

Use of Cyanide at Barrick Plutonic

Barrick is a signatory to the International Cyanide Management Code. Reflecting this, the company's Plutonic gold mine employs cyanide management practices that are based on the most stringent safety and environmental standards, and employee protection systems. Due to rigorous safety procedures, there has not been a single fatality associated with cyanide at Barrick's operations around the world. In fact, cyanide intoxication incidents are extremely rare.

Use of Cyanide

Cyanide has been widely used in the gold industry for over a century to help extract gold from ore, and is the only chemical which can be used economically to extract gold. Cyanide is used in ore processing at many of Barrick's operations around the world, including the Plutonic gold mine.

The initial process used to extract the gold is called leaching. Leaching is carried out in large tanks containing slurry, which is ground up ore mixed with water. A controlled level of cyanide is then added to the primary leach tank.

Following the leaching process the slurry is passed through a carbon in pulp (CIP) circuit where activated carbon is added to the slurry. In the CIP circuit the gold loads up onto the carbon, and the gold enriched carbon is then separated from the slurry and sent to an elution circuit, where the gold is stripped from the carbon using a cyanide/caustic solution. Once stripped, the 'barren' carbon is sent back to the CIP circuit for recirculation.

Once the slurry has passed through the Leach and CIP tanks, it is thickened and pumped to one of the Tailings Storage Facilities.

Cyanide is present in the Tailings Storage Facility but is readily broken down in sunlight. Water that is reclaimed during the thickening process and from the settled tailings in the Tailings Storage Facility is recycled back through the Plant.

Transport and Storage of Cyanide

Currently, solid cyanide is used at Barrick Plutonic and is transported by road to site in isotainers, which are specially designed steel containers that provide maximum protection against any possible loss of the contents.

Orica Australia Limited, a global leader in the supply of chemicals to the mining industry and also a signatory to the International Cyanide Management Code, is responsible for the safe transportation of the cyanide to the mine.

When the trucks arrive on site, the solid cyanide is sparged into site storage tanks that are located in a secure compound to minimise exposure to employees and the environment.

Safety Management

High standards in workplace health and safety are non-negotiable at Barrick Plutonic. It is a requirement to ensure that each and every one of our employees goes home safe and healthy everyday.

Cyanide used on site is only handled by experienced and trained employees who are required to follow strict procedures relating to the handling, use and management of cyanide products in order to minimise risk.

As at all Barrick mine sites, employees are required to wear appropriate Personal Protective Equipment (or PPE, as it is often called) such as safety helmet and glasses, steel capped boots, reflective shirts and ear protection. Employees handling cyanide products are required to wear additional and more specialised PPE to ensure they are well protected.

Hydrogen cyanide gas levels are regularly monitored using specialised equipment; and daily inspections are conducted of all cyanide delivery, storage and processing areas to ensure safe operation. Regular preventative maintenance is also undertaken to ensure that all plant equipment is in good working order.

Emergency Response

In the unlikely event of a cyanide-related spill on or off site, the Barrick Plutonic emergency response team is well trained and skilled to be able to effectively handle and manage the incident, following the key steps below:

1. Evacuate the area
2. Isolate the source of the leak
3. Barricade the area
4. Implement site protocols and procedures to contain the situation
5. Undertake remediation work

Although Orica is responsible for emergency response coordination and supervision in the event of an incident during transportation, the site emergency response team may be called to assist in

containing the situation. In such a scenario, the team would work closely alongside local emergency service personnel such as the police, ambulance and fire brigade.

Barrick Plutonic's emergency response team continues to strengthen their skills through regular mock drill exercises that allow them to hone their skills and knowledge in identifying exposure scenarios, emergency response and first aid.

Further Information

If you have any questions, please email us at: publicaffairsap@barrick.com

If you would simply like to read more about Barrick's responsible use of cyanide or find out more about the International Cyanide Management Code, go to:

- [www.barrick.com/Corporate Responsibility/KeyTopics/CyanideManagement](http://www.barrick.com/Corporate%20Responsibility/KeyTopics/CyanideManagement)
- www.cyanidecode.org