GUIDELINE FOR SUBMISSION OF AN APPLICATION FOR AN ENVIRONMENT PERMIT TO DISCHARGE WASTE.

INTRODUCTION

This Information Guideline has been developed to guide proponents of Level 2 (Category B) activities and Level 3 activities where Minister's Approval In Principle has been issued, to submit relevant information when applying for an Environment Permit to discharge wastes.

The requirements in the Information Guideline are generic in order to capture relevant information from different category of prescribed activities that may need an Environment Permit before they commence operation. The waste discharge specifications for an activity varies according to the process and raw material used, site location, sensitivity of the local environment and so on.

However, a permit application should contain sufficient information on the proposed activity as well as the correct application fee before it is lodged. Relevant Technical Guidelines for waste discharges should be consulted in order to submit the required information. Delay in processing an application due to insufficient details will be avoided if quality data and accurate information are provided in the first instance.

Preliminary consultation between the applicant and DEC is essential and should occur prior to the formal lodgment of an application. This step would be of benefit to the applicant in that the type of information that will be required in the application and the permit assessment process will be explained. On the other hand, this exchange of information would enable DEC to have an appreciation of the type and nature of the activity and recommend key information that should be contained in the application for an Environment (Waste Discharge) Permit.

It is important that information in the application should identify all potential waste streams associated with the proposed activity from the construction to operational and closure phases. Accurate identification of the waste streams and their sources will make it easier in allocating the appropriate waste control measure to each waste stream.

Waste minimisation will also be a key consideration when assessing an application and it is important that applicants incorporate waste minimisation programs as part of their waste management strategy.

1 Technical Guidelines for Noise, Air and Water & Land Discharges is intended to assist applicants in submitting the relevant technical information in the permit application. Other similar guidelines would be developed in future to address a specific environmental concern or to recommend best practice environmental guidelines in relation to a prescribed activity.
However, where discharge of a waste into the environment is inevitable, relevant details on the characteristics of the waste stream and the waste treatment and disposal system (passive and active controls) should be provided. These information are vital and maybe used as permit conditions for controlling the operating conditions of the waste treatment and disposal system in order to ensure that the discharge complies with the Environment Policies, Regulations and standards.

**CONTENT OF AN APPLICATION FOR AN ENVIRONMENTAL PERMIT**

Detail information must be provided to all matters below that are relevant to the proposed activity and the nature of the application. An application from a new activity should submit all the relevant information required in this Information Guideline. Permit amendment, transfer and renewal applications from existing prescribed activities are required to submit only those details that are necessary for the assessment of the application.

Early consultation with DEC on the appropriate information to submit in an application is vital in order to avoid submission of information that may be inadequate or excessive but not necessary due to the type of application.

NOTE: The Application Form for an Environment Permit to Discharge Waste must be completed and included with this submission. This submission is part of that application.

1. **Introduction.** (1 page)
   This section should include brief description of the following –
   - proposed activity and its objectives,
   - potential bio-physical impacts,
   - potential socio-economic impacts (direct results of bio-physical impacts),
   - potential benefits of the activity.

2. **Purpose of the Activity.** (1 page)
   This section should include brief description of the following –
   - objectives of the activity,
   - description on whether the proposed development is compatible with National, Provincial and Local Level Government development goals and planning strategies,
   - description of benefits to the Nation, Province, District and to the local community.

3. **Viability of the Activity.** (1 page)
   This section should include brief description of the following –
   - information on the capital cost associated with the development,
   - financing arrangement,
   - proponent’s technological expertise and resources,
   - results of any feasibility investigations that has been conducted,
   - information on landowner and/or resource owner support, including a copy of the formal written approval of their consent,

4. **Development Timetable.** (1 page)
   This section should include details of the project schedule that includes timeframes for site preparation, commissioning, commencement of operation, decommissioning, closure, etc as well as expected dates on which other relevant statutory approvals will be secured. A Flow chart, Gantt or PERT chart should be attached where appropriate.

5. **Site Selection.** (1 page)
   This section should provide details of alternative sites that were considered and reasons for selection of the proposed site.

6. **Baseline Environmental Information/Data.** (5 pages)
   This section should provide detail environmental baseline data on environmental quality within the proposed project location that may be affected when the activity is carried out.
For BIO-PHYSICAL environment, provide baseline data on the following –
- geomorphological, topographical and geological characteristics,
- natural or induced hazard in the area (e.g. flood, earthquake, volcanic zone, etc.),
- climatic regime (e.g. rainfall, temperature, etc.),
- air quality and meteorological data set for air dispersion modeling,
- seasonal surface water quality and hydrological data,
- seasonal ground water quality data and flow regime,
- noise levels,
- details of other pollution sources available within the locality and the additive effects of their emissions on the baseline environmental quality.

For BIOLOGICAL environment, provide baseline data on the following –
- presence of a protected area (Conservation Area or Wildlife Management Area),
- details of any special purpose areas (e.g., wetland area, etc.),
- aquatic and terrestrial ecology of the area,
- information on vulnerable (endangered) species,
- other relevant biological data.

7. **Description of the Activity.**

This section should include a detail description of the proposed activity. This must include description of the main activity and all its sub-activities. Information provided in this section is essential in identifying the potential waste stream from each part of the process or sub-activity. Detail information must be provided on the potential waste stream from each sub-activity and the operating conditions of the waste treatment and disposal systems. These data are vital to the design of the permit conditions.

Information to be provided may include the following -
- background information to the proposal, process technologies to be employed, etc.
- detail site map (A4 size and drawn to scale) indicating site layout, features, proposed discharge point to the air, land, water, etc.,
- information on plant or building designs, relevant diagrams and drawings,
- flowcharts, mass balances (including feedstocks, products and wastes generated, etc.),
- information on associated infrastructure/facilities that will be constructed.

**NOTE:** Specific requirements on this section are provided in the DEC Technical Guidelines for Noise Discharges (IB/Env/01/2004), Air Discharges (IB/Env/02/2004) and Water/Land Discharges (IB/Env/03/2004). These guidelines should be consulted for relevant details to provide under this section.

8. **Potential Impacts of the Activity.**

This section should include a comprehensive analysis of the potential impacts of the proposed activity, including the effects of its waste discharges on environmental quality and the related socio-economic impacts (if any).

Information provided should include the following -
- details of predicted impacts on the physical, biological and social environment,
- details of ambient and emission standards used to assess the effects of the project,
- an assessment of resilience of the environment to cope with the expected changes,
- describe aspects such as worst case scenarios, potential risks, emergency situations, confidence of prediction of impact, etc.

For BIO-PHYSICAL impacts, provide analysis on the effects of the following –
- Noise emission,
- Air emission,
- Water and land discharge,
- Land contamination, solid waste disposal, etc.,

**NOTE:** Specific details required on the impacts of environmental emissions are available in the DEC Technical Guidelines for Noise, Air and Water/Land Discharges.

For BIOLOGICAL impacts, provide analysis on the effects of the activity on the following –
- Flora (vegetation clearance),
- Fauna (displacement of fauna, impacts, etc.),
- Protected or ecologically sensitive areas (if any).
For SOCIO-ECONOMIC impacts, provide details of the potential socio-economic impacts that may arise as a result of the bio-physical and biological impacts of the activity. These are social effects that can be addressed by the environmental permitting process and include the following -
▪ degradation in air quality,
▪ degradation in water quality,
▪ increased noise levels,
▪ land contamination,
▪ loss of food sources,
▪ habitat loss, etc.

9. Waste Minimisation and Cleaner Production. (3 pages)

This section should include commitment by applicant to incorporate waste minimisation and cleaner production measures into the design and operation of the activity.

Information provided in this section should include the following -
▪ details of alternative "cleaner production" technologies or processes considered,
▪ information on the basis for choosing the proposed technology or process,
▪ available technical expertise on the process chosen,
▪ details of the Waste Minimisation Strategy developed for the proposal (e.g. wastewater reuse and recycling, etc.).

NOTE: Specific requirements are also available in the DEC Technical Guidelines for Noise, Air and Water/Land Discharges.

10. Confidential Information. (1 page)

Details of classified information relating to a manufacturing or industrial process or trade secret used in carrying on or operating any particular undertaking or equipment or information of a business or financial nature in relation to the proposed activity should be clearly defined.

This information would be classified as "confidential information" and excluded from the document before it is made available for public review.

11. Reference. (1 page)

Provide details of reference materials used in sourcing information and/or data used in this submission.

Lodge the above submission with:

Director of Environment
Department of Environment and Conservation,
P.O. Box 6601, BOROKO,
National Capital District,
Papua New Guinea.

Attention:  First Assistant Secretary
Environment Division