

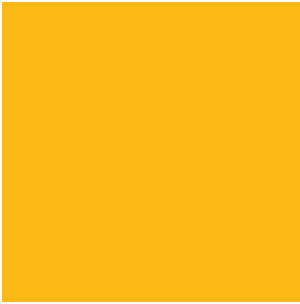
CITY OF CAPE TOWN ENVIRONMENTAL MANAGEMENT PROGRAMME

SPECIFICATION: ENVIRONMENTAL MANAGEMENT

**INCORPORATION OF ENVIRONMENTAL
SPECIFICATIONS INTO TENDER
DOCUMENTS:**

GUIDELINES FOR DOCUMENT PREPARATION

Revision 2007



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INCORPORATION OF ENVIRONMENTAL SPECIFICATIONS INTO TENDER
DOCUMENT: GUIDELINES FOR DOCUMENT PREPARATION

This section describes in detail how the various components of the Environmental Specifications, viz. the Standard Environmental Specification and the Detailed Environmental Specifications, should be incorporated into the tender document.

1. Decide that the environmental specifications are required for a particular project, either since this is required as a condition of approval by the environmental authority or due to environmental considerations identified by the Responsible City of Cape Town Environmental Official or the relevant Engineer.
2. Include the Standard Environmental Specification in the Tender Document, without any modification. This document has been drafted to be generic and aspects covered would typically be applicable to all projects regardless of location, nature and scale. The only modifications required to the Standard Environmental Specification is the updating of the month/ year date reference in the header.
3. Ensure that where the Standard Environmental Specification is used, the Pro Forma: Protection of the Environment declaration is included in the appendix section of the Tender Document. Moreover, special conditions of contract are required to ensure the submission of the Protection of the Environment form before the Contractor is allowed access to the Site. Both these items can be found at the end of the Standard Environmental Specification.
4. Develop and prepare the Project Specification. The Detailed Environmental Specifications **form a library of potential issues** that may need to be covered in the Project Specification, depending on the nature of the site and the anticipated construction activities. The person compiling the Project Specification should review the list of specifications covered in the Detailed Environmental Specifications, and from this select only those specifications relevant to the project at hand.

The Project Specification contains information of the utmost importance to the Tenderer and accordingly its compilation requires careful consideration, and does not

merely entail scanning the list of available specifications and including every specification that could possibly be applicable, however remotely. Rather the person compiling the Project Specification **must apply their mind to the particular project** and identify only those environmental variables of concern and which should be addressed in the Tender Document.

It is suggested that the EIA and any conditional project approvals be scrutinised in detail. Areas of concern during the construction phase of a project can be grouped under the following.

- a) Environmental sensitivities
- b) Details of works/structures
- c) Construction methods
- d) Hazardous materials

By developing lists under the forgoing headings critical areas of the project will be identified and the search for appropriate clauses made easier.

The timing of the preparation of the EMP is crucial. The design must be advanced beyond mere concept in order to avoid unnecessary work.

Once the relevant specifications have been identified, the list of clauses contained under each specification must be reviewed, and again only those relevant to the project at hand marked for inclusion within the Project Specifications.

Clauses are presented in short paragraphs of perhaps one or two sentences length. This is intended for ease of reference, compilation, and editing. The intention is that the final clauses are (within reason) single paragraphs.

In order to aid compilation the more complex clauses have been divided into their component parts. For instance the clause relating to toilet and ablution facilities is presented under four distinct headings:-

{Provision}
{Location}
{Construction/design}
{Use/Operation}

with suggested sub-clauses under each. The intention is to draw attention to the (in this case) four primary concerns which must be addressed. Having selected the appropriate sub-clauses, and added where necessary, the headings can be dispensed with.

Thus the generic EMP guideline for the detailed specification looks like this:-


Toilet and ablution facilities
<p><u>{Provision}</u> Provision shall be made for employee facilities including: shelter, toilets and washing facilities.</p> <p>Toilet facilities supplied by the Contractor for the workers shall occur at a maximum ratio of 1 toilet per 30 workers (preferred 1:15).</p>
<p><u>{Location}</u> The exact location of the toilets shall be approved by the Engineer prior to establishment.</p> <p>Sanitation facilities shall be located within 100 m from any point of work, but not closer than 50 m to any water body. <i>{distances can be modified depending on the nature of the project}</i></p> <p>Toilets shall be within the Contractor's Camp and at work areas more than 50m from the Contractor's Camp.</p>
<p><u>{Construction/design}</u></p> <p>All temporary/ portable toilets shall be secured to the ground to the satisfaction of the Engineer to prevent them toppling due to wind or any other cause.</p> <p>The Contractor shall ensure that the entrances to toilets are adequately screened from public view.</p> <p>Combinations of urinal and pan type units shall be carefully considered.</p>
<p><u>{Use/Operation}</u> These facilities shall be maintained in a hygienic state and serviced regularly. Toilet paper shall be provided.</p> <p>The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are removed from Site.</p> <p>Discharge of waste from toilets into the environment and burial of waste is strictly prohibited.</p> <p>The Contractor shall ensure that toilets are emptied before the builders' holidays.</p>

And the final version may look like this:-

Toilet and ablution facilities
<p>Provision shall be made for employee facilities including: shelter, toilets and washing facilities. Toilet facilities supplied by the Contractor for the workers shall occur at a maximum ratio of 1 toilet per 30 workers (preferred 1:15). The exact location of the toilets shall be approved by the Engineer prior to establishment.</p>
<p>All temporary/ portable toilets shall be secured to the ground to the satisfaction of the Engineer to prevent them toppling due to wind or any other cause. The Contractor shall ensure that the entrances to toilets are adequately screened from public view.</p>
<p>These facilities shall be maintained in a hygienic state and serviced regularly. Toilet paper shall be provided. The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are removed from Site. Discharge of waste from toilets into the environment and burial of waste is strictly prohibited. The Contractor shall ensure that toilets are emptied before the builders' holidays.</p>

To expedite the compilation of the Project Specification, generic clauses, appropriate to projects with low or negligible environmental risk have been highlighted (using an arrow icon; (➔)) for several of the detailed specifications. These clauses should be used where the project is of low environmental risk and the issue is relevant to the project at hand. It should be remembered, however, that in addition to these generic clauses, the other clauses should be reviewed to identify any further pertinent issues not covered by the generic clause.

In this way, using the shortlist of specifications and appropriate clauses, the Project Specification is compiled. However, before the Project Specification is included in the Tender Document, it is essential that a suitable qualified documentation engineer review the specification to ensure the use of appropriate terminology and the avoidance of contradiction and ambiguity.

A flag icon  (located in the right-hand margin) marks certain clauses within the Standard Environmental Specification. This flag denotes standard clauses that refer specifically to the Project Specification. Accordingly, in compiling the Project Specifications due consideration must be given to these aspects and appropriate clauses included in the specification.

The Project Specification must be prepared with the utmost care, as should any conflict arise between the requirements of the Standard Specification and the Project Specification, the requirements set out in the Project Specification would prevail.

The person compiling the Project Specification should bear in mind that it is their responsibility to provide the Tenderer with all the information necessary for accurate pricing on the tender document and all the information the successful Contractor needs for the appropriate construction of the Works.

Ensure that all comment statements {statements in italic font enclosed in curly brackets} are deleted from the text of the Project Specification.

Clause headings are automatically numbered, thus the deletion of a clause will result in the automatic renumbering of subsequent clauses. Additional clauses should be formatted in the same manner to ensure that numbering is consistent. On completion of drafting highlight the table of contents and press F9 to update.

Ensure that the Project Specification is reviewed and amended with appropriate input from the Engineer, Engineer's Representative and Environmental Officer (where appropriate). Moreover, a documentation engineer must review the Project Specification to ensure the use of appropriate engineering contract terminology.

In the unlikely event of any changes to the Standard Environmental Specifications, the modified document should also be subjected to the aforementioned review procedure.

The fines that have been included in the Project Specification (PSEM6.1) are set at a level appropriate for a medium sized civil engineering contract, and are designed to be sufficiently harsh as to actively dissuade the contractor from allowing transgressions. It should be recognised however that for smaller contracts the magnitude of fine should be reduced. Conversely the fines included for a contract carried out in an area of extreme sensitivity should be reviewed. A balance needs to be struck between the need to allow for appropriate punishment and a reasonable tender sum.

The Guideline Document for the Contractor should also be included in the Tender Document as this will ensure that the Contractor has a complete understanding of the contents and the responsibilities associated with enforcing and implementing the Environmental Management Programme.
