

# Regulatory Approach: Chemical Waste Management Report

Environment Protection Authority

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21 May 2020

### Regulatory Approach: Chemical Waste Management

Dear Cheryl

As requested by Environment Protection Authority's (EPA) new Governing Board, we have completed the Regulatory Approach: Chemical Waste Management project and are writing to report our findings. We have completed the abovementioned project, in accordance with our signed Scope document and the contract between EY and EPA.

This report outlines the results of our examination of EPA's key processes and controls associated with the storage of chemical waste at 14 known chemical waste sites from January 2016- April 2019. The scope of our work focused on examination of 14 known chemical waste sites selected by EPA Management. We note that Management has accepted and provided responses to each of the recommendations and has provided evidence to support the implementation of those recommendations completed.

The EPA has been committed to improving systems and process relating to chemical waste management since these sites were identified. Management has advised that some of these improvements include:

- ▶ From 1 July 2019, EPA mandated a shift to electronic waste transport certificates and away from paper-based certificates to enable better data and information to target compliance and enforcement activities. We note that further improvements are expected with the development of a new, fully integrated digital "waste tracker" tool which is designed to provide enhanced data analytics and reporting, to deliver insights on sector activity, trends and highlight potential illegal activity.
- ▶ EPA established a data/analytics unit and larger intelligence function with increased resources and more intelligence analysts focused on waste crime.

We acknowledge and appreciate the assistance provided by EPA personnel.

Yours sincerely

EY

Copy to EPA Governing Board  
Dr Cathy Wilkinson, Chief Executive Officer  
Tony Matthews, Executive Director Board Secretary & Corporate

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**Inherent Limitations**

Due to the inherent limitations of any internal control structure, it is possible that fraud, error or non-compliance with laws and regulations may occur and not be detected. Further, the internal control structure, within which the control procedures that have been subject to this project operate, has not been reviewed in its entirety and, therefore, no opinion or view is expressed as to its effectiveness of the greater internal control structure. This project was not designed to detect all weaknesses in control procedures as it is not performed continuously throughout the period and the tests performed on the control procedures are on a sample basis. Any projection of the evaluation of control procedures to future periods is subject to the risk that the procedures may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

We believe that the statements made in this report are accurate, but no warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by EPA Management and personnel. We have indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted with the report. We are under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form unless specifically agreed with EPA. The findings expressed in this report have been formed on the above basis.

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# 1. Executive Summary

# 1. Executive summary

## What you asked us for

- ▶ Examine key processes and controls supporting EPA's regulatory approach to storing chemical waste, through considering practices across a judgmentally selected sample of 14 chemical waste sites (selected by EPA Management).
- ▶ Consider the processes supporting effective use of the following systems:
  - ▶ Incident reporting process
  - ▶ Incident response process
  - ▶ Waste transport certificate system.

Refer to *Appendix C* for the detailed Scope statement

## What we did



1. Performed a desktop review of key documentation, policies, procedures and other relevant information related to processes included in Scope.
2. Conducted interviews and performed process walkthroughs with key personnel from key business units to gain an understanding of the processes included in Scope.
3. Conducted testing of key documentation and processes supporting pollution report practices across 14 sites to verify how reported incidents were managed in accordance with relevant EPA policies and procedures.
4. Obtained and considered input from EY Regulatory subject matter resources.
5. Conducted a closing meeting with key stakeholders to discuss key findings, recommendations and areas for improvement.
6. Reported our findings and developed recommendations to address the process gaps and control weaknesses identified as well as identified opportunities for process improvements.

## 1.1 Background

The Environment Protection Authority (EPA) has a responsibility *'to ensure the appropriate storage, transport, treatment and disposal of waste in Victoria'*. Hazardous waste, also known as 'Prescribed Industrial Waste' (PIW), is the harmful by-product produced from everyday goods and services. These by-products include acids, inorganic chemicals, reactive chemicals, paints, solvents, pesticides, oils, pharmaceutical and solid or sludge wastes. The primary legislation used to support regulation of PIW is the Environment Protection Act 1970 ('the 1970 Act') and the Environment Protection Act 2017 ('the 2017 Act') which provides the regulatory framework for managing waste activities for all relevant stakeholders. This regulatory framework outlines a central concept for waste management based on resource efficiency and establishes a hierarchy for waste management options from least preferable (disposal) to most preferable (avoidance). The Environment Protection Act 2017 established an Environment Protection Authority Governing Board effective from the 1 July 2018.

### 1.1.1 Illegal Chemical Waste Storage

In the wake of the August 2018 West Footscray warehouse fire, EPA identified illegally stockpiled chemical containers stored within warehouses at several sites in Epping and Campbellfield. Following the identification of these sites, the EPA's Governing Board commissioned EY to conduct a review into the EPA's key processes and controls associated with the regulation of storage of chemical waste with a focus on 14 specific chemical waste sites, between January 2016 and April 2019.

We acknowledge that EPA's reform program, including digital transformation, has already been scoped to strengthen the regulatory framework for waste and the business intelligence and IT systems that support regulatory activities relating to waste. The outcomes from this project assist by providing recommendations to enhance the key processes and controls supporting EPA's regulatory approach for the storage of chemical waste and specific IT system enhancements required. The EPA has provided evidence to support the implementation of those recommendations completed.

## 1.2 Overview of key testing findings

Examination of key processes and controls supporting EPA's regulatory approach to storing chemical waste across a sample of 14 sites<sup>1</sup>, identified gaps in EPA's governance practices supporting effective oversight of incident prioritisation decisions, lack of clearly defined standards and expectations for retaining key pollution report documents, and opportunities to enhance the use of intelligence sources across the organisation. Specifically, we identified, for the period that we examined:

- ▶ Governance structures to oversee interaction prioritisation and incident triage processes, including critical incident response decisions, required improvement (*Finding A1*). Clear standards and expectations to support an effective prioritisation and triage processes were not defined for:
  - ▶ Prioritisation and triage of incidents, specifically key responsibilities of all staff across teams
  - ▶ Centralised monitoring, review and approval of critical incident decision making
  - ▶ Recording and use of chemical waste incident and intelligence information.
- ▶ Inconsistent approach to the documentation of pollution reports within Integrated Business Information System (IBIS). We also identified that EPA had not implemented quality assurance processes over interaction and incident records within IBIS. The risks associated with inconsistent documentation approaches, including lack of available and accurate pollution information, were also compounded by poor system change access controls, system limitations and 'information reports' that fall outside the pollution reporting process (*Finding A2*).
- ▶ Inadequate monitoring, reporting and trend analysis of Waste Transport Certificate (WTC) data needed to identify trends and areas of key risks associated with chemical waste storage (*Finding B1*). Discussions with key stakeholders identified:
  - ▶ Only 10% of all electronic WTC and 4% of all paper WTC were manually reviewed by staff
  - ▶ EPA's Waste Transport System did not automatically link certificate data to existing permissions data (i.e. does not flag licence and permit validity)
  - ▶ Waste transport activities were not effectively integrated with other compliance activities, specifically, the incident response process.
- ▶ Public intelligence data and information was not effectively used to inform the proactive identification of emerging issues or behaviours that may result in future non-compliance or risks to community safety. The poor quality of pollution reports and limitations in platforms to share intelligence data and information impacted the effectiveness of reporting (*Finding B2*).
- ▶ Poorly designed key incident response performance metrics (KPIs). EPA's 28-day incident close out KPI did not measure the time taken from initial interaction to incident response. Further, the 28-day KPI could be circumvented by field officers by manipulating the incident date and priority rating or by closing an incident before response action was taken (*Finding B3*).
- ▶ Lack of clearly defined processes for incident reporting and responding (*Finding C1*). Specifically, we identified eight of EPA's Standard Operating Procedures (SOPs) supporting incident reporting and response had not been updated in accordance with review schedules and two SOPs that had not been finalised or approved. We also identified that training and guidance documentation held within the IBIS Knowledge Centre was outdated and did not reflect the incident response processes (*Finding C1*).

The scope of our work focused on examination of 14 known chemical waste sites. We note with respect to these 14 sites, based on the procedures performed, which were not specifically designed to identify fraud, we did not identify any instances of fraud or EPA staff intentionally acting in a non-compliant manner with laws and regulations. We recommend that the EPA:

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<sup>1</sup>The procedures performed in relation to EPA procedures for use of intelligence information provided by other agencies and / or the public to EPA; and pollution and illegal dumping reports, including the process for triage and closure of chemical waste sites, covered the period from 1 January 2016 to 30 April 2019.

- ▶ continues to address the recommendations in this report
- ▶ determines the appropriate time for the status of the recommendations to be reported to the Board, and
- ▶ as part of its fraud risk assessment processes, continues to monitor these sites and if any further information is identified in relation to these sites proceeds to investigate.

Refer to *Appendix A* for details of evidence examined by EY for each of the 14 sites with reference to the associated observations in *Section 3.1 'Detailed Findings and Recommendations'*. Refer to *Appendix B* for further details of the testing exceptions identified.

## 1.3 What we recommend

Management needs to use the recommendations identified in this report to assist with EPA's Organisational Transformation Program. Specifically, system control enhancement recommendations (e.g. mandatory fields to enable management to assess the appropriateness of response decisions and changes to incident priority ratings) need to be considered and addressed as a priority. Management also needs to introduce formalised auditing processes over response decision making. Between now and the legislative go-live, we recommend that management conducts an assessment of other waste sites to review the decision making and outcomes of high priority pollution reports and whether a follow up inspection of the sites is required.

Specifically, our examination of EPA's processes and controls for reporting and responding to pollution reports identified that management needs to:

- ▶ Enhance and formalise governance structures supporting the effective prioritisation and triage of incidents. This should include establishing and formally endorsing an Incident Response Framework to clearly define and document formal guidelines for (*Finding A1 and B2*):
  - ▶ Defined prioritisation categories for chemical waste and intelligence information and processes for incident triage that are aligned to organisational and community risk
  - ▶ Formal consultation and follow up processes with both internal (EPA Central Triage and Regional Officers) and external (e.g. VicPol and VicRoads' Call Centre) stakeholders
  - ▶ Key roles and responsibilities for incident reporting and responding to chemical waste storage and monitoring and reporting of incident response and outcomes.
- ▶ Assess the ability to add mandatory incident close out fields with system upgrades as part of EPA's digital transformation program to provide key details on incident responses conducted. This needs to enable management to assess the appropriateness of Response Officer (RO) response decisions against incident priority. Management also needs to enhance system controls by limiting user access change permissions within IBIS records and commence conducting regular reviews of IBIS user access (*Findings A1, A2, B2 and B3*).
- ▶ Establish a quality assurance (QA) program, to monitor the appropriateness of incident triage and EPA response. This QA program should focus on a risk-based sample of interaction and incident records within IBIS and be performed periodically by the Quality Assurance team as part of the existing Notices and Inspection review process (*Finding A1 and A2*).
- ▶ Develop and implement formal annual compliance incident response training that covers key roles and responsibilities, appropriate IBIS account creation and structure, and documentation requirements including evidence of decision making and the process of triaging (*Finding A1 and A2*). This training program should be delivered to the Central Dispatch and Regional EPA teams and external Call Centre team.
- ▶ Establish a formal process for Intelligence Unit 'Information reports' to be triaged by the Central Dispatch team and documented on IBIS (*Finding A2*).
- ▶ Finalise the Waste Transport Certificate Compliance Program (*Finding B1*). This program should include periodic checks on a risk-based sample (including high risk chemical waste types) of Waste Transport Certificates and regular reporting of waste transport trends and areas of risk to the Regulatory Operations Committee (ROC).
- ▶ Develop and deliver an Intelligence Roadshow to raise awareness of intelligence tools and resources, including the 'Site Profile' application. Following an Intelligence Roadshow, the Intelligence Unit should facilitate regular meetings between EPA Regions and Divisions (e.g. Central Dispatch, Regulatory Programs Unit and OHS) to discuss trending issues and share intelligence information. EPA should also implement an intelligence alert system that flags potential sites of interest in IBIS to assist in embedding intelligence led practices (*Finding B2*).
- ▶ Review and re-design key incident response performance indicators (*Finding B3*). This should include consideration of:
  - ▶ Appropriate measurement of incident response times including the time from interaction creation to incident creation
  - ▶ Outcome focused KPIs balancing a mix of KPIs to incentivise the appropriate behaviour and alignment with Call Centre three-day customer call back KPI.
- ▶ Review, update and consolidate the Incident Triage, Call Centre and Waste Transport Certificate SOPs to reflect the current processes. Management should also establish SOP review schedules to regularly track and report when SOP updates are due (*Finding C1*). Refer to 3.1 Detailed Findings and Recommendations for further details on findings and recommendations identified as part of this project.



## 2. Context

## 2. Context

### 2.1 Response to Pollution Reports

EPA relies on the community to report incidents of pollution, environmental hazard or other activities potentially harmful to the environment. EPA's outsourced Call Centre service processes approximately 300 pollution reports per day through the 24-hour EPA pollution hotline and online Interaction Portal. The Call Centre is responsible for creating the Interaction Record in IBIS including the required information regarding the pollution report. IBIS allocates a priority rating according to system rules based on the category of pollution reported. Interaction Records with a priority rating of one and two are either transferred to local council or a desk top review is performed, priority three and four are allocated to EPA's Central Dispatch and priority five incidents (highest priority) are managed by EPA's emergency team.

EPA's Central Dispatch team was created in January 2018 and is responsible for undertaking a triage process which determines a response to an interaction in accordance with EPA procedures. Where an immediate response to an incident is required, the Central Dispatch will contact the region responsible. Central Dispatch is also responsible for keeping the region informed of local pollution reports and providing advice on frequent reporters and/or alleged sources.

EPA's rostered regional Response Officer (RO) is the primary point of contact in each EPA region for field response. A part of the ROs role is to action requests from Central Dispatch which includes desktop assessments and site inspections. Interactions received from emergency services or other agencies that are allocated a priority five are paged to the State Duty Officer (SDO) who is responsible for actioning immediate response to emergency incidents.

### 2.2 Waste Transport System

Waste Transport Certificates are required under regulation to track the movement of PIW from '*cradle to grave*'. Waste producer, transporter and receiver have the responsibility to ensure that an accurately completed waste transport certificate accompanies each load of PIW. During 2017-2018, EPA received approximately 96,000 paper Waste Transport Certificates (WTC) and 72,000 electronic WTCs. EPA's Regulatory Programs Unit is responsible for performing quality checks over WTCs.

### 2.3 Advisory and Intelligence

EPA's Advisory and Intelligence Unit are responsible for conducting risk assessments on individuals or businesses that may pose a risk to EPA as a regulator. Intelligence products (e.g. reports) are provided to the Major Investigation Unit for follow up. EPA's Advisory and Intelligence Unit also assists in developing risk assessment tools for annual Inspection schedules.

### 3. Findings

As highlighted in the table below, our fieldwork identified two Priority A findings, three Priority B findings and one Priority C finding. All findings are explained in the 'Detailed Findings and Recommendations' of this report.

Ref	Finding
A1	Ineffective governance and oversight of pollution reports
A2	Inadequate quality assurance processes to ensure integrity of pollution data
B1	Limited reporting and analysis of waste transport certificates
B2	Inability to leverage intelligence led decision making
B3	Limitations of key performance indicators
C1	Outdated policies and procedures used to support the regulation of chemical waste storage

Findings priority ratings have been aligned with EPA's Internal Audit ratings system (*Appendix D*) and assessed accordingly.

Legend of Findings Priority		
Priority	EPA Risk Rating	Definition
A	Very high or High	A weakness or opportunity that may significantly compromise internal control and/or operational efficiency
B	Medium	A weakness or opportunity that may undermine the system of internal control and/or operational efficiency
C	Low	A weakness or opportunity which may not seriously detract from the system of internal control and/or operational efficiency but which nevertheless should be addressed by Management in accordance with the agreed action plan

### 3.1 Detailed Findings and Recommendations

This section presents our detailed findings in relation to the findings identified from completing our fieldwork. The following table includes recommendations and action plans that have been agreed with Management, including timeframes and allocations of responsibility.

A1. Ineffective governance and oversight of pollution reports			
Finding	Recommendations and Accountability	EPA response	Status
<p>EPA does not have a consistent and centralised approach to govern EPA’s response to pollution reports. As a result, Management does not have sufficient visibility over field officer decisions. Specifically, we identified:</p> <ul style="list-style-type: none"> <li>▶ Lack of centralised governance and approval of incident priorities, triage and response decisions by Management. Discussions with key stakeholders across EPA Regions identified that discretionary decision making is used to triage incidents. Testing of 14 sites known to be illegally storing chemical waste identified: <ul style="list-style-type: none"> <li>▶ One instance where the incident record was not appropriately triaged in accordance with RSD-SP-06 Triage of pollution reports, emergency reports and business notifications. In this instance an Emergency Report received from the Country Fire Authority was triaged as a priority three instead of a priority five.</li> <li>▶ Three instances where the regional Response Officer (RO) had not completed a Workload defer/close out form after an incident had been closed without action</li> <li>▶ One instance where there was no documentation of the incident outcome after it was assigned to the OH&amp;S Team. Discussions with the OH&amp;S Team also identified no recollection of the incident being assigned and there was no record within the IBIS system.</li> <li>▶ Seven instances where there was no evidence of follow up after the incident had been closed.</li> </ul> </li> <li>▶ Inconsistent approaches being adopted for the prioritisation and triage of incidents. For example, discussions with stakeholders identified that Call Centre staff often use discretion when deciding if a priority two interaction is transferred to Central Dispatch for triage or closed as a council matter.</li> </ul>	<p>We recommend Management:</p> <ol style="list-style-type: none"> <li>1. Establishes and formally endorses an Incident Response Framework to clearly define and document formal guidelines for: <ul style="list-style-type: none"> <li>▶ Defined categories for interaction prioritisation including high priority for incidents relating to chemical waste</li> <li>▶ Defined process for incident triage that aligns to organisation and community risk</li> <li>▶ Formal consultation and follow up processes with both internal (EPA Central Triage and Regional Officers) and external (VicPol, VicRoads’, Call Centre etc.) stakeholders</li> <li>▶ Key roles and responsibilities for incident reporting and responding to chemical waste storage</li> <li>▶ Monitoring and reporting of incident response and assigned accountability.</li> </ul> </li> </ol> <p>The Framework should be formally reviewed and endorsed by the ROC. The annual training program recommended in <i>Finding A2</i> should cover content in the Incident Response Framework.</p>	<p>Change EPA’s incident triaging and categorization process to ensure all reports related to high risk waste (including reports of paint tipping) receive an automatic high-level P4 prioritisation.</p>	Completed
		<p>Review OHS investigation processes to ensure intelligence and pollution reports about potentially sensitive sites are assessed and receive an appropriate response.</p>	Completed
		<p>Enhance EPIMS to integrate lower ranked priority incidents (P2 and P3), information and intelligence reports and IBIS user profile checks into the system to provide a more joined-up incident response program). The EPIMS system already includes processes for triage of P4 and P5 incidents, and the enhancement will ensure all responses have consistent governance and oversight within the response framework.</p>	Completed
		<p>Undertake a comprehensive review and update of EPIMS and linked guidance materials to align with new environment protection laws and other system changes.</p> <p>Supporting SOPs and guides will be developed and/or amended to provide consistency of practice in the</p>	<p>Aligned to commence with new legislation</p> <p>1 July 2020</p>

A1. Ineffective governance and oversight of pollution reports				
Finding	Recommendations and Accountability	EPA response	Status	
<p>We also identified that there is no clear approach to incident prioritisation and that prioritisation categories within IBIS do not consider chemical waste or intelligence reporting. Further, Regional Officers can amend or bypass Central Dispatch triage. Further, testing of 14 sites known to be illegally storing chemical waste also identified one instance where the pollution report circumvented Centre Dispatch triage entirely and as a result no incident record was created within the IBIS system. Refer to <i>Appendix B</i> for further detail of testing exceptions.</p> <p>► Lack of formalised requirements for historical incidents to be considered in conjunction with new incident reports. For example, discussions with key stakeholders identified site incident history and intelligence flags are not considered when prioritising interactions or triaging incidents.</p> <p>► Lack of clearly defined responsibility and accountability for managing pollution reports. We identified that those responsible for decision making are not held accountable for outcomes of reported pollution incidents. Due to the ambiguity of responsibilities, the regional RO is likely to amend Central Dispatch priority ratings and, in some cases, bypass Central Dispatch triage all together.</p> <p>We acknowledge that the EPA Regulatory Operations Committee (ROC), established in July 2018, is responsible for providing strategic oversight of regulatory performance and direction on regulatory improvements according to the <i>Regulatory Operations Committee Terms of Reference</i> however, the ROC does not have adequate oversight of field officer decisions to make informed strategic decisions and improvements.</p>		application of the new EPIMS (refer A1.2 and A1.4).		
			Embed information about EPA's role as regulator of pollution and hazardous waste into key staff induction, training, communications and intranet.  (Some key initiatives have been completed).	1 July 2020
		<p>2. Investigates the ability to enhance system capability (as part of EPA's digital transformation program) to add a mandatory incident close out field that must be completed before the record can be closed by the RO. This field should include the reason for incident close out and the type response outcome.</p> <p>If this is not possible, Management should create and implement an incident close out form which details the incident outcome and must be uploaded to the system incident record.</p>	Change permissions in the IBIS system so that only Central Dispatch staff can change incident ratings in IBIS.	Completed
			Include a manual close out procedure in new and updated P2, P3, P4 and P5 SOPs.	Completed
			Include a manual close out procedure in the updated pollution report triage SOP.	Completed
			Include key system changes in EPA's new digital customer relationship management system, including the ability to manage user security levels, restrict user permissions, introduce mandated interaction and incident record fields, establish defined intelligence categories to record and track intelligence reports, and introduce intelligence alerts (Refer A2.4, A2.5, B2.1).	Aligned to commence with new legislation
		Some key initiatives to be implemented in existing systems: ►Management of security levels	1 July 2020	

A1. Ineffective governance and oversight of pollution reports			
Finding	Recommendations and Accountability	EPA response	Status
		►Restrict user permissions	
	3. Implements regular training for Central Dispatch to assist in the understanding of the triage process and provide guidance on triage decision making.	Conduct quarterly refresher training for Central Dispatch team on the changes to EPIMS and updated SOPs.	Completed
		Develop and deliver a regulatory excellence learning and development program:  - as part of the planned update of EPIMS which will incorporate Central Dispatch staff as well as other relevant staff (refer A1.1, and A1.3)  - to grow the skills and regulatory capabilities of EPA staff (Refer A 1.3).	1 July 2020
	4. Establishes a quality assurance (QA) process, to confirm appropriate triage decisions by Central Dispatch (included in the QA process to be developed in <i>Finding A2</i> ). The QA process should have:  ► An approval checking process, from a senior level of Management, to confirm appropriateness of decision to close out an incident  Scheduling regular checks to confirm appropriate documentation regarding the response decision is retained within IBIS system.	Establish a dedicated quality assurance program focused on the priorities identified in the Review related to hazardous waste management. EPA will expand the Regulatory Capability Unit work plan to include a regulatory audit program and schedule of focus in priority areas including chemical waste management for the remainder of 2019-20.	Completed
		Build a monitoring and reporting function, including quality assurance, into the updated EPIMS framework (refer A1.1).	1 July 2020

A2. Inadequate quality assurance processes to ensure integrity of pollution data			
Finding	Recommendations and Accountability	EPA response	Status
<p>EPA relies on the community and other agencies to provide information on chemical waste storage. One of the objectives of the IBIS system is to maintain and provide key pollution report information. High quality reporting of pollution incidents is required for EPA to action a timely risk-based response however, pollution reports within IBIS lack sufficient and reliable detail.</p> <p>Fieldwork identified that due to IBIS system limitations, pollution report information is not easily accessible. As a result, historical pollution reports are not always considered during the incident response process. These limitations include:</p> <ul style="list-style-type: none"> <li>▶ Absence of intuitive search function</li> <li>▶ Duplicate accounts</li> <li>▶ Manual and complex account creation</li> <li>▶ Geographic Information System (GIS) location reference must be manually linked to IBIS</li> <li>▶ IBIS system generated reports are difficult to produce and cannot be printed.</li> </ul> <p>We also identified that the information entered into IBIS does not consistently provide accurate details on pollution reports or all relevant pollution report information available in the system.</p> <p>Testing of 14 sites known to be illegally storing chemical waste identified:</p> <ul style="list-style-type: none"> <li>▶ Seven sites had duplicate accounts within IBIS</li> <li>▶ Three instances where the account was 'unstructured' and could not be found via IBIS account search function</li> <li>▶ Five instances where the pollution details field was not complete within the Interaction Record</li> <li>▶ One instances where Inspection observations were made for the incorrect address/premise. In this instance multiple Inspections were conducted as part of a Victoria Police investigation however the correct address was not attached to Inspection evidence.</li> </ul>	<p>We recommend Management:</p> <ol style="list-style-type: none"> <li>1. Develops and implements an annual compliance training program covering the Incident Response Framework, including: <ul style="list-style-type: none"> <li>▶ Roles and responsibilities for the prioritisation of interactions and incident records</li> <li>▶ The importance of appropriate account creation and structure within IBIS</li> <li>▶ Pollution details expected to be documented within IBIS records</li> <li>▶ Documentation of decision making.</li> </ul> <p>This training should be attended by all employees from Call Centre, Central Dispatch and Regional teams.</p> </li> <li>2. Establishes a QA process over interaction and incident records stored in IBIS. This QA process should be built into the Quality Assurance team notices and Inspection review process. The QA process should consider: <ul style="list-style-type: none"> <li>▶ Account structure</li> <li>▶ Pollution report details</li> <li>▶ Reason for incident closure</li> <li>▶ Changes made to pollution report information or priority.</li> </ul> <p>Management should also develop a QA sampling methodology</p> </li> </ol>	<p>Enhance EPIMS to integrate lower ranked priority incidents (P2 and P3), information and intelligence reports and IBIS user profile checks into the system to provide a more joined-up incident response program). The EPIMS system already includes processes for triage of P4 and P5 incidents, and the enhancement will ensure all responses have consistent governance and oversight within the response framework.</p>	Completed
		<p>Develop and deliver a regulatory excellence learning and development program:</p> <ul style="list-style-type: none"> <li>- as part of the planned update of EPIMS which will incorporate Central Dispatch staff as well as other relevant staff (refer A1.1, and A1.3);</li> <li>- to grow the skills and regulatory capabilities of EPA staff (Refer A 1.3).</li> </ul>	1 July 2020
		<p>Establish a dedicated quality assurance program focused on the priorities identified in the Review related to hazardous waste management. EPA will expand the Regulatory Capability Unit work plan to include a regulatory audit program and schedule of focus in priority areas including chemical waste management for the remainder of 2019-20.</p>	Completed
		<p>Undertake a targeted audit of high priority hazardous waste related pollution reports to ensure appropriate regulatory action was taken.</p>	Completed

A2. Inadequate quality assurance processes to ensure integrity of pollution data			
Finding	Recommendations and Accountability	EPA response	Status
<ul style="list-style-type: none"> <li>▶ Two instances where the <i>JSA Standard Inspection Form Template</i> was not completed and attached to the Inspection Record as required by EPA's <i>RSD-PO-09 Inspection and Incident Attendance SOP</i>.</li> <li>▶ Pollution report interactions are often saved to general account 'unknown alleged source' or with misleading naming conventions. We identified: <ul style="list-style-type: none"> <li>▶ Two instances where the interaction and incident record was linked to general account 'unknown alleged source' and 'Mr Anonymous Anon'</li> <li>▶ One instance where the site account location suburb was incorrectly recorded (Campbellfield recorded as Campbelltown)</li> <li>▶ One instance where a pollution report incident record was incorrectly closed. The incident was duplicated and linked to the incorrect address.</li> </ul> </li> <li>▶ Public 'information reports' are directly sent to the Intelligence Team general inbox. These reports are processed by the Intelligence Team and are not formally processed by Central Dispatch or documented within IBIS. We note that the 'information reports' were only implemented in late 2018.</li> <li>▶ Lack of standard process for recording information amendments resulting in inappropriate changes to Pollution report information within IBIS. We identified: <ul style="list-style-type: none"> <li>▶ Four incidences where the initial offence date had been amended by the rostered regional response officer and did not contain an explanation for this amendment.</li> <li>▶ Two instances where the interaction priority rating had been amended by the rostered regional response officer and did not contain an explanation for this amendment.</li> <li>▶ Three instances where the incident priority rating had been amended by the rostered regional response officer and did not contain an explanation for this amendment.</li> </ul> </li> </ul>	<p>considering population size, areas of risk and error rates.</p>	<p>Include a comprehensive and ongoing quality assurance process into the ongoing Quality Assurance and Improvement Framework that will be implemented through EPA's transformation program.</p>	<p><b>1 July 2020</b></p>
	<p>3. Develops and implements a formal process for Intelligence Unit 'information reports' to be triaged by Central Dispatch and documented on IBIS.</p>	<p>Introduce a manual workaround process in IBIS that ensures intelligence reports are captured, flagged and defined through key information for triage by Central Dispatch. (Refer B2.4).</p>	<p><b>Completed</b></p>
	<p>4. Limits user access change permissions within IBIS records. Any changes must be made by an authorised officer and have a valid reason documented within the system.</p>	<p>Change user permissions within the IBIS system so that only Central Dispatch staff can change incident ratings.</p>	<p><b>Completed</b></p>
		<p>Include key system changes in EPA's new digital customer relationship management system, including the ability to manage user security levels, restrict user permissions, introduce mandated interaction and incident record fields, establish defined intelligence categories to record and track intelligence reports, and introduce intelligence alerts (Refer A2.4, A2.5, B2.1).</p>	<p><b>Aligned to commence with new legislation</b></p>
		<p>Some key initiatives to be implemented in existing systems:</p> <ul style="list-style-type: none"> <li>▶ Management of security levels</li> <li>▶ Restrict user permissions</li> </ul>	<p><b>1 July 2020</b></p>
	<p>5. Regularly reviews IBIS user access profiles to ensure that each profile aligns with employees' roles and responsibilities. This includes:</p>	<p>Commence a manual review of IBIS user access profiles to ensure they align with employee roles and responsibilities.</p>	<p><b>Completed</b></p>



A2. Inadequate quality assurance processes to ensure integrity of pollution data			
Finding	Recommendations and Accountability	EPA response	Status
<p>▶ Changes made to pollution records are logged within the IBIS system however we identified that Management does not have a formalised process to review these changes. We note that the Quality Assurance team is responsible for providing a random selection of notices (8%) and Inspections (7%) for review (Ibis report) and collating, analysing and reporting on the findings from the quality assurance review process. However, this program does not include review of interaction or incident records within IBIS.</p>	<p>▶ Reviewing security levels, functions and transactions allocated to each profile for appropriateness and to ensure segregation of duties is maintained</p> <p>▶ Reviewing current profiles to consolidate or remove redundant profiles.</p>		

B1. Limited reporting and analysis of waste transport certificates			
Finding	Recommendations and Accountability	EPA Response	Status
<p>Waste transport certificates (WTC) enable information about the prescribed industrial waste (PIW) to be passed on in the waste management chain including the categorisation of the waste and who has had control of the waste. During 2017-2018, EPAs Waste Transport Program received approximately 96,000 paper WTCs and 72,000 electronic WTCs. Key stakeholders advised this program was historically viewed as a largely administrative and transactional activity rather than a key source of intelligence to inform and prioritise compliance activities. We identified that waste transport reporting is basic and does not provide trends or indicate areas of risk.</p> <p>EPA's Regulatory Programs Unit (RPU) commenced quality checks of 10% of electronic certificates flagged with errors and 4% of all paper certificates (more than 4000 a year) in late 2017 and identified concerning practices such as poor PIW transport reporting and low accuracy. Discussions with Management identified that the waste transport system does not automatically link certificate data to existing licence and permit data and is not linked to other compliance activities including the process to respond to pollution reports. For example, the RPU and Regional response officers maintain individual sensitive site/non-compliance registers which are not leveraged between units or across wider EPA. The process of checking certificates is manual and time consuming.</p> <p>In 2019, EPA identified more than 25,000 waste transport certificates associated with a duty holder of interest linked to illegal stockpiles as the waste receiver, producer or transporter between 2016 and 2018. These certificates contained information that could have assisted EPA in sanctioning parties associated with the stockpiling.</p> <p>Fieldwork identified instances where RPU identified waste transport non-compliances relating to four of our sample sites. In these instances, the duty holder received waste without a license, received inconsistent waste amounts and breached accredited agent waste handling.</p> <p>We note that EPA is developing a waste tracking tool and Waste Transport Certificate Compliance Program to provide improved data quality controls and reporting to deliver insights on sector activity, trends and highlight potential illegal activity. Paper waste transport certificates will be phased out, with a prototype commencing on 1 July 2019 and the new tracking system coming online with the new legislation.</p>	<p>We recommend Management finalises the Waste Transport Certificate Compliance Program. This program should include:</p> <ul style="list-style-type: none"> <li>▶ Periodic scheduled checks on a risk-based sample of Waste Transport Certificates</li> <li>▶ Identify and prioritise checks on Waste Transport Certificates that contain high risk chemical waste</li> <li>▶ Consideration of resource requirements</li> <li>▶ Regular reporting of non-compliance areas of risk and trends to the ROC.</li> </ul>	<p>Mandate use of electronic waste transport certificates from 1 July 2019, including support for industry to understand and adopt the new system requirements.</p>	Completed
		<p>Develop a risk-based compliance and enforcement program to monitor and address waste transport certificate compliance in 2019/20.</p>	Completed
		<p>Include enhanced waste transport compliance reporting in regular performance reporting to management.</p>	Completed
		<p>Incorporate annual compliance and enforcement priorities for hazardous waste transportation regulation into the 2020-21 Regulatory Workplan.</p>	1 July 2020
		<p>Develop and rollout a fully digital and integrated waste tracking system that will strengthen preventative regulatory action by improving data analytics and reporting, deliver insights on sector activity, trends and highlight potential illegal activity.</p>	Aligned to commence with new legislation

B2. Inability to leverage intelligence led decision making			
Finding	Recommendations and Accountability	EPA response	Status
<p>EPA's use of intelligence information does not facilitate accurate and early identification of intelligence gaps resulting in significant issues, trends and emerging risks not being identified. As a result, there is a risk that appropriate action is not undertaken to adequately mitigate significant issues identified through pollution reports.</p> <p>EPA's use of intelligence is impacted by:</p> <ul style="list-style-type: none"> <li>▶ Pollution reports are not providing useful insight or being analysed by intelligence practitioners in a timely manner due to the quality of pollution reports submitted in IBIS. For example, the account names, presentation, categorisation and the types of information being reported are inconsistent, therefore, without looking at each Interaction Record (IR) in detail intelligence practitioners are unable to efficiently analyse all information.</li> <li>▶ There are limited platforms for intelligence units across the divisions, regions or state to regularly share intelligence and discuss cross-border issues, trends and emerging risks.</li> <li>▶ Strongly embedded reactive culture within EPA resulting in greater focus on reactive activities rather than proactive identification of emerging issues or behaviours that may result in future non-compliance. Consequently, proactive scanning of pollution reports is not consistently performed across EPA to enable early identification of new and emerging problems.</li> <li>▶ EPA units across the organisation operate in strong silos, limiting the ability of EPA to form a strategic view on how to combat illegal storage of chemical waste and effectively prioritise and allocate resources to address the issues and risks that are most pertinent to community safety.</li> <li>▶ Limited awareness and use of the Site Profile application launched by the Intelligence Unit in April 2018. The</li> </ul>	<p>We recommend Management:</p> <ol style="list-style-type: none"> <li>1. Explores whether IBIS interaction and incident record fields can be mandated. If this is not possible, develop guidance material that provides examples of the information that is expected to be included within records considering Intelligence information needs.</li> </ol>	<p>Introduce a manual workaround process in IBIS that ensures intelligence reports are captured, flagged and defined through key information for triage by Central Dispatch. (Refer B2.4).</p>	<p><b>Completed</b></p>
	<ol style="list-style-type: none"> <li>2. Defines intelligence category within IBIS. This category should be prioritised as "intelligence" and allocated to the Intelligence Unit IBIS account to periodic review.</li> </ol>	<p>Include key system changes in EPA's new digital customer relationship management system, including the ability to manage user security levels, restrict user permissions, introduce mandated interaction and incident record fields, establish defined intelligence categories to record and track intelligence reports, and introduce intelligence alerts (Refer A2.4, A2.5, B2.1).</p> <p>Some key initiatives to be implemented in existing systems:</p> <ul style="list-style-type: none"> <li>▶Management of security levels</li> <li>▶Restrict user permissions</li> </ul>	<p><b>Aligned to commence with new legislation</b></p> <p><b>1 July 2020</b></p>
	<ol style="list-style-type: none"> <li>3. Formalises arrangements to hold regular teleconferences between Regions and Divisions within EPA across the State to enable regular sharing of intelligence and discussion of cross-border risks and issues. This arrangement should be driven by the EPA's Intelligence Cell for visibility and governance.</li> </ol>	<p>Establish regular teleconferences between EPA Regulatory Operations divisions and the Data Analytics Unit to enhance internal information and intelligence sharing. (Refer B2.6)</p>	<p><b>Completed</b></p>

B2. Inability to leverage intelligence led decision making			
Finding	Recommendations and Accountability	EPA response	Status
<p>purpose of the application is to provide ROs with easily accessible intelligence products and distribution that meet the needs of the business.</p> <p>▶ EPA is not sufficiently assessing the value and effectiveness of intelligence products and subsequent response activities to determine whether the issues identified, and their respective root causes have been mitigated. Additionally, when assessments are performed, the learnings identified are not always used to inform future planning and response processes. This increases the risk of issues and their root causes not being adequately addressed and materialising at a later date.</p>	4. Develops and implements an intelligence alert system that links back to the Call Centre and Central Dispatch teams to enhance the quality of information gathered and assist in embedding intelligence led practices.	Commit additional resources towards data analytics and intelligence capabilities in the Applied Sciences Directorate to support waste crime prevention.	Completed
	5. Performs assessments of the value and effectiveness of intelligence products and subsequent investigations and outcomes to determine whether the issues identified have been mitigated.	Establish better intelligence sharing mechanisms with Victorian co-regulators to share intelligence on high risk waste and waste crime.	Completed
	6. Develops and delivers an Intelligence Training Roadshow to raise awareness of Intelligence and communicate the availability of Intelligence tools including the 'Site Profile' application. During these sessions, Management should also ensure that Managers are clear on the definition of intelligence (including the distinction between intelligence and information).	Centralise EPA's pollution and waste reporting systems into IBIS for triage by the Central Dispatch team and decommission a separate illegal waste reporting channel.	Completed
		Include the IBIS manual workaround process for intelligence reports in new and updated SOPs (Refer A2.3).	Completed
		Include an ongoing information sharing and intelligence assessment process through a dedicated agenda item at the October 2019 Regulatory Operations Strategic Management Forum (same as B2.6)	Completed
		Undertake a broad review to establish the appropriateness and use of intelligence functions through EPA's Regulatory Operations Committee Work plan.	Completed
	Implement further intelligence capability improvements:		

B2. Inability to leverage intelligence led decision making			
Finding	Recommendations and Accountability	EPA response	Status
		<ul style="list-style-type: none"> <li>▶ embed intelligence led practice into learning and development framework;</li> <li>▶ an integrated intelligence platform that will act as a repository and analytics system;</li> <li>▶ ensure staff are trained and prepared for the introduction of modern surveillance powers.</li> </ul>	<p><b>1 July 2020</b></p> <p><b>Aligned to commence with new legislation</b></p> <p><b>Aligned to commence with new legislation</b></p>

B3. Limitations of key performance indicators.			
Finding	Recommendations and Accountability	EPA response	Status
<p>Pollution response key performance metrics are poorly designed and implemented. We observed staff behaviours that drive achievement of targets but don't achieve the desired outcome. These behaviours are counterproductive and may bring unintended consequences to for EPA.</p> <p>EPA ROs must close out priority three incidents within 28 days. However, we identified that ROs can close out an incident without completing an Inspection (required response). Due to time pressure, ROs may close out an incident to meet the 28-day KPI and schedule an Inspection for a later date. Testing of 14 sites known to be illegally storing chemical waste identified three instances where the 28-day incident response KPI was not met for a priority three incident.</p> <p>The 28-day close out KPI aims to ensure ROs undertake timely response to pollution reports. However, we identified that the KPI is measured from the time of incident creation up to incident closure and does not consider the time from interaction creation to incident creation. Management noted that EPA has implemented an informal 30-minute KPI between Call Centre interaction creation and Central Dispatch incident creation however this KPI is not formally tracked or reported.</p> <p>We also identified that the Regional 28-day close out KPI does not align with the Call Centres three-day customer call back KPI. The Call Centre must call customers three days after their initial report to provide an update on the response taken by EPA. Management advised that in most cases, no action has been taken within three days of the initial pollution report and so the Call Centre has no information to provide the customer. The Call Centre may meet the target, but the result is reduced customer satisfaction.</p> <p>Due to a lack of IBIS system access controls, we identified instances where the interaction or incident record date and priority were amended by the RO (<i>Finding 2</i>). Data is extracted from the IBIS system at the end of each day by the Directorate Regulatory Operations Unit (DRO) for reporting purposes and amendments to reported dates and priority skew the KPI reporting which the DRO must follow up and comment on. However, due to the 24-hour lag, amendments may not be picked up if they are made within the 24 hours after record creation.</p>	<p>We recommend Management:</p> <ol style="list-style-type: none"> <li>1. Reviews and re-designs key pollution response KPIs to improve desired outcomes. The re-design should consider: <ul style="list-style-type: none"> <li>▶ Appropriate measurement of pollution response including the time from interaction creation to incident creation</li> <li>▶ Outcomes focused KPIs balancing a mix of KPI's to incentivise the appropriate behaviour</li> <li>▶ Alignment of Call Centre customer call back KPI.</li> </ul> </li> </ol>	<p>Review and re-design pollution response key performance indicators to improve outcomes for pollution responses and incorporate these into EPA's 2020-21 Regulatory Workplan (refer A1.1).</p>	<p>1 July 2020</p>
		<ol style="list-style-type: none"> <li>2. Using the mandatory incident close out field recommended in <i>Finding A1</i>, reports and analyses the 'type' of response conducted and reviews whether the response was appropriate or requires additional follow up.</li> </ol>	<p>Include a manual close out procedure in new and updated P2, P3, P4 and P5 SOPs.</p>
			<p>Incorporate incident close-out monitoring and compliance improvements into the Quality Assurance and Improvement Framework. (refer A2.2).</p>

C1. Outdated policies and procedures used to support the regulation of chemical waste storage				
Finding	Recommendations and Accountability	EPA response	Status	
<p>At the time of the fieldwork, Standard Operating Procedures (SOP) did not reflect key processes performed by EPA staff. Recent changes to the incident response process were also not reflected in SOPs.</p> <p>During 2018, changes were made to the Interaction Record priorities and respective actions. EPA added priority 5 interactions which must be paged directly to the State Duty Officer whilst priority 4 interactions are to be assigned to the Central Dispatch Team however, this is not reflected within the Triage of pollution reports, emergency reports and business notifications SOP.</p> <p>We also identified SOPs provided by EPA that had not been reviewed in accordance with the scheduled review dates. These outdated SOPs are:</p> <ul style="list-style-type: none"> <li>▶ EM-FM-24 Incident Response Initial Contact by EPA Duty Officers (Last reviewed: 23 May 2017 Date of next review: 23 May 2018)</li> <li>▶ EM-SP-76 Incident Response (Priority 4) - Regulatory Urgency (Last reviewed: 31 January 2018 Next review date: 31 July 2018)</li> <li>▶ EM-SP-77 Incident Response (Last reviewed: 31 January 2018 Next review date: 31 July 2018)</li> <li>▶ RSD-FM-45 Close Out Template (Last reviewed: 9 March 2016 Next review date: 9 March 2018)</li> <li>▶ RSD-PO-09 Inspection and Incident Attendance (Last reviewed: 5 December 2014 Next review date: 4 July 2017)</li> <li>▶ RSD-SP-06 Triage of Pollution Reports, Emergency Reports and Business Notifications SOP (Last reviewed: 31 January 2018 Next review date: 31 July 2018)</li> <li>▶ OS-SP-07 Managing Operations Quality Improvement Process (Last reviewed: 30 May 2014 Next review date: 30 May 2016)</li> <li>▶ OS-SP-03 Performing a QA review SOP (Last reviewed: 19 March 2015 Next review date: 19 March 2017).</li> </ul>	<p>We recommend Management:</p> <ol style="list-style-type: none"> <li>1. Reviews, updates and consolidates SOPs to reflect the current incident Management process.</li> </ol>	<p>Develop standard operating procedures (SOPs) for Priority 2 (P2) and Priority 3 (P3) incidents and update procedures for Priority 4 (P4) and Priority 5 (P5) incidents.</p>	Completed	
		<ol style="list-style-type: none"> <li>2. Reviews and updates Call Centre SOP. The SOP should include: <ul style="list-style-type: none"> <li>▶ Roles and responsibility</li> <li>▶ Account set up</li> <li>▶ Interaction Record requirements</li> </ul> </li> </ol>	<p>Review and update pollution triage standard operating procedures (SOPs).</p>	Completed
			<p>Review and update relevant SOPs (including call centre) as part of the review and update of EPIMS. (refer A.1.1).</p>	1 July 2020
	<ol style="list-style-type: none"> <li>3. Finalises the Waste Transport Certificate SOPs and communicates this to the business.</li> </ol>	<p>Waste Transport Certificate SOP finalised and communicated to the business.</p>	Completed	
	<ol style="list-style-type: none"> <li>4. Establishes SOP review schedules and registers to monitor and report on SOP updates.</li> </ol>	<p>Develop a SOP review schedule which will be updated quarterly in consultation between Regulatory Operations Division and the Regulatory Capability Unit. Newly created SOPs and reviewed SOPs arising from the independent Review will be added/recorded in the existing register (refer to C1.1, C1.2, C1.3).</p>	Completed	

C1. Outdated policies and procedures used to support the regulation of chemical waste storage			
Finding	Recommendations and Accountability	EPA response	Status
<p>We also identified that, at the time of fieldwork, two Waste Transport Certificate SOPs had not been finalised and were still in draft. These SOPs included the Waste Transport Certificate Administration (Draft) and Waste Transport Certificate Data Cleansing (Draft).</p> <p>Furthermore, procedural guidelines and IBIS training contained within the IBIS Knowledge Centre is outdated and does not reflect the addition of Central Dispatch. Discussions with key stakeholders also identified that Call Centre SOP's are kept in IBIS in the Help Centre however, these SOPs have not been updated since April 2015.</p>			



# Appendices

## Appendix A Testing Overview

As part of this project, we examined key processes and controls supporting EPA's regulatory approach to storing chemical waste, through considering practices across at the 14 chemical waste sites listed below. The following table summarises the evidence examined by EY for each of the 14 sites, cross referenced to the associated observations in *Section 3.1 'Detailed Findings and Recommendations'*. Refer to *Appendix B* for further details of the testing exceptions identified.

Table 1: Summary of testing findings*		
Site reference number (refer Appendix B)	EPA records examined	Reference to detailed findings
1	<ul style="list-style-type: none"> <li>▶ Emails provided by the EPA state that Victoria Police did not want the EPA to attend this site.</li> <li>▶ Emergency report: Country Fire Authority detailing unsafe storage of chemical waste and potential chemical waste dumping.</li> <li>▶ Incident record: linked to an 'Unknown Alleged Source' account and allocated to EPA Metro for further action as a priority 3 (requires inspection) which was later amended to a priority 2 (does not require inspection).</li> <li>▶ Incident record notes: EPA Officer contacted Victoria Police and was informed that the site was being investigated as a potential Clandestine Laboratory. Victoria Police advised EPA Officers to contact them before attending the site.</li> <li>▶ Incident record: closed without any further follow up details documented.</li> </ul>	A1, A2 and B3
2	<ul style="list-style-type: none"> <li>▶ IBIS record: Victoria Police did not want the EPA to attend this site.</li> <li>▶ Inspection record: inspection was conducted and EPA Officers identified non-compliant chemical waste storage.</li> <li>▶ No record of pollution report could be located on IBIS.</li> </ul>	A1
3	<ul style="list-style-type: none"> <li>▶ Inspection record: inspection was conducted and EPA Officers identified non-compliant chemical waste storage.</li> <li>▶ No record of pollution report could be located on IBIS.</li> </ul>	A2
4	<ul style="list-style-type: none"> <li>▶ Emails provided by the EPA state that Victoria Police did not want the EPA to attend this site.</li> <li>▶ Pollution report: reported illegal storage of chemical waste at seven different sites in near proximity.</li> <li>▶ Interaction record notes: Referred to EPA OH&amp;S Team for advice.</li> <li>▶ Interaction record: closed without any further follow up details documented.</li> <li>▶ No record of incident or inspection could be located on IBISepa.</li> </ul>	A1 and A2

Table 1: Summary of testing findings*		
5	<ul style="list-style-type: none"> <li>▶ Emails provided by the EPA state that Victoria Police did not want the EPA to attend this site.</li> <li>▶ Inspection record: inspection was conducted in response to a Victoria Police report of suspected illegal chemical waste storage.</li> <li>▶ Inspection record notes: EPA Officer was unable to enter the premise upon arrival.</li> <li>▶ Inspection record: closed without any further follow up details documented.</li> <li>▶ No record of pollution report could be located on IBIS.</li> </ul>	A1 and A2
6	<ul style="list-style-type: none"> <li>▶ Emails provided by the EPA state that Victoria Police did not want the EPA to attend this site.</li> <li>▶ Inspection record: inspection was conducted in response to a Victoria Police report of suspected illegal chemical waste storage.</li> <li>▶ Inspection record notes: EPA Officer was unable to enter the premise upon arrival.</li> <li>▶ Inspection record: closed without any further follow up details documented.</li> <li>▶ No record of pollution report could be located on IBIS.</li> </ul>	A1 and A2
7	<ul style="list-style-type: none"> <li>▶ Inspection record: inspection was conducted and EPA Officers identified non-compliant chemical waste storage.</li> <li>▶ No record of pollution report could be located on IBIS.</li> </ul>	A1
8	<ul style="list-style-type: none"> <li>▶ No record of pollution report or inspection could be located on IBIS.</li> </ul>	
9	<ul style="list-style-type: none"> <li>▶ Emails provided by the EPA state that Victoria Police did not want the EPA to attend this site.</li> <li>▶ Inspection record: inspection was conducted in response to a Victoria Police report of suspected illegal chemical waste storage.</li> <li>▶ Inspection record notes: EPA Officer was unable to enter the premise upon arrival.</li> <li>▶ Inspection record: closed without any further follow up details documented.</li> <li>▶ No record of pollution report could be located on IBIS.</li> </ul>	A1 and A2
10	<ul style="list-style-type: none"> <li>▶ Pollution report: reported potential illegal chemical waste storage.</li> <li>▶ Incident record: was linked to a known account and allocated priority 2 which was later amended to priority 3.</li> </ul>	A1, A2 and B3

Table 1: Summary of testing findings*		
	<ul style="list-style-type: none"> <li>▶ Inspection record: EPA Officers found 2000 IBC containing liquid chemical waste in warehouse and remedial notice was issued to the Duty Holder.</li> <li>▶ Inspection record: follow up inspection was conducted which observed no waste in warehouse and no further action was required.</li> </ul>	
11	<ul style="list-style-type: none"> <li>▶ Inspection record: inspection was conducted in response to reported storage of waste in an unlicensed facility from WorkSafe.</li> <li>▶ Inspection record notes: EPA Officers observed evidence of non-compliance. A remedial notice was issued to the Duty Holder however, no follow up inspection was documented.</li> <li>▶ No record of pollution report could be located on IBIS.</li> </ul>	A1 and A2
12	<ul style="list-style-type: none"> <li>▶ Pollution report: detailing chemical waste was being stored in an unlicensed premise.</li> <li>▶ Incident record: linked to 'Mr Anonymous Anon' account and allocated a priority 3.</li> <li>▶ Incident record notes: EPA to conduct an inspection however no documented inspection record could be located on IBIS.</li> <li>▶ Incident record: closed without any further follow up details documented.</li> </ul>	A1 and A2
13	<ul style="list-style-type: none"> <li>▶ No record of pollution report or inspection could be located on IBIS.</li> </ul>	-
14	<ul style="list-style-type: none"> <li>▶ Pollution report: alleged illegal storage of chemical waste in an unlicensed premise at 1805-1825 Sydney Road Campbellfield (linked site to 16-18 Thornycroft Street Campbellfield)</li> <li>▶ Incident record: was linked to a known account and allocated priority 3 that was later amended to priority 2.</li> <li>▶ Incident record notes: non-event as the site was licensed however, 1805-1825 Sydney Road was not a licensed premise.</li> </ul>	A1, A2 and B3

\*This table has been validated by management.

## Appendix B Testing Exceptions

As part of this project, we examined key processes and controls supporting EPA's regulatory approach to storing chemical waste, through considering practices across the 14 chemical waste sites in Appendix A.

The test results demonstrate exceptions where information was not able to evidence that key processes and controls were effective. Our testing identified 49 control breakdowns across 14 sites.

**Test 1: Determine whether the Interaction Record has been linked to the correct IBIS account ID.**

For five of 14 sites, the Interaction Record was not linked to the correct IBIS account number (*Finding A2*). In three of these instances, the record was linked to an Anonymous account, in one instance, the record was linked to Country Fire Authority account and in one instance, the record was linked to the wrong address.

**Test 2: Determine whether adequate pollution details have been captured within the Interaction Record.**

For five of 14 sites, the Interaction Record did not contain sufficient pollution report details. In these instances, the 'pollution details' field was left blank (*Finding A2*).

**Test 3: Determine whether any amendments have been made to the prioritisation or pollution information within the Interaction Record.**

For four of 14 sites, the original offense date and interaction priority rating had been amended by the field officer. In these instances, no rationale was provided for the amendment (*Finding A2*).

**Test 4: Determine whether the three-day call back was completed within the Interaction Record.**

For four of 14 sites, we were unable to validate whether the three-day customer call back had been completed. In these instances, the customer call back task was not created (*Finding A2*).

**Test 5: Determine whether the Incident Record has been linked to the correct IBIS account ID.**

For three of 14 sites, the incident record was not linked to the correct IBIS account number (*Finding A2*). In two of these instances, the record was linked to an Anonymous account and in one instance the record was linked to the wrong address.

**Test 6: Determine whether the incident has been appropriately triaged.**

For one of 14 sites, the incident record was not appropriately triaged in accordance with *RSD-SP-06 Triage of pollution reports, emergency reports and business notifications*. In this instance, an Emergency Report received from the Country Fire Authority was triaged as a priority three instead of a priority five (*Finding A1*).

**Test 7: Determine whether any amendments have been made to the prioritisation or pollution information within the incident record.**

For three of the 14 sites, the incident priority rating had been amended by the field officer. In these instances, no rationale was provided for the amendment. In two of these instances, the incident priority rating was changed from a priority three to a priority two. In one of these two instances, the amendment was made over six months after the incident was closed (*Finding A2*).

**Test 8: For priority two and three incidents, determine whether the incident has been closed within 28 days.**

For two of 14 sites, the 28-day incident response KPI was not met for a priority three incident (*Finding B3*).

**Test 9: For incidents that were closed out without response, determine whether the Workload Defer/Close Out Form was completed.**

For three of 14 sites, the Workload Defer/Close Out Form was not completed for incidents closed without inspection. In these instances, no rationale was provided for incident closure (*Finding A1*).

**Test 10: Determine whether the site was inspected by EPA.**

For eight of 14 sites, an inspection was conducted by EPA.

**Test 11: If an inspection was conducted, determine whether any non-compliance was observed.**

For two of 14 sites, the inspecting officers observed non-compliance. In both instances, a remedial notice was issued to the Duty Holder. In one of these two instances, a follow up inspection was conducted with no further action required by EPA.

**Test 12: Determine whether the Inspection Record has been linked to the correct IBIS account ID.**

For one of 14 sites, the Inspection record was not linked to the correct IBIS account (*Finding A2*). In this instance the record was linked to the wrong address.

***Test 13: Determine whether the observations in the Inspection Record have been made for the correct address/premise.***

For one of 14 sites, Inspection observations were made for the incorrect address/premise. In this instance, multiple Inspections were conducted as part of a Victoria Police investigation however the correct address was not attached to Inspection evidence (*Finding A2*).

***Test 14: Determine whether the Inspection Record has a corresponding Interaction or Incident Record.***

For four of 14 sites, the Inspection Record did not have a corresponding Interaction or Incident Record. In these instances, the Inspection was conducted in response to a Victoria Police incident (*Finding A1*).

***Test 15: Determine whether a JSA Standard Inspection Form Template was completed and attached to Inspection Record.***

For two of 14 sites, the JSA Standard Inspection Form Template was not completed and attached to the Inspection Record (*Finding A2*).

***Test 16: Determine whether there is any evidence of incident follow up.***

For seven of 14 sites, there was no evidence of EPA follow up. In these instances, it was identified that no further action was required by EPA however no evidence suggested that the incident was being followed up by another agency (*Finding A1*).

***Test 17: Determine whether the Pollution Records are linked to correct GIS location.***

For one of the 14 sites, the Incident Record was not linked to the correct address within the Geographic Information System (GIS) (*Finding A2*).

Management was provided with a table outlining the evidence of relevant activity at the 14 sites from 1 January 2016 to 30 April 2019.

# Appendix C Scope Statement

## 1.1 Background

The Environment Protection Authority's (EPA) Governing Board has requested that EY conducts a review into the EPA's key processes and controls associated with the regulation of storage of chemical waste with a focus on 14 specific chemical waste sites.

The project status will be monitored by the Risk and Audit Committee (RAC).

The EPA has a regulatory role in the appropriate disposal and storage of chemical waste in Victoria consistent with the Environment Protection Act 1970. At the EPA, regulating chemical waste is part of a broader multi-agency framework that includes: WorkSafe as the regulator of dangerous goods, Local Councils who regulate planning and building activities and fire agencies.

Following the discoveries of illegal storage of chemical waste, the Victorian State Crisis and Resilience Council has agreed to develop a framework for identifying, inspecting and managing high risk storage sites; and commence coordination and alignment of existing planned work programs to strengthen applicable legal and regulatory controls across the system. A cross-agency Dangerous Goods/Waste Crime Taskforce has been established to oversee this work. The outcomes of this project will assist with informing EPA's input into this new state framework.

EPA Management had already commenced conducting internal reviews of the key processes and controls for regulating chemical waste storage and identified several internal control weaknesses.

Whilst EPA's new legislation and digital transformation have already been scoped to strengthen the regulatory framework relating to waste as well as the business intelligence and IT systems that support regulatory activities relating to waste, the outcomes of this project will provide a basis for further informing scope of the transformation and identify any other areas of improvement needed in EPA's regulatory approach for the storage of chemical waste.

## 2.1 Objective

The objective of this project is to examine key processes and controls supporting EPA's regulatory approach to storing chemical waste, through considering practices across a judgmentally selected sample of 14 chemical waste sites. Specifically, we will consider the processes supporting effective use of the following systems:

- ▶ Incident reporting process
- ▶ Incident response process
- ▶ Waste transport certificate system.

## 3.1 Scope

The key areas of focus for this project are:

- ▶ Desktop review of key EPA chemical waste storage documentation. This included:
  - ▶ Policies and procedures used to support the regulation of chemical waste storage (i.e. Inspection 'standard operating procedure' and quality assurance procedures)
  - ▶ Available documentation supporting known storage of chemical waste across 14 judgmentally selected sites, including IBIS entries and quality assurance reports. These sites were:
    - 1.2 Devon Court, Epping
    - 2.3 Devon Court, Epping
    - 3.4 Devon Court, Epping
    - 4.31 Yale Drive, Epping
    - 5.88 Capital Link Drive, Campbellfield
    - 6.100 Capital Link Drive, Campbellfield
    - 7.24 Freeman Street, Campbellfield
    - 8.26 Freeman Street, Campbellfield
    - 9.26 Malcolm Drive, Campbellfield
    10. 9 11 Brooklyn Court, Campbellfield
    11. 12 Yellowbox Drive, Campbellfield
    12. 20a Yellowbox Drive, Campbellfield
    13. 20b Yellowbox Drive, Campbellfield
    14. 16-18 Thornycroft Street, Campbellfield
- ▶ Procedure for use of intelligence information provided by other agencies and / or the public to EPA since 1 January 2016 across 14 judgmentally selected sites
- ▶ Pollution and Illegal dumping reports received by EPA since 1 January 2016 across 14 judgmentally selected sites, including the process for triage and closure of chemical waste sites.
- ▶ Chemical Waste transport tracking process and system.
- ▶ Authorised Officer key decision making and evidencing processes for regulating chemical waste storage.

## 3.2 Limitations

This project will not include:

- ▶ Assurance that EPA is compliant with relevant governmental requirements for waste Management and that all regulatory 'gaps' that may / may not enable exploitation opportunities will be identified.
- ▶ Detailed examination of all IT systems supporting chemical waste Management practices. We will report on ICT issues and limitations to the extent they are the root cause of ineffective processes.

## 4.1 Approach

This project will be performed using the following approach:

- ▶ Performed a desktop review of key documentation, policies, procedures and other relevant information related to processes included in Scope.
- ▶ Conducted interviews and perform process walkthroughs with key personnel from a selection of business units to gain an understanding of the processes included in Scope. Key personnel interviewed as part of this project will be agreed with Management.
- ▶ Conducted testing of key controls supporting chemical waste practices across 14 sites to verify that they have been managing waste in accordance with relevant EPA policies and procedures. Testing performed will be agreed with Management prior to commencing and will encompass a desktop review of documentation supporting chemical waste practices adopted by each site. Management will be provided with a listing of key controls as part of this project.
- ▶ Conducted a closing meeting with key stakeholders to discuss findings, recommendations and areas for improvement, and discuss potential Management actions to address reported issues, allocation of responsibility for agreed actions and implementation dates.
- ▶ Reported our findings and develop recommendations to address the identified process gaps and control weaknesses and/or suggest opportunities for process improvements.

All our findings were discussed with Management to verify factual accuracy prior to issuance of the draft report.

Any inconsistencies, improvement opportunities and lessons learned identified as part of the review were provided to Management to support the enhancement of key regulatory processes and controls.



## Appendix D Internal Audit Rating System

### EPA RISK CATEGORIES FOR ORGANISATIONAL RISKS

Organisational risks are those faced by the EPA in accomplishing its goals. This includes risks arising from strategic priorities or to the achievement of strategic priorities. The owners of these risks are the Executive team. Risks at this level are reported to the Executive, Chairman and Risk and Audit Committee in the Quarterly Organisational risk activity report. Organisational risks may be "critical" risks to EPA if so identified and endorsed by the Executive.

		Rating / Corporate Risk Categories	Strategic	Service Delivery	Financial						
<b>Consequence</b>	<b>Severe</b>	<p><b>Severe</b></p> <p>The impact on the organisation is likely to involve a failure across a number of critical functions or the entire organisation. This failure could be permanent or require more than five years to recover being led by an external party.</p>	<p>Severe failure in delivering multiple strategic priorities or a serious impact on the relationship with multiple or critical stakeholders. Severe (multiple and long duration) adverse international or national media coverage. Relationships, reputation or strategic priorities would be permanently damaged.</p>	<p>Severe failure of multiple systems or processes, possibly including the loss of one or more critical external services. Total failure in our regulatory or OH&amp;S obligations resulting loss of authority or liability that requires external intervention.</p>	<p>Loss of revenue or higher expenditure &gt; \$15 million</p> <p>Higher Expenditure &gt; \$10 million</p>	<b>Severe</b>	<b>Medium</b>	<b>High</b>	<b>High</b>	<b>Very High</b>	<b>Very High</b>
	<b>Major</b>	<p><b>Major</b></p> <p>The impact on the organisation is likely to involve significant diversion of resources to address the failure of critical functions or multiple functions at the same time. This failure could require between one and five years to recover, led by the executive team.</p>	<p>Serious failure in delivering a strategic priority or a serious impact on the relationship with a critical stakeholder. Severe (multiple but short-term) adverse national media coverage or significant widespread state coverage. The relationships, reputation or the strategic priority could take years to rectify or restore.</p>	<p>Serious failure of a system or process, possibly including the outage of one or more critical external services for more than one month. Multiple serious failure of regulatory or OH&amp;S duties resulting in loss of authority or liability would require several years to overcome.</p>	<p>Loss of revenue or higher expenditure of &gt; \$5 million but &lt; \$10 million</p> <p>Higher Expenditure &gt; \$10 million but &lt; \$5 million</p>	<b>Major</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>	<b>High</b>	<b>Very High</b>

<p><b>Moderate</b> The impact on the organisation is likely to involve a failure across multiple functions that would require up to one year to recover from lead through a strategic recovery plan, approved by the executive and delivered by the leadership team.</p>	<p>A failure in the delivery of a strategic priority or an adverse impact on the relationship with a stakeholder. Significant state and/or local media coverage with negative headlines. The relationship, EPA's reputation or the strategic priority could take months to rectify or restore.</p>	<p>A failure of a system or process, possibly including the outage of multiple non-critical external services for up to two weeks. A single failure to fulfil our regulatory or OH&amp;S duties resulting in an impact that could require one annual cycle to overcome.</p>	<p>Loss of Revenue or higher expenditure of &gt; \$1 million but &lt; \$5 million</p> <p>Higher Expenditure &gt; \$10 million but &lt; \$5 million</p>	Moderate	Low	Medium	Medium	High	High		
	<p><b>Minor</b> The impact on the organisation would likely be the short-term failure of a function or part of a function. Unit managers would have responsibility for addressing this failure which could require up three months to recover.</p>	<p>A delay in delivering on a strategic priority or a localised loss of relationship with one stakeholder. Multiple adverse media coverage in local media. The relationship, EPA's reputation or the strategic priority could be rectified within weeks.</p>	<p>A short-term failure of a system or process, possibly including an outage of a non-critical external service for less than one week or the poor performance in responding to our regulatory or OH&amp;S duties resulting in an impact that could be overcome within 3 months.</p>		<p>Loss of revenue of &gt; \$100,000 but &lt; \$1 million</p> <p>Higher Expenditure &gt; \$100,000 million but &lt; \$1 million</p>	Minor	Low	Low	Medium	Medium	High
	<p><b>Negligible</b> The likely impact could involve a recovery managed by staff over a period of a few weeks incorporated into routine activities.</p>	<p>The impact on the delivery on a strategic priority or the relationship with a stakeholder could be rectified through routine work practices. No effect on the reputation of the organisation or effort would be required to rectify the impact. Minor, single adverse coverage local media.</p>	<p>A failure of less the one day of a system or process that does not result in an outage of external services. No failure of OH&amp;S duties however the performance standard may cause internal concern.</p>		<p>Loss of revenue or higher expenditure of &lt; \$100,000</p> <p>Higher Expenditure &lt; \$100,000</p>	Negligible	Low	Low	Low	Medium	Medium
					Rare	Unlikely	Possible	Likely	Almost certain		
					<p>There is no known occurrences. Its occurrence would be extraordinary and as a result of several unlikely factors occurring. For every thousand times the event could happen, it may occur once. An event that would occur at least once every 5 years.</p>	<p>There are a few recorded or known incidents. It would be unusual and as a result of one or two unlikely factors occurring. For every hundred times the event could happen, it may occur once. An event that would occur at least once every 2 years.</p>	<p>There are some recorded or known incidents as part of everyday activities. Its occurrence may be the result of one or two factors occurring. For every fifty times the event could happen, it may occur once. An event that would occur at least once every year.</p>	<p>There are several recorded or known incidents of this risk eventuating as part of day to day routine activities. For every twenty times the event could happen, it may occur once. An event that would occur at least twice every year.</p>	<p>There are several recorded or known incidents of this risk eventuating as part of day to day routine activities. For every ten times the event could happen, it may occur once. An event that would occur at least 5 times every year.</p>		
					<b>Likelihood</b>						



### **Very High**

Risks rated as very high are those escalated to and managed by the executive team as a priority. They are reported to the Executive team and the Chairman. If the risk were to occur the future viability of the organisation would be at risk. These risks will likely be designated as 'critical' in status. The Chairman and senior Management are responsible for ensuring appropriate mitigation or treatment.



### **High**

Risks rated as high are those that should be escalated to the executive Management team immediately. These risks are managed by the Leadership team who report to the relevant Director. If these risks were to occur there would be a significant impact on the organisations strategy or resources that would take some years to overcome.



### **Medium**

Medium risks are those that should be escalated to the relevant Director within one month. These risks are managed by the Leadership team who report to the relevant Director.



### **Low**

Low risks do not require escalation during the year but should be reviewed on an annual basis. These risks have a short-term, localised impact that can be dealt or overcome through the course of routine activities

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