Industry Sector:
Solid Waste Landfills
March 2000

Compliance Performance Report
This Compliance Performance Report — Industry Sector: Solid Waste Landfills was prepared by Compliance Audit Section, NSW Environment Protection Authority.

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SUMMARY

As part of its industry sector based compliance audit program, the EPA conducted compliance audits on 15 solid waste landfills in the Sydney, South Coast and Hunter Regions of New South Wales. The main objectives of the audits were to assess each facility’s compliance with the statutory instruments issued to it and to outline any follow-up actions needed to address non-compliances. This report presents a collation of these audit findings and provides an insight into the landfill industry sector’s overall compliance performance.

Details of procedures and protocols for conducting compliance audits can be found in the EPA Compliance Audit Handbook (1997). Officers of the EPA performed the solid waste landfill audits between January and July 1998. At each premises, compliance was assessed by a detailed site inspection, a review of the information supplied by site representatives and a review of records and documentation relating to the premises.

In 1997, all operators of licensed landfills were required to prepare a landfill environmental management plan (LEMP) and submit it to the EPA. This requirement extended to over 100 landfill operators outside the Sydney Metropolitan Area who had received licences for the first time. The compliance audits referred to in this report were carried out before the EPA had assessed these LEMPs and before new licences had been developed and issued on the basis of these assessments.

Regulatory non-compliances identified in each of the 15 compliance audit reports of landfills have been grouped into various issues (for example, water management, legislative requirements). The audit program included eight premises that had recently been licensed for the first time and for which the EPA had issued four transitional licence conditions. The compliance audit reports of these sites included a number of ‘further observations’, which are observations made during the audit that do not strictly relate to compliance. However, these observations in many instances would be considered non-compliances against a ‘normal’ landfill licence. Therefore, for the purpose of this report, the further observations relating to issues of environmental concern have been grouped with the regulatory non-compliances.

Issues were classified as common if they occurred at more than 20% of the sites audited (three or more sites). Issues identified at 5% to 20% of the sites were classified as less common, and those identified at fewer than 5% were classified as rare.

The findings of the audits indicated that most of the common issues concerned operational activities and water management. Other common issues identified were air management, legislative requirements and administration and management.

The following common issues were identified.

Operational activities not being performed in a proper and efficient manner:

- covering of waste
- screening of waste
- control of litter on site
- storage of chemicals such as diesel oil and lubricants
- storage of waste oil and used batteries
- capping and revegetation of previously filled areas
- maintenance and operation of plant and equipment.

Water management issues:

- surface or ground water not being monitored in a proper and efficient manner
- leachate not being managed in a proper and efficient manner
- occurrence of pollution of waters and the potential for the pollution of waters
- inadequate surface-water management practices.

Air management issues:
- inadequate dust suppression
- lack of landfill-gas monitoring.

Legislative requirements:
- works carried out without obtaining pollution control approval.

Administration and management issues:
- records of complaints received by the enterprises not being kept properly
- certificates of compliance with licence conditions (submitted annually to the EPA) not being submitted correctly
- enterprises not providing the EPA with reports required by licence conditions.

The following less common issues were identified:
- not authorising two senior employees to speak on behalf of the licensee and to provide any information or document required by the licence, and not informing the EPA of the names of these employees and their contact numbers within 14 days of the licence coming into force.
- not monitoring noise on site as required by the licence.
- receiving equipment for disposal containing chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), such as refrigerators and air-conditioning units.

The findings of the 15 audits of a total of 59 landfills in the Sydney Metropolitan Area and Extended Regulated Area did not provide enough information for us to draw detailed conclusions about all aspects of the environmental performance of the landfill industry. However, having selected a representative sample of landfills, the EPA is confident that the issues identified in this report are generally typical of the whole sector.

This landfill-sector compliance performance report is a valuable management tool for decision-making and will help the EPA to review how best it can regulate the landfill industry. The EPA also plans to use this information to increase industry and community awareness about environmental issues in the landfill sector.

The EPA will look at approaches such as the use of model licence conditions, policy documents and tools such as education, consultation, negotiation and enforcement. The sector-review findings will be used in licence reviews, which are scheduled to be undertaken at intervals not exceeding three years.
INTRODUCTION

Purpose of this report
This report has been prepared to present the key findings of the landfill-sector compliance audits performed by the EPA on a representative sample of solid-waste landfills.

The objectives of this report are to:

• indicate the overall compliance performance of the landfill sector, based on the audits performed
• identify where potential non-compliances may be occurring or where environmental performance can be improved
• provide a mechanism for measuring change in the landfill sector’s compliance performance over time through comparison with any subsequent audit programs.

Selection of industry sector
The selection of the industry sectors targeted in the EPA’s industry sector compliance audit program is based on an assessment of the major community and environmental concerns and the EPA’s corporate objectives and strategies. The solid-waste landfill sector was the first to be audited. Landfills were selected in the Sydney, Hunter and South Coast regions. These regions are defined in the Waste Minimisation and Management Act as the Sydney Metropolitan Area and the Extended Regulated Area. Landfills outside this area may be subject to a separate audit program in the future.

Individual premises were selected for audit in consultation with EPA regional offices to get a representative sample of the sector.

Audit methodology
EPA compliance audits were performed on the selected landfills in accordance with the procedures and protocols in the EPA Compliance Audit Handbook (copies available from the EPA’s Pollution Line: 131 555). The audits were limited to a review of each enterprise’s compliance with both legislation administered by the EPA and statutory instruments issued by the EPA. Compliance with the waste levy requirements of the then Section 72 of the Waste Minimisation Management Act 1995 and Section 88 of the POEO Act were not included in the scope of these audits, as this work is covered by another EPA program (Section 88: Waste Levy Audit Program).

The findings of each compliance audit were presented to each enterprise individually. Each report was based on information taken from the EPA’s files, information supplied by representatives of the enterprise and observations made during the site inspections, which were carried out between January and July 1998. Each report contained a plan of action, with recommendations on what the enterprise had to do in order to comply with the licence conditions within an agreed time period. These recommendations related to non-compliances and areas where enterprises could improve their environmental performance.

EPA regional offices are following up the recommendations of each report to make sure the enterprises are implementing the actions required of them. The EPA has a systematic and rigorous monitoring program that tracks these follow-ups to ensure that all the actions are complied with. The individual compliance audit reports are publicly available in the EPA Library at Level 15, 59 Goulburn Street, Sydney. The findings presented in this report are a collation of the findings presented in these individual compliance audit reports.

This report has been prepared for the purpose described and no responsibility is accepted for its use in any other context or for any other purpose.
Landfill environmental management plans (LEMPs)

In 1997, every landfill operator licensed under the Waste Minimisation and Management Act 1995 was required to prepare a landfill environmental management plan (LEMP) accompanied by a covering statement. This requirement extended to over 100 landfill operators outside the Sydney Metropolitan Area that had received licences for the first time.

The LEMPs were to be prepared in accordance with the Environmental Guidelines: Solid Waste Landfills (EPA 1997). These guidelines set out environmental goals and possible benchmark techniques that can be used to achieve these goals. The licensee was required to identify any departures from these benchmark techniques in the covering statement, and to include a timetable for implementing the benchmark and/or proposed alternative techniques.

The LEMPs and the covering statements have now been reviewed by the EPA, and new licences based on the environmental goals and the LEMP review are being issued progressively for each facility. The compliance audits referred to in this report were done before the assessment of the LEMPs and before the new licences were issued.

Description of industry sector

Landfills are used for the disposal of solid or liquid material by burial. They are facilities within the waste-management hierarchy that are used for effectively treating and disposing of those wastes that cannot be avoided, re-used, recycled or reprocessed because it is not technically feasible or economically viable to do so. Landfills are classified into the following six classes or subclasses:

- Inert Class 2
- Inert Class 1
- Solid Class 2
- Solid Class 1
- Industrial
- Hazardous.

Details of wastes that may be received at each class or subclass of landfill can be found in Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (EPA 1999).

The EPA licenses 59 landfills in the Sydney, Hunter and South Coast regions of NSW. The regional distribution is presented in Table 1. (The numbers in brackets represent the premises that were selected for audit, and the number to the right represents the percentage of premises audited. The premises audited are listed in Appendix A.)

Table 1. Regional distribution of licensed and audited landfills

<table>
<thead>
<tr>
<th>EPA region</th>
<th>No of premises licensed (audited)</th>
<th>Percentage of premises audited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
<td>37 (7)</td>
<td>19</td>
</tr>
<tr>
<td>South Coast</td>
<td>09 (1)</td>
<td>11</td>
</tr>
<tr>
<td>Hunter</td>
<td>13 (7)</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>59 (15)</td>
<td>25</td>
</tr>
</tbody>
</table>
Ten of the landfills audited were licensed to receive Class 1 solid waste, and five were licensed to receive Class 2 solid waste. Eight of the landfills audited had recently been issued with licences for the first time. These licences had four conditions attached to them. The four conditions related to the receipt and stockpiling of tyres, pollution of waters and the preparation and submission of a LEMP and covering statement. Ten of the landfills were licensed to receive over 100,000 tonnes of waste a year and two were licensed to receive less than 100,000 tonnes of waste a year. Three of the landfills licensed were located in environmentally sensitive areas.

Statutory instruments issued to the facilities

All of the landfills audited were scheduled premises under the Waste Minimisation and Management Act 1995. Five of the landfills were additionally licensed under the Pollution Control Act 1970, as they were scheduled under the Clean Air Act 1971 as Grinding and Milling Works. A number of landfills were also subject to licences under the Clean Waters Act 1970 for discharge to waters.

Approvals under the Pollution Control Act 1970 to install, construct or modify pollution-control equipment or works, as well as notices under the various Acts the EPA administers, had been issued to a number of the enterprises audited.
IDENTIFICATION OF ISSUES

Regulatory non-compliances identified in each of the 15 compliance audit reports of landfills were grouped into various issues (for example, water management, legislative requirements). The reports also include further observations which are observations made during the audit that did not strictly relate to compliance. These are listed in individual reports under the heading ‘Further Observations’. These observations are considered to be indicators of potential non-compliances or areas where environmental performance can be improved. As the audit program included eight premises that had recently been licensed for the first time and for which the EPA had issued four transitional licence conditions, the compliance audit reports of these sites included a number of ‘further observations’. In many instances, these observations would be considered non-compliances against a ‘normal’ landfill licence. Therefore, for the purpose of this report, the further observations relating to issues of environmental concern have been grouped with the regulatory non-compliances.

The issues identified were characterised according to their frequency of occurrence among the landfills audited. The environmental risks associated with the issues were site specific and varied considerably with the site characteristics and locations. Therefore, it was not feasible to perform an environmental risk assessment of the non-compliance issues over the whole landfill sector.

Issues identified at more than 20% of those landfills audited (three or more sites) have been grouped as common issues, those identified at 5%–20% of landfills as less common, and those identified at less than 5% as rare.

Notwithstanding the differences among the landfills audited in terms of the class of waste received, the nature of the licence and the location, this report addresses issues identified across the landfill sector.

Most of the non-compliance issues and issues of environmental concern were observed across the landfill industry sector in the areas listed in Table 2.

Table 2. Environmental and non-compliance issues observed in audits

<table>
<thead>
<tr>
<th>Area</th>
<th>No. of non-compliance issues</th>
<th>No. of issues of environmental concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational activities</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Water management</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>Air management</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Legislation</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Administration/management</td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

Common issues

Operational activities
The following operational activities were identified as non-compliance issues and issues of environmental concern.

Covering of waste
Issue: Waste was not being covered in a proper and efficient manner at seven of the premises audited.

Observations:
- Inclined part of the working face not covered up on completion of operations each day.
- Soil contaminated with asbestos and asbestos waste not covered to the required thickness of 500 mm.
• Use of material not suitable for covering the working face of the landfill as cover material.
• Inadequate compaction of cover material.
• Insufficient cover material available to meet the requirements of the landfill for periods of up to two weeks.

The use of cover material helps to protect the environment by limiting run-on and infiltration of water, controlling and minimising the risk of fire, minimising the emission of landfill gas, suppressing site odour, reducing fly propagation and rodent attraction and decreasing litter generation.

Landfill operators must ensure that suitable cover material is available and is applied to the surface of any landfilled waste as required.

**Screening of wastes received on site**

**Issue:** Waste was not being screened in a proper and efficient manner at three of the premises audited.

**Observation:**
• Inadequate supervision of the types of wastes received for disposal and recycling.

Verifying the quality of incoming waste ensures that landfills do not accept wastes that they are not licensed to receive or equipped to handle in an environmentally sound manner.

Landfill operators must use waste acceptance and screening procedures to ensure that the site does not accept wastes that are prohibited from being disposed of there.

**Control of litter on site**

**Issue:** Litter on site was not being controlled in a proper and efficient manner at five of the premises audited.

**Observations:**
• Litter found in sediment dams, stormwater-diversion drains, on fringe bushland and along perimeter fences.
• Infrastructure used to control litter (such as permanent and temporary litter fences) absent or damaged.

Wind-blown litter is a nuisance to the community around landfill sites and degrades the local amenity. Landfill operators must ensure that the local amenity is not degraded by litter from the waste facility.

**Site capping and revegetation**

**Issue:** Previously filled areas had not been adequately capped and revegetated at three of the premises audited.

**Observations:**
• Gully and rill erosion of the batters, exposing previously filled areas.
• Erosion of the landfill cover material, producing depressions across the surface of the area.
• Filled areas not adequately capped and vegetated.

Site-capping and revegetation is needed to ensure that the final surface of the landfill provides a barrier to the migration of water into the capped waste, controls emissions to water and atmosphere, promotes sound land management and conservation, prevents hazards and protects amenity.

Landfill operators must ensure that their landfills are capped and revegetated in accordance with the *Environmental Guidelines: Solid Waste Landfills* (EPA 1997) or approved alternative methods.
Storage of diesel oil, chemicals and lubricants

Issue: Chemicals such as diesel oil and lubricants were not being stored in a proper and efficient manner at six of the premises audited.

Observations:
- Lack of containment of small tanks and drums of diesel oil, lubricants and chemicals.
- Deficiencies in the containment structure provided for the storage of diesel and chemicals. For example, bunds were constructed of aggregate material, which would not be impervious in the event of a spill.
- Fuel-transfer points located in areas where spills could not be contained.

Diesel oil, chemicals and lubricants must be stored properly and efficiently to prevent spillage and leakage of materials that may cause soil contamination and pollution of waters, including ground water. Landfill operators must ensure that all fuel, chemicals and lubricants are stored in a manner that prevents the pollution of waters and contamination of soil.

Storage of waste oil and used batteries

Issue: Waste oil and used batteries were not being stored in a proper and efficient manner at six of the premises audited.

Observations:
- Lack of containment of small tanks, drums of waste oil and waste oil filters.
- Satellite storage of partly empty drums of oil without containment.
- Lack of containment for used batteries.

Landfill operators must ensure that all waste oil and all used batteries are stored in a manner that prevents the pollution of waters and contamination of soil.

Maintenance of plant and equipment

Issue: Plant and equipment were not being maintained in a proper and efficient condition and/or not being operated in a proper and efficient manner at four of the premises audited.

Observations:
- Poor maintenance of a truck wheel-wash facility.
- The bund surrounding stored materials contained liquid material, reducing its capacity.
- Leachate and stormwater diversion drains were eroded and contained litter.
- A submersible leachate pump was not pumping efficiently, resulting in the ponding of leachate at the base of the cells.

Landfill operators must ensure that all plant and equipment, including containment and drainage structures, are maintained in a proper and efficient condition.
**Water management**

The following water management activities were identified as non-compliance issues and issues of environmental concern:

**Pollution of waters**

**Issue:** Direct pollution of waters and the potential for pollution of waters were identified at three of the premises audited.

**Observations:**

- Unlicensed discharge of water contaminated with leachate and/or sediment from sediment ponds into gullies and drains that flow into waters.
- Potential of polluted discharge from green waste composting or wood shredding areas.

Discharges from landfills are likely to contain pollutants such as suspended solids and leachate. If these pollutants are discharged to waters they are likely to alter the physical, chemical or biological condition of waters, thereby causing pollution of waters.

Landfill operators must ensure that discharges from the premises do not pollute waters.

**Surface water management**

**Issue:** Surface water management practices at nine of the premises audited were inadequate.

**Observations:**

- Inadequate surface water controls to prevent stormwater runoff from mixing with waste and landfill leachate.
- Significant surface erosion in the landfill batter and other areas adjacent to sediment and leachate ponds, resulting in the drainage of sediments into these ponds.
- Diversion of stormwater across areas disturbed from previous operations.
- Inadequate storage capacity of sedimentation ponds to hold runoff from storm events.

Surface water controls are needed to stop any surface water from mixing with waste, to segregate leachate from sediment-laden water, and to store runoff and prevent any sediment or contaminants from being carried off the landfill site and causing pollution of waters.

Landfill operators must ensure that adequate surface water controls are in place to prevent the pollution of waters.

**Surface water and ground water monitoring**

**Issue:** Surface water and ground water were not being monitored in a proper and efficient manner at four of the premises audited.

**Observations:**

- Surface and ground waters discharging from the site not being monitored.
- Incorrect test methods used for monitoring wastewater discharge.

Surface water and ground water monitoring programs are needed to detect whether surface waters or ground waters are being polluted.

Operators must ensure that surface water and ground water monitoring programs are established with monitoring points/bores located at all site-discharge locations upstream/upgradient and downstream/downgradient.
The landfill operator must ensure that any water monitoring required by the licence is carried out in accordance with the relevant testing methods set out in the Regulations; in accordance with any methods set out in any condition of the licence; or, if no compulsory method is set out in the Regulations or in the licence, in a manner approved by the EPA in writing before any tests are carried out.

**Leachate management**

**Issue:** Leachate was not being managed in a proper and efficient manner at five of the premises audited.

**Observations:**

- Seepage of leachate from the slope of the landfill.
- Inadequate leachate collection systems in place.
- Inadequate monitoring of the leachate level.
- Leachate diversion drains having pervious surfaces.
- Inadequate storage capacity for the collection of leachate on site.
- Inadequate monitoring of the build-up of sediments in leachate ponds.
- Inappropriate disposal of leachate by irrigation to land, resulting in the generation of leachate run-off from the irrigation area.

Leachate collection systems are needed to collect all leachate in excess of the field capacity of the waste, and to prevent leachate from escaping from the landfill into the ground water, surface water or subsoil. Landfill operators must ensure that leachate is collected and disposed of in a manner that prevents environmental harm.

**Air management**

The following common air-management issues were identified.

**Dust suppression**

**Issue:** Dust suppression was inadequate at five of the premises audited.

**Observations:**

- No dust controls on a wood shredder.
- Disposal of waste at the tip face without adequate dust suppression.
- Loading of excavated materials on to trucks without adequate dust suppression.
- Monitoring results from dust gauges indicated dust deposition levels exceeding 4 g/m²/month, as an annual mean for total solids.
- A stockpile of material with a particle size less than 4 mm was being stored in an area that did not have permanent water sprays to suppress dust (required by the licence).
- Inadequate operation of water carts to control traffic-generated dust emissions from unsealed access and haul roads, as required by the licence.
- Dust emissions observed from the main quarry entry road, the truck-loading area and the access road to stockpiles.

Dust controls are needed to minimise the amounts of pollutants leaving landfills as airborne dust, to reduce stormwater sediment load and to protect local amenity. Dust emissions can affect the health of residents and cause pollution of waters. Landfill operators must ensure that all areas of the landfill are maintained in a condition that minimises dust emissions.
Landfill gas containment and monitoring

Issue: Landfill gas monitoring had not been carried out at five of the premises audited.

Landfill operators must ensure that any landfill gas emissions can be detected and controlled to stop gases migrating from the facility.

Legislative requirements

Pollution control approval

Issue: Pollution control approval to carry out works had not been obtained at five of the premises audited.

Observations:

- A leachate pond and leachate-collection system had been constructed without obtaining pollution control approval.
- A package sewage-treatment plant that discharged to waters had been installed without obtaining pollution control approval.
- Sediment basins/ponds had been constructed without obtaining pollution control approval.

Under section 19(1) of the Clean Waters Act 1970, a person was required to obtain pollution control approval to ‘install, construct or modify any apparatus, equipment or works for the storage, treatment or disposal, in a prescribed manner, of matter of a prescribed class or description’. Section 11A of the Clean Waters Regulation defined what was considered to be a prescribed matter and its appropriate storage. The storage of water generated by a facility such as a landfill, including contaminated stormwater leachate in sedimentation basins/ponds or leachate ponds, was included in this definition.

Operators were required to ensure that pollution control approvals were obtained before the installation, alteration or replacement of plant and equipment that was likely to cause or increase pollution. Note that approval was needed even when the works planned would cause a reduction in pollution.

Note: Under the POEO Act, pollution control approvals are no longer required, but variations to licence conditions may be needed.

Administration and management issues

Complaints register

Issue: Records of complaints received by the enterprises were not being kept properly at three of the premises audited.

Observations:

- Pollution complaint records did not contain information on the action taken by the enterprise.
- Pollution complaint records were not produced during the audit.
- Pollution complaints were not being recorded.

Enterprises are required to keep records of pollution complaints so that they are in a position to indicate what action, if any, has been taken in relation to the complaint, and, where appropriate, the remedial action taken to mitigate, prevent or minimise the pollution.

Landfill operators must ensure that all complaints received by the licensee, or by any employee or agent of the licensee, in relation to pollution from or on the premises are recorded and kept as required by the licence.
Certificate of Compliance (CoC)

**Issue:** The Certificates of Compliance with licence conditions (Statement of Compliance [SoC] under the POEO Act) that enterprises submit to the EPA annually were not being submitted correctly by three of the licensees.

**Observations:**

- Not reporting exceedances of licence conditions relating to noise limits.
- Not reporting that samples had not been analysed for the required parameters.
- Not providing all the required information in annual reports as required by the licence (quality assurance/quality control results, presentation of results in graphical form, levels of liquid in sedimentation ponds, recommendations for changes in operational requirements to minimise the level of environmental risk arising from waste-disposal activities).
- Late submission of CoCs.

Enterprises are required to submit SoCs indicating compliance with licence conditions; reasons for non-compliance; action taken to prevent, control or mitigate the non-compliance; and action that has or will be taken to prevent a recurrence of the non-compliance.

Landfill operators must ensure that the SoC is submitted as required by the licence. Operators should also be aware that providing misleading information in the SoC is an offence under the POEO Act.

**Reporting**

**Issue:** Reports were not provided to the EPA (as required by licences) by three of the licensees.

**Observations:**

- Non-submission of LEMPs and covering statements.
- Incomplete covering statement submitted with the LEMP.
- Non-submission of a report giving details of monitoring procedures and methodologies.
- Late submission of monitoring results.
- Yearly returns not containing all of the required information.

Through licence conditions the EPA requires enterprises to submit certain reports such as LEMPs and monitoring results.

Landfill operators must ensure that reports are submitted to the EPA as required by conditions attached to the licence.

**Less common issues**

The following issues were each identified at two of the fifteen landfill sites audited.

**Issue:** Not authorising two senior employees to speak on behalf of the licensee and to provide any information or document required by the licence, and not informing the EPA of the names of these employees and their contact numbers within 14 days of the licence coming into force.

**Issue:** Noise not being monitored on site as required by the licence.

**Issue:** Receiving for disposal equipment containing CFCs and HCFCs, such as refrigerators and air-conditioning units with the potential to emit ozone-depleting substances.

Landfill operators must ensure that licence conditions are complied with and that activities are carried out in compliance with the legislation.
Rare issues

The following issues were identified at individual landfills.

**Issue:** Operating after hours.

**Issue:** A copy of the current licence was not kept at the premises as required by the licence.

**Issue:** Vehicles bypassing the truck-wash facility.

**Issue:** Improper stockpiling of tyres without adequate segregation from other combustible material.

Licence conditions are designed to protect the environment, and landfill operators must ensure that they are complied with.
WHERE TO FROM HERE?

These findings, from audits of 15 facilities out of a total of 59 landfills in the Sydney Metropolitan Area and Extended Regulated Area, do not provide sufficient information to draw detailed conclusions about all aspects of the environmental performance of the landfill industry. However, having selected a representative sample of the landfills, the EPA has confidence that issues identified in the report are generally typical of the whole sector.

Because reporting on the state of the landfill sector’s environmental performance is a valuable decision-making tool, the EPA will use the landfill sector compliance performance report to communicate its findings on the sector to relevant stakeholders.

The EPA will also use these findings to review how best its resources can be channelled to guide industry to address the issues identified in the report. It will also consider using regulatory instruments such as the model landfill licence conditions and additional or alternative tools such as policy documents, education, consultation, negotiation and enforcement. It is also hoped that the sector review findings will be used to guide the POEO licence reviews, which are scheduled to take place at intervals not exceeding three years.

The EPA will appoint a sector review manager to consider (with input from relevant EPA stakeholders) the issues identified in the sector, and will select suitable approaches for addressing these issues.
APPENDIX A

The findings of this report are based on the results of compliance audits on the following selected premises:

- Autel Sales Pty Ltd—Eastern Creek
- Cessnock City Council: Cessnock Waste Facility—Cessnock
- Cleary Bros (Bombo) Pty Ltd—Port Kembla
- Erskine Park Landfill: Enviroward Pty Ltd—Erskine Park
- Hawkesbury City Council: South Windsor Waste Facility—South Windsor.
- Kincumber Landfill Facility—Kincumber
- Lake Macquarie City Council: Awaba Waste Disposal Facility—Awaba
- Lucas Heights Waste Management Centre—Lucas Heights
- Maitland City Council: Mount Vincent Road Waste Disposal Depot—East Maitland
- Newcastle City Council: Summerhill Waste Management Facility—Wallsend
- Pacific Waste Management: Elizabeth Drive Landfill—Kemps Creek
- Penrith Waste Services Pty Ltd—Mulgoa
- Waste Recycling and Processing Services of NSW trading as Waste Services NSW: Jacks Gully Landfill Depot—Camden East
- Woy Woy Landfill Facility—Woy Woy
- Wyong Shire Council: Buttonderry Creek Landfill—Warnervale.

Individual compliance audit reports for all of these facilities are publicly available in the EPA Library at Level 15, 59 Goulburn Street, Sydney.