

CHAPTER 6 : MONITORING PROGRAMME

The purpose of the monitoring program will be to oversee changes and to implement mitigation measures.

6.1 Requirement

The EIA Regulations require that the PAA should forward to the CEA a monitoring plan for the implementation of all approved projects.

6.2 Plan Outline

The following features will be included in the monitoring plan:

- 1) An Environmental Officer, directly responsible to the Chief Engineer, will be assigned. The Environmental Officer will act as an information sources for all environmental aspects of the plant. The Officer will coordinate with CEB headquarters to provide environmental information relating to the Kerawalapitiya Combined Cycle Power Plant, and in turn will receive instructions.
- 2) The Environmental Officer will act as a contact person for the complaints by public and will notify local organizations.
- 3) During plant operation, the emission from stack will be monitored for NO_x, SO₂ and particulate matter. Further monitoring will be carried out to ensure continued compliance. The intervals between monitoring periods will be agreed between the CEA and CEB.
- 4) Measurement will be made available on request to an authorized representative of the CEA.
- 5) The CEB will institute a regular noise measurement survey to ensure compliance with the required Sri Lankan Standards. In addition, these data will be used as a data base for noise levels during different meteorological and station conditions that can be used to assist in any future design changes.
- 6) During operation, effluents will be monitored on a regular basis to ensure compliance with the required Sri Lankan Standards.
- 7) Hazardous substances onsite also will be monitored by the Environmental Officer to ensure that the possibility of accidental release will not occur.
- 8) A fire detection system will be provided.

6.3 Resources

The CEB will provide sufficient funding for the monitoring plan and for the Environmental Officer to perform his/her duties effectively.

6.4 Reporting

Data on all environmental aspects of plant operation will be updated continuously, and available in a form suitable for immediate inspection by authorized CEA Officers.

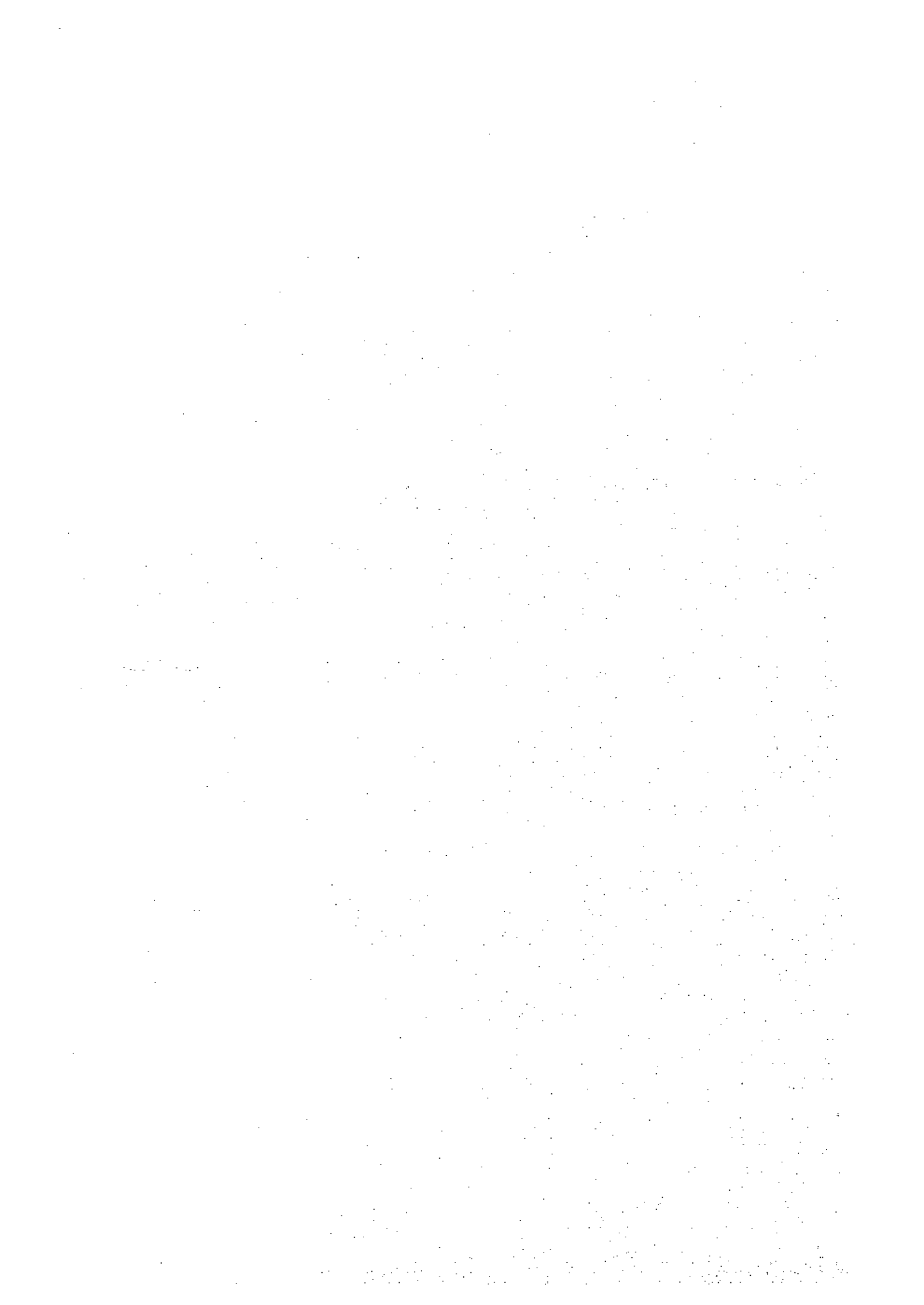
6.5 Emergencies

In the event of an emergency, the Environmental Officer will be available to provide technical advice on the environmental aspects of the situation and the potential for pollution incidents. In order to provide 24-hour coverage, either an additional staff member will be appointed for those times not covered by the Environmental Officer, or provision will be made for the Environmental Officer to be accessible 24 hour a day.

An Emergency Action Plan will be written for the facility to ensure that all plant personnel are aware of their responsibilities in case of an emergency.

Copies of the Emergency Action Plan will be placed in suitable locations throughout the plant for consultation on a regular basis. Plant personnel will be trained to respond to fires, explosions, spills, injuries and other emergencies.

CHAPTER 7 RECOMMENDATION AND OF KERAWALPITIYA



CHAPTER 7 : RECOMMENDATIONS/ CONCLUSIONS

The planned Kerawalapitiya Combined Cycle Power Plant will make an important contribution in meeting urgent needs of the power requirement in the country by providing relatively clean thermal energy. As a result of careful evaluation of entire range of alternatives for generating electricity, it is concluded that the planned Combined Cycle Power Plant would form an integral part of the least cost generation plan.

The construction and operation of Kerawalapitiya Combined Cycle Power Plant will have the following positive benefits.

- Proposed electrical power system would provide approximately 960 GWh of electrical energy per annum.
- Ensure sustained economic growth in the country.
- Absence of significant environmental impacts.

The following environmental and economical aspects will be anticipated by the project implementation.

Environmental Aspects

- Emission of SO₂, NO₂ and SPM will clear the permissible level for ambient air quality of the Sri Lanka Standards.
- Noise level by construction machinery and plant facility operation will clear the proposed standards at the boundary of the site.
- Quality of effluent from the site will clear the Sri Lanka Standards.
- The increasing of water temperature by cooling water to be discharged to the coastal sea is not more than 10°C higher than the ambient water temperature. The area susceptible to temperature rise will be minimized by rapid mixing with the large volume of ambient water body. Therefore, no significant impacts are expected.
- Transmission line will be constructed along the boundary of conservation zone. Careful survey for local living fauna and flora will be carried out before construction, to minimize the impacts due to transmission tower construction work.
- Monitoring on ambient air quality and the effluent to the environmental water body will be carried out and reported to the authorities concerned.

- Reasonable compensation will be made to people related to land acquirement, removal of housing or modification of housing or associated fixed assets.

Economical Aspects

- Meeting the growing electricity demand with an efficient power plant. (The expected thermal efficiency will be approximately 46%)
- Enhancement of local employment
- Production of electricity, that is vital for the expected electricity demand growth and greater reliability which would enhance the foreign investment in Sri Lanka.
- Ensuring the expected economic growth in the country.

The potential impacts on the environment will be insignificant since the predicted emission and effluent level will be within the standards specified by the regulatory authorities. The project site locates on the land already reclaimed and categorized into industrial and commercial zone by the authorities concerned.

The project conforms to the National Environmental Standards and is recommended to be implemented.

JICA