- Handover of operations of mercury remediation plant
- Pumping of contaminated groundwater from southlands

A risk assessment of non-compliances is used to colour code non-compliances according to their environmental significance and an action program has been developed. The action program includes a timeframe for non-compliances to be addressed to ensure the licensee deals with issues raised through the audit process in a timely manner (Table 4.1).

While the risk assessment of non-compliances is used to prioritise actions to be taken, the EPA considers all non-compliances to be important and licensees must ensure that all non-compliances are addressed by the due date specified in the Action Program.

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1.0 INTRODUCTION

An Environment Protection Authority (EPA) Compliance Audit has been undertaken at the Orica Australia Pty Ltd premises at Matraville. The site was audited as part of a state-wide program of audits focusing on the management of major environmental risks associated with the activities undertaken at the site. The audit also focussed on emergency management procedures employed by licensee in the event of an incident occurring at the site that is or is likely to impact on the environment or on the local community. The audit inspection was undertaken on 27 and 28 September 2011.

The procedures and processes for conducting EPA Compliance Audits are detailed in the *Compliance Audit Handbook*, which can be accessed on the EPA website at http://www.environment.nsw.gov.au/resources/licensing/cahandbook0613.pdf.

1.1 Audit Objective

The objectives of the audit were

- to determine whether the enterprise is complying with environment protection licence requirements in relation to the audit scope and criteria; and
- to outline a time frame for follow-up action to address any non-compliances identified during the audit.

1.2 Scope of the Audit

The scope of the audit is limited to the examination of the activities undertaken at Orica Australia Pty Ltd, in relation to the management of major environmental risks.

The temporal scope adopted for assessment of compliance is:

- The day of the audit inspection for assessing compliance with Operating Conditions, relating to the management of major environmental risks and emergency management planning; and
- 12 months prior to the end of the audit inspection for assessing compliance with any Monitoring, Reporting and Special Conditions and Pollution Studies and Reduction Programs relating to the audit scope.

1.3 Audit criteria, evidence and findings

Audit criteria (the requirements against which the auditor compares collected audit evidence) are the Conditions attached to Environment Protection Licence Number 2148 issued under the POEO Act to Orica Australia Pty Ltd, in relation to the management of major environmental risks.

Audit criteria may include any document referred to by the licence, or relevant to a particular condition of the licence.

Audit evidence was collected during discussions with site personnel, examination of documentation provided by the licensee and/or contained on EPA files, together with observations made during the audit inspection.

Findings of non-compliance with licence conditions are summarised in table 2.1. An Action Program provides a time frame for follow-up action necessary to comply with the licence condition concerned.

1.4 Premises and Process Description

Orica Australia Pty Ltd operates a chlorine manufacturing facility. The facility is located within the 104 hectare Botany Industrial park located at 16-20 Beauchamp Road, Matraville in City Botany Bay Council area. The site has been in operation since 1942. The site operates 7 days per week 24 hours per day. The nearest water course is Springvale drain which flows into Botany Bay.

The activities on site are split into operations and legacy issues. Operations consist of the chlor-alkali plant which uses a membrane technology to break down sodium chloride to produce chlorine which is used as an intermediate to manufacture other products. Legacy issues consist of the groundwater treatment plant, Mercury remediation of former chlor-alkali plant and Storage of Hexachlorobenzene.

1.5 Statutory Instruments Issued to the Enterprise

The EPA has issued the following statutory instruments to the enterprise:

Licence number 2148 issued under the Protection of the Environment Operations Act 1997.

The scheduled activity undertaken at the premises is *Chemical Storage* with a fee scale category of *General chemicals storage >5000-100000kL of active storage*, *Chemical production* with a fee scale category of *Dangerous goods production >25000 - T produced*, *Contaminated groundwater treatment* with a fee scale activity of *contaminated groundwater treatment 0 - All (T)*, *Waste processing (non-thermal treatment)* with a fee scale category of *Non-thermal treatment of hazardous and other waste 0 - All*, *Waste disposal (thermal treatment) with* a fee scale category of *Thermal treatment of hazardous & other waste – Sydney basin 0 –All* and *Waste storage* with a fee scale category of *Hazardous, restricted solid, liquid, clinical & related waste & Asbestos waste 0 – All*.

The anniversary date for the licence is 21 July.

A copy of Licence 2148 can be accessed through the EPA online public register at: http://www.environment.nsw.gov.au/prpoeoapp

1.6 Risk Assessment of Non-compliances

The significance of any non-compliances identified during the audit process are categorised. Following risk assessment of non-compliances, an escalating response relative to the seriousness of the non-compliance is determined to ensure the non-compliance is addressed by the enterprise.

The risk assessment of non-compliances involves assessment of the non-compliance against two criteria; the likelihood of environmental harm occurring and the level of environmental impact as a result of the non-compliance. After these assessments have been made, information is transferred into the risk analysis matrix below.

		Likelihood of Environmental Harm Occurring		
Level of Environmental Impact		Certain	Likely	Less Likely
	High	Code Red	Code Red	Code Orange
	Moderate	Code Red	Code Orange	Code Yellow
	Low	Code Orange	Code Yellow	Code Yellow

The assessment of the likelihood of environmental harm occurring and the level of environmental impact allows for the risk assessment of the non-compliance via a colour coding system. A red risk assessment for non-compliance denotes that the non-compliance is of considerable environmental significance and therefore must be dealt with as a matter of priority. An orange risk assessment for non-compliance is still a significant risk of harm to the environment however can be given a lower priority than a red risk assessment. A yellow risk assessment for non-compliance indicates that the non-compliance could receive a lower priority but must be addressed.

There are also a number of licence conditions that do not have a direct environmental significance, but are still important to the integrity of the regulatory system. These conditions relate to administrative, monitoring and reporting requirements. Non-compliance of these conditions is given a blue colour code.

The colour code is used as the basis for deciding on the priority of remedial action required by the licensee and the timeframe within which the non-compliance needs to be addressed. This information is presented in the action program alongside the target/action date for the non-compliance to be addressed.

While the risk assessment of non-compliances is used to prioritise actions to be taken, the EPA considers all non-compliances are important and licensees must ensure that all non-compliances are addressed as soon as possible.

2.0 ASSESSMENT OF COMPLIANCE

2.1 Compliance with Audit Criteria

Compliance was assessed against the licensing requirements of the POEO Act, and the requirements of Environment Protection Licence Number 2148 relating to the audit scope and criteria.

Assessment of compliance was undertaken by a detailed site inspection and review of all records and documentation relating to the audit scope and criteria as required by the licence issued to the licensee.

The findings of the audit indicate that some of the conditions of the environment protection licence, relating to the audit scope were not being complied with.

Details of assessment are presented in Table 2.1.

Table 2.1 Assessment of Compliance with Environment Protection Licence No. 2148

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
O	**Operating Conditions** *The audit assessment is based upon evidence relating to the period limited to on the day of the audit inspection.*		
O1.1 Licensed activities must be carried out in a competent manner	**Managing major environmental risks associated with water pollution – Chlor-Alkali Plant**		
	Yes	**Identification of Major Environmental Risks** The licensee has identified major environmental risks associated with the pollution of waters. This includes: • Loss of containment from sulphuric acid tanks, caustic storage tanks, Hypo effluent and Iron salts storage facilities • Spill and leaks from transfer of chemicals The auditors did not identify any other major environmental risks during the site inspection that had not already been identified by the licensee.	
		Use of controls to minimise the Major Environmental Risks Identified The licensee has controls in place to manage the major environmental risks identified such as: • High level alarms to help prevent overfilling of storage tanks • Provision of secondary containment at storage tanks to contain leaks and spills. • High High pH alarm and Low pH alarm on the effluent pit, in the event of a spill, it would flow into the effluent system • Diversion basin to capture spills	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
		Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks The licensee monitors the effectiveness of the controls used to manage the major environmental risks identified at the site. Monitoring undertaken by the licensee includes the use of: • Daily stock takes of the contents of storage tanks to help detect loss of stored materials. • Scheduled internal inspection program for storage tanks to help ensure tank integrity • Routine inspection of equipment including calibration of alarms.	
	Managing major environmental risks associated with air pollution – Chlor-Alkali Plant		
	Yes	**Identification of Major Environmental Risks** The licensee has identified the major environmental risks associated with the pollution of air at the premises. This include Hydrochloric acid fume. The auditors did not identify any other major environmental risks during the site inspection that had not already been identified by the licensee.	
		Use of controls to minimise the Major Environmental Risks Identified The licensee uses controls to manage the major environmental risks such as • Vapour from storage tanks are vented through a scrubber • Gas detectors around the premises to help detect leaks from storage tanks • High level alarm for tanks and high high alarm to stop production • Pumps have a run dry system which will activate alarms on the scrubber	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
		Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks The licensee monitors the effectiveness of the controls used to manage the major environmental risks at the site. Monitoring undertaken by the licensee includes the use of • Regular maintenance and calibration of gas detectors	
	Managing major environmental risks associated with water pollution - Groundwater Treatment Plant		
	Yes	**Identification of Major Environmental Risks** The licensee has identified major environmental risks associated with the pollution of waters. This includes the loss of containment of contaminated groundwater that is pumped to the surface. The auditors did not identify any other major environmental risks during the site inspection that had not already been identified by the licensee.	
		Use of controls to minimise the Major Environmental Risks Identified The licensee uses controls to manage the major environmental risks such as • Spills can backfill into pits that house the wells and the pits drain to a common pit • Level switch alarm within the common pit to alert operators of filling of the common pit upon activation of alarm operators stop ground water extraction pumps	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
		Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks The licensee monitors the effectiveness of the controls used to manage the major environmental risks at the site. Monitoring undertaken by the licensee includes the use of • Replacing structures and piping with stainless steel as there is corrosion in wells to prevent future breakdowns • Visual checks of well sites • Monitoring pH at discharge point	
	Managing major environmental risks associated with air pollution - Groundwater Treatment Plant		
	Yes	**Identification of Major Environmental Risks** The licensee has identified major environmental risks associated with the pollution of air. This includes air emissions from the thermal oxidiser. The auditors did not identify any other major environmental risks during the site inspection that had not already been identified by the licensee.	
		Use of controls to minimise the Major Environmental Risks Identified The licensee uses controls to manage the major environmental risks such as • An alarm is activated if the thermal oxidiser is operating outside operating parameters and the plant shuts down • Operating the thermal oxidiser below design capacity to ensure a high efficiency of decomposition of gases prior to being discharged into the atmosphere • There are baffles within the thermal oxidiser to create turbulence • Flame detectors are located in thermal oxidiser • Visual inspection of the flame within the thermal oxidiser	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
		Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks The licensee monitors the effectiveness of the controls used to manage the major environmental risks at the site. Monitoring undertaken by the licensee includes the use of • Infrared spectrometer on stack gases which is calibrated regularly • Dioxins are monitored yearly • Vinyl chloride, ethylene dichloride and carbon monoxide are continuously monitored • Continuous temperature monitoring • Drills and simulations to help ensure that site staff responds as required to emergency situations	
	Managing major environmental risks associated with water pollution - Storage of Hexachlorobenzene (HCB)		
	Yes	**Identification of Major Environmental Risks** The licensee has identified major environmental risks associated with the pollution of waters from the storage of HCB. This includes loss of containment of HCB from drums and intermediate bulk containers. The auditors did not identify any other major environmental risks relating to the storage of HCB during the site inspection that had not already been identified by the licensee.	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
		Use of controls to minimise the Major Environmental Risks Identified The licensee uses controls to manage the major environmental risks such as • Enclosed colour bond shed with concrete bund to contain leaks and spills. • Elimination of ignition sources to help prevent fires. • HCB has been repackaged into containers that are approved for shipping and remains a static operation.	
		Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks The licensee monitors the effectiveness of the controls used to manage the major environmental risks at the site. Monitoring undertaken by the licensee includes the use of • Regular inspection of the HCB stores to inspect the containers and condition of the sheds and containment bund.	
	Managing major environmental risks associated with air pollution - Mercury Remediation		
	Yes	**Identification of Major Environmental Risks** The licensee has identified major environmental risks associated with the pollution of air. This includes emissions of mercury from the remediation of mercury contaminated soil. The auditors did not identify any other major environmental risks from the mercury remediation activities during the site inspection that had not already been identified by the licensee.	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
		Use of controls to minimise the Major Environmental Risks Identified The licensee uses controls to manage the major environmental risks such as • Ventilating sheds cover the area that is contaminated with mercury • Carbon bed filtration system on the air outlet of shed to remove mercury from air emissions • Loading bay lock on shed for entry and exit of vehicles to the contaminated area to prevent mercury being released into the atmosphere	
		Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks The licensee monitors the effectiveness of the controls used to manage the major environmental risks at the site. Monitoring undertaken by the licensee includes the use of • Monitor for mercury twice a day within the sheds atmosphere • Daily inspections of the emission control system • Continuous ambient mercury monitoring to measure ambient mercury concentrations • Hand held meter is used to undertake spot checks for the concentration of mercury round the site • Bimonthly stack testing on the outlet of the carbon bed filtration system to ensure air emissions are • Mercury vapour meters are calibrated annually	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
	Managing Major Environmental Pollution Incidents		
	Yes	**Procedures, processes and equipment for managing major environmental pollution incidents** The licensee has procedures, processes and equipment in place to manage major environmental incidents for each of the four operations which include the chlor-alkali plant, mercury remediation, groundwater treatment plant and HCB storage area. The procedures include: • Emergency response procedures for major risks identified that include plant shutdown • Evacuation of personnel • Notification to relevant agencies such as NSW Fire Services, Health, Workcover NSW, EPA • Notification to the impacted community • Staff training in emergency response procedures • Assigning roles and responsibilities to key personnel • Availability of emergency response equipment	
O3.1	Yes	**Emergency Response Plan** The licensee maintains an emergency response plans that documents the procedures for the management all types of incidents that may occur at the premises or outside of the premises that are likely to cause harm to the environment.	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
M	**MONITORING CONDITIONS** *The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.*		
M4.1	Yes	**Recording of pollution complaints** The licensee does keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which the licence applies.	
M4.2 (a), (c), (d), (e) and (f)	Yes	The licensee has recorded the details of the complaint as required by M4.2 section (a), (c), (d), (e) and (f)	
M4.2 (b)	No **Code Blue**	The licensee has not recorded the method by which the complaints are made. A complaint was made on the 27 October 2010 and there was no record of the method by which the complaint was made.	The licensee must ensure that all complaints records kept include the method by which the complaints are made.
M4.3	It is beyond the scope of the audit to determine whether the licensee retains the records for at least 4 years. It is noted that the licensee keeps all records required to be kept by the licence in a legible form and were produced in a legible form to the auditor.		
M4.4	Yes	The licensee is required to produce to a record of complaints to any authorised officer of the EPA who asks to see them. The licensee did produce a spreadsheet containing a list of the complaints within the 12 month scope of this audit.	
M5.1	Yes	**Operating a telephone line for receiving complaints** The licensee does operate a community hotline which is used to receive complaints from members of the public.	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 2148			
Condition No.	**Compliance/ Risk assessment for non-compliance ***	**Comment**	**Action required by licensee**
M5.2	No **Code Blue**	**Advertising the telephone complaints line number to the public** The licensee does operate during its operating hours a telephone line and the number of this telephone line is advertised to the community. However, it was noted during the audit inspection from advertising material (a community brochure and quarterly community newsletter) provided by the licensee, that the telephone line is not advertised as a complaints line for the purpose of making a complaint. The number is advertised as a community hotline in the brochure and as a Community feedback line in the quarterly newsletter for use by the community to contact the licensee if they have any queries or comments, or if they would like further information. The EPA is concerned that the telephone line is not advertised as a complaints line for the purpose of receiving any complaints from members of the public.	The licensee must inform members of the community that the advertised telephone line is a complaints line that can be used by members of the for the purpose of making complaints in relation to pollution from the premises.
M5.3	This is a deeming clause that determines the applicability of Conditions M5.1-M5.2 and no assessment of compliance is required. It is noted that M5.1 and M5.2 do apply as the licence was been issued for more than 3 months.		
R	**REPORTING CONDITIONS** *The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.*		
R2.1	Yes	**Notification of environmental harm** The licensee does make notification of incidents causing or threatening material harm to the environment to Environment Line.	
R2.2	Not Applicable	This condition is not applicable as the only incident which was reported in the 12 months audit period occurred on the day of the audit. The licensee is required to provide written details of the notification within 7 days after the incident had occurred with the due date for this report being outside the scope of the audit.	

* See explanation of risk assessment of non-compliances codes on p3.

3.0 FURTHER OBSERVATIONS

Further observations are recorded where the audit identified issues of environmental concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where environmental performance may be improved.

Further Observation No 1 - Risk assessment for iron salts facility

It is noted that there was a risk assessment that has been undertaken for the storage tanks associated with the Iron Salts Facility. The risk assessment was conducted when there were two tanks in use, however there are now four tanks that are in use and the risk associated with the storage tanks should be updated to reflect the increase in storage capacity. It is noted that the licensee undertakes risk assessment every four years, and that the licensee manages these tanks to ensure that they are not operating at full capacity.

EPA is concerned that if risks are not reassessed following major plant changes any increase in risks may not be identified. EPA is further concerned that in such cases the existing controls may be less effective in properly managing the increased risk.

The licensee should update risk assessments when there are major upgrades or changes to the plant.

Further Observation No 2 – Management of spill kits for chlor-alkali plant

During the audit inspection it was observed that there are a number of spill kits located in key locations around the chlor-alkali plant. The spill kits are within yellow bins and are padlocked. All the spill kits can be opened with a common key and the operators have a key to access the spill kits. The auditor could not observe the contents of the spill kit to see if there were adequate materials available in the event that kit was needed in the event of a spill. The licensee also advised that there are no maintenance checks on the spill kits, and that they replace the contents if they are used.

EPA is concerned that if regular checks of the contents of the spill kits are not undertaken on a regular basis, any failure to replace clean-up equipment will not be identified until such time as the clean-up equipment is needed.

The licensee should have regular checks in place to ensure that the spill kits are replenished and contain adequate equipment and spill material.

Further Observation No 3 – Storage of caustic for chlor-alkali plant

During the audit inspection, it was observed that two 1700 tonne caustic storage tanks had no secondary containment.

It is noted that the licensee has controls in place to manage the risk of loss of containment from the caustic storage tanks which were assessed as part of this audit. However, EPA is

concerned that storage of chemicals without secondary containment is increasing the risk of pollution of waters. It is noted that the licensee has an effluent diversion basin that can be used to capture a chemical spill in the event of a tank failure but there could be the potential for caustic to enter the stormwater system if a tank failure was to occur.

The licensee should ensure that there are appropriate spill containment measures at the source to minimise the risk of pollution of waters and to facilitate recovery of caustic in the event of such an emergency.

Further Observation No 4 – Handover of operation of mercury remediation plant

It is noted that the licensee has terminated the contract with the contractor that was engaged to operate the mercury remediation plant, and the contractor is in the process of handing back the operation of the plant to the licensee.

The documentation provided as part of the audit that relates to the management of risks associated with the mercury remediation plant was developed by the contractor for use by the contractor's staff. The documentation provided adequately covers risk management and emergency procedures associated with the mercury remediation plant.

EPA is concerned that as the contractor is no longer engaged to operate the mercury remediation plant, Orica staff operating that plant may not be aware of the risks and hazards involved with operating that plant, the controls in place to manage those risks, or the planned response should an environmental incident occur at the mercury remediation plant.

The licensee should ensure that staff involved with the mercury remediation plant are aware of the current procedures that are in place to manage the risks associated with the operation of the mercury remediation plant.

Further Observation No 5 – Pumping of contaminated groundwater from southlands

It is noted that the groundwater wells located in an area called Southlands are inspected weekly by staff members. There are concrete barriers and fencing around the groundwater wells and pipelines for protection however the licensee advised that if the pipeline and/or wells were damaged, there is the potential for an uncontrolled leak of contaminated groundwater which may go unnoticed until the next inspection.

EPA is concerned that, in the event of a spill, groundwater will continue to be pumped thereby increasing the likelihood of a pollution incident. The licensee should ensure that the risk of a pollution incident occurring at the groundwater wells is minimised by reducing the potential for damage to the pipeline and/or wells and undertake improvements to the controls to ensure that the pumps do not continue to pump in the event there is an incident causing damage to the pipes and/or wells.

4.0 ACTION PROGRAM

The following action program must be undertaken in relation to Orica Australia Pty Ltd.

Table 4.1 Action Program – Environment Protection Licence No. 2148

Condition No.	Action Details	Non-Compliance Code (where applicable)	Target/Action Date
M4.2 (b)	**Recording of pollution complaints** The licensee must ensure that a record is kept of the method by which complaints are made.	**Blue**	When receiving complaints
M5.2	**Advertising the telephone complaints line number to the public** The licensee must inform members of the community that the advertised telephone line is a complaints line that can be used by members of the for the purpose of making complaints in relation to pollution from the premises.	**Blue**	31 January 2012

EPA considers that the licensee should take the necessary actions to ensure that environmental performance is improved in relation to any matters identified as a Further Observation in Section 3.0 of this Report.

APPENDIX A

LICENSEES RESPONSE TO DRAFT REPORT

ORICA

Botany Operations

Orica Australia Pty Ltd
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16-20 Beauchamp Road
Matraville N.S.W. 2036 Australia
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2 December 2011

Raelene West
Compliance and Assurance Section
Office of Environment and Heritage
PO Box A290
Sydney South NSW 1232

Dear Raelene,

Re: EP Licence 2148 – Draft Compliance Audit Report

Thank you for the opportunity to comment on the Draft Compliance Audit Report from an audit on High Risk Facilities at Orica's facility at Botany.

Following are comments as relevant to each section of the draft report.

Page 1 1.2	"Origin Energy Limited" should be "Orica Australia Pty Ltd"
Page 2 1.4	Paragraph 2 The process uses membrane technology to break down sodium chloride to produce chlorine as an intermediate product which is reacted further to produce other products. Chlorine is not a final product in itself.
Page 7	Use of controls to minimise the Major Environmental Risks Identified
	First dot point Spills can backfill into pits that house the wells and the pits drain back to a common pit.
	Second dot point The level switch in the common pit is to alert operators of filling of the common pit. Upon receiving the alarm, operators stop the ground water extraction pumps. A maintenance crew then attends the site to transfer the contents from the common pit and into IBCs, which are disposed of appropriately through the GTP.
	Fourth dot point The protective barrier located outside of Botany Industrial Park is used as protection for workers performing maintenance or sampling on Foreshore Road.
Page 9	Dioxins are monitored yearly; not 6 monthly
Page 15 3.0	Further Observation No: 1, No: 3, No: 4 ChlorAlkali will undertake to complete all three opportunities for improvement.
	Further Observation No: 2 It should be noted that HCB is essentially a solid and does not flow readily.
	The cracked concrete strip is not part of the bund. It is a low wall to minimise water ingress over the top of the bund. The crack will be repaired

Page 16	Further Observation No: 5 The handover from contractors Theiss Services in now complete and Orica has assumed full operation of the mercury remediation plant.
Page 17	Further Observation No: 6 The risk of a loss of containment due to groundwater pumping at Southlands has been assessed and controls implemented to minimise the potential to damage plant and equipment. The controls include construction of the Southlands piping using a material highly resistant to corrosion. Seamless pipe has been used and the joins welded to reduce the likelihood of failure. The pipeline itself has been protected from damage by installing crash barriers in areas where there is increased risk of damage due to vehicle movement. Preventative maintenance checks as well as weekly visual inspections provide the opportunity to validate equipment and the function of mitigating controls for extraction pumps.
Page 18 4.0	M4.2 (b) Pollution complaints record will include the method by which the complaint is made.
	M5.2 Orica has made changes to their website regarding the Community Hotline to now read "Community Hotline 1800 025 138, for all Complaints, enquiries and feedback". Other documents will be updated as they are next published.

If you have any queries, please contact the undersigned.

Yours truly,

Ben Lim
Site Environment Engineer

APPENDIX B

LETTER COVERING LICENSEES RESPONSE TO DRAFT COMPLIANCE AUDIT REPORT

NSW EPA

ENVIRONMENT PROTECTION AUTHORITY

Your reference:
Our reference: FIL11/9648-02
Contact: Raelene West , 02 9995 5426

Mr Ben Lim
Site Environmental Engineer – Botany Industrial Park
Orica Australia Pty Ltd
16-20 Beauchamp Road
MATRAVILLE NSW 2036

Dear Mr Lim

Re: Final Compliance Audit Report – High Risk Facilities Audit
Orica Australia Pty Ltd (Licence Number 2148)

The Environment Protection Authority (EPA) is pleased to present you with a copy of the Final Compliance Audit Report for Orica Australia Pty Ltd premises located at Matraville. The compliance audit was undertaken as part of the EPA's program of compliance audits across the state, focussing on industries that pose a high risk of environmental harm.

The comments provided by you in your letter dated 2 December 2011 have been considered when finalising the report. EPA's response to your comments are outlined in the Attachment. Your comments have also been attached as an Appendix to the final report together with a copy of this letter. A copy of this report will be available in the EPA Library for public review.

I would like to take this opportunity to thank you and your staff for the co-operation during the audit. If you require further information or clarification on any matters regarding this audit, please do not hesitate to contact Bob Marr on 02 9995 6825.

Yours sincerely

7/12/2011

CHRISTOPHER KELLY
A/Manager Compliance and Assurance Section
Environment Protection Authority

Enclosure: Final Audit Report 'Orica Australia Pty Ltd'

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ATTACHMENT

Page 1, 1.2

This has been amended in the final report.

Page 2, 1.4

The premises description has been changed to reflect this.

Page 7

The first dot point has been amended in the final report.

The second dot point has been amended in the final report.

The fourth dot has been removed from the report as it was discussed during the audit inspection that the concrete barrier was used to protect the pipe work from traffic along Foreshore Road.

Page 9

This has been amended in the final report.

Page 15, 3.0

Further Observation No 1, No 3, No 4, No 5, No 6 – Noted

Further Observation No 2 – Based upon the information that you supplied stating the part of the wall that was cracked was not part of the bund and used to prevent the ingress of water rather than to retain a spill, this further observation has been removed from the final report.

Page 18, 4.0

M4.2 (b) – Noted

M5.2 – Noted