SOUTH AUSTRALIA

ENVIRONMENT PROTECTION (MILKING SHED EFFLUENT MANAGEMENT) POLICY 1997

SUMMARY OF PROVISIONS

ENVIRONMENT PROTECTION (MILKING SHED EFFLUENT MANAGEMENT) POLICY 1997

Notice under section 28 of the Environment Protection Act 1993
Declaration of Authorised Environment Protection Policy
appeared in Gaz. 29 May 1997, p. 2690

Citation

1. This policy may be cited as the *Environment Protection (Milking Shed Effluent Management) Policy 1997*.

Commencement

2. The commencement date of this policy is 16 June 1997.

Application and purpose

3. (1) This policy applies to the management of liquid, semi-solid and solid wastes derived from structures where cows, sheep or goats are milked in any number and at any frequency in any part of South Australia.

(2) The purpose of this policy is to establish the basic minimum standards of design and practice for the management of wastes generated at milking sheds in all parts of South Australia so that nutrients and microorganisms contained in these wastes are not permitted to enter water bodies and subsequently cause environmental harm.

Interpretation

4. (1) In this policy—

"**bore**" means an opening in the ground excavated for the purpose of obtaining access to underground water or an opening in the ground for some other purpose that gives access to underground water;

"**construct**" has the same meaning as in the *Development Act 1993*, and "**construction**" has a corresponding meaning;

"**development**" has the same meaning as in the *Development Act 1993*;

"**dryland pasture**" means pasture grown without the aid of irrigation using surface or underground water, and includes pasture irrigated with milking shed effluent;

"**geotechnical membrane**" means any artificial membrane or material used to decrease the natural permeability of a milking shed effluent lagoon;

"**house**" means a building, or part of a building, occupied or intended for occupation as a place of residence;

"**irrigation drainage channel**" means any artificial channel used to convey irrigation drainage water back to a watercourse;

"**lagoon**" includes any dam, pond or lagoon that is constructed from earth, whether lined with a geotechnical membrane or not, and used for the storage or treatment of milking shed effluent;

"**milking shed**" means any structure, whether roofed or not, at which operations for the milking of animals are carried on, including any associated yard areas at which animals are confined prior to or following milking;

"**milking shed effluent**" means manure, urine, washdown water or contaminated runoff from milking shed operations, and includes components of such matter produced by storage and evaporation in a lagoon or some other treatment process, but does not include natural runoff from stock races;

"**milking shed effluent management system**" means a system that is designed and operated—

(a) for the purpose of collecting milking shed effluent and disposing of it to land or storing milking shed effluent and subjecting it to evaporation in a lagoon or some other treatment process; and

(b) so as to minimise any adverse impacts on the environment;

"**operator**" of a milking shed includes an owner of the milking shed;

"**sink hole**" means a natural opening in the ground that may give access to underground water;

"**solids separation pit**" means a structure designed specifically to separate manure and other settleable solids from the liquid component of milking shed effluent;

"**underground water**" means water occurring naturally below ground level;

"**watercourse**" means—

(a) a creek, river, lake or natural wetland;

(b) an artificial channel (other than an irrigation drainage channel) that drains from or into a creek, river, lake or natural wetland,

and includes any part of a watercourse that may be dry at any time or subject to tidal flows from the ocean.

(2) In this policy, the expression "Mandatory Provision" followed by a statement as to the category of an offence is to be taken to signify that contravention of the provision at whose foot the expression appears will be an offence of the category so stated for the purposes of Part 5 of the *Environment Protection Act 1993.*

Areas affected by policy

5. In this policy, a reference to a particular region is a reference to the region as defined in the Schedule.

Milking shed developments after commencement of policy to incorporate effluent management systems

6. (1) This clause applies to a milking shed if a development has been undertaken on or after the commencement of this policy involving the construction or use of the milking shed for the milking of animals.

(2) A milking shed to which this clause applies must incorporate a milking shed effluent management system and the system must be effectively operative when animals are held at or near the milking shed for the purpose of being milked.

Effluent not to escape to other land or water body

7. (1) Subject to this clause, an operator of a milking shed must ensure that no milking shed effluent generated at the milking shed is deposited or discharged or escapes onto any land not owned by the owner of the milking shed or into any watercourse, irrigation drainage channel, bore or sink hole.

Mandatory Provision: Category B offence.

(2) Subclause (1)—

(a) applies on and after the commencement of this policy to a milking shed situated within the Mt Lofty Ranges region or the River Murray region (excluding the Riverland section); and

(b) applies to a milking shed if a development is undertaken on or after the commencement of this policy involving the construction or use of the milking shed for the milking of animals; and

(c) applies, in any other case, on and after 1 January 1999.

Developments involving milking shed effluent lagoons after commencement of policy

8. (1) This clause applies to a lagoon for the storage or treatment of milking shed effluent if a development is undertaken on or after the commencement of this policy involving the construction or use of the lagoon for that purpose.

(2) A lagoon to which this clause applies must not be located closer than—

(a) 200 metres to a house on land not owned by the owner of the milking shed; or

(b) 20 metres to a public road.

(3) A lagoon to which this clause applies must be so located and constructed as not to be inundated or damaged by water during a flood of the kind that has an average recurrence interval more frequent than 1 in 25 years.

(4) A lagoon to which this clause applies must wherever reasonably practicable be located off the 1956 River Murray Flood Plain.

(5) A lagoon to which this clause applies must have a maximum in-situ permeability not exceeding 0.1 millimetre per day.

(6) A lagoon to which this clause applies that does not incorporate a geotechnical membrane must be lined with clay that has a minimum total compacted thickness of 600 millimetres and has been protected from desiccation during construction.

(7) Prior to any inflow of milking shed effluent into a lagoon to which this clause applies, an operator of the milking shed may be required (by condition of a development authorisation) to provide documentation that satisfies the Environment Protection Authority that—

(a) where the lagoon does not incorporate a geotechnical membrane, the lagoon is so lined as to ensure compliance with subclause (5); or

(b) where the lagoon incorporates a geotechnical membrane, the manufacturer's information indicates that—

(i) the permeability through the membrane will not exceed 0.1 millimetre per day; and

(ii) the membrane has been installed according to the manufacturer's specifications.

Requirements applying to all milking shed effluent lagoons and solids separation pits

9. (1) Milking shed effluent must not be added to any lagoon so that the contents of the lagoon reach a level closer than 600mm to the maximum level at which liquid can be contained in the lagoon.

(2) Manure and other sludge material that is removed from lagoons or solids separation pits and allowed to dry out prior to utilisation for productive purposes must be stored on an impervious surface that drains into an effluent management system while the material is drying.

Buffer distances for effluent application to land

10. Milking shed effluent generated at a milking shed must not be deposited or discharged or escape—

(a) onto land within 50 metres of an irrigation drainage channel containing water or a watercourse, bore or sink hole; or

(b) onto land within 10 metres of a dry irrigation drainage channel; or

(c) onto land within 100 metres of a house on land not owned by the owner of the milking shed; or

(d) onto land within 10 metres of land not owned by the owner of the milking shed.

Sustainable effluent disposal practices

11. (1) Milking shed effluent should be applied to land at a rate that enables the nutrients contained in the effluent to be utilised for plant growth and avoids water pollution through nutrient leaching beyond the rootzone of the plants or surface water runoff with high nutrient concentrations.

(2) Milking shed effluent generated at a milking shed must not be deposited or discharged or escape—

(a) onto land so as to result in surface ponding such that permeation into the soil will take one hour or more; or

(b) onto dryland pasture at a rate that equals or exceeds the rate that would be required in order to add to the milking shed operator's dryland pasture 100kg of nitrogen per hectare of such pasture per year (approximately 100kg of nitrogen is contained in the effluent produced by 20 milking cows in a year); or

(c) onto land with growing vegetation, with the exception of dryland pasture, at a rate that does not conform to the principle set out in subclause (1); or

(d) onto land where there is no living and growing vegetation.

(3) If land is irrigated with milking shed effluent, a two day delay must be allowed before flood irrigation is undertaken on the same parcel of land.

SCHEDULE

Boundaries of Regions referred to in the Policy

Mt Lofty Ranges region

The Mt Lofty Ranges region consists of the following as at the commencement of this policy:

(a) the District Council areas of Yankalilla, Victor Harbor, Port Elliott and Goolwa, Strathalbyn, Mount Barker, Onkaparinga, Gumeracha, the Barossa;

(b) those parts of the District Council areas of Kapunda and Light as defined in Map BVR/1 in the Kapunda (DC) and Light (DC) Development Plans;

(c) that part of the District Council area of Willunga not within the Metropolitan Adelaide boundary as defined in Map MA/I in the Willunga (DC) Development Plan;

(d) those parts of the District Council areas of East Torrens, Stirling and Willunga as defined in Tables MA/I, MA/2 and MA/3 in the East Torrens (DC), Stirling (DC) and Willunga (DC) Development Plans;

(e) those parts of the Council areas of Happy Valley, Munno Para and Tea Tree Gully as defined in Tables MA/I, MA/2 and MA/3 in the Happy Valley (City), Munno Para (City) and Tea Tree Gully (City) Development Plans.

River Murray region

The River Murray region consists of the following as at the commencement of this policy:

(a) the areas defined in Map R/3 in the following Development Plans:

Barmera (DC)
Berri (DC)
Loxton (DC)
Morgan (DC)
Paringa (DC)
Renmark (DC)
Truro (DC)
Waikerie (DC)
Land Out of Councils;

(b) the areas defined in Map MM/3 in the following Development Plans:

Mannum (DC)
Meningie (DC) (with the exception of all areas south of the northern boundary of the Hundred of Malcolm)
Murray Bridge (DC)
Ridley (DC)

The **Riverland section** of this region, as referred to in this policy, consists of the District Council areas of Renmark and Loxton as at the commencement of this policy.

1956 River Murray Flood Plain

The 1956 River Murray Flood Plain consists of the Flood Zone in the following Development Plans as at the commencement of this policy:

Barmera (DC)
Berri (DC)
Loxton (DC)
Mannum (DC)
Meningie (DC)
Morgan (DC)
Murray Bridge (DC)
Paringa (DC)
Renmark (DC)
Ridley (DC)
Truro (DC)
Waikerie (DC)
Land Out Of Councils.