3 AIR QUALITY

3.1 There are no known sensitive receivers for whom construction or operation of the LRWF may pose a problem. Therefore, as mentioned in the Stage 1 EISA, monitoring of air quality is considered not necessary.

3.2 Nevertheless, given the pristine nature of the area, certain precautions have been recommended to minimise the discharges of materials, vapors and gases during construction and from the operational use of the facility.

3.3 The Contractor shall undertake at all times to prevent dust nuisance as a result of his activities. Effective dust suppression measures as are necessary should be installed to ensure that the air quality, at the boundary of the site and at any sensitive receivers, complies with the Hong Kong Air Quality Objectives.

Air Quality Mitigation Measures

Construction Phase

3.4 Dust suppression measures as stipulated in the Stage 1 EISA and the Tender Specification should be undertaken to minimize dust emission and reduce the impacts of dust on the nearby ASRs. Appendix A summarizes the mitigation measures to be adopted. Strictly limit the truck speed on site to below 15 km per hour and water spraying to keep the haul roads in wet condition. This will reduce the dust generation by about 90%, in accordance with Control Techniques for Particulate Emissions from Stationary Sources, Volume 2, US Environmental Protection Agency 1982;

3.5 Twice daily watering of the work site with active operations when the weather and the work site are dry. Through the implementation of this mitigation measure, dust emissions from materials handling can be reduced by 50%, according to USEPA AP-42;

3.6 Water spraying during excavation and material handling;

3.7 Provision of vehicle wheel and body washing facilities at the exit points of the site; and

3.8 Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.

Operational Phase

3.9 Operational measures taken to protect workers in the LRWF, such as the negative pressure ventilation system (from less active to potentially most active areas), together with the use of control mechanisms including high efficiency particulate (HEPA) filters, will reduce the potential environmental impacts to negligible levels.

3.10 The LRWF will require general ventilation, with a filtration system to trap dust from in-coming air, and remove air borne particles using a High Efficiency Particulate Air Filter from out-going air. The following design and operation features shall be required to be incorporated by the Contractor:

- all gases and emissions must pass through a High Efficiency Particulate Air Filter with an efficiency of at least 99.99%;

- the Facility must be kept under a negative pressure ventilation system (the direction of air currents being from areas least potentially radioactive or contaminated, to areas most potentially radioactive or contaminated);

- any air pollution control systems installed shall be operated continuously;

- the Contractor shall not install any furnace, boiler or other plant or equipment or use any fuel that might in any circumstance produce smoke or any other air pollution without the prior approval of the Independent Consultants and consent of the Employer;

- the Contractor's attention is drawn to the Air Pollution Control Ordinance and its subsidiary legislation, particularly the Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations and the Air Pollution Control (Smoke) Regulations.