Guidelines for the Burning of Bio-material

Record Keeping and Reporting Requirements for Electricity Generating Facilities

January 2005

Department of Environment and Conservation (NSW)
From 24 September 2003 the Department of Environment and Conservation (DEC) incorporates the Environment Protection Authority (EPA), which is established in the Protection of the Environment Administration Act 1991 as the Authority responsible for administering the Protection of the Environment Operations Act 1997 (POEO Act). Statutory functions and powers in the POEO Act continue to be exercised in the name of the EPA.

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INTRODUCTION

The Environment Protection Authority (EPA) is a statutory body with specific powers under environment protection legislation. In September 2003, the EPA became part of the Department of Environment and Conservation (DEC).

The Premier announced the NSW Government’s policy on the ‘Use of Forest Bio-material for Electricity Generation’ in August 2002. The policy aims to ensure that native forest bio-material is not burned for electricity generation.

This objective is to be achieved through three means:

• prohibiting the development of stand-alone native forest bio-material power plants
• prohibiting the harvest of native forests solely to supply bio-material for power generation
• restricting the co-firing of native forest bio-material in power plants to certain sources such as plantation or sawmill waste.

The policy also undertakes to establish an independent certification process to ensure that power plants comply.

To implement this policy the Protection of the Environment Operations (General) Amendment (Burning of Bio-material) Regulation 2003 was gazetted on 10 January 2003.

The Regulation has three components. These are:

• prohibit the burning of native forest bio-material for electricity generation
• require record-keeping from electricity generators that burn any kind of bio-material
• require reporting from electricity generators that burn forest bio-material
• require generators to have their reports independently certified.

Clause 57Q of the Regulation states: ‘the EPA may, by order published in the Gazette, establish guidelines as to the keeping of records, and the preparation and auditing of reports’.

These Guidelines are made under the Regulation.

The EPA will be the Appropriate Regulatory Authority for the Regulation and will be responsible for ensuring that the electricity generating works comply with the Regulation. This will be achieved through:

• reports received from electricity generating works indicating the amounts of bio-material used in a given year
• independent auditing and certification of these documents
• extending the EPA’s existing compliance audit framework to include this Regulation.
RECORD-KEEPING, REPORTING AND INDEPENDENT AUDIT REQUIREMENTS

The Protection of the Environment Operations (General) Amendment (Burning of Bio-material) Regulation 2003 (the Regulation) requires the occupier of any premises on which bio-material is burnt in an electricity-generating works to keep certain records and, if this bio-material includes forest bio-material, to submit reports certified by an independent auditor. The EPA’s requirements for record-keeping, reporting and auditing are set out in these Guidelines.

Who is affected by these requirements?

The occupier of the premises is subject to the record-keeping requirements under the Regulation if:

- there is an electricity generating works (as defined in the Regulation) on the premises, and
- bio-material of any kind is burnt in the electricity generating works.

The occupier of the premises is subject to the reporting and independent audit requirements under the Regulation if:

- there is an electricity generating works (as defined in the Regulation) on the premises, and
- forest bio-material (as defined in the Regulation) is burnt in the electricity generating works.

These terms are defined in the Regulation as follows:

Electricity generating works: means a work (including associated facilities) that supplies, or is capable of supplying, more than 200 kilowatts of electricity. The electricity generating works may be the principal activity on the premises or may be incidental to other activities. The electricity generating work may generate electricity for sale to the grid or for use on site.

Forest bio-material: means the bio-material comprised in trees.

Native forest bio-material: means the bio-material comprised in Australian native trees, other than:

(a) bio-material obtained from:

   (i) an authorised plantation within the meaning of the Plantations and Reafforestation Act 1999, or
   (ii) an existing plantation within the meaning of section 9 of the Plantations and Reafforestation Act 1999, or
   (iii) land on which exempt farm forestry (within the meaning of the Plantations and Reafforestation Act 1999) is being carried out, or
   (iv) land on which ancillary plantation operations (within the meaning of section 9 of the Plantations and Reafforestation Act 1999) are being carried out, or

(b) sawdust or other sawmill waste, or

(c) waste arising from wood processing or the manufacture of wooden products, other than waste arising from activities (such as woodchipping or the manufacture of railway sleepers) carried out at the location from which the Australian native trees are harvested.

Interpretation of these Guidelines

There is a range of non-native sources of forest bio-material, including plantation bio-material, sawdust and sawmill waste, and waste arising from wood processing. There are also non-forest sources of bio-material, for example bagasse, exotic woody weeds and non-woody energy crops.

In these Guidelines, a reference to ‘bio-material’ includes forest bio-material, native forest bio-material and all other sources of bio-material listed in the paragraph above.

‘Burning’ includes the use of pyrolysis and gasification, which involve the heating of bio-material to produce combustible products, where such products are subsequently burnt for electricity generation.
RECORD-KEEPING

Under clause 57N(1) of the Regulation the ‘occupier of any premises who causes or allows bio-
material of any kind to be burned in any electricity generating works in or on those premises during a
reporting period must keep records’. The requirements and definition of a reporting period are
contained under the heading ‘When must this information be submitted?’ later in these Guidelines.

What records must be kept?
The records need to show the amount of bio-material used as a fuel to produce electricity by the
premises over the reporting period. The following information must be recorded and kept:

- documentation for the supply of bio-material, including:
  - the name of the supplier from whom the bio-material was purchased/obtained
  - the date of supply of the bio-material
  - the type of bio-material
  - the location where the bio-material was harvested or sourced from
  - the amount of bio-material in tonnes dry weight.
- the amount of electricity (in kilowatt hours) produced from the bio-material supplied during the
  reporting period
- the total amount of electricity (in kilowatt hours) produced by the electricity generating works
during the reporting period.

When do I have to start keeping records?
Records must be kept from 1 July 2003 if the requirements apply to your premises.

How long must these records be kept?
Records must be kept for at least 4 years after the end of the reporting period to which they relate.

Who may inspect these records?
An independent auditor may inspect these records, in the course of auditing your Annual Bio-material
Report to the EPA. These Guidelines set out procedures for independent auditor certification under the
heading ‘Requirements for Independent Auditors’.

You are required to make these records available to any authorised EPA officer on request.

How must these records be kept?
Records must be kept in the following manner:

A running summary ledger. This must contain the following information:

- at the beginning of the reporting period, the opening balance of all materials on the premises that
  are to be used for the generation of electricity
- the date on which all materials used for the generation of electricity enter or leave the premises,
  together with their source, record type and amount (tonnes dry weight)
- at the end of the reporting period, the closing balance of all materials on the premises that are to be
  used for the generation of electricity.

If the material is bio-material, the ledger must indicate which of the following categories the bio-
material belongs to:

- bagasse
- exotic woody weeds
- non-woody energy crops
- other bio-material
- plantation bio-material
• sawdust and sawmill waste
• waste arising from wood processing
• woody planted energy crops.

**Full supporting records.** These records must be kept in English and in a manner that allows the summary information for a reporting period to be verified by an authorised EPA officer or an independent auditor.

**Descriptions of bio-material for reporting purposes**

For the purpose of reporting use of bio-material to the EPA, the following definitions are to be used:

**Bagasse:** defined as ‘the residue after juice is extracted from sugar cane in the sugar cane milling process or from grapes after the juice has been extracted’.

**Exotic woody weed:** defined as ‘a plant having stout stems consisting of lignin or woody material that occurs opportunistically on land that has been disturbed by human activity or on cultivated land, where it competes for nutrients, water, sunlight or other resources with cultivated plants. Under different circumstances the plant may itself be cultivated (e.g. it may grow from seed or propagate vegetatively from the residue of a previous crop).’

**Non-woody energy crops:** defined having regard to Regulation 9 ‘Special Requirements – energy crops’ of the Renewable Energy (Electricity) Regulations 2001 of the Commonwealth as –

‘an energy crop that does not have a woody trunk or stems, including an agricultural or horticultural crop and its biomass by-products, grown as an energy source for the primary purpose of energy production’.

**Other:** defined as any bio-material (other than the bio-materials listed in this section) that has been used for the purpose of electricity generation.

**Plantation bio-material:** defined in clause 57L of the Protection of the Environment Operations (General) Regulation 1998 as:

‘biomaterial obtained from:

• an authorised plantation within the meaning of the Plantations and Reafforestations Act 1999; or
• an existing plantation within the meaning of section 9 of the Plantations and Reafforestations Act 1999; or
• land on which exempt farm forestry (within the meaning of the Plantations and Reafforestations Act 1999) is being carried out; or
• land on which ancillary plantation operations (within the meaning of section 9 of the Plantations and Reafforestations Act 1999) are being carried out’.

**Sawdust and sawmill waste:** defined as the dust or residues produced in the process of sawing wood into planks, boards or other timber products.

**Waste arising from wood processing:** defined in clause 57L of the Protection of the Environment Operations (General) Regulation 1998 as:

‘waste arising from wood processing or the manufacture of wooden products, other than waste arising from activities (such as woodchipping or the manufacture of railway sleepers) carried out at the location from which the Australian native trees are harvested’.

It is intended that this would include:

• Primary wood waste from urban sources, that is, wood waste from landfill, and transfer stations (for example, from urban and roadside tree lopping and removals from urban areas).
• secondary wood waste, that is, products in the later stages of the wood product cycle. This could include second-hand or recycled timber or timber products or waste products (for example, from the construction of buildings), including timber off-cuts and timber from demolished buildings.
**Woody planted energy crops:** defined having regard to Regulation 9 ‘Special Requirements – energy crops’ of the Renewable Energy (Electricity) Regulations 2001 of the Commonwealth as:

‘an energy crop being either a tree or a shrub, including an agricultural or horticultural crop and its biomass by-products, grown as an energy source for the primary purpose of energy production’.
REPORTING TO THE EPA

Clause 57N(2) of the Regulation states that 60 days after the end of each reporting period a report must be prepared in relation to the amount of electricity generated by the electricity generating work and the amount of forest bio-material used as fuel in the electricity generating work. Under the Regulation it is not necessary for electricity generating works to provide a report if they did not use any forest bio-material as fuel in the premises during the reporting period.

When must this information be submitted?

The Annual Bio-material Report must be completed and submitted to the EPA for any yearly period in which forest bio-material is used by the facility to generate electricity for any length of time within that reporting period. The following reporting periods apply:

**For licensed premises or scheduled activities:** For premises that hold an Environment Protection Licence under the Protection of the Environment Operations Act 1997, the Annual Bio-material Report must be completed and submitted to the EPA within 60 days after the end of the licensees’ licence fee period (or anniversary date). That is, the Report is due to be received by the EPA at the same time as the licensees’ Annual Return and payment of administrative fees. This report will be necessary only if forest bio-material has been used at the premises during the licence fee period.

**Example:**

Your premises have a licence anniversary date of 1 September 2003. If your premises have burned any forest bio-material, as specified in the Regulation, between 1 September 2003 and 31 August 2004, you will be required to provide the EPA with an Annual Bio-material Report by 31 October 2004.

**For non-licensed premises or non-scheduled activities:** For non-licensed premises the first reporting period will be from 1 July 2003 to 30 June 2004. This means that if the premises use any forest bio-material between these dates a Report must be completed and submitted to the EPA by 29 August 2004. The reporting period applies if forest bio-material is used on the premises at any time during the reporting period.

**Example:**

Your premises first use forest bio-material on 1 March 2004. The Report will still need to contain all requested information for the period 1 July 2003 until 30 June 2004.

What information does the EPA require for this report?

An Annual Bio-material Report must be submitted to the EPA in the form set out in the Appendix. An electronic version of this form can be found at www.environment.nsw.gov.au/legal/notices.htm. This Report is to provide the EPA with a summary of the bio-material used by the facility over the reporting period. Although the EPA requires only a summary of the information, complete records must be kept and made available on the request of an authorised EPA officer. In addition, the completed records must be made available to the independent auditor to certify the information provided in Part B of the Report.

Parts A, B and C must be completed by the occupier of the electricity generating work\(^1\). Part D must be completed by an independent auditor who is responsible for verifying Part B of the Report.

**Part A** requires general information such as:

- the common name of the premises
- the address of the premises (including Lot and DP number)
- the Environment Protection Licence Number (if the facility is licensed by the EPA)

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\(^1\) ‘Electricity generating works’ is defined earlier in these Guidelines under the heading ‘Who is affected by these requirements?’
• name of the occupier of the premises. (This will be the name of the company or the individual who occupies the premises.)

**Part B** requires:
• the total amount of electricity (in kilowatt hours) generated at the electricity generating works during the reporting period
• the total amount of electricity (in kilowatt hours) generated at the electricity generating works that was produced by burning bio-material during the reporting period
• the total amount (in tonnes dry weight) of bio-material used during the reporting period.

**Part C** is the signature component of the Report, in which the occupier of the premises where an electricity generating works is located provides an undertaking that the information contained in the report as a whole is true and accurate. In particular, the following two statements are declared:
• the occupier of the premises occupied the premises during the reporting period in which the bio-material was burnt; and
• no native forest bio-material was burnt during the reporting period.

Acceptable signatories for the report are as follows:
• If the occupier of the premises is an individual, then the individual must sign.
• If the occupier of the premises is more than one individual, then all individuals who occupy the premises must sign.
• If the occupier of the premises is a co-operative, then either:
  – by fixing the common seal of the co-operative, or
  – by two people, one of whom is the director of the co-operative and one of whom is a director or an officer of the co-operative.
• If the occupier of the premises is a company then either:
  – by fixing the common seal in accordance with the *Corporations Act 2001*, or
  – by two directors, or
  – by a director and a company secretary, or
  – if the proprietary company has a sole director who is also the sole company secretary, by that director, or
  – otherwise in accordance with the *Corporations Act 2001*, or
  – by a person approved by the EPA, in writing, to sign on the company’s behalf.
• If the occupier of the premises is a public authority (other than a local council), then the Chief Executive Officer of the public authority must sign, or an employee delegated to sign on the public authority’s behalf in accordance with its legislation.
• If the occupier of the premises is a local council, then the council must sign in accordance with s. 377 of the *Local Government Act 1993* or by affixing the seal of the council in a manner authorised by that Act.

**Definitions**

**Individual(s):** The individual should be operating on his / her / their own. If they are operating as part of an organisation, that organisation would be the appropriate legal entity.

**Co-operative:** Most co-operatives will be registered under the Co-operatives Act 1992 (but some older co-operatives may not be). A co-operative may also be referred to as a ‘society’, ‘association’ or ‘federation’.

**Company:** A company is a corporation established under the Corporations Act 2001.
Public Authority: A public authority is defined under the *Protection of the Environment Operations Act 1997*. Public authority means a public or local authority constituted by or under an Act, and includes:

a) A government department, or

b) A statutory body representing the Crown, a State owned corporation or a local council, or

c) A member of staff or other person who exercises functions on behalf of a public authority.

Part D must be completed by an independent auditor who has viewed the records of the facility and certifies as to the accuracy of the information provided in Parts A, B and C. The independent auditor must follow the requirements set out in the section of these Guidelines entitled ‘Requirements for independent auditors’.
REQUIREMENTS FOR INDEPENDENT AUDITORS

Qualifications

The independent auditor must be:

- a registered auditor under Part 9.2 of the Corporations Act 2001, and/or
- an Environmental Auditor as accredited by the Quality Society of Australasia.

Independence of auditor

The auditor chosen by the facility must not have an interest, pecuniary or otherwise, in the business of the facility, being an interest that could conflict with the proper performance of the auditor’s functions as an auditor of the records of that facility.

Requirements for independent certification of the Report

1. The auditor, as part of the audit, must assess the Annual Bio-material Report for accuracy and check whether compliance has been correctly reported. If this is the case, the Auditor should certify the Annual Bio-material Report.

2. If the auditor is of the opinion that the occupier has not complied with Chapter 3B of the Protection of the Environment Operations (General) Regulation 1998 and these Guidelines and/or does not give a true and accurate representation, then the auditor’s report must state the reasons for this belief.

3. The auditor should follow such procedures so as to provide assurance that the Annual Bio-material Report is free of material misstatement. The auditor should provide a brief description of the procedures followed in the course of this audit in an attachment to the Annual Bio-material Report.

4. The scope of the audit must be sufficiently comprehensive to enable an auditor to form an opinion as to whether the occupier of the premises has:

   – complied with the requirements of Chapter 3B of the Protection of the Environment Operations (General) Regulation 1998, and
   – provided a true and accurate representation of:
     - the total amount (in kilowatt hours) of electricity generated by the electricity generating works during the reporting period
     - the amount (in kilowatt hours) of electricity generated by burning bio-material over the reporting period
     - the total amount (in tonnes dry weight) of bio-material used during the reporting period.

5. It is an offence to supply any information in this audit report that is false or misleading in a material respect, or to make a statement that is false or misleading in a material respect. There is a maximum penalty of 200 penalty units for a corporation and 100 penalty units for an individual.

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2 ‘Penalty unit’ is defined in section 17 of the Crimes (Sentencing Procedure) Act 1999.