

# Cyanide Management

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# Continuous Improvement in Cyanide Management

Along with being a signatory to the International Cyanide Management Code (ICMC) – a voluntary program that focuses on responsibly handling and managing the use of cyanide in the gold



mining process – Newmont's updated standards go above and beyond the ICMC and require internal and external audits in between the formal ICMC audits.

In 2014, we also conducted a specialized training course for metallurgists, metallurgical technicians and environmental team members from all our sites in Australia. The training, which was conducted by Australia's national science agency CSIRO, combined lectures on topics, such as the chemistry of cyanide solutions and analysis methods, with training sessions to improve accuracy in monitoring and accounting for the various cyanide compounds in process solutions.

The course also incorporated discussion sessions to allow each site to present their knowledge and address challenges and opportunities regarding cyanide management. We are currently evaluating opportunities to conduct similar training programs across our other sites and regions.

## **Approach**

Today's gold deposits tend to be "invisible," or in more technical terms, disseminated submicroscopic gold. At such low concentrations, chemical extraction is the only viable method of recovering the gold from the ore, with the most effective and economical chemical being sodium cyanide. While safer than alternative chemical agents, cyanide can pose health risks to humans, animals and plant life.

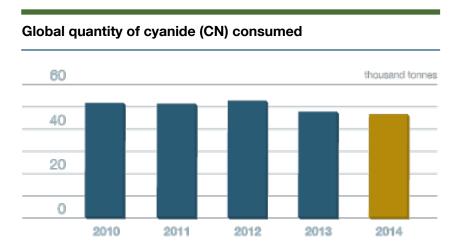
Our commitment to safely and responsibly manage cyanide is stated in our <u>Sustainability and</u>
<u>Stakeholder Engagement Policy</u> and the minimum requirements all sites must meet are stated in our Hazardous Materials Management Standard.

All our gold processing facilities that use cyanide are required to be certified to the <u>International</u> <u>Cyanide Management Code</u> (ICMC or the Code). The Code comprises nine principles intended to improve the lifecycle management of cyanide, reduce exposure of workers and surrounding communities from harmful levels of cyanide, minimize impacts to the environment, and enhance response actions to cyanide releases.

In 2005, Newmont became one of the 14 initial signatories to the Code, which provides the framework for managing cyanide at our operations. Compliance with the Code requires independent third-party verification through an audit process and recertification every three years. We also require new operations that use cyanide to process ore to conduct the initial certification audit within 12 months of commercial production. This requirement is more stringent than that of the Code, which allows new sites and facilities to achieve certification within three years. In addition, sites engage internal and external auditing teams to review Code compliance in the years between formal audit cycles.

Details of our compliance records and copies of the audit documents for each of our mines that use cyanide for processing can be found on the **Code website**.

#### 2014 Performance



Note: The reported 2010 data was corrected from the 47.8 tonnes reported in the 2013 report.

In 2014, Newmont operations used 46.2 thousand tonnes of sodium cyanide. Quantities vary each year due to mineral variations in our ore bodies as well as processing variables.

In 2014, our Twin Creeks operation in Nevada achieved Code recertification. The Yanacocha and Ahafo operations completed their recertification audits during the year in accordance with requirements. The International

Cyanide Management Institute (ICMI) issued final reports confirming recertification of both operations in early 2015. The Akyem operation – which entered commercial production in late 2013 – completed its initial audit in 2014, and received the ICMI's final report in early 2015. Updated information on certifications is available on the **ICMI website**.

We rate environmental incidents on a severity scale of one to five, and consider Levels 1 and 2 incidents to be relatively minor and Levels 3 to 5 incidents to be more significant. In 2014, we recorded one Level 3 and no Level 4 or 5 cyanide-related environmental incidents. The Level 3 release occurred at our Carlin operation in Nevada when a construction crew accidentally cut a buried pipeline and spilled 6,000 gallons of low concentration cyanide solution. The spill was contained on site and did not affect water bodies, wildlife or human health. The incident was reported to the appropriate regulatory authorities, as required, and was cleaned up and remediated.

We implemented our updated Hazardous Materials Management Standard in 2014 to ensure our facilities and operations protect human health and the environment. All sites – with the exception of Batu Hijau due to the temporary shutdown of operations – conducted a gap analysis against the updated standards and developed action plans to address these gaps.

**Click here** for 2014 Cyanide Code reporting. >

**Click here** for Cyanide Code reporting for previous years.

### **Future Focus**

In 2015, we will conduct recertification audits at the Boddington, KCGM and Tanami operations in Australia and the Phoenix operation and Carlin complex in Nevada. Our Emigrant facility in Nevada, which is part of the Carlin operation, is working toward Code certification in 2015 in order to align with the recertification process at Carlin's other facilities. All certified operations will map Cyanide Code requirements to ISO 14001 environmental management system requirements.

All sites will implement action plans to address any areas identified in the gap analysis in order to be in full compliance with the updated standard by mid-2016.