



## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES

### SCHEDULE 4 PREMISES

Publication 456.1\*

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#### OBJECTIVES

These guidelines set out the procedure to be used to determine the amount of financial assurance to be provided by Schedule 4 premises in accordance with the provisions of the *Environment Protection Act 1970*.

A financial assurance is intended to provide a guarantee that the cost of a site clean-up would not fall as a charge on the community through the failure of the occupier of the premises to make and pay for necessary measures.

A site clean-up may be required following gradual or sudden contamination, for disposing of stock in the case of premises being abandoned, or due to occupier insolvency or any other unforeseen circumstance.

EPA Victoria has developed a system which is based on assessing potential costs for clean-up, with provisions for discounting based on the quality of site engineering and management.

#### DEFINITIONS

For the purpose of these guidelines, Schedule 4 premises refers to premises that store, treat, reprocess or dispose of prescribed industrial waste.

\* This replaces publication 456, issued June 1995.

#### COMPONENTS OF FINANCIAL ASSURANCES

The amount of financial assurance is determined by examining potential expenditures to cover the following needs:

- disposal of stock in the case of premises being abandoned or a company becoming insolvent
- site clean-up as a result of gradual contamination
- site audit.

Consideration must also be given to appropriate insurance requirements for:

- sudden and accidental events.

#### BASIS FOR DETERMINING THE COST OF FINANCIAL ASSURANCE

##### 1. Sudden and accidental events

This component involves insurance to cover sudden and accidental events. EPA will require an undertaking from the occupier that they will obtain appropriate insurance to cover sudden and accidental events. Occupiers should satisfy

## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES – SCHEDULE 4 PREMISES

themselves as to the level and duration of insurance cover that will be adequate to cover the activities carried out on, and associated with, the premises.

### 2. Disposal of stock

The need for stock disposal will arise in cases such as occupier insolvency or premises being abandoned. In these instances it is possible that a company could aim to store the maximum amount of waste possible, so as to maximise income and reduce expenses. A bad-case scenario would be one where the premises, along with its transport fleet, were at capacity with normally accepted waste types. This will be the criterion for assessing stock disposal costs.

Where a licence specifies the maximum amount of waste that may be stored on the premises, then that amount, plus the maximum storage capacity of the EPA-permitted transport fleet associated with the site's activities, will be used to determine the stock disposal component. In all other cases the amount will be based on the maximum amount of allowable wastes that can be stored on the premises and, as stated above, a provision must be made for transport vehicles (within the storage capacity of the premises).

The cost of disposal shall be assessed against current market rates. Prices quoted must be accompanied by appropriate evidence such as quotes from premises licensed to receive relevant waste streams. Quotes must also be accompanied by confirmation that facilities are appropriately licensed for the acceptance of relevant waste streams.

A table clearly showing the waste type, storage capacity, and cost of disposal per litre or kilogram must be submitted with the financial assurance proposal. An example is presented below. All waste types must be listed as per licence acceptance or vehicle permit conditions.

Type	Description	Amount (l/kg)	Unit price \$	Totals \$
SJ120	Waste oil	10,000	xx.xx/l	xx.xx
SN120	LLCS	2000	xx.xx /t	xx.xx

**Table 1: Example of table showing waste type, storage capacity and cost of disposal**

Additionally a minimum \$10,000 sampling and analysis contingency must be included with the stock disposal cost. This provides for EPA or a third party assessing and, where necessary, sampling and analysing abandoned wastes prior to management or disposal. For small premises that are only licensed for limited volumes of low-hazard material and that can demonstrate well documented inventories, EPA may allow this amount to be reduced or waived.

### 3. Site clean-up as a result of gradual contamination

This component will be based on the following:

- (a) an assessment of the cost of cleaning up the site
- (b) assessable area
- (c) a risk assessment of the site (from which a discount factor will be derived).

## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES – SCHEDULE 4 PREMISES

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The licence holder must submit a scale plan of premises which identifies:

- the site boundary
- the area of the site where PIW has/will be stored, processed and/or handled
- the area of the site where PIW has not or will not be stored, processed and/or handled.

The component costs of a site clean-up are discussed in detail below.

### **(a) Assessment of the cost of cleaning up the site.**

For the purpose of calculating the amount of financial assurance, the following rule shall be used for all sites:

The cost of cleaning up a site will be based on removing soil to an average depth of 0.5 metres over the whole of the affected area and includes but is not limited to the cost of:

- removal of buildings
- removal of hardstand areas
- removal of any affected services
- backfilling with clean fill or appropriate material
- equipment and transport
- final disposal of materials in accordance with EPA requirements.

Average clean-up costs vary from time to time. As at December 2005 current market costs were estimated at \$200 per cubic metre. These costs are an estimate of average costs for typical sites, and will be reviewed from time to time as necessary. Proponents must seek advice from EPA about current costs.

### **(b) Assessable area**

For the purpose of calculating the clean-up cost component the area of assessment will be the whole of the site.

**A substantial reduction in the clean-up cost component is available if a Schedule 4 premises carries out a soil assessment.** Based on the results of the soil assessment the following options are available.

- (i) Any non-Schedule 4 activity area found to be within acceptable limits will not be assessed as part of the clean-up cost component.
- (ii) Any Schedule 4 activity area found to be within acceptable limits will have a discount factor applied in accordance with the outcome of the risk assessment matrix (refer (c) below).
- (iii) Any area (Schedule 4 or non-Schedule 4) which has not been tested or whose results are outside acceptable limits will be subject to the clean-up costs referred to above.

The guidelines to be used for soil assessment criteria are the *National Environment Protection Measure (Assessment of Site Contamination) 1999*. This is available through the Environment Protection and Heritage Council's website at [www.ephc.gov.au](http://www.ephc.gov.au).

EPA will accept any reputable report of soil assessment carried out in the last three (3) years. All reports will be treated in strict confidence.

### **(c) Risk assessment of sites (discount factor)**

A risk assessment of sites will be carried out to assess the potential for contamination (or further

## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES – SCHEDULE 4 PREMISES

Table 2a: The twelve categories used in the site risk assessment

Description	Rating	Factor	Result
1. Bunding		X3	
2. Surfacing		X3	
3. Tanks/storage containers		X2	
4. Materials handling equipment		X2	
5. Spillage/recovery system		X2	
6. Loading/unloading areas		X1	
7. Environmental management plans		X4	
8. Emergency plans		X3	
9. Employee training		X2	
10. Site security		X1	
11. Plant maintenance		X1	
12. Site cleanliness		X1	
		Total	/100

Table 2b: A guide for rating criteria used in the site risk assessment

Rating	Criterion
0	Exceptionally high standard of compliance and performance.
1	Very high standard of compliance and performance.
2	High standard of compliance and performance.
3	Complying with EPA requirement.
4	Below EPA requirements.

contamination) in the future. The risk assessment will be based on the engineering and management of sites. The result will be used to calculate a discount factor that can be applied to clean-up costs.

Table 2a summarises the 12 categories (six engineering and six management and control) used to assess a site.

The 12 categories of site engineering and management are rated on a scale of 0 to 4. The ratings are based on the premises' standard of compliance (with EPA licence conditions and

guidelines requirements) and performance. Table 2b provides a guide for rating the categories.

Each of the 12 categories has a multiplying factor which gives a weighting to the particular aspect according to the potential environmental impact. The ratings and weighting factors are combined to calculate the discount applicable to the cost of site clean-up.

Appendix 1 contains a list of engineering and management factors and rating criteria.

Appendix 2 contains worked examples showing area and discount benefits.

## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES – SCHEDULE 4 PREMISES

### 4. Site audit

Provision for the cost of a site environmental audit will be required in the case of a site clean-up or to establish if a clean-up is necessary. After a site has ceased to operate as a Schedule 4 premises, and after any necessary clean-up, it may be proposed to use the site for a more sensitive use. A site environmental audit may be required to certify that the site is suitable for the intended use.

Table 3 shows the amount to allow based on December 2005 information. EPA may provide updated advice about these costs from time to time.

Table 3: Amounts to allow for audit costs

Area of Site	Audit Costs (\$)
0-0.1 hectare site	10,000
0.1-0.5 hectare site	20,000
0.5-1.0 hectare site	30,000
>1.0 hectare site	30,000 per hectare

Note: All costs are fixed except '1.0 hectare' which is per hectare.

### REASSESSMENT OF SITES

The financial assurance for every Schedule 4 premises shall be reviewed by EPA at least every two years.

A Schedule 4 premises may, upon written request, have its financial assurance reviewed at intervals of not less than six months.

### Discharge of financial assurances

Application for discharge or return of financial assurances can be made to EPA upon the cessation of Scheduled activities at a given site.

An application for discharge must be accompanied by the following:

- An environmental audit pursuant to section 53V of the *Environment Protection Act 1970* which considers the risk of detriment to the beneficial uses of land and groundwater at and surrounding the premises, associated with the waste receipt, storage, treatment and processing activities that have been carried out at the site.
- If the future use of the site is likely to entail a sensitive use (for example, the underlying zoning of the site permits a sensitive use, such as a waste treatment facility as a non-conforming use in a residential area where residential use can occur as of right without a permit) then a Certificate or Statement of Environmental Audit pursuant to Part IXD of the *Environment Protection Act 1970* would be required.

An application for discharge may seek exemption from the requirement for an environmental audit of a site. EPA would only consider granting such an exemption for low-risk sites with suitable management systems, infrastructure and operating histories. Such an application for exemption must provide EPA with sufficient evidence to demonstrate that an environmental audit is not required in order for EPA to discharge the financial assurance.

## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES – SCHEDULE 4 PREMISES

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### **TOTAL AMOUNT OF FINANCIAL ASSURANCE**

The financial assurance shall be the sum of :

- (i) the cost to dispose of stock including analysis costs
- (ii) the cost of cleaning up the site (discounted if applicable)
- (iii) the cost of a site audit

and an undertaking to obtain insurance for sudden and accidental events.

The financial assurance shall be provided in a form approved by EPA and detailed under section 67B of the *Environment Protection Act 1970*.



## APPENDIX 1

## FINANCIAL ASSURANCES – Site engineering

Description	Rating
1. <u>Bunding of storage, treatment and processing areas</u>	
Conforms with EPA bunding guidelines	0
Nil or extremely poor bunding	4
2. <u>Surface of materials handling areas</u>	
All areas fully concreted, coated or covered with impervious material	0
Surface areas not covered or only partially covered	4
3. <u>Tanks and storage containers</u>	
All tanks above ground, in excellent condition and complying with Australian Standards (level detection, overflow protection, pressure relief, venting etc)	0
Tanks in or below ground, as well as tanks above ground in poor condition and/or lacking safety features	4
4. <u>Materials transfer equipment</u>	
Pumps, pipelines, valves etc in good condition (no leaks, within bunded areas, no below-ground installations etc)	0
Equipment in poor condition, leaking, damaged etc, and not within bunded areas	4
5. <u>Spillage/recovery systems</u>	
Overflow and/or spill recovery system in good working order (bunded areas always empty and clean)	0
Poor or no recovery system, bunded areas usually full or partially full	4
6. <u>Loading/unloading areas</u>	
Separate dedicated areas (bunded, impervious) for loading/unloading with no potential for run-off	0
Earthen area, little or no bunding, with potential for run-off	4

## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES – SCHEDULE 4 PREMISES

---

### FINANCIAL ASSURANCES – Site management and control

Description	Rating
1. <u>Environmental management plans</u>	
Documented waste management, waste minimisation, environment improvement etc plans	0
No formal or documented environmental management plans	4
2. <u>Emergency plans (fire, spills, accidents etc)</u>	
Documented emergency plans, all staff trained, regular follow-up and trials	0
No emergency plans or only vague/sketchy ones	4
3. <u>Employee training</u>	
Formal, documented training program for all operational staff	0
No formal, documented training	4
4. <u>Site security</u>	
Appropriate fencing, alarms, surveillance (particularly when site is unoccupied)	0
Inadequate fencing, no alarms or surveillance etc	4
5. <u>Plant maintenance</u>	
Documented, routine and preventative maintenance program including all service records, major equipment service agreements etc	0
No formal maintenance program or records	4
6. <u>Site cleanliness</u>	
Site kept clean, bunded areas empty and dry, all items in correct location etc	0
Site untidy, bunded areas full or partially full, materials not stored properly etc	4



## GUIDELINES FOR DETERMINING FINANCIAL ASSURANCES – SCHEDULE 4 PREMISES

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### APPENDIX 2

#### FINANCIAL ASSURANCES – Example of site clean-up calculation

Tip Top Treaters Pty Ltd (TTT) operate a Schedule 4 premises which occupies a total site of 100 m x 100 m incorporating a treatment plant taking up 40 m x 50 m. Refer to the diagram below (NB: treatment plant incorporates all processes and aspects associated with Schedule 4 activity).

$$\begin{aligned} \text{Total area} &= 100 \text{ m} \times 100 \text{ m} \\ &= 10,000 \text{ m}^2 \end{aligned}$$

Assume clean-up cost is based on 0.5m depth @ \$ xx.xx /m<sup>3</sup> (clean-up involves removal of infrastructure, contaminated soil and re-establishing a clean site).

$$\begin{aligned} \text{Clean-up cost} &= 10,000 \times 0.5 \times \underline{\text{xx.xx}} \\ &= \$ \underline{\text{xx.xx}} \end{aligned}$$

$$\begin{aligned} \text{Area A} &= 80\% \text{ of total area} \\ \text{(non Sched. 4 related)} &= \$ \underline{\text{xx.xx}} \end{aligned}$$

$$\begin{aligned} \text{Area B} &= 20\% \text{ of total area} \\ \text{(treatment plant)} &= \$ \underline{\text{xx.xx}} \end{aligned}$$

$$\begin{aligned} \text{EPA matrix assessment} &= 25/100 \\ &= 25\% \end{aligned}$$

