**QRA Studies**

Refer to Egyptian laws, Gasco policy, best practices, and our previous agreement with WB (World Bank), Gasco is committed to submit WB with all required QRA studies for the new projects, by its competent QRA crew, using certified licensed QRA software. According to the following TOR:

QRA is the formal and systematic approach of identifying potentially hazardous events, estimating the likelihood and consequences of those events, and expressing the results as risk to people, the environment or the business.

The method may include some or all of the following:

- An analysis of the severity/consequence of accident scenarios
- Predicted number of fatalities/casualties for each scenario
- Individual risk
- Group/societal risk
- Potential loss of life
- Location specific risk
- Further analysis of accident scenarios that are ALARP (As Low As Reasonably Practicable)
- Preventative/mitigation measures
- Sensitivity of results to uncertainties and assumptions.

The undertaking of QRA studies is to identify potential accident scenarios which contribute most to the overall risk of an operational facility, allowing focus to be placed on means to minimise or mitigate risks to meet appropriate acceptability criteria and/or demonstrating that the risks are as low as reasonably practicable (ALARP).

The QRA study has to be established in, as a major decision-support tool, during strategic planning, facility sitting and layout, and for detailed risk and safety assessments. It will calculate the risk associated with the new installations and produce risk contours, FN curves and rankings of risk contributors. With this information, the safety of an installation against any risk criteria can be assessed and guidance obtained concerning possible mitigation measures, such as changes in design, operation, response or land use planning. Risk results are available graphically and may be overlaid on digitised maps, satellite photos and project layouts.
The QRA study has to be established according to the following flow chart: