



**FINAL  
COMPLIANCE AUDIT REPORT  
HUNTSMAN CORPORATION AUSTRALIA  
PTY LIMITED  
16-20 BEAUCHAMP RD  
MATRAVILLE NSW 2036**

**FEBRUARY 2012**

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## EXECUTIVE SUMMARY

An Environment Protection Authority (EPA), Department of Premier and Cabinet Compliance Audit was undertaken at the Huntsman Surfactants plant 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 7494 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 15<sup>th</sup> and 16<sup>th</sup> of November 2011.

The findings of the audit indicate that the enterprise was not complying with some conditions attached to Environment Protection Licence 7494 issued under the Protection of the Environment Operations Act 1997.

The non-compliances related to:

- The controls in place to reduce the major environmental risks identified and monitoring the effectiveness of the controls
- Advertising the telephone complaints line to the public.

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.

The following issues of concern were identified through further observations;

- Monitoring the effectiveness of pollution control equipment, and
- Spill containment measures for storing liquid chemicals.

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## 1.0 INTRODUCTION

An Environment Protection Authority (EPA), Department of Premier and Cabinet Compliance Audit has been undertaken at the Huntsman Surfactants Plant 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 the 15<sup>th</sup> and 16<sup>th</sup> of November 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 the Huntsman surfactants plant, 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 7494 issued under the POEO Act to Huntsman Corporation Australia Pty Limited, 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**

Huntsman Corporation Australia Pty Limited operates the Huntsman Surfactants Plant within the Botany Industrial Park at Matraville. The plant manufactures surfactants which forms the basis of most products manufactured on site which includes cleaning products, brake fluids and radiator coolants. The facility has been in operation since 1964 however the surfactants plant was acquired by Huntsman in 1998.

The key materials used in manufacturing products at the site are Ethylene Oxide (EO) and Propylene Oxide (PO). EO is manufactured on site while PO is transported on site in bulk tankers.

Wastewater generated by Huntsman activities is discharged to underground effluent pipes that flow to a common effluent drainage system used by neighbouring industrial premises within the Botany Industrial Park. The combined effluent is treated and monitored by 'Quenos Pty Ltd' before discharge to sewer under a trade waste agreement with Sydney Water Corporation. Effluent from Huntsman predominantly contains concentrations of hydrocarbons (from wash outs or wash downs), aqueous ammonia, EO and PO. Stormwater run off from buildings, streets and other outdoor areas drains to a stormwater interceptor pit. Any overflows will flow to Springvale drain and into Botany Bay. Dry weather build up of potentially contaminated stormwater in the interceptor pit is pumped into the effluent system for treatment and discharge to sewer.

#### **1.5 Statutory Instruments Issued to the Enterprise**

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

Licence number 7494 issued under the Protection of the Environment Operations Act 1997.

The scheduled activity undertaken at the premises is *Chemical Storage* and *Chemical production* with a fee scale category of *General chemicals storage 0 -5000 kL stored* and *Soap and detergents production >5000T produced*.

The anniversary date for the licence is 23 December.

A copy of Licence 7494 can be accessed through the EPA online public register at: <http://www.environment.nsw.gov.au/prpoeoapp/searchregister.aspx>

## 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		
		Certain	Likely	Less Likely
Level of Environmental Impact	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 7494 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. 7494**

Statutory Instrument: Environment Protection Licence No. 7494			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
<b>O</b>	<b>Operating Conditions</b> <i>The audit assessment is based upon evidence relating to the period limited to on the day of the audit inspection.</i>		
O1.1 Licensed activities must be carried out in a competent manner	<b>Managing major environmental risks associated with water pollution</b>		
	<b>NO</b> <b>CODE RED</b>	<b>Identification of Major Environmental Risks</b> The licensee has identified major environmental risks associated with the pollution of water at the premises. This includes pollution of water from the release of <b>ethylene oxide, propylene oxide, ammonia, hydrocarbon, leaks from stored packages and firewater</b> . The auditors did not identify any other major environmental risks during the site inspection that had not already been identified by the licensee.	
<b>Use of controls to minimise the Major Environmental Risks Identified</b> <b><u>Storage of liquid chemicals inside and outside the NIS A packaging area and at the rear of the NIS C plant.</u></b> On the day of the audit inspection it was observed that liquid chemicals were being stored in Intermediate Bulk Containers (IBCs) and 205 litre drums in areas with no secondary spill containment measures. The chemicals were being stored at the following locations: <ol style="list-style-type: none"> <li>1. Inside and just outside the 'NIS A packaging area'. Inside the building there were approximately 32 x 205 litre drums of the chemical 'TERMUL 1284'. Just outside the building were 6 drums of 'TERMUL 1284'. The sloping floors of the building would ensure that any spills or leaks would discharge directly to the stormwater drain at the front entrance to the building and located just a few metres from the drums.</li> <li>2. Along the side of the 'NIS A packaging area' there were approximately 50 X IBCs</li> </ol>		The licensee must ensure that there are controls in place to minimise environmental impacts from leaks and spills from liquid chemicals stored and handled in and around the 'NIS A building', at the rear of the 'NIS C plant' and at the Propylene Oxide loading bay.	

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

Statutory Instrument: Environment Protection Licence No. 7494			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O1.1 Licensed activities must be carried out in a competent manner		<p>storing various chemicals with no spill containment (eg <i>Teric NIS</i>, <i>Termul 1284</i>, <i>triethanolamine</i>). Most IBCs were part full and some were full. Any spills in this area would drain straight to the stormwater drains.</p> <p>3. At the rear of the premises behind the '<i>NIS C plant</i>' there were extensive areas of part full IBCs and 205 litre drums. Most were located on concreted areas with some spill containment capacity however some containers were stored outside of this area and located on the bare ground with no spill containment.</p> <p>The EPA issued the licensee with a Penalty Notice on 23 November 2011 (Penalty notice number 30680386800) regarding this issue. The notice was issued for of a breach of section 64 of the POEO Act for the contravention of Licence condition L1.1.</p> <p>It is however noted that the liquid chemicals were stored in packages that were maintained in a sound condition, were located in areas away from traffic, spill kits were located in the vicinity and staff are trained in the competent handling of the chemicals.</p> <p>However the EPA is concerned, due to the volume and hazardous nature of the chemicals concerned, that there were insufficient controls in place at the time of the audit inspection to minimise the risk of harm to the environment from any potential spills.</p> <p>It is noted that since the audit inspection the licensee has implemented some short term temporary spill containment measures and will be installing permanent measures in the following six months.</p> <p><b><u>Propylene oxide loading bay</u></b></p> <p>Propylene Oxide (PO) is transported on site in bulk tankers and transferred to a PO storage tank with a capacity of 130 tonnes. Unloading of PO is undertaken on a concreted pad that has no secondary spill containment measures. Any spills of PO during unloading would drain to the neighbouring grassed areas and potentially pollute groundwater or waters.</p> <p>It is noted that the licensee is planning to upgrade the area to ensure that spills will be</p>	

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

<b>Statutory Instrument: Environment Protection Licence No. 7494</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
O1.1 Licensed activities must be carried out in a competent manner		<p>contained. The current licence has a condition (U4.1) requiring the PO tanker delivery area be compliant with the requirements of Australian Standard 1940 by 29 February 2012.</p> <p>It is noted however that the licensee has controls in place to manage the other major environmental risks identified such as:</p> <ul style="list-style-type: none"> <li>• Tanks and pipes constructed of materials compatible with contents</li> <li>• Temperature, level and pressure gauges in vessels and pipes.</li> <li>• Cathodic protection of vessels and pipes to prevent corrosion.</li> <li>• Pressure relief valves to prevent rupture of tanks.</li> <li>• Overfill prevention devices and alarms telemetrically connected to control rooms</li> <li>• EO transported in above ground pipes for ease of access</li> <li>• Use of bellows and flanges minimised to reduce the risk of escapes</li> <li>• Containers stored in concrete areas with spill containment capacity</li> <li>• Isolation valves from bunded areas to prevent spills and contaminated stormwater entering the stormwater system.</li> <li>• Spill kits on site</li> <li>• Storage and process areas located away from trafficable areas</li> <li>• Capacity to store firewater. Firewater procedures inform staff to minimise (where possible) the use of excessive firewater due to limited containment capacity.</li> <li>• Training of staff in the use and managements of controls</li> </ul>	
		<p><b>Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks</b></p> <p>While the licensee has controls in place to minimise the major environmental risks the</p>	

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

Statutory Instrument: Environment Protection Licence No. 7494			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O1.1 Licensed activities must be carried out in a competent manner		<p>licensee does not monitor the effectiveness of the controls associated with the underground effluent pipe work.</p> <p><b><u>Underground Effluent Pipework</u></b></p> <p>Effluent is transported in underground pipes to an effluent treatment system that is managed off site by <i>Quenos Pty Ltd</i>. The licensee does not have an inspection or monitoring program to detect any leaks from the underground effluent pipe work.</p> <p>It is noted however that the licensee does conduct a rigorous inspection and maintenance program on pipes and vessels that they have identified as 'critical' (such as pressure vessels and pipes and vessels containing EO and PO). The effluent pipes however have not been classified as '<i>critical</i>' for the purposes of a regular inspection regime. It is, however, also noted that the effluent pipes have been identified as a '<i>significant environment aspect</i>' in their aspects register.</p> <p>The EPA is concerned that any leaks from the underground pipework may go undetected causing pollution of waters.</p> <p>(See also Further Observation on <i>Monitoring the Effectiveness of Pollution Control Equipment</i> such as bunds, stormwater drains and interceptor pit).</p> <p>The licensee monitors the effectiveness of the other controls used to manage the major environmental risks identified at the site. Monitoring undertaken by the licensee includes the use of:</p> <ul style="list-style-type: none"> <li>• Rigorous maintenance and inspection program for pressure vessels, tanks and critical pipes.</li> <li>• Fill detectors and process alarms telemetrically connected to control rooms</li> <li>• Effluent monitored with on line effluent analysers</li> <li>• Gas detectors, pit gas detectors and hand held gas detectors</li> </ul>	<p>The licensee <u>must</u> ensure that the underground effluent pipes are maintained and monitored for leaks on a regular basis.</p>

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

Statutory Instrument: Environment Protection Licence No. 7494			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O1.1 Licensed activities must be carried out in a competent manner		<ul style="list-style-type: none"> <li>• Calibration of monitoring and control equipment</li> <li>• Written procedures and drills to help ensure that site staff respond as required to emergency situations.</li> <li>• Major plant trip tests once per year</li> </ul>	
	<b>Managing major environmental risks associated with air pollution</b>		
	Yes	<p><b>Identification of Major Environmental Risks</b></p> <p>The licensee has identified the major environmental risks associated with the pollution of air at the premises. This includes pollution of air and explosive risk due to leaks of the toxic gases <b>ethylene oxide</b> and <b>propylene oxide</b>.</p> <p><b>Use of controls to minimise the Major Environmental Risks Identified</b></p> <p>The licensee uses controls to manage the major environmental risks such as;</p> <ul style="list-style-type: none"> <li>• Tanks and pipes constructed of materials compatible with contents</li> <li>• Temperature, level and pressure gauges in vessels and pipes.</li> <li>• Pressure relief valves to prevent rupture of tanks</li> <li>• Effluent pit gas detectors</li> <li>• 35 Permanent gas detectors located near storage areas, pumps and tanker filling areas.</li> <li>• Hand held gas detectors are used by staff to verify gas levels when necessary.</li> <li>• Prohibition of potential ignition sources close to high risk areas</li> <li>• Earthing system on tanks and tankers while loading to prevent sparks</li> <li>• Thermal protection of critical pipes</li> <li>• Pipes and tanks protected against impact by being located in areas with bollards</li> </ul>	

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

<b>Statutory Instrument: Environment Protection Licence No. 7494</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
O1.1 Licensed activities must be carried out in a competent manner		and railings <ul style="list-style-type: none"> <li>• Automatic fire sprinkler and deluge system</li> <li>• Fill detectors and alarms telemetrically connected to the control room</li> <li>• Cathodic protection is provided to tanks and pipelines to help prevent deterioration due to corrosion</li> <li>• Water scrubber system for vent stream</li> <li>• Automatic emergency stop procedures</li> <li>• Training of staff in the use and managements of controls and their role in emergency response</li> </ul>	
		<b>Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks</b> 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 <ul style="list-style-type: none"> <li>• Rigorous inspection and maintenance program of critical pipes, pressure tanks and vessels</li> <li>• Calibration of all controls and alarm systems</li> <li>• Monitoring pressure, temperature and integrity of gas storage tanks</li> <li>• Routine inspections of control and monitoring equipment</li> <li>• Drills and emergency simulations to help ensure that site staff respond as required to emergency situations.</li> </ul>	
		<b>Managing Major Environmental Pollution Incidents</b>	
	Yes	<b>Procedures, processes and equipment for managing major environmental pollution incidents</b>	

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

<b>Statutory Instrument: Environment Protection Licence No. 7494</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
O1.1 Licensed activities must be carried out in a competent manner		<p>The licensee has procedures, processes and equipment in place to manage major environmental incidents. The procedures include;</p> <ul style="list-style-type: none"> <li>• Emergency response procedures for major risks identified</li> <li>• Evacuation of personnel</li> <li>• Notification to relevant agencies such as NSW Fire Services, Health, Workcover NSW, EPA and Local Council</li> <li>• Notification to the impacted community</li> <li>• Staff training in emergency response procedures</li> <li>• Assigning roles and responsibilities to key personnel</li> <li>• Availability of emergency response equipment</li> </ul>	
O3.1	Yes	<p><b>Emergency Response Plan</b></p> <p><i>Maintenance and implementation of a current emergency response plan. Documentation of systems and procedures to deal with all types of incidents and availability of the plan onsite.</i></p>	
<b>M</b>	<p><b>MONITORING CONDITIONS</b></p> <p><i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.</i></p>		
M2.1	Yes	<p><b>Recording of pollution complaints</b></p> <p>Legible records of all complaints made to the licensee have been kept.</p>	
M2.2	Yes	<p><b>Recording details of pollution complaints</b></p> <p>The licensee has recorded all the required details in relation to the pollution complaints made.</p>	

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

<b>Statutory Instrument: Environment Protection Licence No. 7494</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
M2.3		It is beyond the scope of the audit to determine whether the licensee retains the records for at least 4 years. The licensee has records of complaints made in the past and the EPA has no reason to believe that those records would not be kept for the required 4 years.	
M2.4	Yes	<b>Producing records</b> Pollution complaint records were produced to an authorised officer of the EPA when requested at the time of the audit inspection..	
M3.1	Yes	<b>Operating a telephone line for receiving complaints</b> The licensee operates, during its operating hours a telephone line for the purpose of receiving any complaints from members of the public.	
M3.2	<b>No Code Blue</b>	<b>Advertising the telephone complaints line number to the public</b> The licensee has advertised a 'community hotline number' in an information booklet that is distributed to the local community each year. The number is also advertised on a monthly basis in the local paper and on the licensee's web site. However it is noted that neither the information booklet nor the licensees web site indicate that the telephone line is for the purpose of making complaints. EPA has no reason to believe that the local community would not use the advertised telephone contact number if they wished to make any complaints to the licensee including complaints relating to pollution from the premises.	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
M3.3		This is a deeming clause that determines the applicability of Conditions M3.1-M3.2 and no assessment of compliance is required. It is noted that M3.1 and M3.2 do apply as the licence was been issued for more than 3 months.	

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



<b>Statutory Instrument: Environment Protection Licence No. 7494</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
<b>R</b>	<b>REPORTING CONDITIONS</b> <i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.</i>		
R2.1 & R2.2	<b>Notification of environmental harm</b>	These requirements did not apply as no incidents causing or threatening material harm to the environment occurred within the scope of the audit.	
<b>U</b>	<b>POLLUTION STUDIES AND REDUCTION PROGRAMS</b> <i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.</i>		
U1.2	Yes	<b>Air Emissions- Ethylene and Propylene oxide</b> The licensee has submitted, by the due date, a detailed project plan and design report demonstrating how they will comply with the requirements of U1.1 and U1.3.	
U1.3, U1.4, U2.1, U3.1, U4.1, U5.1, U6.1 and U7.1.	Beyond the scope	It is beyond the scope of the audit to assess compliance with these conditions as the dates for compliance are beyond the temporal scope of the audit. However it is noted that the licensee has recently submitted reports to the EPA as required by conditions U1.3, U2.1, U3.1, U4.1, U6.1 and U7.1. On the day of the audit inspection the site representative also advised that investigations and studies are continuing to reduce the emissions of EO and PO from the premises. The EPA has no reason to believe that the licensee will not comply with the requirements of the PRPs.	

\* 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.**

##### **Monitoring the effectiveness of pollution control equipment.**

The licensee has a list of items and equipment that have been identified as '*critical*' and which are subject to a rigorous inspection and maintenance program (such as pressure vessels and pipes and vessels containing EO and PO). It is noted however, that some items of pollution control equipment (such as bunds, stormwater drains, interceptor pit, stormwater isolation valves and underground effluent pipes etc) are not on this '*critical*' list and as such are not routinely inspected to ensure that they are operating as designed.

On the day of the audit inspection it was noted that the interceptor pit contained a large volume of debris and sludge-like material. In wet weather conditions there is an increased likelihood of contaminated stormwater overflowing this area to the stormwater system due to blockages. Regular inspections of this area would help identify when debris has accumulated.

It was also noted that many stormwater isolation valves from liquid chemical storage areas were left in the 'open position' contrary to internal procedures. When the valves are kept closed spills or contaminated stormwater can be contained in the enclosed area and pumped out for waste disposal or treated within the effluent treatment system if deemed suitable.

The licensee should monitor all items of pollution control equipment to ensure that they are operating as designed.

#### **Further observation no 2**

##### **Storing liquid chemicals in areas with limited spill containment measures.**

There were three areas observed on site where spill containment measures were limited and improvements could be made. The locations are;

1. At the rear of NIS C plant there were numerous (hundreds) IBCs and 205 litre drums part filled with chemicals. The floor of the storage areas appeared to be pervious, was concreted in parts and had patches of tar in other areas. Some containers and drums showed signs of deterioration and were located outside the containment area on soil that showed signs of contamination.
2. The concrete floor of the 'Dangerous Goods pad' was cracked in parts and the expansion joints did not appear to be sealed. This area contained many part filled IBCs classified as *corrosive, flammable* and *toxic dangerous goods*. There were also 6 drums of '*Topanol A*' which is classified as a '*Toxic substance Class 6*' located in this area. *Topanol A* is a marine toxic and not readily bio degradable. Chemicals of this nature must be stored in areas that are adequately bunded and located in an area that is roofed.

3. There were numerous IBCs and drums stored within the *Brake fluid storage area*. The floor of this area drains towards the road and to the stormwater system. Any spills or leaks from this area have the potential to pollute waters.

The licensee should ensure that the storage of liquid chemicals is undertaken in a competent manner to ensure that there are controls in place to minimise the environmental impact of any leaks and spills.

#### 4.0 ACTION PROGRAM

The following action program must be undertaken in relation to Huntsman Corporation Pty Limited.

**Table 4.1 Action Program – Environment Protection Licence No. 7494**

Condition No.	Action Details	Non-Compliance Code (where applicable)	Target/Action Date
O1.1	The licensee must ensure that there are controls in place to minimise the environmental impacts from any leaks and spills from IBCs and drums storing liquid chemicals in and around the <i>NIS A packaging area</i> and at the rear of the <i>NIS C plant</i> .	<b>Code Red</b>	10 August 2012 (permanent measures)
	The licensee must ensure that there are controls in place to minimise the environmental impacts from leaks and spills at the Propylene Oxide tanker bay.		29 February 2012
	The licensee must ensure that the integrity of the underground effluent pipeline is maintained and monitored to help detect any leaks causing harm to the environment.		Immediately
M3.2	<i>Advertising the telephone complaints line to the public</i>  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.	<b>Code Blue</b>	29 February 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**

**Hatzakis Marina**

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**From:** Jeremy S Trahair [REDACTED]  
**Sent:** Wednesday, 1 February 2012 3:46 PM  
**To:** Hatzakis Marina  
**Cc:** Clark Stuart  
**Subject:** Comments of Draft Compliance Audit Report

Dear Marina,

Huntsman wishes to comment on Draft audit report as follows;

We suggest the action program in part 4.0 be amended to distinguish between short term / quick fix actions and longer term actions that require an engineered solution to be put in place. Huntsman's response to the items identified is as follows;

NISA packaging and rear of NISC  
Temporary measures using sandbags were put in place in both areas following the audit. These measures were inspected by Stuart Clarke of EPA on 1/12/2011 and found to be satisfactory. Permanent engineered solutions cannot be implemented immediately. It is planned that works to provide impervious surfaces and ensure that leaks do not reach stormwater will be in place in 6 months (August 2012).

PO tanker bay - accepted

Underground piping  
Huntsman has established a program of integrity inspections for the effluent system. The program will operate on a 4 year cycle and will be prioritised to ensure areas of greatest risk are inspected first, eg areas where corrosives are handled. The details of the program are documented in a factory procedure. The procedure includes identification of pits, pipes, drain and drain points, inspection methods internal and external with check sheets to document the findings.

Advertising of complaints line - accepted

Integrity of bunded areas and areas where chemicals are handled and stored. Huntsman has implemented procedures to manage the integrity of these items as follows:

Tanks - Integrity of tank bunded areas are inspected annually in conjunction with the annual external tank inspection  
Packaged goods storage and usage areas. These are inspected 4 yearly as part of the effluent system integrity program.

Please feel free to call me to discuss this further

regards  
Jeremy

Jeremy Trahair  
Process Safety & Environment Manager  
Huntsman Corporation Australia

**APPENDIX B**

**LETTER COVERING LICENSEES RESPONSE TO DRAFT COMPLIANCE AUDIT  
REPORT**





Our reference: FIL 11/9644  
Contact: Marina Hatzakis 02 9995 5428  
Stuart Clarke 02 9995 6835

MR JEREMY TRAHAIR  
HUNTSMAN CORPORATION AUSTRALIA PTY LIMITED  
16- 20 BEAUCHAMP RD  
MATRIVILLE NSW 2036

Dear Mr Trahair

**Re: Final Compliance Audit Report – High Risk Facilities Audit  
Huntsman Corporation Australia Pty Limited- Surfactants Plant (Licence no. 7494)**

The Environment Protection Authority (EPA) is pleased to present you with a copy of the Final Compliance Audit Report for the Huntsman Surfactants plant 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 email dated 1 February 2012 have been considered when finalising the report. 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 Stuart Clarke on 02 9995 6835.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Chris Kelly', is written over the typed name. To the right of the signature, the date '10/2/2012' is handwritten.

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

Enclosure: Final Audit Report Huntsman Corporation Australia Pty Limited

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