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DEC : 7 2007

MEMORANDUM CIRCULAR
NO. 2007 - 003

TO : ALL EMB REGIONAL DIRECTORS
ALL EMB DIVISION CHIEFS

SUBJECT : POLICY ON COMPLIANCE AND PERMITTING FOR
INDUSTRIAL FACILITIES RELATING TO AIR
QUALITY

In the interest of service and to give clear guidance on issues relating to the issuance of permits for industrial facilities with air emissions (see *Annex 1*), you are hereby provided with the following directives:

PERMITTING POLICY

- 1) Permits will be enhanced in accordance with EMB Guidelines to ensure they become more effective tools for managing air emissions.
- 2) The permitting system shall ensure that all significant new or modified emission sources comply with the Act, especially the emission standards. EMB shall not accept an application or issue a permit for a source that cannot or will not comply.
- 3) Permits do not need to be suspended or revoked for existing sources that do not comply, at least in the first instance of a violation. In these cases, current enforcement procedures and, where necessary, the adjudication process shall be followed.
- 4) For large new sources or new sources with significant potential impacts (see *Annex 2*), permit applicants shall be required to demonstrate compliance with an emission test and dispersion modelling. For medium-sized sources, only emission testing shall be required. A regular permit shall not be issued until test and modelling data (where applicable) demonstrating compliance are submitted.
- 5) A temporary permit may be issued to allow compliance testing to be conducted, but only if EMB believes that the relevant source(s) may be able to comply. A temporary permit can also be issued if there is some doubt about compliance (e.g. because the test did not conform to the methods in the IRRs). A temporary permit must not be issued in cases of non-compliance.

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RFA
7/18/07

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4/24/07

- 6) EMB shall specify routine testing requirements in permits. Operators of large or environmentally significant sources shall be required to conduct emission testing twice per year, while medium-sized sources shall require testing annually to verify their compliance. See *Annex 2* for definitions and more details of these requirements.

POLICY ON COMPLIANCE TESTING AND PERMITTING

A compliance test may be required by EMB for various purposes:

- for permitting purposes (either initial permitting or permit renewal),
- for a routine compliance check of an existing source,
- after modifications have been made to a source to achieve compliance, or
- to investigate a pollution complaint.

Wherever feasible, the permit applicant or permittee must conduct (or arrange for a third party contractor to conduct) the compliance test, and bear the cost of doing so.

The recommended frequency of testing for various types of sources is indicated in *Annex 2*.

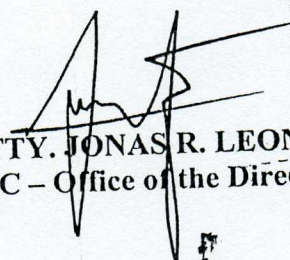
PERMITTING PROCEDURES

- 1) EMB shall require test and modelling data that demonstrate compliance for the permitting of a large or environmentally significant new or modified source. Test data shall also be required if there is some uncertainty about the emissions.
- 2) For small and medium-sized new sources, EMB shall continue to accept emissions estimates based on recognized emission factors and calculation procedures.
- 3) EMB staff shall advise applicants whether a compliance test is required either before or when an application is lodged. They shall advise the sources and pollutants to be tested, the test methods, the required operating conditions for the test, and the test and supporting data required.
- 4) If the required test results are not submitted with an application, EMB may either return (reject) the application or issue a temporary permit to allow testing to be conducted. Compliance shall be demonstrated before a regular permit is issued.
- 5) If the test results indicate non-compliance, EMB shall not accept or process the application, or issue a permit (even a temporary permit).
- 6) Where the test results are inconclusive, EMB may issue a temporary permit to allow further testing. This shall be conducted by the proponent or an accredited third party tester and, wherever possible, observed by the RO.

- 7) If EMB believes that the submitted test results are false or unreliable, it shall ask the applicant to conduct another test before accepting the application. A permit shall not be issued until EMB is satisfied with the accuracy, reliability and probity of a test.
- 8) An applicant shall not be allowed to operate a new or modified source (except for commissioning and testing) until a temporary or regular permit has been issued. Operation without a permit is a violation of the Act.
- 9) Where an existing source fails to comply with emission standards, existing enforcement procedures will be followed. These include:
 - service of a notice of violation;
 - conduct of a Technical Conference;
 - submission, approval and implementation of a compliance plan, and where necessary, adjudication of the case by the Pollution Adjudication Board.

All concerned are hereby directed to implement and support the above EMB directives on the evaluation and issuance of permits for industrial facilities and on the demonstration of compliance to emission standards.

This circular takes effect immediately and supersedes previous issuances inconsistent herewith.


ATTY. JONAS R. LEONES
OIC - Office of the Director

ANNEX 1

RATIONALE FOR THE ISSUANCE OF THE POLICY ON COMPLIANCE AND PERMITTING

1. DEMONSTRATION OF COMPLIANCE

1.1 KEY AMENDMENTS TO PERMITTING REGULATIONS

DAO 2004-26 of August 25, 2004 amended Rule XIX (the "Permit Regulations") of DAO 2000-81, the Implementing Rules and Regulations (IRRs) of RA 8749 (the Clean Air Act).

The amended version of the Rule no longer requires statements of compliance or non-compliance with the national emission standards or source-specific ambient air quality standards to be submitted with a permit application.

Also, the IRRs do not indicate *how a permit applicant should demonstrate that a source complies with the standards.*

However, the Rule does require dispersion modelling to be carried out by applicants as part of an "air quality impact analysis" of compliance with the ambient air quality standards.

1.2 PREVIOUS REQUIREMENTS

Under the previous version of Rule XIX (DAO 2000-81), permit applicants were required to submit statements of compliance or non-compliance in relation to the standards.

For the emission standards, either emission test data or "data gathering techniques acceptable to the Bureau" were required to support the statement. The latter usually meant emission calculations based on recognized emission factors, such as US EPA's AP-42 publication.

For the statement on compliance with the ambient air quality standards, dispersion modelling results were required for large sources. Under the Rule EMB could allow the alternative of ambient monitoring data to be submitted in support of the statement.

Where a statement of non-compliance was submitted, the applicant was required to provide a "compliance action plan" with the application.

There is a need to clarify the information that EMB will require to demonstrate the compliance status of a new source and, in particular, *which sources will require emission test data and dispersion modelling results with an application.*

2. PERMITTING

2.1 OTHER AMENDMENTS UNDER DAO 2004-26

Under the revised version of Rule XIX:

- ξ there is no provision for statements of non-compliance and a compliance action plan with a permit application;
- ξ a temporary permit may still be issued for up to 90 days, but only for the purposes of "sampling or testing"; and
- ξ the period for determining a permit application is reduced from 30 to 25 days.

2.2 IMPLICATIONS

The previous version of Rule XIX implied that EMB could issue a permit if the source did not comply or had not been demonstrated to comply, subject to later actions to achieve and verify compliance. In practice a 90-day temporary permit has usually been issued.

However, the new version of the Rule suggests that EMB should not accept an application for a facility if the application indicates non-compliance with emission standards or if, in the opinion of EMB, the facility does not comply. This is consistent with EMB's legal duty to ensure that a source complies before it is permitted to operate.

2.3 KEY ISSUES

There are a number of problems with RO procedures:

- ξ procedures for permitting and demonstrating compliance vary between the Regions;
- ξ ROs have sometimes issued temporary permits for facilities that cannot comply; and
- ξ the use of temporary permits has not been consistent with the IRRs.

There is a need to standardize permitting procedures across EMB.

In many cases it has been EMB, rather than the applicant, that has performed the compliance test. This may be because EMB staff feel they cannot always rely on the test data submitted by an applicant.

However, compliance testing by EMB runs counter to the "polluter pays" principle in the Act. Wherever possible, *permit applicants and permittees should be required to carry out and bear the costs of compliance testing.*

If EMB is concerned about the reliability of the test data submitted with an application, it should refuse to accept these data until it is satisfied. This will help to ensure that applicants submit good quality data. In the longer term EMB should be encouraging third party testing firms to improve the quality of their testing, through accreditation and other measures.

ANNEX 2

COMPLIANCE TESTING REQUIREMENTS

1. COMPLIANCE TESTING OF NEW OR MODIFIED SOURCES FOR PERMITTING PURPOSES

Large, medium-sized or environmentally significant new/modified sources require emission testing to demonstrate compliance with emission standards before a regular permit is issued by EMB.

In this context, a 'large source' is defined as:

- a boiler rated at 251 horsepower (HP) or greater;
- a diesel generator rated at 1,250 kilowatts (kW) or greater (regardless of its frequency of operation); or
- any other source that has the potential to emit 100 tonnes or more per year of an air pollutant regulated under the Clean Air Act.

A 'medium-sized' source is defined as:

- a boiler rated at 100 to 250 HP;
- a diesel generator rated at 600 to 1,249 kW (regardless of its frequency of operation); or
- any other source that has the potential to emit at least 30 tonnes per year, but less than 100 tonnes per year, of an air pollutant regulated under the Act.

An 'environmentally significant source' is defined as:

- any source of emissions of hazardous air pollutants included on the list of Priority Chemicals in DAO 1998-58; and
- the principal emission sources at petroleum refineries, petrochemical works, smelters, cement kilns, and steel, ferro-alloy and glass-making plants.

Large and environmentally significant sources also require dispersion modelling to demonstrate their compliance with the source-specific ambient air quality standards prior to their initial permitting.

2. PERIODIC OR ROUTINE COMPLIANCE TESTING OF EXISTING SOURCES

A *large or environmentally significant existing source* (using the same definitions as above) should be tested twice per year for each year of its operation by the permittee/facility operator to verify its compliance. Each test shall consist of three sampling runs.

A *medium-sized existing source* should be tested annually by the permittee/facility operator to verify its compliance. Each test shall consist of three sampling runs.

A *small source* should be tested by the permittee/facility operator once during the first year of its operation to verify its compliance. Thereafter, it should be tested once every second year. Each test shall consist of three sampling runs.

A 'small source' is defined as:

- a boiler rated at 99 HP or less;
- a diesel generator rated at 599 kW or less (regardless of its frequency of operation); or
- any other source that has the potential to emit at least 10 tonnes per year, but less than 30 tonnes per year, of an air pollutant regulated under the Act.

All sources using Bunker Fuel Oil, blended fuels involving Bunker Fuel Oil, or fuels with a sulfur content of 1% or more, shall be tested twice each year for each year of their operation.

The following existing sources do not require emission testing for permitting purposes:

- boilers rated at less than 50 HP;
- diesel generators rated at less than 300 kW; and
- other sources that have the potential to emit less than 10 tonnes per year of an air pollutant regulated under the Act.

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU

GUIDELINES ON ENHANCING PERMITS

1. ASSESSMENT AND PERMITTING OF NEW OR MODIFIED FACILITIES

When EMB receives an application for a permit to operate an installation or facility, it has an opportunity and a duty to ensure that the facility complies with the Clean Air Act and its Implementing Rules and Regulations (IRRs), including the emission standards and the source-specific ambient air quality standards, before issuing the permit.

In the past the air permits issued by EMB usually contained only a small number of standard conditions. However, a permit should be seen as more of a management tool, which can use permit conditions to specify all of the technical and operational requirements for the effective management and monitoring of the emissions from a facility.

The current scope of permits can be increased by including additional conditions that serve these broad purposes, and also enhance the prospects of compliance. These conditions can address both the general requirements for all facilities, and specific requirements for the facility in question (e.g. to address specific concerns arising from the assessment of a permit application).

These 'enhanced permits' can be developed for new or modified facilities, or existing facilities that require some upgrade or improvement in their performance, monitoring, reporting and so on. As such, permits and their conditions should not be seen as static, as they can readily be amended to ensure that, as circumstances change, they continue to serve as effective tools for protecting the environment.

An incomplete application, or one in which the information indicates non-compliance, should not be accepted by EMB and should be returned to the applicant. It is the applicant's responsibility to demonstrate to EMB that the proposal is fully in accordance with the Act and its IRRs.

Where EMB requires a stack test to demonstrate compliance (e.g. for a large or environmentally significant new source), it may issue a temporary permit to allow this testing to be conducted. However, an application should not be accepted and a permit should not be issued (even a temporary permit) if EMB knows that the proposed facility will not or cannot comply.

Once an application is accepted, it should be thoroughly assessed by EMB, within the time constraints allowed in the IRRs (currently 25 days under DAO 2004-26).

The following material has been prepared to enhance the permitting process, and help EMB staff to review and assess permit applications and develop effective permit conditions.

1.1 CHECKING AN APPLICATION FOR COMPLETENESS

The process for checking and assessing an application and evaluating the proposal in the application is illustrated in *Annex 1*.

All of the steps in Section 1.1 that are relevant to the application should be followed, and all of the relevant questions should be answered in the affirmative, before an application is accepted.

1.1.1 Checking the application form

- Has the application form been fully completed and notarized?
- Do the relevant fees have to be paid at this time? If so, have they been paid?
- ⊗ *If not, the application should be returned.*

1.1.2 Checking the supporting information

- Has an engineering report (as required by Rule XIX of the IRRs) been submitted with the application? Have plans and specifications of the installations and their control facilities and a vicinity map (as required by Rule XIX) been submitted?
 - ⊗ If so, do the report and the plans and specifications contain enough information for a proper assessment of the application?
 - ⊗ Do they fully describe the design the intended operation of the facility or installation, the types and quantities of the emissions, and the design, methods of operation and performance criteria of the air pollution control facilities?
 - ⊗ *If not, the application should be returned.*
- Has the information that EMB requires on relevant ECCs/CNCs, other permits for the establishment, SEC registration, TIN, and PCO designation been submitted?
 - ⊗ *If not, the application should be returned.*

1.1.3 Checking the information submitted on compliance with emission standards

- Does EMB require a compliance test for any of the sources covered by the application (see EMB's *Policy on Compliance and Testing* for guidance)?
 - ⊗ If so, has an emission test report been submitted with the application?
 - ⊗ Without conducting a detailed evaluation of the report at this stage, does it appear to be complete and technically acceptable?
 - ⊗ *If not, the application should be returned, unless EMB wishes to issue a temporary permit for testing purposes.*
- Does EMB require emission estimates for any of the sources in the application?

- ⊗ If so, have these estimates been provided with the application?
- ⊗ Do the estimates appear to be complete and technically acceptable?
- ⊗ *If not, the application should be returned, unless EMB wishes to issue a temporary permit for testing purposes.*
- Do the test results, emissions estimates and other information appear to show compliance with the "National Emission Standards for Source Specific Air Pollutants" in Rule XXV of the IRRs? [For example, installations using *Bunker C* fuel without emission control equipment cannot comply with the standard for sulfur oxides.]
 - ⊗ *If not, the application should be returned. EMB may convene a Technical Conference at this time to discuss the application.*

1.1.4 Checking the information submitted on compliance with ambient air quality standards

- Does EMB require dispersion modelling of the emissions from any of the sources covered by the application (see EMB's *Policy on Compliance and Testing* for guidance)?
 - ⊗ If so, has a modelling exercise been conducted in accordance with EMB requirements?
 - ⊗ Has a modelling report ("air quality impact analysis") been provided with the application?
 - ⊗ If so, does the report appear to contain enough information for a proper assessment of the modelling exercise and the compliance of the source(s)?
 - ⊗ *If not, the application should be returned.*
- Without conducting a detailed assessment of the modelling report at this stage (see Section 1.2.4), do the modelling results indicate compliance with the "National Ambient Air Quality Standards for Source Specific Air Pollutants" in Rule XXVI of the IRRs?
 - ⊗ *If not, the application should be returned. The applicant should be advised to either reduce the emissions or increase the stack height to enable compliance, and to confirm compliance with a further modelling exercise.*

1.2 EVALUATING THE PROPOSALS IN THE APPLICATION

Evaluation of the proposals in an application should follow each of the steps and answer all of the questions outlined below (where relevant) before a regular or temporary permit is issued.

A conclusion arising from one of these steps that a permit may be issued is only valid if the other steps do not lead to a different conclusion (e.g. that a permit should not be issued).

1.2.1 Validating the proposals against the application

- Is an inspection of the installations or facilities required?
 - ⊗ If so, has an inspection been conducted?

- ⊗ Has an inspection report been prepared?
- ⊗ Does the report indicate that the application is consistent with the actual facilities?
- ⊗ If additional information or clarification was required, has this been obtained?
- ⊗ *A permit should not be issued until all issues are clarified, and additional information has been obtained.*

1.2.2 Assessing air pollution control facilities and devices

- If an air pollution control facility or device is proposed in the application, based on the *Guidelines on Air Pollution Control Techniques and Devices* -
 - ⊗ Is the proposed facility or device considered to be suitable for the designated emission control purpose?
 - ⊗ Are the nominated performance criteria (e.g. collection or removal efficiencies) of the facility or device realistic, when compared to the criteria in the *Guidelines on Air Pollution Control Techniques and Devices*?
 - ⊗ If the proposed facility or device would generate liquid or solid wastes, has the treatment and disposal of these wastes been addressed in the application?
 - ⊗ Does the application include details of the operation, maintenance and inspection procedures and corresponding corrective actions for the facility or device to meet its performance criteria on a continuing basis?
 - ⊗ **If not, a permit should not be issued for the relevant sources?**

1.2.3 Assessing compliance with the emission standards

- For sources that require emission testing to demonstrate compliance -
 - ⊗ Were the emission tests conducted in accordance with the methods prescribed in the IRRs, or other approved methods?
 - ⊗ Are the results considered to be accurate and reliable?
 - ⊗ Do the results actually indicate compliance with the "National Emission Standards for Source Specific Air Pollutants"?
 - ⊗ *If not, a permit should not be issued for the relevant sources.*
 - ⊗ *If there is some doubt about the test methodology, the validity of the results or the compliance of the source(s), EMB may issue a temporary permit to allow another test to be conducted, either by the applicant or its own testing staff.*
- For sources that require emission estimates -
 - ⊗ Were the estimates derived using recognized or otherwise acceptable emission factors and calculation techniques?
 - ⊗ If a pollution control facility or device is proposed, are the estimates consistent with the expected emission control performance of the facility or device, as indicated by the *Guidelines on Air Pollution Control Techniques and Devices*?
 - ⊗ Are the estimates considered to be accurate and reliable?

- ⊗ Do the estimates actually indicate compliance with the "National Emission Standards for Source Specific Air Pollutants"?
- ⊗ *If not, a permit should not be issued for the relevant sources. The applicant should be advised to submit a new application with revised emission estimates.*
- ⊗ *Alternatively, EMB may decide that an emission test is required, and issue a temporary permit for this purpose.*

1.2.4 Assessing compliance with the ambient air quality standards

- For sources that require dispersion modelling -
 - ⊗ Was the modelling exercise conducted in accordance with the *Guidelines for Dispersion Modelling* (or any modifications or alternative techniques approved by EMB), especially the requirements in the *Guidelines* for the use of -
 - ∇ a suitable model or models as part of a tiered approach to the assessment?
 - ∇ accurate information about the emissions and emission sources?
 - ∇ appropriate meteorological and background air quality data?
 - ⊗ Are the modelling results considered to be accurate and reliable?
 - ⊗ If so, do the modelling exercise and its results indicate compliance with the relevant "National Ambient Air Quality Standards for Source Specific Air Pollutants"?
 - ⊗ *If not, a permit should not be issued for the relevant sources. The applicant should be advised to submit a new application with revised modelling results.*
- For other sources, for which dispersion modelling is not required -
 - ⊗ Are the stack height and discharge conditions for the proposed source(s) adequate to ensure compliance with the ambient standards?
 - ⊗ Has a stack height determination been conducted for any of these sources?
 - ⊗ If so, based on this determination, are the proposed stack heights and discharge conditions acceptable?
 - ⊗ *A permit may be issued with a condition requiring stack heights and discharge conditions for the relevant sources (see the Examples of Permit Conditions).*
- EMB may convene a Technical Conference during the assessment period to discuss issues of non-compliance (e.g. under Sections 1.2.3 and 1.2.4 above) with the applicant.

1.2.5 Evaluating the past history and performance of the applicant

- What is the past history and record of performance of the applicant?
 - ⊗ If the application relates to new sources in an existing establishment, have there been any justified or validated complaints about the establishment, and have they been satisfactorily resolved?
 - ⊗ Have there been any exceedances of standards or other types of violations at the establishment (e.g. failure to comply with permit conditions), and have they been rectified?

- ⊗ Do any inspection reports, self-monitoring reports (SMRs), emission test reports or other information indicate any problems with the performance or management of the establishment?
- ⊗ Have there been complaints, violations or other problems at any other establishments operated by the applicant?
- ⊗ Has the applicant always been cooperative with EMB, and committed to resolving problems as they arise?
- Based on this evaluation, are there any management, operational, maintenance, reporting or other issues that the permit should address?
 - ⊗ *If so, relevant conditions should be included in the permit. See the following section and the Examples of Permit Conditions for guidance in drafting these conditions.*

1.3 DRAFTING AN ENHANCED PERMIT

1.3.1 Developing specific permit conditions

- What specific technical, operational or management issues need to be addressed in the permit?
 - ⊗ Should the relevant emission standards be specified as limits in the permit?
 - ⊗ Should the permit specify the process or operating conditions for any of the proposed facilities or installations, including process loads or operating limits, or the specifications for fuels or other process inputs? [For example, the permit may specify the operating conditions or limits that applied during the emission test that demonstrated compliance with the emission standards, as the IRRs allow.]
 - ⊗ Should the permit require the installation of any process monitoring or control devices to help ensure that a facility or installation actually operates within the specified limits?
 - ⊗ Should the permit regulate the fuel type, quality or quantity to be used, or specify the relevant fuel certificates and records to be kept?
 - ⊗ Should the permit require the installation, operation and maintenance of specific air pollution control devices or equipment, or specify their minimum control efficiencies or performance standards?
 - ⊗ Should the permit require compliance with “Best Available Control Technology” (BACT) or the “Lowest Achievable Emission Rate” (LAER), as defined in the IRRs, for any of the sources in the application? What control or process technologies, emission limits or performance standards should be specified in the permit to satisfy these requirements?
 - ⊗ Should the permit specify the minimum stack height(s) or specific discharge conditions (e.g. free vertical discharge, minimum efflux velocity) for any of the proposed sources? [The need to check the adequacy of the stack height and discharge conditions for a source (through either dispersion modelling or a stack height calculation) will depend on the location of the source, the size of the

emissions, the likelihood of downwash impacts from buildings in the establishment, and the presence of sensitive development (e.g. residences, schools) nearby.]

- ⊗ Should the permit require any periodic testing of emissions? [It is not enough to simply require the submission of quarterly self-monitoring reports (SMRs) without thinking about which sources should be tested.] Which sources and emission parameters should be tested? How often should the tests be conducted? What test methods and operating conditions should be employed? What process and operational data should be collected? When and how should the test results be reported?
- ⊗ Is a CEMS or COMS required for any of the proposed sources? What emissions or process parameters should be monitored? Should the permittee be required by the permit to submit a proposal for implementing CEMS requirements to EMB for approval?
- ⊗ Should the permit require an ambient air quality monitoring program to be conducted? What pollutants should be measured? What monitoring techniques and locations should be employed? How and when should the results be reported? Should the permittee be required to submit a proposed monitoring program for EMB approval?
- ⊗ Should the permit require the submission of an Operation and Management Plan that defines the operational, maintenance, inspection and monitoring procedures for key emission sources and control devices?
- ⊗ Should the permit require a risk assessment to be conducted (addressing unexpected events, emission releases and off-site impacts)? Should the risks of emissions from these events be addressed in a Contingency Plan submitted by the permittee?
- ⊗ Are there any other specific requirements that need to be addressed in the permit?
- ⊗ *If so, relevant conditions should be included in the permit. See the Examples of Permit Conditions for guidance.*

1.3.2 Selecting general permit conditions

- What general provisions and conditions should be included in the permit?
 - ⊗ The life and expiry date of the permit?
 - ⊗ A general obligation to minimize emissions?
 - ⊗ The requirement to submit quarterly SMRs?
 - ⊗ The requirement to have a designated or accredited PCO at the establishment at all times, with the necessary familiarity, knowledge, skill and authority to perform the duties and functions required by DAO 1992-26?
 - ⊗ The requirement to post the permit in an accessible and visible place near the permitted installation(s)?
 - ⊗ The requirement to provide means for the boiler plant operator to observe the stack emissions?
 - ⊗ The permittee's obligation to allow EMB to enter and obtain access to the establishment, to conduct inspections, to test emissions, to take samples, etc?

- ⊗ The general requirement to report mishaps, malfunctions or breakdowns that may cause non-compliance with the emissions standards or permit conditions?
- ⊗ The general requirement to report any alteration or modification to the facilities or installations that may change the nature, quality or quantity of the emissions?
- ⊗ Any other general provisions or requirements?

If so, relevant conditions should be included in the permit. See Examples of Permit Conditions and the Proposed Standard Permit Form and Conditions.

2. ASSESSMENT AND PERMITTING OF EXISTING FACILITIES

The compliance of an *existing* establishment or facility and the performance of the permittee can be assessed in various ways and at different times during the life of the facility.

Firstly, submission by the permittee of an emission test report, SMR, compliance plan or other report (e.g. reporting an equipment breakdown) may lead to a re-assessment of the facility or its sources.

Secondly, a routine inspection, complaint investigation, emission test, Technical Conference or compliance plan follow-up may identify an issue that requires re-assessment.

Thirdly, an application for permit renewal will often require an updated assessment (sometimes with an inspection or emission test) prior to determining the application.

The following information may also be available for assessing an existing facility:

- information on any violations related to the facility, and an indication of the permittee's willingness to rectify them;
- evidence of the permittee's willingness (or otherwise) to comply with permit conditions; and
- an appreciation of the permittee's levels of cooperation with EMB and commitment to effective air quality management.

In assessing existing facilities, many of the questions posed above for new or modified facilities will also be relevant. Therefore, the same general approach to the assessment (as in Sections 1.2 and 1.3 above) should be followed.

Where a permit is to be renewed or modified (amended), as with new or modified facilities, the same opportunity exists to enhance the permit by inserting a range of conditions that deal with key air quality management requirements, issues and concerns.

In summary, the following steps should be followed in developing an enhanced permit:

- 1) when opportunities arise, **identify the key issues or problems** that can be addressed through permit conditions;

- 2) review the past history and performance of the permittee (see Section 1.2.5);
- 3) evaluate whether best practice is being employed in the operation and maintenance of key installations and emission sources;
- 4) review the testing, monitoring, reporting, operational and maintenance requirements for the facility;
- 5) based on the questions in Sections 1.3.1 and 1.3.2 above, identify any other issues or concerns and general requirements that need to be addressed in the specific and general conditions of the enhanced permit; and
- 6) draft the enhanced permit, using the *Examples of Permit Conditions* as a guide - develop new conditions as the need arises (EMB staff should not be afraid to alter the wording of the examples).

An example of an enhanced permit is attached in *Annex 2*.

3. POLICY ON ENHANCING PERMITS

- 1) Any assessment or re-assessment of the facilities, installations or sources in an establishment may lead to a permitting action by EMB. This action may be to issue, renew, modify, suspend or revoke a permit. A decision to issue, renew or modify a permit is an opportunity to enhance a permit to make it more effective.
- 2) The degree to which a particular permit may be enhanced should be carefully considered by EMB's Regional Offices. The focus of this consideration should be to make the permit a more effective tool.
- 3) EMB's resources are finite, so as much of EMB's effort as possible should be focussed on facilities where maximum environmental benefits can be obtained from an enhanced approach to permitting and enforcement.
- 4) All permits for large new or modified facilities should be issued as described in these *Guidelines*. Permits for large existing facilities and those with existing compliance problems should be enhanced at the first opportunity. Other permits should be enhanced on a priority basis, based on their emissions and emission levels, and their potential to cause environmental impacts at regional and local levels.
- 5) Permits should be used to clarify the self-monitoring and reporting obligations of the permittee. The permit should not just indicate the requirement to submit quarterly SMRs. It should clearly specify the permittee's emission testing requirements (if any), especially the sources to be tested, the required frequency of testing, and the dates for submission of test reports. Any obligation to install and operate a CEMS or COMS should also be referenced in the permit.

6) Most permits, even those for smaller or trouble-free facilities, can be made more effective by simply including some basic or general requirements as permit conditions. The following are recommended:

- * the emission standards (NESSAPs) applicable to the permitted sources
- * the type and quality of the fuel used by the facilities or installations
- * limits on the process levels or operating conditions for the facilities or installations (e.g. those conditions that applied at the time of compliance testing)
- * stack height(s) and discharge conditions for the permitted sources
- * the requirement to submit quarterly SMRs to EMB
- * the requirement to have a designated and accredited PCO
- * the requirement to post the permit near the permitted installations
- * the obligation to allow lawful entry to EMB staff and access to facilities, records and other relevant information
- * the requirement to report mishaps, malfunctions or breakdowns to EMB
- * the obligation to report modifications that alter the emissions to EMB.

It should be remembered that some of the air quality problems or issues with a facility may not be directly related to compliance with standards, and cannot be addressed as effectively through the usual enforcement procedures (e.g. Notices of Violation, Technical Conferences and Compliance Plans). For example, the main air quality problem with a facility may be an area source, a materials handling function, or a general housekeeping issue. A suitably drafted permit condition can sometimes deal with these kinds of problems more effectively than the conventional enforcement process. A draft condition of this type has been included in the examples of permit conditions.

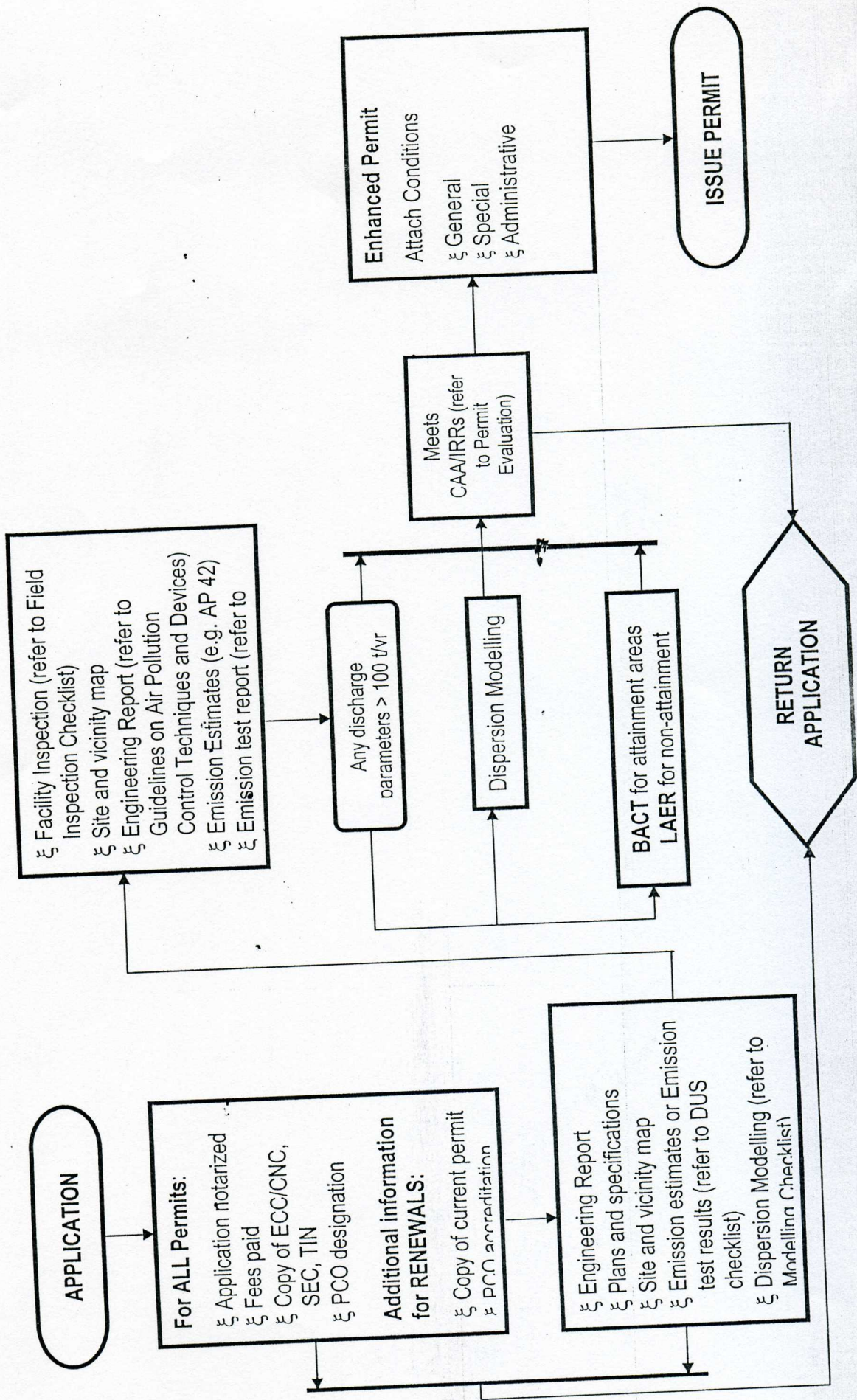
ANNEX 1
GUIDELINES ON PERMIT
ASSESSMENT AND ISSUANCE

GUIDELINES ON PERMIT ASSESSMENT AND ISSUANCE

PERMIT ISSUANCE

EVALUATION OF PROPOSAL

ASSESSMENT OF APPLICATION



ANNEX 2

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ANNEX 2

EXAMPLE OF AN ENHANCED PERMIT

ANNEX 2

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DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU

REGION

ANNEX 2
..... [address of EMB office]

Tel./Fax. No.....

Permit No.: POA-06-.....
Date issued: 31 August 2006
Expiry date: 31 August 2009

Republic Act No. 8749: Philippine Clean Air Act of 1999

PERMIT TO OPERATE
-APSCI-

Pursuant to Rule XIX, Part IV, of the Implementing Rules and Regulations of the Clean Air Act (RA 8749) this Permit to Operate is hereby issued to:

Lucky Star Textile Printing Company Inc.

for the emission, discharge or release of air pollutants from the following installations, processes or activities:

Operation of two (2) oil-fired steam-raising boilers,
each rated at 250 horsepower

at the following establishment:

.....
..... [address of establishment]

and is issued subject to Conditions Nos. 1 to 22 on the following three (3) pages.

Recommended by:

Approved by:

.....
Chief, Pollution Control Division

.....
Regional Director

CONDITIONS

1. This Permit is issued for the permittee to operate two (2) oil-fired boilers, each rated at 250 horsepower, for the purpose of raising process steam for the textile printing and finishing operations at the permittee's establishment identified on the previous page of the Permit.

2. This Permit is subject to payment of the following fees:

Fee	Amount (pesos)	Date	Official Receipt Number
Filing fee	55.00	7/30/06	9522263
Permit fee	4,000.00	7/30/06	9522263
P. D. 1586	10.00	7/30/06	9522263

3. Unless suspended or revoked by the Bureau, this Permit shall be valid for a period of three (3) years from the date of its issuance, as indicated by the issue and expiry dates on the previous page of the Permit.

4. During this period of validity the Bureau may modify the Permit by amending any existing condition or imposing any new or additional condition, subject to the provisions of Rule XIX of the Implementing Rules and Regulations (IRRs) of Republic Act No. 8749 (RA 8749).

5. An application for renewal of this Permit shall be filed not less than thirty (30) days before the expiry date indicated on the previous page of the Permit.

6. The previous page of this Permit shall be posted in a conspicuous location at the premises, and shall be adequately framed or otherwise protected against damage.

7. The operation of any installation, process or activity at this establishment that produces, generates, captures, treats, reduces, controls, emits, releases or disperses air pollutants without a valid Permit to Operate, or in violation of any of the conditions of this Permit, shall be subject to penalties of not less than ten thousand (10,000) pesos and not more than one hundred thousand (100,000) pesos, pursuant to Rule LVI of the Implementing Rules and Regulations of RA 8749.

8. The installations, processes or activities at this establishment shall be operated, conducted and managed by the permittee, and the associated plant and equipment shall be maintained and operated by the permittee, so that emissions of air pollutants are kept to a practicable minimum. The permittee shall be responsible for ensuring that any emissions of air pollutants from the establishment, including fugitive or uncontrolled emissions or releases of air pollutants from abnormal or unexpected events, do not cause air pollution in the surrounding air environment or have adverse effects on persons in that environment.

9. Without limiting the generality of the previous condition, the permittee shall ensure that the emissions from the permitted installations or processes comply with:

- the National Emission Standards for Source Specific Air Pollutants as specified in Rule XXV of the IRRs of RA 8749;
- the National Ambient Air Quality Standards for Source Specific Air Pollutants from Industrial Sources/Operations as specified in Rule XXVI of the IRRs of 8749; and
- the emission limits specified in Permit condition Nos. 15.

10. The permittee shall submit Self-Monitoring Reports to the Bureau in accordance with DENR Administrative Order No. 27 (Series of 2003) and any written instructions by the Bureau at three-monthly intervals, commencing with submission of the first Report on or before 30 November 2006.

11. The permittee shall at all times have an appointed or designated Pollution Control Officer (PCO) who shall be the day-to-day point of contact between the Bureau and the establishment. The permittee shall ensure that the PCO is familiar with the operations and activities undertaken at the establishment, and the relevant emission sources and air pollution control devices and equipment. The permittee shall give the PCO the necessary authority to take or to direct corrective action in the event of a malfunction, accident, breakdown or other abnormal event that results in excessive emissions or emissions that do not comply with relevant Permit conditions, emissions standards or ambient air quality standards.

12. The permittee shall report in writing to the Bureau any malfunction, accident, breakdown, leak, spill or other abnormal or unexpected event which results in emissions to atmosphere that do not comply with relevant Permit conditions, emissions standards or ambient air quality standards, or in any other abnormal or unexpected releases of air pollutants. The report shall indicate the nature of the incident or event, its impact on emissions, the time period involved, and any actions or measures taken to control the emissions or releases, remedy any air pollution problems that may have occurred, and minimize the probability of a reoccurrence of the event or the release.

13. The permittee shall at all times allow authorized or accredited officers of the Department or the Bureau entry to the establishment and access to any part of the establishment to conduct inspections, gather information, test emissions or take samples. The permittee and its personnel shall not obstruct such officers in the performance of these functions, and shall furnish any information or materials requested by them that it is reasonable for them to have. The permittee shall obey any lawful instruction or direction given by an authorized or accredited officer of the Department or the Bureau at all times.

14. The permittee shall not make or allow any alterations or modifications to operations, activities, installations, processes, plant or equipment at the establishment that might substantially change the nature or quantity of the associated emissions without obtaining the approval of the Bureau, including the obtaining of any necessary Permit to Operate.

SPECIFIC CONDITIONS

15. The permittee shall ensure that the concentrations of the emissions from the stacks serving the two 250 horsepower boilers shall not exceed the following limits:

(1) sulfur oxides: 700 milligrams per cubic meter, corrected to 25 degrees Celsius, one atmosphere pressure and a dry gas basis, expressed as sulfur dioxide, with the gas volume corrected to an oxygen content of seven (7) %; and

(2) particulates: 150 milligrams per cubic meter, corrected to 25 degrees Celsius, one atmosphere pressure and a dry gas basis, expressed as sulfur dioxide, with the gas volume corrected to an oxygen content of seven (7) %.

16. The permittee shall burn only Low Sulfur Fuel Oil in the two 250 horsepower boilers. The permittee shall ensure that the sulfur content of this fuel does not exceed 1.0 per cent by weight.

17. The permittee shall submit to the Bureau:

- fuel purchase or delivery records; and
- fuel certificates or the results of fuel analyses,

at three-monthly intervals, commencing with submission of the first records, and analyses or certificates, on 30 November 2006. These records, and the analyses or certificates, shall together indicate both the quantity and the sulfur content of all of the fuel burnt in the two 250 horsepower boilers over the previous three months.

18. The permittee shall operate each of the two 250 horsepower boilers at an output of not more than 200 horsepower at all times, and for not more than 72 hours in any single week.

19. Emissions from the two 250 horsepower boilers shall be discharged at a height of not less than 15.0 meters above ground level, and at an efflux velocity of not less than 8.0 meters per second.

20. By 30 November 2006 the permittee shall provide emission sampling ports, sampling platforms and safe access to those sampling ports and platforms for the stacks serving the two 250 horsepower boilers, in accordance with Bureau requirements.

21. By 31 January 2006 the permittee shall sample and analyze emissions of sulfur oxides and particulates from the stacks serving the two 250 horsepower boilers in accordance with the methods specified in the IRRs of RA 8749 and any written instructions from the Bureau, and shall submit an Emission Test Report on the results of this emission testing to the Bureau. During the sampling of the emissions, the boilers shall be operated at an output of 200 horsepower, or as close to that output as is possible. The following data on operating conditions shall be collected during the sampling period, and included in the Emission Test Report:

- the indicated output of the boilers or the rate of fuel consumption; and
- the rate of steam generation.

22. The testing required by the previous condition shall be repeated and Emission Test Reports shall be submitted to the Bureau at six-monthly intervals. The results of this testing shall be reported in the Self-Monitoring Reports submitted in accordance with Permit condition No. 10.