

## ENVIRONMENT

### Case study

### Improvements in environmental incident reporting in Mali

In seeking to uphold its values wherever it does business, AngloGold Ashanti has sought to make a significant contribution to environmental legislation in Mali. In terms of the country's Mining Code (Decree 99-225), Malian legislation stipulates that all environmental incidents must be reported immediately to the mining regulatory authorities. However, the legislation never provided any guidelines with regard to the categorisation of incidents in terms of their seriousness and possible impact on the environment. As a result, mining companies found themselves in the position of reporting all incidents, irrespective of their impact and frequently included minor incidents such as small oil spillages in a workshop. This system is inefficient: the need to report very minor incidents often hampers the smooth running of operations and causes delays in reporting from companies and creates administrative pressure for the authorities. It also does not provide a true reflection of what needs to be addressed.

To deal with this, AngloGold Ashanti and its joint venture partners (IAMGOLD Corporation, the International Finance Corporation and the Malian government at Sadiola and IAMGOLD and the Malian government at Yatela) have taken a proactive step in developing, in conjunction with the regulating authorities in Mali, a more practical procedure for environmental incident reporting which specifies what type of incident should be reported, as well as when and how it should be reported.

The environmental departments of both Sadiola and Yatela mines initiated a meeting on 18 October 2006 with representatives of the governor of the regional capital Kayes; the regional heads of geology and mines; water affairs and conservation and sanitation and nuisance control; and the mayor and sous-préfet (the civil servant in charge of local executive power) of the Sadiola Commune, both of whom represent the communities who live in the vicinity of the mines. The aim was to streamline the environmental incident reporting procedure to the Malian regulatory authorities.

A point of departure for the discussions was the initial reporting and categorisation of environmental incidents already established by the environmental departments of the Sadiola and Yatela operations, which range from major to minor.

**Category 1 incident:** This category of incident is classified according to the distance travelled by the pollution, its extent and environmental impact. Such an incident would breach the mine's containment area and encroach into public access areas or could cause medium- to long-term environmental damage. A further measure would be the remedial costs – which would be in the region of \$100,000 or more including payment of penalties and loss of resources. An exceptional type of category 1 incident is one which involves animal or bird fatalities due to cyanide poisoning. (See case study in Report to Society 2005: *Using cyanide responsibly at CC&V.*) All category 1 incidents are reported to joint venture partners and stakeholders.

**Category 2 incident:** An incident of lesser concern than category 1, and where the release of pollutants remains within the confines of the operational area. These incidents are deemed to be localised and with short term impact. They are managed internally and are reported in the mine's monthly and annual monitoring report, both of which are circulated to the joint venture partners.



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Category 3 incident: These are generally small and minor spillages of pollutants within the operational area and which cause only temporary environmental damage. Wildlife fatalities, which are unrelated to mining and processing activities, fall under this category. The reporting procedure is as for category 2.

Also discussed at the meeting were some of the challenges that presented when having to report environmental incidents to the authorities. They included the following:

- regional regulatory offices are located some 70 km from the operational sites, exacerbated by the fact they are served by poor feeder roads;
- regional regulators tend to make a cursory inspection of the incident site and do not conduct their own investigation;
- site visits must be preceded by a formal invitation to each level of authority, after which team members are chosen and dispatched, resulting in delays. Indeed site visits are often carried out long after remedial action has been taken; and
- environmental incident site visits are costly, since mines are obliged to fund the cost of each regulatory visit to site, approximating \$700 a day. (In 2005 when Sadiola mine recorded 123 incidents, 90% of which were minor, site visits cost the mine in the region of \$86 000.)

Following a debate on the implementation of a new environmental incident reporting system that was both practical and cost-effective, agreement was reached on the categorisation of minor and major incidents and at which level incidents need to be reported.

Incident Category	Description	Example	Reporting frequency
Minor	Particular pollutant spillage from the slimes dam or any other area where mining activity is taking place.	Cyanide or polluted water spillage in a contained area.	To be reported monthly to the regional director of geology and mines (Kayes) through the incident registers; and in the mine monthly environmental reports.
	Light pollutant spillage inside the normal operating area	Spillage of 10 litres of oil in workshop area or any other site where mining activities take place	
Major	Spillage that extends outside the operating zone; significant quantity and damage of pollutant; Ground water contamination	Leak of cyanide delivery pipeline to the heap leach pads or any cyanide solution spillage.	To immediately inform the authorities and invite the regulators from the regional technical departments to evaluate and investigate the incident, in conjunction with mine representatives.
	Wildlife fatality resulting from toxic chemical poisoning regardless of the size and number.	Any bird or animal fatality as a result of contact with cyanide.	



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Once a blueprint for improved environmental incident reporting was agreed on between government and AngloGold Ashanti and its joint venture partners, the meeting further proposed that the new reporting system be introduced and adopted at other mining operations in the Kayes region, namely Loulo mine (owned jointly by Randgold Resources Ltd and the Malian government) and Tabakoto mine (owned by Nevsun Resources Ltd).

One of the main advantages of the new system is its cost-effectiveness in that the site visits are now limited to major incidents, which in turn reduces the amount of time spent on co-ordinating visits.

At the same time AngloGold Ashanti hopes that these developments will pave the way for better communication between all mining companies and regulators, who see the benefit of liaising with the operations and surrounding communities.

