

17.1 Existing Conditions

It is anticipated that the types of wastes generated by operations will include construction wastes, general operations waste (including waste of a domestic nature from the camp) and sand tailings.

17.1.1 Construction waste

Non-hazardous waste generated during construction activities may include clean topsoil and fill, cleared vegetation and residual building materials.

Hazardous waste generated during the construction activities may include hydrocarbons and other chemicals such as solvents, paints, fertilisers, pesticides and insecticides, and cleaning products.

Oily waste will be produced from generators and vehicles, oily rags, oil filters and other disposable parts.

Construction personnel will generate putrescible wastes, including solid waste, liquid waste and sewage.

17.1.2 General operational waste

As described in Section 16 – Hydrocarbons and Hazardous Substances, oily waste will be produced from generators and vehicles, including waste oil, oily rags, oil filters and other disposable parts during operations. It is anticipated that Matilda will produce approximately 7,000 L of waste oil a year.

Up to 15 operational personnel and contractors will be on site at any one time, generating putrescible wastes, including solid waste, liquid waste and sewage. The camp kitchen will also produce putrescible waste of a domestic nature.

17.1.3 Sand tailings

The sand tailings will comprise sand from the minerals-bearing horizon less the heavier fraction removed during the separation process. The separation process is chemical-free; thus the sand tailings will contain no chemicals arising from the mining and separation process. While the tailings may create a short-term visual impact pending rehabilitation, it is unlikely they will create any other significant environmental impact.

17.2 Objectives and standards

Good waste management practice aims to reduce waste production through recovery, re-use and recycling, and through efficient utilisation of resources to ensure that minimum waste quantities are generated.

Matilda, in recognition of the unique environment of the Tiwi Islands, aims to:

- Promote best practice in the minimisation of generation of waste;
- Dispose appropriate wastes on-site through appropriate maintenance of waste disposal areas; and
- Dispose other wastes off-site through the utilisation of environmentally responsible waste disposal companies.

Matilda has developed a Draft Waste Environmental Management Plan to address waste management issues, and to ensure potential environmental impacts associated with the generation of waste are minimised.

Waste management and disposal will be carried out in accordance with the *Waste Management and Pollution Control Act 2003*.

Procedures have been developed to manage hazardous liquid waste and for any contaminated material arising from spills and leaks.

Relevant legislation, standards and policies

The relevant legislation, standards and policy are:

- Matilda's Environmental Policy
- *Waste Management and Pollution Control Act 1998*
- *Mine Management Act 2001*
- *Litter Act 1972*

17.3 Definition of issues and impacts

Some hazardous wastes may be generated during construction and operation; these can adversely affect human health, as well as be a source of soil, marine, surface and groundwater contamination.

If not managed properly non-hazardous wastes generated during the construction and operation may detract from the visual amenity. Putrescible waste will emit odours, and may also attract wildlife and vermin to the immediate site.

The camp kitchen and ablution areas would be served by a septic tank system with associated soakage trench. This has the potential to increase the amount of vermin to the immediate site, and to increase breeding grounds for mosquitos.

17.4 Waste management

Matilda's Draft Waste Environmental Management Plan is presented in Section 25.7. This plan details actions to be taken in order to manage waste generated by Matilda's operations.

As stated in Section 16, waste oil would be collected in 205 L drums identified as waste oil. Other oily wastes including oil filters and rags would also be placed in 205 L drums identified as oily wastes. These wastes would be stored in the dangerous goods bund. Waste oils will be collected by AFD, for storage at the oily waste storage facility at Port Melville before shipping to the mainland for appropriate disposal. Matilda will produce approximately 7,000 L of waste oil a year. A waste tracking form system will be used to track movements of this material.

Any chemical waste (very minor quantities) would be collected in a 205 L drum identified as chemical waste. It is proposed that these wastes would be taken to Port Melville for collection by a waste recycling and disposal contractor (Drum Muster). Miscellaneous vehicle waste (tyres, batteries, scrap parts) would be collected for return to Darwin for appropriate recycling and / or disposal.

Any wastes arising from spills, such as contaminated runoff and contaminated soil will be collected and remediated on site, or transported to a suitable facility for disposal on the mainland.

Waste of a domestic nature arising from the camp (including kitchen and office waste) would be collected in 205 L drums, and periodically burnt and disposed of in a small sanitary landfill trench adjacent to the infrastructure area. The trench would be dug with a backhoe, and covered with earth following burning to discourage birds and animal access. Upon completion of mining the disposal trench area would be covered and surface ripped to encourage revegetation.

The septic tank system with associated soakage trench for the camp kitchen and ablution areas will be covered and appropriate chemicals applied, to reduce the chance of spread of disease and the likelihood of mosquito breeding.

The sand tailings from the process will comprise clean sand rejected from the minerals separation process. All clean sand tailings would be returned to the previously mined areas for rehabilitation.

17.5 Commitments

Matilda commits to reducing waste production through the efficient utilisation of resources (Section 17.2).

Matilda commits to disposing of appropriate wastes on-site through appropriate maintenance of waste disposal areas and disposing of other wastes off-site through the utilisation of environmentally responsible waste disposal companies (Section 16.2).