

Cyanide Management

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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. We carefully manage its use, transportation and storage to provide a safe work environment and protect the environment and communities near our operations.

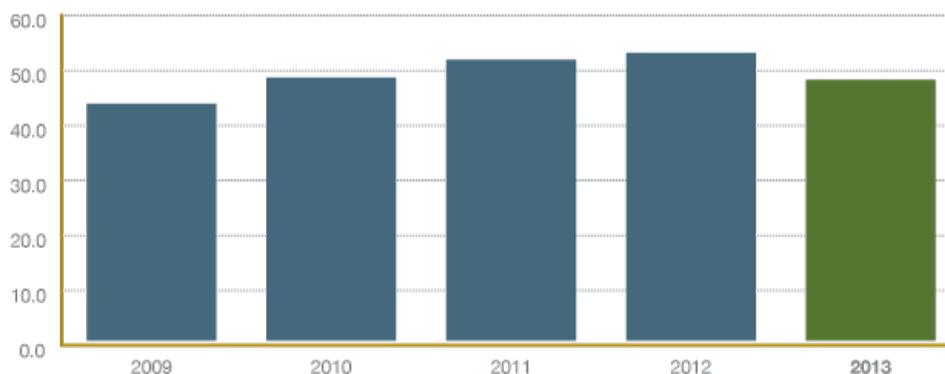
In 2005, Newmont became one of the 14 initial signatories to the International Cyanide Management Code, which provides the framework for managing cyanide at our operations. We require that our sites establish and maintain compliance with the Code's **nine Principles and 31 Standards of Practice** for gold mining operations.

Compliance with the Code requires independent third-party verification through an audit process and recertification every three years. 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**.

2013 Performance

In 2013, Newmont operations used 47.4 thousand tonnes of sodium cyanide. Quantities vary each year due to mineral variations in our ore bodies as well as processing variables.

Global Quantity of Cyanide (CN) Consumed
(thousand tonnes)



We continued to establish regional teams in 2013 to share best practice. Our Cyanide Code Plus Working Group tracked and reported all lessons learned from incidents to help prevent recurrences. In addition, a cyanide management residual risk review program was developed and is being piloted in our Australia/New Zealand region. Our Yanacocha operation transitioned all transport of cyanide from one-metric-tonne containers to more secure, reusable ISO tanks.

In 2013, our Carlin and Lone Tree operations in Nevada achieved Code recertification and our Twin Creeks operation completed its audit in accordance with requirements; however, the International Cyanide Management Institute (ICMI) was still reviewing the auditor's report at year end. In July 2013, a recertification audit found our Waihi operation to be in substantial compliance, but also found deficiencies related to wildlife protective measures. No significant risk to wildlife occurred and there were no off-site releases or human exposures. Waihi implemented a corrective action plan and achieved recertification in November 2013.

We rate environmental incidents on a severity scale of one to five, and consider incident levels one and two to be relatively minor and levels three to five to be more significant. In 2013, we recorded five Level 3 cyanide-related environmental incidents. There were no level four and five incidents reported. Two Level 3 incidents occurred at our Carlin operation in Nevada; two Level 3 incidents occurred at our Twin Creeks operation in Nevada; and one Level 3 incident occurred at our Boddington operation in Australia. All incidents were related to spills of process water containing cyanide which were contained on-site and did not affect water bodies, wildlife or human health. All five Level 3 incidents were reported to the appropriate regulatory authorities, as required, and all releases were cleaned up and remediated.

2013 Cyanide Code Reporting

Site	Incidents of Cyanide Exposure Resulting in Hospitalization	Incidents Where Release Off the Mine Site Required Response or Remediation	Incidents Where Release On or Off the Mine Site Resulted in Significant Adverse Effects to Health
Ahafo	0	0	0
Akyem	0	0	0
Boddington	0	0	0
Carlin	0	0	0
Tanami	0	0	0
Jundee	0	0	0
KCGM	0	0	0
Lone Tree	0	0	0
Midas	0	0	0
Phoenix	0	0	0
Twin Creeks	0	0	0
Waihi	0	0	0
Yanacocha	0	0	0
Total	0	0	0

Site	Incidents Where Release On or Off the Mine Site Resulted in Significant Adverse Effects to the Environment	Incidents Where Release On or Off the Mine Site Required Reporting Under Applicable Regulations	Incidents Where Release Caused Exceedances of Applicable Limits for Cyanide
Ahafo	0	0	0
Akyem	0	0	0
Boddington	0	5	0

Site	Incidents Where Release On or Off the Mine Site Resulted in Significant Adverse Effects to the Environment	Incidents Where Release On or Off the Mine Site Required Reporting Under Applicable Regulations	Incidents Where Release Caused Exceedances of Applicable Limits for Cyanide
Carlin	0	2	0
Tanami	0	1	0
Jundee	0	1	0
KCGM	0	0	0
Lone Tree	0	0	0
Midas	0	1	1
Phoenix	0	0	0
Twin Creeks	0	2	0
Waihi	0	0	0
Yanacocha	0	0	0
Total	0	12	1

Note: Different regulatory regimes have different reporting requirements for cyanide incidents, which are not necessarily reflected by the severity scale of environmental incidents discussed in the paragraph above. The number of incidents reported in this table refers to significant releases as defined by the Cyanide Code. The total number of cyanide releases is reported in the **Compliance discussion**.

Cyanide Code Summary Data	Total
Incidents of cyanide exposure resulting in hospitalization	0
Incidents where release off the mine site required response or remediation	0
Incidents where release on or off the mine site resulted in significant adverse effects to health	0
Incidents where release on or off the mine site resulted in significant adverse effects to the environment	0
Incidents where release on or off the mine site required reporting under applicable regulations	12
Incidents where release caused exceedances of applicable limits for cyanide	1

For Cyanide Code reporting for previous years please **click here**.

Future Focus

In 2014, we will conduct recertification audits at our Yanacocha operation in Peru and our Ahafo operation in Ghana. While new sites and facilities have three years to achieve certification under the Cyanide Code requirements, our Akyem operation, which achieved commercial production in 2013, will seek Code certification during 2014. 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 for Carlin's other facilities. All certified operations will map Cyanide Code requirements to ISO 14001 environmental management system requirements. Finally, we are developing internal and external auditing teams to review Code compliance in the years between formal audit cycles.



Case Study – Cyanide Management in Gold Mining

While gold processing only uses around six percent of the hydrogen cyanide produced annually, the industry is committed to continuous improvement of its cyanide management practices. In 2000, a joint United Nations Environment Programme (UNEP) and International Council on Metals and the Environment (ICME) workshop brought together cyanide producers, financial institutions, regulators, gold mining companies – including Newmont – and environmental advocacy groups to form a Steering Committee to improve the management of cyanide around the world. The result was the development of the International Cyanide Management Code, which was launched in 2005 with Newmont as one of the signatories.

The initial certification process involves independent auditors deemed competent by the International Cyanide Management Institute (ICMI). If any corrective actions are identified, those must be addressed before the report is submitted for certification to the ICMI. To maintain certification, sites must conduct a third-party audit every three years. While this program is voluntary and there are no fines or penalties for non-conformance, if sites do not recertify every three years, they are de-certified and the ICMI website is updated to reflect the de-certification. **Summary audit reports and auditor credential forms** are available to the public.
