

# **Pollution studies**

## **Operating procedure**

[www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)



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**Published by:**

Environment Protection Authority  
59 Goulburn Street, Sydney NSW 2000  
PO Box A290, Sydney South NSW 1232  
Phone: (02) 9995 5000 (switchboard)  
Phone: 131 555 (environment information and publications requests)  
Fax: (02) 9995 5999  
TTY users: phone 133 677, then ask for 131 555  
Speak and listen users: phone 1300 555 727, then ask for 131 555  
Email: [info@environment.nsw.gov.au](mailto:info@environment.nsw.gov.au)  
Website: [www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)

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## 1 Definition

Pollution studies are defined in section 68 (1) of the [Protection of the Environment Operations Act 1997](#) (POEO Act) as follows:

The conditions of a licence may require the holder of the licence to undertake and submit, to the appropriate regulatory authority, studies into any aspect of the environmental impact of an activity or work authorised or controlled by the licence.

Pollution studies are therefore the studies a licensee is required, by its licence, to undertake into any aspect of the environmental impact of the activity or work authorised or controlled by the licence.

## 2 Purpose of regulatory action

Pollution studies are intended to inform the EPA and licensees of the environmental impact(s) of the licensee's activities on the receiving environment (air, water, land, sensitive receivers in the case of noise and the appropriate management of waste). Pollution studies can be initiated by the EPA or a licensee.

Common objectives of pollution studies include:

- monitor and review the impacts (short and long term) of pollutants discharged to the environment
- investigate best management practices and best available technology to reduce impacts of an activity
- investigate and report on alternative pollution control equipment, methods or practices
- investigate alternative monitoring procedures for measuring pollutants discharged
- report monitoring results from a new piece of plant and equipment or new procedures.

Pollution studies are a legally binding requirement attached to an environment protection licence by way of a licence condition under section 68 of the POEO Act. However, a pollution study does not contribute to a licensee's environmental management score.

For further information on regulatory actions that attract an environmental management score see the [Environmental Management Calculation Protocol](#).

## 3 Scope of this operating procedure

This operating procedure applies to EPA officers considering imposing a pollution study on a licensee to ensure decisions are made consistently with the EPA's [Compliance Policy](#).

This procedure is not legally binding on the EPA or any other organisation. It reflects the operational policies of the EPA which will be subject to review. Any changes will be published on the EPA website.

## 4 Procedure to be followed

EPA officers should follow these procedures when considering whether imposing conditions related to pollution studies is an appropriate regulatory action in response to an environmental issue.

#### **4.1 Consider relevant provisions in the POEO Act and regulations, and EPA guidelines**

EPA officers should consider the following legislative provisions when assessing the environmental impact of the activity or work authorised or controlled by a licence.

- Chapter 3 of the POEO Act, in particular section 45 – matters to be taken into account when exercising licensing functions
- relevant sections of the POEO regulations
- EPA policy and guidelines as relevant to the environmental issue (see the EPA website <http://www.epa.nsw.gov.au>).

#### **4.2 Assess the risk of harm to the environment**

Where relevant technical knowledge of the environmental impacts a licensed premises may pose is not available, similar activities may have produced indicative results for pollutant toxicity, concentration, load and effect on the receiving environment.

If this information is not available studies may be required to assess an environmental issue by considering:

- pollutant toxicity
- pollutant concentration
- pollutant load
- receiving environment (local and regional impacts)
- method of discharge to the environment
- possible exposure pathways
- duration of exposure of the environmental pollutant
- risk of harm to human health.

#### **4.3 Licensee's compliance history**

In exercising licensing functions under the POEO Act the EPA must consider the matters set out in section 45 of the POEO Act, including considering whether a licensee is a 'fit and proper person' as referred to in section 83 of the POEO Act. The factors that the EPA may consider include:

- a licensee's record of compliance with environment protection legislation
- a licensee's record of compliance with their licence conditions
- the licensee's cooperation with the EPA and willingness to commit to appropriate remedial actions
- any voluntary actions undertaken to address the environmental issue.

#### **4.4 Available knowledge and studies of similar activities conducted at other licensed premises**

EPA officers should consider the following factors in relation to whether a pollution study is required:

- industry best practice
- other studies conducted on similar activities
- estimation techniques ([National Pollutant Inventory](#), [load-based licensing](#))
- other monitoring results (environmental impact statements, licensed activities)
- potential impacts of installing new equipment (new or existing pollution control equipment)

- potential impacts of changes to operational practices.

#### **4.5 Alternative or complimentary regulatory actions**

EPA officers should consider whether the following regulatory actions should be used instead of or in conjunction with pollution studies. The EPA [Compliance Policy](#) and other operating procedures will assist in making this decision:

- pollution reduction programs
- financial assurances
- pollution incidents – analysis of risk
- licence conditions – limit, operating, monitoring and reporting
- mandatory environmental audit.

#### **4.6 Develop pollution studies**

In consultation with the licensee, EPA officers will develop a pollution study to investigate the environmental impact of the activity or works.

Key milestones could include:

1. By <<exact date>> the licensee must submit a <<pollution study>> to the Manager <<insert EPA region>>.
2. The pollution study must be developed <<in accordance with the relevant guidelines>> or include <<insert details of impacts required> to <<insert environmental media>> from the <<insert activity>>.

#### **4.7 Follow up**

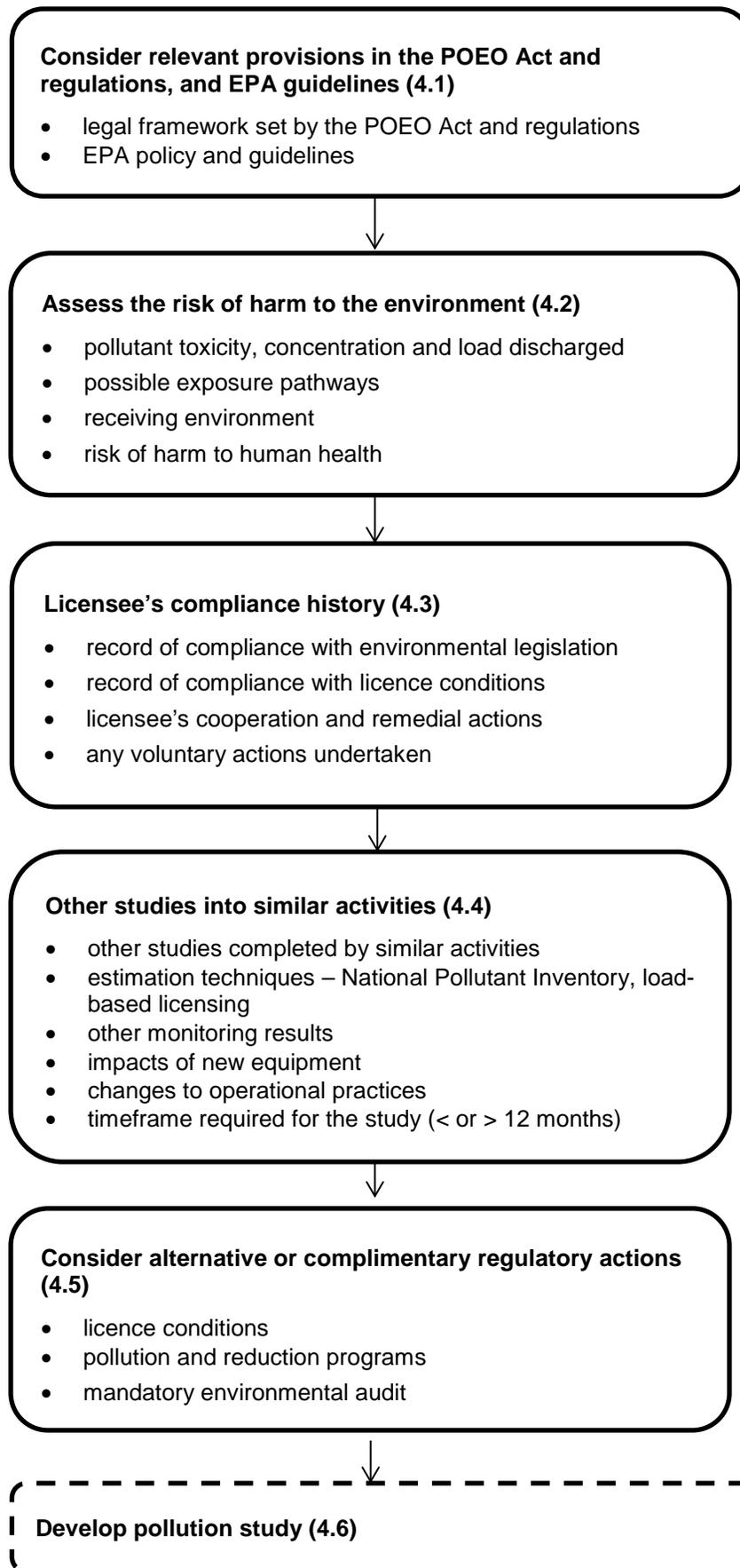
Pollution studies are conditions of a licence. Failure to comply with a licence condition is an offence and may lead to further regulatory action by the EPA.

Pollution studies must be routinely reviewed by the EPA to ensure key milestones are met. Licensees can renegotiate timeframes with the EPA in certain circumstances.

#### **4.8 Situations where the regulatory action has been used effectively**

Pollution studies have been effectively used to investigate environmental issues related to air, odour, noise, land, waste and water.

**Figure 1** Flow chart for regulatory response: Pollution studies



## **Case study**

A licensee undertaking scheduled metallurgical activities discharges fine particulate matter into the air from time to time, which generates a noxious odour. The EPA would like to determine the impact the particulate matter has on air quality.

### **Consider relevant provisions in the POEO Act and regulations, and EPA guidelines (4.1)**

The EPA has been receiving complaints from the local community about air pollution emitting from the licensed premises. The community is concerned about associated health and environmental effects from the air emissions.

### **Assess the risk of harm to the environment (4.2)**

The EPA did not have enough information to determine the risk of harm to the environment posed by the emission of air impurities from the activities at the premises.

### **Licensee compliance history (4.3)**

The EPA considers the matters set out in section 45 of the POEO Act when considering whether a pollution study is appropriate. The licensee had a good environmental performance record with controls in place for emissions of air impurities, however they had no information on the performance of these controls.

### **Other studies on similar activities (4.4)**

Existing studies developed for similar activities involving emission of air pollutants suggest further investigation of impacts from the specific premises is necessary.

### **Alternative or complimentary regulatory actions (4.5)**

The EPA considered using a pollution reduction program, however, it was unable to determine whether the licensee had complied with the POEO Act and regulation until further information regarding the impacts of the activity was made available.

Further regulatory actions will be considered following submission of an air impact assessment report, as required by the pollution study.

### **Develop pollution studies (4.6)**

Pollution studies were developed and negotiated with the licensee. The objective was to assess air-amenity impacts posed from activities undertaken at the premises. The pollution study required the licensee to undertake an air quality impact assessment and submit a report to the EPA. The air quality impact assessment report had to be developed in accordance with the EPA's Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW, 2005.

The pollution study set the following milestone:

1. A date by which the licensee is required to submit an air quality impact assessment report to the manager South West region.

### **Follow up (4.7)**

Pollution studies were routinely reviewed by the EPA to ensure key milestones had been met.