Submission :The impacts on health of air quality in Australia

Moranbah Cumulative Impacts Group

Thank you for the opportunity to make comments regarding the impacts on health of air quality in Australia, on behalf of the Moranbah Cumulative Impacts Group (MCIG).

MCIG is a collaborative group comprising mining companies, local government and community representatives concerned with cumulative impacts of mining in and around the township of Moranbah in central Queensland. The primary concern for the group is dust (or particulate matter), though other issues will be explored in time. The following information is provided against the terms of reference specific to Moranbah:

A) Particulate matter, its sources and effects:

Moranbah township was built specifically to house mining workers in the late 60's, and is centred in the middle of one of the Bowen Basin's coal mining areas. The town is now surrounded by production mines. Significant growth continues to occur, with several new mining projects in the planning and EIS phase, and residential and commercial property development proceeding.

Moranbah residents have reported complaints regarding dust to the local council in the past. Following community concern, a real time monitor was placed in the township with data gathered and reported by the state government via the local government (Isaac Regional Council) website. Several mining companies are also required to monitor dust as part of their Environmental Authorities' and in turn report this information to the MCIG and publicly. Collectively these sources have provided evidence that exceedances of the national guidelines for both PM 2.5 and PM 10 occasionally occur. However, there is no analysis which attributes the exceedances to any one source nor determines composition.

Sources of particulate matter are understood to include coal mining, blasting and haulage, transport routes (road and rail), local quarries, urban development (bare soil), surrounding agriculture (cleared land for beef cattle grazing), and fires. The region experiences extremely high temperatures during the summer months, coupled with low humidity and data indicates that particulate matter is higher when conditions are hot and dry.

The range of issues experienced include nuisance effects – dust on cars, outdoor furniture, houses, and washing hanging on the line and visible in the atmosphere at a level that some residents find unacceptable. Some residents have become concerned for their health. Anecdotally, some community members suggest that the level of asthma is higher in the town, however no studies have been carried out to determine scientifically whether this is the case or not. While dust has been demonstrated to increase conditions such as asthma, it is apparently difficult to separate the more definite effect of smoking and air born pollens from the impacts of dust at a population level. It is an important issue for this community to better understand the impacts, if any, of local air quality on their health.

B) Those populations most at risk and the causes that put those populations at risk

The level of particulate matter present in the atmosphere surrounding Moranbah is currently noticeable, and will potentially increase as further planned development occurs. It is this cumulative impact that that is of interest to the MCIG. However one might consider the lack of baseline data and any attempt to monitor the local population's health impacts from dust is more of a risk factor than the dust itself. Air quality monitoring, analysis and reporting is largely undertaken at a very coarse level, or project specific by the proponents as part of their conditions of operation or development. An integrated approach to monitoring and evaluation of air quality that correlates to health information would provide an accurate picture of any risk to human health (or otherwise).

C) <u>The standards, monitoring and regulation of air quality at all levels of government</u>

The Queensland government is the primary regulatory authority, responsible for conditioning new projects against state and national standards. If a complaint is received and investigated, the holder of an Environmental Authority (EA) must implement dust abatement measures to address the issue. EA's also contain conditions which include ongoing and routine dust abatement activities.

However, not all activities with the potential to generate particulate matter require an environmental authority, and not all dust issues are site specific. In the township of Moranbah a Queensland government monitor records conditions as experienced by residents – but it is not apparent which of a range of potential sources contribute at any given time to an exceedance and consequently what action could be taken. In addition, where air quality impacts are the result of multiple cumulative activities, the regulatory system has few tools for addressing the issue other than to limit future projects/developments or place very rigid conditions on their approval. This has the potential to result in similar operations/developments having very different operating conditions in the greater Moranbah district.

Further, some activities are regulated by the state (mining, transport, quarries), some by local government and regional planning authorities (urban development, and some are not regulated (agriculture and general transport).This complex and somewhat inadequate system makes it difficult for a holistic regulatory approach to effectively deal with cumulative impact.

The Moranbah community – its industries, businesses, local government and residents are, however, proactively and collaboratively addressing the issues which may in turn have a better outcome for all involved than if further regulation were to be developed. Resources for integrated real time monitoring, evaluation and reporting of particulate matter correlated with longitudinal studies on health is required, along with an ability to determine if a cause and effect relationship exists.