



NUS174

Environmental Procedures

May 2006



SUMMARY

Network Standard NUS174 outlines the environmental procedures to be adopted by all personnel involved in the construction, maintenance and operation of Ausgrid's network.

ISSUE

Ausgrid staff: for issue to all staff and contractors.

Where this standard is issued as a controlled document replacing an earlier edition; remove and destroy the superseded document.

Accredited Service Providers: document issued on an uncontrolled basis. Users are responsible for ensuring that the document they are using is current and includes any amendments issued since the date on the document. Ausgrid will not accept any liability for work carried out to a superseded standard. Ausgrid may not accept work carried out which is not in accordance with current standard requirements.

Ausgrid maintains a copy of this and other Network Standards together with updates and amendments on www.ausgrid.com.au.

Ausgrid also offers a subscription service which provides for updates and amendments to standards on payment of an annual fee.

DISCLAIMER

As Ausgrid's standards are subject to ongoing review, the information contained in this document may be amended by Ausgrid at any time.

It is possible that conflict may exist between standard documents. In this event, the most recent standard is to prevail.

This document has been developed using information available from field and other sources and is suitable for most situations encountered in Ausgrid. Particular conditions, projects or localities may require special or different practices. It is the responsibility of the local manager, supervisor, assured quality contractor and the individuals involved to ensure that a safe system of work is employed and that statutory requirements are met.

Ausgrid disclaims any and all liability to any person or persons for any procedure, process or any other thing done or not done, as a result of this Network Standard.

This document is **not** intended to address issues that include, but are not limited to:

- Construction, inspection and maintenance safe work practices
- Inspection and maintenance requirements
- Emergency preparedness and response
- Earthing and substation layout design

Note: The use of any steelwork in substations have unique requirements with respect to earthing. All designs involving steelwork are to be reviewed by *Network Engineering*.

INTERPRETATION

In the event that any user of this Standard considers that any of its provisions is uncertain, ambiguous or otherwise in need of interpretation, the user should request Ausgrid to clarify the provision. Ausgrid's interpretation shall then apply as though it was included in the Standard, and is final and binding. No correspondence will be entered into with any person disputing the meaning of the provision published in the Standard or the accuracy of Ausgrid's interpretation.

Network Standard
NUS174
Environmental Procedures
May 2006

CONTENTS

1	SCOPE	1
2	GLOSSARY	1
3	BACKGROUND	2
4	ENVIRONMENTAL PROCEDURES	3
	4.1 Environmental Planning Approvals, Impact Assessments and other Approvals	3
	4.2 Construction and Maintenance Activities	3
5	OVERVIEW OF ENVIRONMENTAL LEGISLATIVE REQUIREMENTS	5
	5.1 Planning and Approvals	5
	5.2 Ecology.....	5
	5.3 Heritage.....	6
	5.4 Electric and Magnetic Fields	6
	5.5 Pollution and Harm to the Environment	6
	5.6 Water.....	6
	5.7 Contaminated Land.....	7
	5.8 Noise	7
	5.9 Waste	7
	5.10 Pesticides.....	7
	5.11 Hazardous Chemicals.....	7
6	REFERENCES	8

1 SCOPE

Network Standard NUS174 outlines the environmental procedures to be adopted by all people involved in the planning, construction, maintenance and operation of Ausgrid's network.

This Network Standard also provides an overview of environmental legislative requirements to:

- Assist people in understanding their environmental responsibilities, and
- Assist people in locating information which will aid them in complying with their environmental responsibilities.

This Network Standard applies to all individuals who carry out any work related to Ausgrid's network and includes Ausgrid staff, Accredited Service Providers, Contractors, sub-contractors and associates, and employees of any of the above.

This Network Standard does not attempt to cover all environmental legislative requirements but rather, attempts to bring together the most common requirements that are likely to apply to Network related activities.

Where there is an inconsistency between this document and a legislative requirement, the legislative requirement will prevail. The requirements of other relevant Network Standards must also be complied with.

2 GLOSSARY

ASS	Acid Sulphate Soils
EAR	Environmental Assessment Report
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMF	Electric and Magnetic Fields
EMP	Environmental Management Plan
EP&A Act	Environmental Planning and Assessment Act
EPA	Environment Protection Authority
PCB	Polychlorinated Biphenyls
POEO Act	Protection of the Environment Operations Act
Ramsar Wetlands	Wetlands subject to listing under the Conventions on Wetlands (Ramsar, Iran, 1971)
REF	Review of Environmental factors
SCW	Scheduled Chemical Waste
SEE	Statement of Environmental Effects

3 BACKGROUND

NSW environmental legislation and the associated obligations can be found at Government of New South Wales Legislation home page www.legislation.nsw.gov.au

Environmental obligations can affect the conduct of activities associated with Ausgrid's network at all levels. They can impact on activities as diverse as long-term network planning decisions, through to line construction and maintenance. Modern environmental laws contain potentially severe sanctions in the event of default by the business, which include large fines, conviction of corporate officers and remedial orders or injunctions that may delay a project or render it commercially unviable.

What do environmental laws require of businesses? Put simply, the business, through its officers, employees and contractors must:

- Conduct proper impact assessment and obtain the requisite planning approvals and pollution licences; and
- Avoid harm and potential harm to the environment in the course of conducting business.

In terms of **planning laws**, there are a range of statutes that govern project planning, line design, construction and maintenance activities. The *Environmental Planning and Assessment Act* (EP&A Act) provides the overall framework under which approvals are obtained for developments or activities within NSW. It can potentially apply to the maintenance of electricity structures as well as their initial construction. The Court has a wide discretion to restrain a breach of the EP&A Act and to restore the land to its earlier condition.. Fines may be imposed for breaches of the EP&A Act to a maximum of \$1,100,000 plus \$110,000 per day for a continuing offence.

The EP&A Act is supplemented by other laws dealing with special approval or assessment regimes for particular environments (eg *Coastal Protection Act*, *Fisheries Management Act*, *Forestry Act*, *Heritage Act*, *National Parks and Wildlife Act*, *Native Vegetation Conservation Act* and *Wilderness Act*). Certain activities will also require approval from the Commonwealth in accordance with the *Environment Protection and Biodiversity Conservation Act* (Commonwealth).

In respect of **pollution control laws**, the main legislative obligations are found in the *Protection of the Environment Operations Act* (POEO Act). The purpose of the POEO Act is primarily to prevent or minimise air pollution, water pollution, noise pollution or land pollution through a system of licensing and regulations. Enforcement mechanisms include prosecution by the Environment Protection Authority (EPA) or by the issuing of environment protection notices by the EPA. Fines may be imposed for breaches of the POEO Act to a maximum of \$5,000,000 (Tier 1) or \$1,000,000 plus \$120,000 per day for a continuing offence (Tier 2).

Other relevant Acts include the Contaminated Land Management Act, Environmentally Hazardous Chemicals Act, and Pesticides Act.

4 ENVIRONMENTAL PROCEDURES

4.1 Environmental Planning Approvals, Impact Assessments and other Approvals

The EP&A Act is the primary source of obligations with respect to planning and development.. It usually applies in respect of planning approval for new infrastructure, however it can potentially apply to maintenance activities.

The EP&A Act is supplemented by numerous other laws that deal with special approval, assessment regimes or obligations for certain activities in specified areas.

An overview of environmental legislative and other requirements which relate to planning is provided in Section 5.

All planning and other approvals must be undertaken in accordance with environmental laws and other obligations.

Where Ausgrid is the Determining Authority for a proposed activity, the initial Part 5 assessment must be completed in accordance with:

- NUS174 Environmental Procedures Supplementary Notes - EIA Guidelines, and
- NUS174 Environmental Procedures Supplementary Notes - EIA Worksheet.

All Part 5 assessments must be submitted to Ausgrid for verification and approval.

Some activities by their nature or location are likely to present greater legal exposure for Ausgrid as the asset owner and require that this exposure be specifically assessed. Examples include activities that have the potential to affect threatened species, Aboriginal relics, Ramsar wetlands, decommissioning substations and so on.

In these instances, as defined by the Worksheet, the Worksheet must be referred to Ausgrid for specific assessment.

4.2 Construction and Maintenance Activities

An overview of environmental legislative and other requirements which relate to construction and maintenance is provided in Section 5.

All construction and maintenance activities must comply with environmental laws and obligations including approval conditions in relevant project environmental documentation.

Project environmental documentation that may be relevant includes:

- Environmental Impact Assessment (EIA, REF, EIS, EAR or SEE)
- Project Specific Environmental Management Plan (EMP)
- Environmental licenses, approvals and permits.

Basic environmental management techniques and procedures are provided in:

- NUS174 Environmental Procedures Supplementary Notes – Environmental Handbook for Construction and Maintenance Work (Handbook).

It should be noted that the *Handbook* does not describe all legal responsibilities but rather has been provided as a reference to encourage good, basic environmental management.

The *Handbook* provides the minimum environmental standards expected for all activities associated with Ausgrid's network.

Further the *Handbook* is specifically referenced as the standard approval conditions for all assessments undertaken in accordance with NUS174 *Environmental Procedures Supplementary Notes - EIA Worksheet*.

Where there is an inconsistency between the *Handbook* and an environmental law, the environmental law will prevail.

It is the responsibility of all contractors and external Accredited Service Providers to satisfy themselves that their specific work practices are adequately managed in accordance with environmental legislative requirements. This means assessing their potential impacts and putting systems in place to ensure compliance. The *Handbook* may form part of that system.

5 OVERVIEW OF ENVIRONMENTAL LEGISLATIVE REQUIREMENTS

The following sections provide a brief overview of the statutory requirements which may apply, depending on the activity and the location in which the activity is taking place. It should be noted that in some cases exemptions will apply, but other Acts will be relevant and other guidelines and standards will be applicable. Examples include the Department of Planning's *Acid Sulfate Soil Manual* and the Australian and New Zealand Environment and Conservation Council (ANZECC) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*.

A reference to an Act should be read as a reference to all associated Regulations and Regulator guidelines.

5.1 Planning and Approvals

The *Environmental Planning and Assessment Act* (administered by the Department of Planning) regulates planning and development in NSW. It applies to all new construction activities such as new or upgraded substations and powerlines, installation of new equipment, telecommunication infrastructure and so on. Some maintenance works will also get captured. The Act requires an assessment of all relevant Environmental Planning Instruments to determine if and what type of planning approval is required. If planning approval is required, the Act prescribes the assessment/approval process and requires project activities to comply with any controls/approval conditions stipulated in the approval. Most planning approvals conducted on Ausgrid's network are carried out under Part 5 of the Act (where Ausgrid is the Determining Authority), however, some assessments will require Part 4 approval from a consent authority (such as the local Council) or Minister approval under Part 3A of the Act.

Various other Acts require approvals for certain activities in specified areas. Examples include developments in Wilderness Areas (*Wilderness Act*), development in National Parks and Conservation Areas (*National Parks and Wildlife Act*), development in Forestry Areas (*Forestry Act*), damaging seagrass and mangroves or dredging (*Fisheries Management Act*), working on classified roads (*Roads Act*), development in a mine subsidence area (*Mine Subsidence Compensation Act*), working in special catchment areas (*Catchment Management Authorities Act*) and so on.

The Commonwealth *Environment Protection and Biodiversity Conservation Act* (administered by the Commonwealth's Department of Environment and Heritage) regulates the protection of matters of National Environmental Significance (NES), such as World Heritage, National Heritage, Ramsar wetlands, Commonwealth listed threatened species, migratory birds, commonwealth land etc. Actions that are likely to have a significant impact on these areas will require Commonwealth approval in addition to NSW planning requirements.

5.2 Ecology

The *National Parks and Wildlife Act* (administered by National Parks and Wildlife Service) regulates the protection of plants and animals by creating offences for damaging threatened species, populations, ecological communities, critical habitat, protected fauna and protected flora without proper authorisation.

The *Native Vegetation Act* (administered by the Department of Natural Resources) regulates the protection of native vegetation and in some cases requires planning approval before clearing native vegetation or protected lands.

The *Noxious Weeds Act* (administered by the Department of Primary Industries) regulates the protection of native plants and requires the appropriate management of noxious weeds.

The *Electricity Supply Act* regulates the trimming of trees which could interfere with electricity networks, despite potential requirements under the Environmental Planning and Assessment Act. However, this allowance does not apply to trees subject to certain protection orders or trees in protected areas.

The Commonwealth *Environment Protection and Biodiversity Conservation Act* (administered by the Commonwealth's Department of Environment and Heritage) regulates the protection of matters of National Environmental Significance, which include certain threatened species.

5.3 Heritage

In NSW the *Heritage Act* (administered by the Heritage Office) regulates the protection of non-Aboriginal heritage by creating offences for damaging heritage items, if not in accordance with an approval. There are also requirements for maintaining heritage items, keeping heritage registers, notifying potential discoveries, and obtaining permits when working in areas where heritage relics could be discovered.

The *National Parks and Wildlife Act* (administered by National Parks and Wildlife Service) regulates the protection of Aboriginal heritage, creating offences for damaging heritage items, if not in accordance with an approval. There are also requirements for notifying potential discoveries, and obtaining permits for investigations.

The Commonwealth *Environment Protection and Biodiversity Conservation Act* (administered by the Commonwealth's Department of Environment and Heritage) regulates the protection of matters of National Environmental Significance, which include heritage items.

5.4 Electric and Magnetic Fields

There are currently no Australian standards regulating exposure to these fields. The National Health and Medical Research Council (NHMRC) has issued *Interim guidelines on limits of exposure to 50/60 Hz electric and magnetic fields*. These guidelines are aimed at preventing immediate health effects resulting from exposure to these fields.

All works are to comply with the NHMRC interim guidelines and are to be conducted in accordance with prudent avoidance principles.

Prudent avoidance has been defined in an Australian context by the former Chief Justice of the High Court of Australia, Sir Harry Gibbs, as doing what can be done without undue inconvenience and at modest expense to avert the possible risk to health from exposure to new high voltage transmission facilities. In practical terms, this means designing new transmission and distribution facilities having regard to their capacity to produce EMF, and siting them, having regard to the proximity of houses, schools and the like.

5.5 Pollution and Harm to the Environment

The *Protection of the Environment Operations Act* (administered by the Environment Protection Authority) regulates the protection of the environment from pollution by creating offences for causing, or likely to cause harm to the environment and in particular air pollution, water pollution, noise pollution and land pollution. Offences are typically defined broadly placing the onus on personnel to ensure all due diligence is exercised to prevent potential harm in the first instance. The Act also requires licenses for certain activities and notifications to the EPA for pollution incidents.

5.6 Water

The *Protection of the Environment Operations Act* (administered by the Environment Protection Authority) creates offences for activities likely to cause the pollution of waters, including stormwater drains and channels, natural and artificial watercourses etc. Pollution is broadly defined and includes changing the condition of the receiving waters, or placing any matter in a position where it is likely to enter a structure that is used or designed to carry water. Examples of affected activities include excavating or disturbing ground cover, stockpiling, storing liquids (including oils), fuels and chemicals, operation of oil filled equipment, discharging accumulated water, oil/water separators, operating washbays, washing tools and equipment and so on.

Further guidance can be found in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* produced by the Australian and New Zealand Environment and Conservation Council (ANZECC).

The Act allows for pollution if it is carried out in accordance with a license, however, granting these licenses is a last resort for the EPA.

5.7 Contaminated Land

The *Protection of the Environment Operations Act* (administered by the Environment Protection Authority) creates offences for introducing substances on to land such that the substances are likely to cause land degradation, harm to people or the environment or property damage that is not trivial.

The *Contaminated Land Management Act* (administered by the Environment Protection Authority) regulates the management of contaminated land. It is primarily to address land pollution after the event, in circumstances where the EPA considers that there is a significant risk of harm to human health or to the environment. Management of contaminated land where there is no significant risk must be undertaken in accordance with EPA and the Department of Planning guidelines.

5.8 Noise

The *Protection of the Environment Operations Act* (administered by the Environment Protection Authority) regulates operational and construction noise by requiring activities, machinery and equipment to be operated and maintained efficiently such that they do not cause noise pollution. EPA guidelines are available in relation to management of stationary noise sources such as transformers.

Construction noise is usually restricted to business hours unless there are valid reasons for working outside of these hours and there has been consultation with affected residents and the local council. The local council may have guidelines in this regard.

5.9 Waste

The *Protection of the Environment Operations Act* (administered by the Environment Protection Authority) and EPA Guidelines, regulates the classification, storage, handling, transport and disposal of wastes. Licenses are required for transporting, generating, processing (such as the processing of transformer oil) and storing of certain wastes. Additionally, there are also requirements relating to checking that waste disposal facilities and transporters are appropriately licensed. In some cases waste tracking needs to be undertaken and records kept. The EPA must be informed of any suspected breach of these requirements.

Wastes which may have licensing or tracking requirements include PCB contaminated oil or materials, solvents, adhesives and any other dangerous goods, pesticides, lead acid batteries, street lamps, Bioguard Bandages, water from 132kV cable trenches, acid sulphate soils, contaminated soil, jointing compounds etc.

5.10 Pesticides

The *Pesticides Act* (administered by the Environment Protection Authority) regulates the use of pesticides by creating offences for inappropriately using pesticides (such as harming non-target species) or using pesticides in a way which is not in accordance with the label. There are also requirements relating to training, keeping records, notifying neighbours and using only registered pesticides.

Activities could include pole treatment, easement management, grounds etc.

5.11 Hazardous Chemicals

The *Polychlorinated Biphenyls (PCB) Chemical Control Order* made under the *Environmentally Hazardous Chemicals Act* (administered by the Environment Protection Authority) regulates the handling, storage, generation, transport, removal and disposal of PCBs. Licenses are required for certain activities such as storing, transporting and disposing of certain classes of PCBs.

The *Scheduled Chemical Waste (SCW) Chemical Control Order* made under the *Environmentally Hazardous Chemicals Act* (administered by the Environment Protection Authority) regulates the handling, storage, generation, transport, removal and disposal of SCWs such as benzene, chlordane, heptachlor, dieldrin and endrin.

6 REFERENCES

- NUS174 Environmental Procedures Supplementary Notes – Environmental Handbook for Construction and Maintenance Work
- NUS174 Environmental Procedures Supplementary Notes - EIA Guidelines
- NUS174 Environmental Procedures Supplementary Notes - EIA Worksheet
- Acid Sulfate Soil Manual, Department of Planning
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council (ANZECC)
- Catchment Management Authorities Act
- Commonwealth Environmental Protection and Biodiversity Conservation Act
- Contaminated Land Management Act
- Electricity Supply Act
- Environmental Planning and Assessment Act
- Environmentally Hazardous Chemicals Act
- Fisheries Management Act
- Forestry Act
- Heritage Act
- Interim guidelines on limits of exposure to 50/60 Hz electric and magnetic fields, The National Health and Medical Research Council (NHMRC)
- Mine Subsidence Compensation Act
- National Parks and Wildlife Act
- Native Vegetation Act
- Noxious Weeds Act
- Pesticides Act
- Polychlorinated Biphenyls (PCB) Chemical Control Order
- Protection of the Environment Operations Act
- Roads Act
- Scheduled Chemical Waste (SCW) Chemical Control Order
- Wilderness Act



© Ausgrid.

This document must not be reproduced in whole or in part or converted to machine readable form or stored in a computer or imaging system without the written permission of Ausgrid.

Revision History

Initial issue:	3/10/2001
Revision 1	29/05/2006

Document Control

Authorised By: Craig Moody	Date: 29 May 2006
Manager Network Engineering	
Document Number:	NUS174