Guidance Note E: Outline of a Project Specific Major Hazard Assessment

- 1. A major hazard assessment is required for projects which involve the transporting, storing, handling, and processing of dangerous (flammable, explosive, reactive or toxic) materials. The threshold quantities and further details on completing a major hazard assessment are provided in the World Bank's manual, *Techniques of Assessing Industrial Hazards:* A Manual, Technical Paper No. 55, Washington, D.C., 1988.
- 2. The purpose of the major hazard assessment is to identify the scope of the use of dangerous materials at the installation; the kind, relative likelihood and broad consequences of major incidents that might occur; appropriate mitigating measures, including safety design, operating methods and emergency procedures to prevent or control major incidents; and the schedule for implementing the mitigating measures.
- 3. A major hazard assessment focuses on three areas: (1) information about the project's site, operations and surroundings; (2) estimates of the impacts of potential major incidents which may occur at the installation and the surrounding area; and (3) the means to prevent or mitigate the potential incidents.
- 4. The assessment is normally performed by an independent consultant having extensive industrial experience in the areas of risk assessment and control of major hazards, as well as expertise in assessing the specific dangerous materials and potentially hazardous operations associated with the project. The major hazard assessment report should include the following sections:
 - a) Executive Summary: A concise discussion of the hazard concerns and potential consequences of a major incident, and the recommended mitigation measures and implementation schedule.
 - b) **Project Description**: A review of the project's site, operations and employment, and the nature of the land use and distribution of the population in the vicinity of the installation.
 - c) **Dangerous Materials**: Details relating to the specific dangerous materials and quantities present at the installation, and the hazards associated with their transportation, storage and processing.

- d) Major Hazard Incidents: A description of the potential conditions and events which could lead to a major incident, estimates of the expected impacts on the site, community and environment, and the measures taken to prevent, control or minimize the expected consequences of the incident. This section should include the criteria under which the emergency relief system was designed and an outline of the emergency response plan dealing with a major incident.
- e) *Management Systems:* A summary of the management systems, including staffing and training, to ensure the safe design, construction and operation of the project, as well as to maintain the effectiveness of emergency equipment and the emergency response plan.