Environment Protection Authority

Annual Compliance Plan 2013–14

EPA South Australia

Annual Compliance Plan 2013–14

For further information please contact:

Information Officer
Environment Protection Authority
GPO Box 2607
Adelaide SA 5001

Telephone: (08) 8204 2004
Facsimile: (08) 8124 4670
Free call (country): 1800 623 445

Website: <www.epa.sa.gov.au>

Email: <epainfo@epa.sa.gov.au>

ISBN 978-1-921495-43-4

July 2013

Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

Contents

Abbreviations

CDL	container deposit legislation
DMITRE	Department for Manufacturing, Innovation, Trade, Resources and Energy
DPTI	Department of Planning, Transport and Infrastructure
EIP	environmental improvement plan
EP Act	Environment Protection Act 1993
EPP	Environmental protection policies
IDU	Illegal Dumping Unit
RPC Act	Radiation Protection and Control Act 1982
NPI	National Pollutant Inventory
µg/dL	micrograms per decilitre

Foreword

The EPA aims to be a respected and effective advisor and regulator, employing best practice regulatory principles and tools, and robust processes to support and enable the willing. We will tackle the important issues and take a proportionate risk and evidence-based approach. We will be decisive and timely in taking strong enforcement action when needed.

It is imperative that we take steps to understand the environmental impacts of industries' actions and ultimately what the outcomes (good and bad) may be. The proactive and reactive management response to these impacts and outcomes must be considered in an integrated way to map out an appropriate response plan. At the foundation of this approach is the need for very robust data and information, and their use to drive sound decision making and actions.

South Australia is faced with some particular environmental challenges that the EPA will seek to focus resource on in this financial year. These include major point sources of pollution and waste, South Australia's legacy issues such as site and groundwater contamination and the interface of industry and residential dwellings, increasing urban and infrastructure development and renewal, inappropriate and illegal management of wastes and resource recovery, and the continuing expansion of mining in South Australia.

Our compliance activities, as set out in this Compliance Plan, will be a key contributor to addressing these challenges.

The EPA will publish its objectives and, at the end of the financial year, report its achievements against them. I would encourage you to be part of the process by contributing your thoughts as to our priorities and performance.

Campbell Gemmell
Chief Executive
Environment Protection Authority

1 The EPA regulatory approach

As a respected and effective advisor and regulator, the EPA will employ best practice regulatory principles and tools, and robust processes to:

- support and enable the willing
- tackle important issues by taking a proportionate, risk and evidence-based approach
- withstand challenges
- be decisive and timely in taking strong enforcement action when needed.

1.1 Compliance and enforcement statement

- The EPA will not ignore any criminal or negligent act by any person which threatens or damages the environment or which undermines the regulatory regime.
- The EPA will work closely with industry, and state and national enforcement and regulatory bodies to share and develop intelligence and utilise contemporary surveillance and audit methods to identify non-compliance or criminal conduct.
- The EPA will have regard to and seek to further the objects of the *Environment Protection Act 1993* (EP Act), including taking into account social, environmental and economic factors when making regulatory decisions.
- Environmental legislation provides the EPA with a variety of regulatory tools and the ability to exercise discretion to determine which tool is appropriate for particular circumstances. The suite of enforcement tools includes criminal prosecution, and administrative and civil proceedings. The various tools may be used in conjunction with one another where necessary.
- In determining an appropriate course of action, the EPA will consider a variety of factors including, but not limited to the:
  - seriousness of the contravention, for example the nature and extent of the impact, harm or potential harm to the environment or the potential to undermine the regulatory regime
  - extent and speed of remediation action required
  - compliance history.

1.2 Principles for compliance and enforcement decisions

The EPA's compliance and enforcement approach is based on the foundation of *firm but fair* regulation. We are guided by the following five core principles:

Proportional: We will ensure that any measure taken is proportional to the risks posed to the environment and the seriousness of the offence. As far as the law allows, the EPA will take into account the circumstances of each case when considering the action we will take.

Consistent: We will be fair, equitable and apply consistent processes in all cases. We will ensure all officers are trained, and there are effective systems and operational policies in place to support them.

Transparent: We will openly share information about our decisions and actions. We will assist the regulatory community to understand what is required of them and what they should expect from the EPA. We will make available information on the public register as required by the law.

Targeted: We will ensure our regulatory effort is directed primarily towards those activities that pose the greatest risks, cause the greatest environmental damage or undermine the regulatory regime.

Timely: We will work in a timely manner to manage, inform and progress without delay.

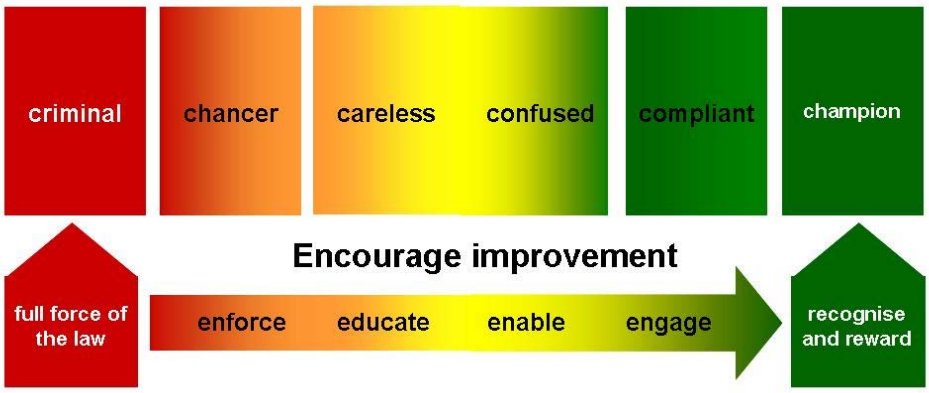
1.3 Determining what regulatory action to take

The start of the regulatory process is the identification and analysis of the issue or environmental pressures that we are faced with. Data relating to the state of the environment is crucial. There needs to be strong scientific and data driven support to regulatory decision making.

A number of factors then affect our regulatory approach:

- the seriousness of the contravention, for example the nature and extent of the impact, harm to the environment or the potential to undermine the regulatory regime
- the extent and speed of remedial action required
- attitude of regulated entity (see section 1.4)
- objectives of regulatory action (for example enforce, educate, enable, reward)
- available toolkit
- our experience with this issue, sector or operator.

We recognise that the majority of individuals and companies are willing to comply. We tailor our regulatory actions across the full spectrum of circumstances, in particular to support and recognise those who demonstrate a commitment to good compliance and go beyond compliance to achieve outcomes such as greater sustainability, resource efficiency and best practice business processes. At the other end of the spectrum, we will seek to be robust in tackling failure to comply.



For those that deliberately or negligently fail to comply, the EPA considers expiation, orders or prosecution.

1.4 What you can do to comply

Households

The EP Act requires anyone doing something that pollutes or might pollute the environment to take all reasonable measures to prevent or minimise environmental harm or nuisance.

Noise issues from residential properties may be an environmental nuisance under the EP Act if the noise unreasonably interferes with the enjoyment of the area. Examples of domestic noise include noise from air conditioners, compressors, pumps, swimming pool pumps and filters, non-fixed domestic machines or tools such as power tools, lawnmowers, spray guns etc.

The EPA website <www.epa.sa.gov.au> provides information on the types of the noise covered by legislation and the maximum noise levels permissible in specific circumstances.

Businesses

The EPA works with business and industry to help them reduce their impact on the environment and use their resources more efficiently.

While not every business needs a licence from the EPA, there are still a lot of business and industrial practices we regulate. Even activities as simple as hosing down your work site have the potential to harm the environment.

The EPA website <www.epa.sa.gov.au> provides information about a number of issues for you to think about when going about your business, including:

- waste and material storage
- air emissions
- noise pollution
- managing spills
- stormwater discharge
- site contamination
- waste and reuse.

Licensees

The holder of an EPA licence is required to comply with the conditions of operation set in their licence. These conditions are set through negotiation with an EPA licence coordinator.

Emissions or discharges that exceed set limits may require the development of an environment improvement program (EIP) by the licensee which will move their operation to being able to comply with the limits for those discharges over a set period of time.

Everyone, not just licensees, is responsible to abide by the EP Act under certain situations:

- A person must not undertake an activity that pollutes, or might pollute the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.
- A licence is required if a person is undertaking an activity detailed in Schedule 1 of the EP Act.
- If an incident occurs that has caused or could cause serious environmental harm the person undertaking the activity responsible for the harm must report the incident to the EPA as soon as possible.

1.5 Legislation and regulatory tools

1.5.1 Legislation

The environmental impacts of activities are regulated primarily under the EP Act and *Development Act 1993*. The *Radiation Protection and Control Act 1982* (RPC Act) controls activities related to radioactive substances and apparatus, and for protecting the environment and the health and safety of people against the harmful effects of radiation.

The EP Act provides the following statutory avenues for the EPA to regulate activities that have, or may have, an adverse environmental impact:

- the general environmental duty (section 25) which states that ‘a person must not undertake an activity that pollutes, or might pollute, the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm’
- regulations and environment protection policies (EPPs), which may be accompanied by codes of practice, guidelines or standards
- environmental authorisations including licences for the activities described in Schedule 1, works approvals and exemptions
- regulatory and administrative tools to achieve compliance
- environmental offences (eg causing serious or material environmental harm, or causing an environmental nuisance).

Schedule 1 specifies the prescribed activities of environmental significance that may only be undertaken if the relevant person is issued an environmental authorisation in the form of a licence. It also specifies exceptions to those categories of activity. Both authorised and unauthorised premises are subject to the legislation.

There are also a number of non-statutory options and tools employed by the EPA, including the provision of information through education and communication.

Guidelines are used as tools to provide detailed information on the EPA's expectations regarding compliance with legislation. Guidelines also aim to assist organisations to achieve better environmental practice.

The EPA administers the site contamination provisions of the EP Act, following amendments in 2007 that commenced in July 2009. The provisions give the EPA powers to deal with, and assign responsibility for, site contamination and establish an audit system in South Australia.

The RPC Act provides the following statutory avenues for the EPA to regulate activities that have, or may have, an adverse environmental impact or impact on the health and safety of people:

- the general duty (section 23) requires that a person must, in carrying on an activity related to radioactive substances or ionising radiation apparatus, endeavour to ensure that exposure of persons to ionising radiation is kept as low as reasonably achievable, social and economic factors being taken into account
- authorisations including registration of ionising radiation apparatus, sealed radioactive sources and premises where unsealed radioactive substances are handled or kept, licensing people to operate radiation apparatus and licensing people to use or handle a radioactive substances, licensing people or companies to conduct mining or mineral processing operations or developmental testing mining or mineral processing operations, or to site, construct and operate prescribed facilities, licensing people or companies to possess radiation sources, and accrediting third party service providers
- the power under section 42 of the RPC Act to deal with dangerous or potentially dangerous situations involving actual or threatened exposure of a person to excessive radiation or contamination of a person or place by radioactive substances
- the provision under section 44 for granting exemptions from provisions of the RPC Act, providing the exemption subject to conditions would not endanger the health or safety of any person
- regulations which may be accompanied by codes of practice, guidelines or standards.

1.5.2 Regulatory tools

Development approval conditions

The EPA provides advice or direction to planning authorities (local councils and the Development Assessment Commission) in response to development application referrals for activities of environmental significance, as prescribed in the Development Act and *Development Regulations 2008*. Where the EPA has the power of direction on development applications, the EPA can direct that proposals are refused or that certain conditions are attached to any approval to ensure that the environment and the community are protected.

Major developments and projects are referred to the EPA by the Minister for Planning for assessment and advice on potential environmental impacts. The EPA also reviews proposed amendments to council development plans (Development Plan Amendments) to ensure suitable environmental investigations are undertaken and proposed rezoning is appropriate, including taking into account industry and residential interface issues.

Authorisations

Licences

The EPA negotiates conditions through a licence to regulate activities that have the potential to harm the environment. Any person or company undertaking these types of activities may need an EPA licence. The term of a licence is generally five years, but can typically vary from one to 10 years based on the EPA's assessment of the risk or duration of the activity.

The EPA undertakes inspection of licensee premises to assess compliance with licence conditions and legislation (such as environment protection policies) administered under its authority.

Exemptions

In certain circumstances a licensee may need to apply to the EPA for an exemption. This is in cases when they are unable to comply with the EP Act. The EPA may grant an exemption for a set period of time and with special conditions attached so that the business can continue to operate. There will be an expectation by the EPA that the business will work hard to move their operations into compliance or that the exceedences are short lived.

Works approvals

Business that constructs or alters a building or structure that is intended for an EPA licensed activity may be required to obtain a works approval. A works approval is generally not required if the works have already been subject to the development assessment process under the Development Act. In this circumstance the EPA may already have had the opportunity to provide comment or set conditions through powers conferred under this Act.

Environment improvement programs

A number of actions are identified for a licensee to become compliant with the EP Act, provisions of a policy or environmental authorisation. Where those actions may require significant resources (time and cost) to be allocated by a licensee, the use of an EIP may be negotiated. Licensees may voluntarily submit an EIP or in some instances the EPA will require certain issues be addressed by an EIP through a licence condition.

Radiation licences and registrations

Registration of ionising radiation apparatus, sealed radioactive sources and premises where unsealed radioactive substances are handled or kept is contingent upon compliance with the requirements for design, shielding and construction specified in the regulations under the RPC Act. This is determined via an inspection of the equipment or premises either by an officer of the EPA or in the case of dental, medical and veterinary X–ray apparatus, by an accredited tester.

People must demonstrate appropriate knowledge of radiation protection in order to obtain a licence to operate X–ray apparatus or a tanning unit, or to use or handle radioactive substances.

Licensing people or companies to conduct mining or mineral processing operations or developmental testing mining or mineral processing operations, requires various endorsements and approvals including environmental impact assessments, and approvals of radiation management plans and radioactive waste management plans under conditions on licences.

Licences to site, construct and operate prescribed facilities, and licensing people or companies to possess radiation sources, were introduced in 2012. Radiation management plans are also required for these licences.

In 2012 the provision for accrediting third party service providers was also introduced into legislation. People must demonstrate appropriate qualifications, knowledge and skill to be accredited as a third party service provider.

Financial assurance

The EPA may as a condition of an environmental authorisation, require the holder of the authorisation to lodge a financial assurance in the form of a bond. This EPA is increasingly applying this regulatory tool at the establishment of significant facilities such as landfills.

1.6 Types of compliance activity

The EPA conducts four types of compliance activities and these can be planned or responsive.

1.6.1 Pollution reporting and enquiries

The EPA responds to reports and enquiries through its 24-hour pollution and illegal dumping hotline (telephone 8204 2004, freecall non-metro 1800 623445).

Depending on the nature of the complaint the EPA's response may be to:

- provide verbal or written information to the caller
- progress a staged complaints management protocol which communicates with both the caller and the person alleged to be generating the pollution
- register a formal report for follow-up by an authorised officer
- refer the information provided by the caller to another state or local government agency for action.

1.6.2 Emergency response

The EPA responds to emergency pollution incidents when notified through the emergency 24-hour number (same as for the pollution and illegal hotline).

Emergency responses are of three types:

- whole-of-government procedure as outlined in the State Emergency Management Plan. This applies to spills or leaks of hazardous substances onto land or into non-marine waters and is coordinated by emergency services (police, fire and technical advice coordinators)
- national response plan, which deals with oil or chemical spills at sea, and is coordinated by the Marine Group of Department of Planning, Transport and Infrastructure (DPTI)
- other environmental incidents that do not trigger either of the above emergency response systems; this includes incidents reported by EPA licence holders and some incidents reported by members of the public through the pollution reporting line, which requires an immediate assessment by the EPA.

The EPA also responds to radiation incidents and emergencies and provides expert advice to emergency services such as the Metropolitan Fire Service, Country Fire Service, the Ambulance Service or Police in the case of an incident.

The EPA provides basic training for emergency personnel on radiation safety with radioactive substances. The EPA also has representation on State Chemical, Biological, Radiological and Nuclear Emergency Management, Scientific and Training Committees. Radiation emergency call-outs are infrequent. Those attended to date, some with significant emergency response resources deployed, have not presented any significant challenge to EPA staff.

1.6.3 Strategic activities

Some environmental issues are of high strategic priority or public interest. In addition to its operational licensing and inspection activities, the EPA undertakes planned, proactive activities targeted at particular sites or industry sectors to address high environmental risks, pollution or long standing compliance issues.

The EPA has initiated a systematic approach to identifying issues and harms requiring such a project approach. The *EPA 2012–2015 Strategic Plan* outlines six high-level pressures which guide harm identification and prioritisation. They are:

1 major point sources of pollution and waste

2 South Australia's legacy issues, particularly site and groundwater contamination and the interface of industry and residential dwellings

3 increasing urban and infrastructure development and renewal

4 inappropriate or illegal management of wastes and resource recovery

5 broader issues of statewide significance, eg management of the River Murray, potential impacts of renewable energy, and impacts of climate change

6 expansion of mining in South Australia and its associated infrastructure.

These high-level pressures provide the foundation for categorising, identifying and the prioritisation of harms that the EPA will tackle in the coming year.

In addition to its assessment, the EPA analyses data from inspections, monitoring, complaints and other sources to identify high priority environment and radiation protection issues that need to be addressed.

The EPA has an ongoing waste reform program that includes an industry reference group. This program aims to further develop the EPA's policies and standards to better regulate waste management in South Australia and to achieve South Australia's state waste strategy. This strategy can be found at Zero Waste SA website <www.zerowaste.sa.gov.au>.

1.6.4 Operational activities

Licensee compliance

The EPA has responsibility for the regulatory oversight of approximately 2,100 licences under the EP Act. Under the RPC Act, approximately 160 registered premises, 650 registered sealed radioactive sources and 1,800 registered ionising radiation apparatus, 5,500 individual licences to operate radiation apparatus or to use or handle radioactive substances, 850 licences to possess a radiation source and eight mining and mineral processing licences, and five facility licences.

In accordance with its compliance and enforcement guidelines, the EPA undertakes a risk-based approach to prioritising its activities in ensuring compliance with environmental and radiation safety requirements.

Measuring compliance status is important for a number of reasons. It measures the success of the EPA's compliance activities, and it allows for targeted responses. For individual companies and sectors it also allows a tailored compliance approach. Less compliant companies will receive more regulatory attention, more prescriptive requirements, and quicker escalation to enforcement action.

The EPA has a dedicated Investigations and Tactical Support Branch which examines breaches of the EP Act and the RPC Act in accordance with established compliance and enforcement criteria. Prosecutions pursued by the EPA are conducted by the Crown Solicitor's Office, and the Office of the Director of Public Prosecutions.

Non-licensed compliance

Response to pollution reporting and complaints

The EPA receives approximately 750 complaints annually relating to environmental nuisance issues which are separate to licensed sites. These complaints are managed through a combination of a staged administrative and compliance processes. The EPA utilises a three-stage administrative process, which prioritises the complaints and addresses approximately 97 percent of complaints without the need for formal investigation.

Illegal Dumping Unit

Illegal dumping has been a significant problem for both the community and government for some time. The EPA Illegal Dumping Unit targets illegal dumping of hazardous waste, controlled waste and commercial quantities of construction and demolition waste. It works closely with other EPA operational branches to ensure a consistent approach is taken to compliance and enforcement and to provide operational support where needed.

Container Deposit Legislation

South Australia's beverage container scheme is managed via the beverage container provisions of the EP Act. The EPA's operational activities associated with container deposit legislation (CDL) are most commonly directed toward the detection and removal of non-approved beverage containers from retail stores. Other compliance activities are focused on activities known as 'interstate rorting' (transport of empty beverage containers from interstate to collect refund) and 'parallel importing', which is the transport of full beverage containers from interstate which have not been declared as sales.

Plastic Bag Legislation

The EPA administers the *Plastic Shopping Bags (Waste Avoidance) Act 2008*. This Act prohibits the supply of lightweight (35-micron) shopping bags. The EPA's compliance efforts are focused on ensuring these bags are not supplied at retail premises and major community events, and that these bags are not being wrongly labelled as meeting biodegradability criteria of *Australian Standard 4736–2006*: *Biodegradable plastics suitable for composting and other microbial treatment*.

2 Plans for the coming year (2013–14)

2.1 Strategic compliance activities

2.1.1 Major point sources of pollution

Impacts on residents from lead in Port Pirie

Nyrstar Port Pirie Pty Ltd operates the world's largest lead smelter along with other associated metal refining activities at Port Pirie, producing 240,000 tonnes of lead and lead alloys per annum. It is an important contributor to both the local and state economies.

However, the smelter is the source of the well-documented lead contamination in the township and high levels of blood lead in the local community. Children aged 0–4 years are at highest risk of health impacts from lead exposure. Despite steady reductions in air emissions over time, over 20 percent of children aged 0–4 years living in Port Pirie remain above the World Health Organization (WHO) blood lead goal of 10 ug/dL.

In 2011 the EPA started negotiations for Nyrstar's new licence that would further significantly reduce lead emissions. A new licence was agreed in 2012 requiring a plan by June 2013 for EPA approval to significantly reduce emissions. Also in 2012, the Premier announced that an agreement had been reached with the Commonwealth government and Nyrstar for major investment in the Port Pirie smelter to transform the site and reduce emissions.

EPA targets for 2013–14:

- Ensure ongoing compliance with the current conditions of licence, in particular the EIP.
- Complete the EPA assessment of the impact of Nyrstar's transformation proposals in terms of emissions reduction capabilities.

Impacts on residents from dust

Le Fevre Peninsula

EPA licence conditions for major industries on the Le Fevre Peninsula include the implementation of an EIP to manage onsite activities, and meet specific monitoring and reporting requirements. Adelaide Brighton Cement and Penrice Soda Products currently both have EIPs in place.

The current EIP targets continuous improvement of the environmental performance, with a focus in this area on reducing ambient dust levels and noise.

EIPs are developed in consultation with the local community liaison groups, and community liaison groups form an important part of ongoing communication of monitoring results, regulatory actions and community concerns.

EPA targets for 2013–14:

- Achieve further improvements in air and noise emissions performance by each major licensee.
- Provide increased support to the ABC community liaison group by providing additional expert advice on air monitoring programs and outcomes.

Mining/extractive industries and residential interface

Several EPA licensed mining and extractive sites (quarries) around South Australia are located in the vicinity of or adjacent to residential areas. Examples are the Boral Linwood Quarry, Hillgrove's Kanmantoo Mine and Hanson Quarry at Golden Grove. Having residential properties so close to such facilities can create issues for residents relating to dust, noise and drag out of materials. The EPA manages such issues through a number of measures including licence conditions, EIPs and requirements for associated environmental management plans (eg air quality management plans). Currently the EPA has a number of mining and extractive sites (quarries) in close vicinity to residential areas in which residents are concerned about the dust impacts from these sites.

The EPA will ensure that all relevant licensed mining and extractive sites (quarries) around South Australia that are located in the vicinity to residential areas that have dust related community concerns will have appropriate air quality management plans. These plans may require facilities to install continuous real-time dust monitors to ensure compliance with the National Environment Protection Measure (NEPM) for Ambient Air Quality.

EPA's targets for 2013–14:

- Ensure that each licensee for three quarry locations (Penrice, Marino/Hallet Cove, Golden Grove) complies with an EPA approved air quality management plan, and is compliant with legislation (including where appropriate the National Environment Protection Measure for Ambient Air Quality) as well as the requirement to take all reasonable and practicable measures to mitigate against potential dust impacts arising from activities.

Impacts on residents from odour

Foundry odour compliance

A review of foundry operations in 2011–12 identified vast improvement in operations at many facilities and overall a good compliance with Odour Unit criteria at residential interfaces. However, not all foundries meet the criteria.

EPA targets for 2013–14:

- The EPA will require any foundry operations that are not meeting Odour Unit criteria at residential interfaces to develop an EIP, setting out methods by which Odour Unit criteria will be met, for EPA approval by 2014.
- The long term objective for the EPA will be for all foundry operations to meet Odour Unit criteria by 2016, and the EPA will in 2013–14 ensure that EIPs set in place actions to meet this timeframe.

2.1.2 Waste management

Waste stockpiling

The lack of clarity between stockpiling of a resource versus stockpiling of waste can lead to an unintended liability for site owners. In addition the inappropriate stockpiling of waste can pose risk to the environment and to having a level playing field with compliant operators. Hence the EPA has a particular focus on the appropriate management of waste which relies on a clear definition of waste, both the beginning and end of waste.

In 2013–14 on risk basis, the EPA will inspect and review the waste management practices of sites with a focus on stockpiling. The inspections will focus on ensuring there is accurate data on stockpile volumes and ensuring that strategies for long-term management of actual or potential environmental impacts are in place.

EPA targets for 2013–14:

- Undertake a stockpile audit program for key sites with the potential to stockpile significant volumes.
- Collate accurate stockpile data for key sites, identify risks to the environment and the regulatory environment, and produce an action plan.

Waste levy avoidance

The solid waste levy is an essential revenue stream and enables the government to provide grants and incentives to improve waste management in South Australia. In addition, it has considerable value as a market-based instrument to influence waste management attitude and behaviour.

The ability to fraudulently report the waste levy permits rogue operators to achieve an economic benefit not available to their competitors.

The EPA has a continuing focus on ensuring the correct levy is reported and paid by all landfills in the state, and applies a multi-faceted audit process to the satisfaction of the Auditor-General's Department. The ability to call on expertise from other areas in the EPA and the private sector provides a robust compliance program designed to secure this goal in the 2012–13 financial year.

EPA targets for 2013–14:

- Undertake 90 targeted site inspections to inspect the nature of operations and audit the placement of waste at landfills.
- Complete 300 monthly weighbridge audits.
- Undertake 65 surveillance activities of high risk sites.
- Complete 12 desktop audits to validate correct characterisation of wastes at landfills.

Resource recovery and e-waste

Electronic waste collection and recycling has been expanding following the commencement of the National Television and Computer Recycling Scheme (National Scheme) from mid-2012 and the state ban of the direct disposal of televisions and computers from metropolitan Adelaide to landfill from 1 September 2012. The National Scheme has been expanding rapidly in 2013 with 14 ongoing collection services now established across metropolitan Adelaide and regional South Australia and several special collection events held.

The digital switchover for the Adelaide metropolitan and surrounding areas on 2 April 2013 also created a short-term spike in television waste as anticipated. South Australian resource recovery facilities are required to handle television and computer waste in accordance with the EPA guidelines on resource recovery processing (August 2012).

EPA targets for 2013–14:

- Undertake audit of the five currently approved Resource Recovery Facilities.
- Undertake audit of seven priority e-waste collection and drop-off sites.

Illegal management of waste and illegal dumping

Illegal dumping has been a significant problem for both the community and government for some time. In response, the South Australian government established a new unit within the EPA specifically to tackle this issue. The Illegal Dumping Unit (IDU) was launched on 30 January 2012.

The unit will target the illegal dumping of hazardous waste, controlled waste and commercial quantities of construction and demolition waste as well as illegal land filling and illegal waste management. It also ensures a consistent approach is taken to compliance and enforcement, and provides operational support where needed.

The IDU will use its intelligence holdings and analysis to target and intervene in illegal waste management activities. There will be four key focus areas for 2013–14:

- Companies or natural persons who engage in serial dumping.
- Unlicensed waste and recycling operations.
- The uncovered transport of waste.
- Transport and disposal of contaminated /hazardous waste.

Tracking of waste movements

The transport of certain wastes into, within and out of SA must be tracked. Waste tracking involves obtaining prior approval for the waste to be transported and completing required documentation each time such waste is transported.

The EPA will implement an internet-based waste tracking system (online waste tracking) as an alternative to paper-based waste tracking in the 2012–13 financial year. The online system will provide the EPA with better information about waste flows in SA, enabling pressure points to be identified early and corrective action to be taken before they become a major problem.

The intelligence gathered also enables the EPA to identify and deal with illegal activities more systematically, leading to a better environment and a fairer waste market.

EPA targets for 2013–14:

- Implement an online internet-based waste tracking system (online waste tracking) as an alternative to paper-based waste tracking.
- Complete six desktop audits targeting specified wastes from 'cradle to grave'.

2.1.3 Protection of marine and inland waters

Implementation of the Adelaide Coastal Water Quality Improvement Plan (ACWQIP)

The ACWQIP has identified load levels that have impacts on sea grasses from nutrient discharged to Gulf waters. The nutrient load levels are to be used as conditioned load limits for the licensed metropolitan waste water treatment plants. This has been delivered for Christies Beach, and the same approach will be used to form licence conditions for the Bolivar and Glenelg Waste Water Treatment Plants (WWTPs).

These changes are to be implemented on renewal of the licences in November of 2015, and prior to implementation the EPA will need to work closely with SA Water to develop licence conditions to set load targets and identify capital programs required to achieve proposed load limits. Any licence conditions requiring capital spending will need to be identified early in order to satisfy requirements of the Essential Services Commission of South Australia submission deadlines.

EPA targets for 2013–14:

- Identify required improvement works and have developed draft licence conditions to target nitrogen reduction in marine discharge from Glenelg and Bolivar WWTPs.

Kimberly–Clark Australia

Kimberly–Clark Australia (KCA) operates a large paper mill near Millicent in the southeast of South Australia under an indenture agreement that concludes in October 2014. For several years, the EPA and KCA, with assistance from Department for Manufacturing, Innovation, Trade, Resources and Energy (DMITRE), have discussed and progressed the process and requirements for an EPA authorisation, at the conclusion of the Indenture. In 2012–2013 the EPA completed an ecological risk assessment of the KCA wastewater discharge.

EPA targets for 2013–14:

- Develop the EPA licence conditions.
- Develop reasonable discharge limits in wastewater for the future.
- Develop a water monitoring program for KCA to undertake.

Fish processing wastewater discharge

A small number of fish processors in Port Lincoln continue to discharge to the marine environment without adequate wastewater treatment.

The EPA will be working with the Industry involved, as well as the local authority, regional development board and other government agencies to achieve compliance with the *Environment Protection (Water Quality) Policy 2003* requirement that all fish processing facilities incorporate a wastewater management system and do not discharge to the marine environment.

EPA target for 2013–14:

- Ensure that all land-based fish processors in the Port Lincoln region cease the discharge of wastewater to the marine environment.

Regional wastewater management

Since 2009 many local government authorities have obtained Federal funding to improve their community wastewater management systems to increase the reuse of treated wastewater and minimise adverse environmental and health

impacts within their jurisdictions. Furthermore, the state government has provided funding towards the construction of new community wastewater management systems in areas which previously did not have such infrastructure.

To date approximately 85 systems have been upgraded or constructed. Despite this, environmental pressures will increase due to growing development and populations leading to a greater volume of discharged wastewater impacting on inland and coastal waters.

The EPA recognises that further upgrades and new systems are required, particularly in coastal and river-based holiday townships.

The Aquatic Ecosystem Condition Reports (AECR) Project conducted by the EPA commenced in 2008 and has highlighted sites that may require upgrades based on environmental condition.

EPA targets for 2013–14:

- Conduct an audit of onsite wastewater systems and existing community sewage treatment systems in coastal areas to identify and prioritise the need for upgrades based on environmental risk.
- Communicate the outcomes of the audit to local government to assist them in their waste water management planning.

2.1.4 Expansion of mining in South Australian and its associated infrastructure

EPA has a key environmental role in the licensing of a number of significant existing mining and extractive operations, including BHP Billiton Olympic Dam, Terramin zinc mine (Strathalbyn), and the Boral Linwood Quarry at Marino.

Currently, the EPA manages 15 ore related mine authorisations (over half these mines started operation from 2010) and 32 separate extractive mine authorisations. In recent years it has also been required to assist in the assessment of major proposals as part of the expansion of mining in SA, including the of Olympic Dam expansion, Mindarie, Pelicular Knob, and Kanmantoo.

The EPA works closely with DMITRE and other state government agencies as part of this process. There at least 12 new mining projects currently in discussion with the EPA and other government agencies, which are going through pre-feasibility, feasibility or final approval stages. Significant mining projects include the Hillside Project, Central Eyre Iron Project, Carrapatenna Project, Four Mile Project and Wilcherry Hill Project.

Despite there being many new mines on the horizon, the EPA is also in discussions with current mine operators that are coming close to their end-of-mine life regarding compliance expectations at mine closure. These discussions include DMITRE and have the aim to allow the closure of mines and the relinquishment of leases and licences in accordance with South Australian legislation.

The EPA is involved with providing advice and regulation over certain infrastructure associated with larger mining projects. Such infrastructure includes port/wharf facilities, railways, landing facilities, desalination plants, slurry pipelines, dewatering activities and construction facilities (ie concrete batching plants). This work is often done in association with other government agencies, as well as the proponents and their consultants. Examples include Lucky Bay wharf facility, Port Spencer port facility and Cape Hardy port facility.

EPA targets for 2013–14:

- To provide effective environmental oversight of existing EPA licensed mining and extractive industries, and to effectively mitigate for the environmental risk from developing mines, through compliance with licence conditions and environment protection policies.
- Ensure effective closure criteria and closure plans for the Terramin and White Dam mines to ensure compliance with EPA requirements and in consultation with DMITRE.
- To provide advice, assessment and expected environmental management controls for activities of environmental significance for mining related infrastructure, which for 2013–14 are expected to be Lucky Bay wharf facility, Port Spencer port facility and Cape Hardy port facility.

2.2 Operational compliance activities

2.2.1 Licensed sites

Inspections

The EPA seeks to maximise the level of licensee compliance. Current database systems do not allow the ready recovery of data on the status of individual or overall licensee compliance, so for 2011–12 and for preceding years it was difficult to quantify performance. The EPA is establishing a licensing database in 2013–14 that will allow overall and individual company compliance status to be analysed.

EPA targets for 2013–14:

- Undertake 720 inspections of licensed premises and inspect all higher risk sites at least once during the year.
- Establish a database system that will enable tracking of the overall status of licensee compliance and will report this in the next Compliance Plan.

Sector audit programs

The EPA is becoming aware of increased activity in relation to food production in SA, specifically curing and drying. This activity has the potential to result in amenity impacts to surrounding land uses in the form of odour and other air emissions.

EPA targets for 2013–14:

- Conduct a desktop audit of curing and drying facilities in SA in order to identify those that require authorisation in the form of a licence and licence them.

Noise from early morning waste collections

The EPA receives an average of 75 early morning waste collection noise complaints/year. The EPA's role has been to resolve complaints by:

1 contacting the complainant

2 relaying the allegation to the waste transport service provider

3 seeking feedback and remedial action as necessary

4 relaying the feedback and remedial action to the complainant with a contact number for additional follow up if remedial action does not resolve the issue.

The EPA intends to increase the effectiveness and efficiency in addressing early morning waste collection noise complaints through a trial to commence in July 2013. The trial will seek to encourage the public to take a more active role in gathering the key information and contacting the licensed waste transporters, in the first instance, to notify them of a potential issue and be advised of remedial action as appropriate. By contacting the transporters directly this will enable the necessary information to be communicated to identify and tailor appropriate remedial action to the issue.

The EPA's involvement will shift to that of a facilitator through a staged approach to empower the residents in contacting the waste transport service provider with the required information and to seek resolution. The EPA will become actively involved at the later stage when the complaint remains unresolved despite the efforts of the complainant and the waste transport service provider.

EPA targets for 2013–14:

- Complete and report on a trial to better link the public with waste transporters, and produce an action plan.

Container Deposit Legislation

South Australia's beverage container scheme is managed via the Beverage Container Provisions (Part 8, Division 2) of the EP Act. Beverage containers sold in South Australia must be subject to a waste management arrangement for the collection, sorting and aggregation of containers for their reuse, recycling or other disposal.

Operational activities associated with container deposit legislation (CDL) are most commonly directed toward the detection and removal from shelves of non-approved beverage containers. The EPA currently has approximately 13,600 approved beverage containers for approximately 540 approval holders. In 2011–12, CDL compliance staff undertook more than 450 inspections, detecting non-approved containers on 90 occasions.

It was estimated that more than 163,000 non-approved beverage containers (representing more than 570 different brands) were removed from shelves. Other compliance activities are focused on activities known as 'interstate rorting' (transport of empty beverage containers from interstate to collect refund) and 'parallel importing', which is the transport of full beverage containers from interstate which have not been declared as sales.

The compliance focus for CDL in 2013–14 will continue to be retail sales of non-approved containers, with priority given to credible reports of interstate rorting.

EPA targets for 2013–14:

- Targeting of non-approved beverage containers at retail premises.
- Improve effectiveness of EPA response to reports of 'interstate rorting'.

Plastic Bag Legislation

The EPA administers the *Plastic Shopping Bags (Waste Avoidance) Act 2008*. This Act prohibits the supply of lightweight (<35 micron) shopping bags, but does not prohibit the supply of biodegradable bags that meet Australian Standards AS 4736–2006: Biodegradable plastics suitable for composting and other microbial treatment. Compliance of this Act is usually undertaken in conjunction with compliance activities associated with container deposit legislation.

EPA targets for 2013–14:

- Targeting of lightweight plastic shopping bags at retail premises, including major community events (eg Royal Adelaide Show and regional field days).
- Targeting lightweight plastic shopping bags that claim to meet biodegradability criteria of AS 4736–2006.

Local environmental nuisance

Local environmental nuisance issues are generally reported to the EPA via the contracted (outsourced) call centre service. These issues are recorded onto a dedicated database and allocated to relevant EPA staff to respond. Complaint types usually vary according to seasons (eg wood smoke and construction site drag out in winter, and dust, air conditioner/pool pump noise in summer).

EPA targets for 2013–14:

- Improved resolution of issues that have been prioritised in accordance with the EPA's complaints management system.

2.3 Regulatory programs

2.3.1 National Pollutant Inventory database of emissions to air, land and water

The National Pollutant Inventory (NPI) is an internet database that provides the community, industry and government with free information about the emissions of 93 substances in Australia. The NPI is implemented cooperatively by the Federal government, the EPA, and other state and territory governments.

The NPI contains 14 years of emission data from industrial facilities and non-industrial (diffuse) sources such as motor vehicle exhausts. In 2012–13, over 480 SA facilities from about 80 different industries report on their emissions, with all reports scheduled to undergo a validation process to assess appropriate measurements, significant variances and/or compliance with NPI approved emission estimation techniques.

Members of the community, industry and government can find out about emissions in their local areas or access a full list of the 93 NPI substances and their impacts at <www.npi.gov.au>.

EPA targets for 2013–14:

- All reports submitted to EPA are validated prior to publication by the Commonwealth on the NPI website by 31 March 2014.
- NPI audits of five facilities targeting those with identified risks of environmental impacts based on variations in emissions or other issues identified during validation.
- Ensure at least one inhouse training event is held for metro and regional reporters to assist with the preparation and submission of NPI Reports.

2.3.2 Radiation health

Expansion in technology

The numbers, complexity and use of dental and medical imaging apparatus have increased significantly in South Australia over the last several years. Changes to the Medicare system by the Commonwealth Government (for example, placing a life span of 10 years for apparatus) have contributed to an ongoing increase in new apparatus that requires testing prior to registration. The roll-out of the third party testing program is nearing completion, and this program should enable apparatus to be effectively tested and registered by owners.

EPA targets for 2013–14:

- Complete audits of equipment tested by third parties to ensure standards are being maintained.

Radioactive source and radioactive waste management

The *Radiation Protection and Control (Ionising Radiation) Regulations 2000 (*Regulations) under the RPC Act require safe storage of radioactive sources and wastes. The EPA inspection and audit program indicates that owners of radioactive sources and waste in storage in general ensure compliance with these requirements and therefore provide an environment where there is very low risk of exposure of workers or the public to radiation from this storage.

There is a small number of sealed radioactive sources of a high security risk, classified as security enhanced sources under the classifications of the Code of Practice for Security of Radioactive Sources (Security Code), that require a level of security greater than the level required for most radioactive sources or waste in storage. The EPA requires owners of security enhanced sources to prepare a source security plan and to implement security to comply with the Security Code. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is assisting with implementation of the Security Code, including assessment of security plans of owners of the security enhanced sources.

EPA targets for 2013–14:

- Complete an audit of key sites with radioactive material and waste to confirm safe and secure storage and compliance with EPA requirements.

Radiation Protection and Control (Ionising Radiations) Regulations

The Regulations enhances the powers of the RPC Act for protecting people and the environment from the harmful effects of radiation. The EPA has recently reviewed the RPC Act and is now looking to amend its regulations which are used to control sources of radiation. The review of the regulations will address the nationally agreed initiatives and commitments concerning radiation protection and will review methodologies for regulating radiation sources in the context of rapid technological development.

EPA targets for 2013–14:

- Complete a review of the Regulations in 2013–14.

3 Achievements over the past year (2012–13)

3.1 Major industry impacts

3.1.1 Nyrstar

The lead smelter in Port Pirie has been operating for about 120 years and airborne lead has historically been the prime contributor to the unacceptably high blood lead levels observed in the children of Port Pirie. The Tenby10 program commenced in 2006 and aimed to reduce children's blood lead levels such that 95 percent of children in the age range 0–4 years had blood lead levels below 10 µg/dL—the National Health and Medical Research Council (NHMRC) recommended limit—by the end of 2010.

The Department of Health and Ageing reported that during 2012, a total of 78 percent of tested children had a blood lead level below 10 µg/dL. This compares with 50 percent at the same time in 2005.

Following an extensive review of Nyrstar's operations and those elsewhere, the EPA placed new conditions on Nyrstar's EPA licence at the start of the 2012–13 period. This included an EIP that required Nyrstar to implement improvements to its facilities to reduce lead emissions. It also established more stringent lead in air limits in Port Pirie.

As part of the EIP, Nyrstar provided preliminary information on a proposal to achieve major reductions in lead emissions, and is to provide the EPA with detailed plans for the site transformation by 30 June 2013. The transformation must significantly reduce the airborne lead emissions from the smelter with the ultimate goal of no child exceeding the NHMRC recommendations for blood lead.

The EPA worked closely with the Health Department and other agencies to support the overall lead abatement objectives.

3.1.2 New licence conditions for rail operators for noise management

Rail noise monitoring is undertaken through a system known as RailSQAD located at Heathfield, on the Adelaide to Melbourne rail corridor. As one of the main freight train routes in and out of Adelaide, every freight train that travels along this line is recorded by RailSQAD. The information collected is used to identify repeat incidents of wheel noise and will assist in determining long term trends and their associated causes.

Over 2012–13, the EPA reviewed licence conditions applicable to railway activities. The EPA proposes to introduce more stringent conditions relating to inspection and reporting of details relating to repeat offender rolling stock. The EPA assessed information logged by the RailSQAD system in 2011–12 and after identifying significant delays in rolling stock operators removing repeat offender vehicles from service for inspection and maintenance it has applied updated conditions to all rolling stock operator environmental authorisations. The new conditions target improved record keeping and reporting as well as setting a limit on the number of days for repeat offenders may remain in service before inspection and maintenance activity must be performed.

EPA expects these new conditions will result in less repeat wheel squeal events registered at the RailSQAD system.

3.2 Waste and wastewater management

3.2.1 Medical waste audit

In 2012, the EPA undertook an industry sector audit covering the handling, transport, treatment and disposal of medical waste.

The introduction of the *Environment Protection (Waste to Resources) Policy 2010* (Waste EPP) saw medical waste treatments, in addition to incineration, being accepted, as long as they met the industry code of practice. However, alternative methods to incineration have the potential to create a range of environmental compliance issues within the industry as they allow fewer elements of the waste stream to be treated, therefore requiring more stringent segregation and diligence from the producer and transporters. This level of segregation is directly relevant to producers and transfer stations, as certain waste from many of these facilities is currently treated by autoclave or sent interstate for a range of different treatments, some of which are not available in South Australia.

The scope of the audit was to determine the level of compliance with the EPA medical waste guideline, the industry code of practice and licence conditions. The areas of the waste industry audited were producers, transporters, treatment facilities and depots. The activities and processes the audit investigated included segregation, storage, handling and training/induction of staff. The audit of sites occurred in April 2012. A summary of the findings and outcomes from the audit have been collated, with the audit resulting in clearer and more comprehensive guidance for and expectations of compliance for the sector.

Findings from the audit showed source segregation in response to approved alternative treatment methods was satisfactory and improving. The audit also identified that while treatment and disposal of medical waste was generally done well by the industry, there was improvement to be made with respect to spill management, storage requirements and site security in some cases.

As a result of the audit, a review of licences across the sector will be carried out with updated conditions put in place, where required, to achieve consistency and ensure compliance across the industry sector.

3.2.2 Abattoir audit

Schedule 1 of the EP Act specifies that an abattoir operating at a rate greater than 100 tonnes per year of animal meat or meat products for human or animal consumption or 200 tonnes of poultry or poultry products per year is undertaking an activity of environmental significance and requires a licence.

There are many unlicensed meat and meat product processors, the majority of which (being unlicensed) had never been visited by the EPA. Wastewater management in particular is essential to protect the environment with this activity. The EPA therefore had little knowledge of how effective the wastewater management systems in particular were and initiated an audit to assess compliance and impact.

The audit included as many unlicensed processors as possible within SA and assessed annual production against the EP Act thresholds. It also addressed compliance with obligations under the general environmental duty (section 25 of the Act), which requires that a person ‘must not undertake an activity that pollutes, or might pollute, the environment unless that person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm’.

The EPA sought to support those operators that were endeavouring to do the right thing by providing advice and direction to assist them in bringing their sites into compliance. Two abattoirs required licensing, and have initiated the licensing process. There were no operators acting negligently such that enforcement action was considered necessary.

The EPA has a greater understanding of the status of meat processing in South Australia and is satisfied with the sector’s overall approach to environment protection and compliance.

3.2.3 Targeted landfill and recycler operator audit

In late 2012, the EPA undertook a waste and recycling depot audit targeting a specific site that undertakes the prescribed activity of environmental significance specifically a waste or recycling depot. The scope of the audit was designed to gather accurate information of the site activities and compare the site activities with the requirements of the Environment Protection Act 1993, relevant environment protection policies and conditions of the licence for the site.

The site receives waste and subjects that waste to resource recovery with the non-recovered waste disposed within the landfill. Due to the long operational history of the site, the changing waste and resource recovery sector and the changing waste legislative environment a number of legacy issues exist at the site. Areas of investigation for the EPA include the extent of the operating area, the approved disposal area, stockpiling of waste versus product, the materials used in the construction of visual mounds, and waste data reporting for waste levy purposes.

The audit enables the EPA and the site operator to develop a clear site baseline and the EPA to develop a compliance program. The plan prioritises the non-compliances, utilises a systematic methodology to regain compliance and a means to measure site improvements. The schedule of site improvements is structured into long- and short-term environment improvements programs which take into consideration the financial and site capabilities to achieve the improvements.

3.3 Site contamination

Over 2012–13, the EPA was involved in site contamination investigations across the state, including:

- Clovelly Park
- Elizabeth South
- Hendon
- Solomontown.

The EPA also established the first Water Prohibition Area (WPA), under section 103S of the EP Act, in the Allenby Gardens/Flinders Park area in 2012–13. This area was chosen as the first WPA in South Australia due to the large amount of consistent information available to the EPA and the single contaminant groundwater plume.

The EPA implemented a 90-day consultation period in which key stakeholders were informed of the WPA, including open house information sessions with residents. As of 23 May 2013, it is prohibited to use groundwater for any purpose in the Allenby Gardens/Flinders Park WPA with a potential fine of $8,000. This information has also been added to the Certificates of Title in the area to ensure future property owners are aware of the WPA.

3.4 Marine and River Murray

3.4.1 Aquaculture assessment

In accordance with the *Aquaculture Act 2001*, all aquaculture licence applications and amendments are referred to the EPA for approval by Primary Industries and Regions SA (PIRSA). The EPA also provides advice on establishment of aquaculture zone policies and general aquaculture issues.

From July 2012 to March 2013, the EPA responded to 197 development application referrals and 21 aquaculture licence application referrals.

3.4.2 River Murray vessel and facility management

The EPA is progressing implementation of the *Code of practice for vessel and facility management (marine and inland waters)*. A key area of the code is the management of grey water for inland waters. The project is currently funded by the Save the River Murray Fund and ensures that wastewater from vessels on the River Murray is appropriately managed and does not impact on the environment.

In early 2013, approximately 80 percent of commercial vessels and 66 percent of private vessels on the River Murray were compliant with the code.

In 2013–14, the EPA will be working closely with industry to undertake audits and investigations focusing on non-compliant vessels and infrastructure modifications. The target for 2013–14 is to have full compliance for commercial vessels and 85 percent compliance for private vessels.