

# **SITE SCREENING RISK ASSESSMENT FOR THE NEW CCGT POWER PLANT NEAR THE MAJUBA POWER STATION**

## **1 INTRODUCTION**

A proposed CCGT power plant is planned for construction near the existing Majuba Power Plant and will consist of a pipeline transporting cleaned producer gas, sourced from the Underground Gas Combustion operation, to the CCGT plant

Currently a number of candidate sites have been identified for the location of the proposed CCGT project. A screening process by a number of specialists would narrow the prospective sites to a single or few sites that can then be analysed in depth for an EIA approval.

## **2 RISK ASSESSMENT**

A risk assessment on human health for the CCGT power plant would concentrate on fires, explosions and toxic clouds from an accidental release of the producer gas. The further people are located from the point of release, the less they would experience the impact of an accidental release. As all the prospective sites are located in rural areas with some distance to larger populations, differences in risk between the sites would not be sufficient to give a site preference. The location of the CCGT on an individual site could have more significance than the ultimate selection of the site.

As the risk assessment criteria would not add significantly to the site selection, it is suggested that the risk assessment should only be included at the EIA phase of the project.

## **3 EIA TERMS OF REFERENCE**

Suggested risk assessment terms of reference for the EIA phase of the project would include:

- i. Determine the impacts from fire, explosions and toxic vapour clouds for major incidents;
- ii. Give the probability of major events;
- iii. Give an indication if the installation would be considered a Major Hazardous Installation in accordance to legislation;
- iv. Give an indication if there are any fatal flaws with regards to the project site, engineering, process or substances; and
- v. Give suggested mitigation to reduce the impacts of the project, if required.