Environmental emergency situation raises concern

Practical implications for the mining industry

Environmental emergencies may be caused by natural, technological or human-induced factors or a combination of all three and have the potential to cause severe harm to the environment, as well as loss of human life or property.

Mining activities generate significant concern in terms of their potential adverse impact on the environment, as well as on the health and safety of employees and surrounding communities. Potential environmental hazards and risks associated with mining operations include, but are not limited to, land contamination from waste dumps, contamination of ground and surface water systems, the release of hazardous materials and the stability of dams with a safety risk.

A well-known example of an environmental emergency incident is the Merriespruit tailings dam failure in 1994. The 31m high northern wall of the Harmony Gold Mine tailings dam collapsed resulting in about 2.5 million tonnes of liquefied tailings flooding the entire nearby mining village. Seventeen people lost their lives, many homes were destroyed and severe harm was caused to the environment.

At the time of the Merriespruit disaster, there was little to no legislation that dealt with the environmental implications of an emergency incident or disaster. This changed with the introduction of the National Environmental Management Act 107 1998 as amended (NEMA), which makes specific provision for dealing with emergency incidents that may be potentially hazardous to the environment and to people.

Section 30 of NEMA relates to the control of environmental incidents. An incident is defined as “an unexpected, sudden and uncontrolled release of a hazardous substance, including from a major emission, fire or explosion, that causes, has caused or may cause significant harm to the environment, human life or property”.

Section 30 places a duty on the person responsible for the environmental incident to report to the relevant authorities on a number of aspects related to the incident, including individuals whose health and safety may be affected. Furthermore, the responsible person is obliged to undertake all reasonable steps to contain and minimise the effects of the incident on the environment; to undertake clean-up procedures; to remedy the effects of the incident; and to assess the immediate and long-term effects of the incident on the environment and public health.

Failure to comply with the provisions of section 30 may result in a compliance notice been issued by an Environmental Management Inspector (EMI).

It is important to note that there has been a recent amendment to section 30 of NEMA, in terms of the National Environmental Management Laws Second Amendment Act 30 of 2013 by the insertion of section 30A. Section 30A introduces
the concept of “an emergency situation” which differs from the definition of an “incident” in section 30. An “emergency situation” is defined as “a situation that has arisen suddenly that poses an imminent and serious threat to the environment, human life or property, including ‘disaster’ as defined in section 1 of the Disaster Management Act, 2002 (Act No. 57 of 2002) but does not include an incident referred to in section 30 of this Act”. Section 30A will come into effect on 18 December 2014.

Section 30A (1) allows for verbal and written directives to be issued by a competent authority to the person responsible to undertake listed or specified activities, without obtaining the prerequisite environmental authorisation in order to prevent or contain an emergency situation or to prevent, contain or mitigate the effects of an emergency situation.

By specifically excluding the definition of an “incident” from the definition of an “emergency situation”, it appears as if the legislature intends to make a clear and deliberate distinction between an “environmental incident” and an “environmental emergency situation” which appears to have the following effects:

- Where an environmental incident arises and a listed activity is triggered whilst undertaking reasonable measures to prevent or contain an incident or to prevent, contain or mitigate the effects of an incident, the responsible person must first obtain environmental authorisation from the competent authority before commencing with the listed activity.

- Where an environmental emergency situation arises, the competent authority may dispense with the requirements for obtaining environmental authorisation where a listed activity is triggered, for purposes of undertaking reasonable measures to prevent or contain an emergency situation or to prevent, contain or mitigate the effects of an emergency situation.

Based on the above, it is important for a mining operation to be able to distinguish between an environmental incident and an environmental emergency situation. The definition of what constitutes a disaster in terms of the Disaster Management Act is therefore important. A disaster is defined as “a progressive or sudden, widespread or localised, natural or human-caused occurrence which –

(a) Causes or threatens to cause

(i) Death, injury or disease;

(ii) Damage to property, infrastructure or the environment; or

(iii) Disruption of the life of a community; and

(b) is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources”
In light of the above definition, the mine must determine whether an event may be classified as a disaster. In doing so, the mine must assess the potential severity of the impact on the environment, human life and property, and whether it is of a significant magnitude to warrant the involvement of other parties, such as the State, in order to cope with the effects of the situation. It therefore envisages a situation similar to that of the Merriespruit tailings dam failure where the effects of the situation impacted the whole mining village as opposed to a minor spillage of hazardous materials in a confined area at the mine, which may be regarded as an environmental incident rather than an emergency situation.

However, the drafting of section 30A of NEMA, is somewhat problematic as the definition of an “emergency situation” is arguably too broadly defined and overlaps with the definition of an “incident” in section 30 (above), despite the exclusion of an “incident” as referred to in section 30. The definition includes both a sudden situation that poses an imminent and serious threat to the environment, human life or property as well as a disaster, since the word “including” prefaces the reference to a disaster.

Thus, the intended distinction between an “environmental incident” and an “emergency situation” becomes vague and may result in an undesirable situation where the responsible person may attempt to rely on section 30A rather than section 30.

It is therefore hoped that the broad definition of an “emergency situation” does not lead to such potential abuse by the responsible person identifying an “environmental incident” as an “emergency situation” by the simple fact that it has the potential to cause an imminent or serious impact on the environment. Such abuse, may possibly lead to directives being issued by the competent authority to dispense with the requirement to obtain an environmental authorisation, under inappropriate circumstances.

Nevertheless, the insertion of section 30A may require a mine to amend its emergency preparedness plan and emergency procedures so as to provide for disaster management; and further require the mine to facilitate training of its employees to be able to identify instances which may result in a disaster situation. Overall effective management of environmental incidents and environmental emergency situations is a risk management tool which must be utilised by a mining operation to prevent or minimise the effects of a potential incident or emergency situation on the environment and enable appropriate action to be taken by the person responsible.

While sections 30 and 30A of NEMA may not have prevented disasters such as Merriespruit, the impact that such a disaster had on the environment would have to have been taken into consideration.

“Prevention is not only more humane than cure, it is also much cheaper. Above all let us not forget that disaster prevention is a moral imperative, no
less than reducing the risks of war,” quote by Kofi Annan, the Secretary General of the United Nations in July 1999.

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