The CODE

The Newsletter of
the International Cyanide
Management Institute
www.cyanidecode.org

2nd Quarter 2015 Edition

What's Inside

Welcome to the International Cyanide Management Institute's (ICMI) Second Quarter 2015 Cyanide Code Newsletter.

2014 Annual Report Available On Line

The International Cyanide Management Institute's 2014 annual report is available on line and includes highlights such as growth statistics, what was new in 2014, code benefits and the Institute's financial statement.

The report noted that 2014 was a challenging year for the gold industry as price pressures caused companies to cut personnel and divest underperforming assets. "Regardless of these challenges, Cyanide Code signatories maintained their commitment to the use of best practice for cyanide management through their continued participation in the program," the report stated.

Copies of the report can be obtained here.

The Value Of Third-Party Certification In Assuring Stakeholders' Compliance

Renzo Mori Junior, Phd.
Postdoctoral Research Fellow
Centre for Social Responsibility in Mining
The University of Queensland, Australia

Sustainability certification schemes are instruments for mining industries to show that they have initiatives in place to address environmental and social challenges and for civil society actors to hold mining companies accountable. The assurance process can be viewed as an important element in sustainability certification schemes, because assurance is the instrument used to evaluate the level of compliance of the entity to be certified against predefined standards.

The assurance process is a fundamental element that provides the right to use labels or certificates or to claim that a product, process or service is in compliance with a certification scheme, which could facilitate market access and product differentiation. Assurance processes also could be considered a governance mechanism that plays a fundamental role providing credibility, improving management systems, avoiding conflicts of interest, greenwashing and bias.

During the last few years, sustainability certification schemes have emerged and developed fast. This fast development allied to the voluntary approach adopted by most of the sustainability certification schemes have resulted in various design characteristics including different assurance processes, which can affect the quality of the assurance process conducted and its outcomes. There are three different types of assurance processes: (1) first-party assurance (assessment performed by the person or organization that provides the object under assurance); (2) second-party assurance (assessment performed by a

person or organization that has a user interest in the object under assurance); and (3) third-party assurance (assessment performed by a person or body that is independent of the person or organization that provides the object under assurance, and of user interests in that object under assurance).

Certification schemes that make use of third-party entities to provide assurance tend to have a more independent assurance process than schemes that use only self-assessments or second party assurance. Third-party assurance tends to be more rigorous, because assurance providers are more independent and do not have interests in the organization under assurance. This improves the impartiality of the assurance process. On the other hand, third-party assurance processes are usually more costly.

The use of third-party assurance providers is the most common practice employed by sustainability certification schemes, and new initiatives have been developed to improve the quality of the assurance process and reduce costs. One example is the use of a combined approach where an initial part of the assurance process is conducted by a first or second-party assurance process and the final assessment and opinion is provided by a third-party assurance provider. The use of a combined approach enables participants with financial and/or technological constraints to share the costs of a third-party assurance, which works towards accessibility. A combined approach can also enhance the rigor of the assurance process because two different assurance providers will conduct assurances of the same object.

Even though much attention has been addressed to the type of assurance process used by sustainability certification schemes, it is important to highlight that there are other factors influencing the quality of the assurance process and their capacity to provide credibility. In addition to the impartiality and independence improved through the use of third-party assurances, assurance processes of sustainability certification schemes must be consistent, rigorous, transparent and accessible. To do so, it is important that the design of the assurance processes employed by certification schemes consider, in addition to the type of assurance employed (first, second or third-party), the assurance frequency, how often the assurance process will be conducted; provide assurance guidance determining scope, procedures, protocols and assurance statement formats that should be applied and used by assurers during the assurance processes; establish the entity responsible for the costs involved with the assurance process; determine mechanisms to oversee the quality of the assurance processes and the qualifications and experience of the assurance team; and have initiatives in place to make the assurance process affordable to scheme participants.

Regardless of the design characteristic of assurance process used, the challenge lies in how sustainability certification schemes will improve the quality and independence of their assurance processes, which is directly related to their credibility, without penalizing participants and stakeholders. Additionally, assurance process could be used as an important instrument to improve capacity building, foster local development, maximize positive outcomes and increase accessibility.

A Business Case for Cyanide Code Participation

John K Mudge
Director Environmental Affairs
Kinross Gold USA

I have been fortunate to have worked in the mining industry for 35 years with about one-third of that time spent in operations and two-thirds in environmental support, mostly at gold mining operations. During those 35 years, I have experienced an evolution in environmental protection, stakeholder expectations and engagement. I also have experienced one constant throughout my career in the industry; the use of sodium cyanide to dissolve and recover gold. Cyanide is amazing in its ability to selectively dissolve gold (and silver). When managed properly, it is safe, decomposes into harmless substances, is relatively inexpensive and offers the most complete and efficient method for gold recovery. There are no effective substitutes for the majority of ore types and, to my knowledge, none are under development.

Unfortunately, most of the public does not know that cyanide can be used safely and effectively. Cyanide conjures concerns of toxic gas, polluted waterways and harmed wildlife. However, mining practices have evolved over the years and now, into not

only how we build our facilities with the necessary environmental and safety protections, but also to how we communicate and listen to the public, educate them and address their concerns. In today's mining industry, we must protect our people and our environment, and we must engage stakeholders in open and honest communication. Business success demands these actions and anything short will result in business failure.

Another aspect of today's world is how fast information flows. A significant incident anywhere will get immediate attention. One such incident took place at Baia Mare, Romania, in 2000 when a gold mine tailings facility released cyanide-bearing solution to the Danube River system resulting in a significant fish kill. This incident garnered world-wide publicity but likely not nearly as much as it would if it occurred today. Nonetheless, this one incident threatened the ability to use cyanide in the gold mining industry as many expressed concerns that the chemical was unsafe and its use in mining should be banned.

The incident also prompted an effort led by the United Nations Environmental Programme that brought together industry, governments and non-governmental organizations to jointly develop the International Cyanide Management Code. Following many months of research and discussion, the Cyanide Code was established to provide for proper and safe management of cyanide from production through transportation, use and eventual mine closure. The Cyanide Code addresses protection of the environment, communities and workers and the engagement of stakeholders. It provides transparent assurance for stakeholders ranging from communities to regulators and lending institutions of an operation's responsible use of cyanide. It requires third-party audits of mines, cyanide producers and transporters with summary results posted on the Cyanide Code website. Anyone can review the program requirements and the audit results. The Cyanide Code arguably would have prevented the Baia Mare incident that occurred in 2000.

Having been involved with the Cyanide Code's initial development, it has been gratifying to see its success. When implemented in 2005, it had 14 participating companies and there are now more than 175. The Cyanide Code is recognized by regulators and lenders worldwide and is often a requirement of one or both. It is commonly used by engineering firms in designing new operations. The Cyanide Code is something we can point to with pride when we consider developing new gold mines. It gives us a platform to talk with regulators and stakeholders as well as the design criteria needed to build and operate gold mines that safely manage cyanide. It also provides the ability to establish safe cyanide production and delivery systems any place in the world, from remote northeastern Russia to nearby a city in Brazil, the locations of some of my company's certified operations.

Despite the Cyanide Code's success, some operators might argue that its costs are too high and they cannot afford the construction, operating, and/or audit costs or the signatory fees. I would argue that all the Cyanide Code's worker and environmental protection controls must be built into an operation because society and our boards of directors demand it. In my view, audits are relatively inexpensive. Initial audits cost approximately US$75,000 and recertification audits (which are carried out every three years) are about half that amount. The annual Cyanide Code signatory fee is only 4 cents US per ounce of production while gold is selling for around US$1200/ounce. Plus, the Cyanide Code requires optimization of cyanide use which also can result in significant savings.

Over my career, I have worked at mine sites, regional offices and in a corporate role. From a corporate standpoint, the Cyanide Code assures upper management and the board of directors that our operations are constructed and operated with all the necessary protections. It also gives us something we can point stakeholders towards to give them the assurance that we can and do safely use cyanide. We know that failure to either operate safely or communicate openly about our use of cyanide could result in the loss of our ability to use cyanide which could lead to a curtailment of an operation or possibly an entire industry.

To be successful, the mining industry must protect its employees and its environment. The industry also must protect and communicate effectively with its stakeholders. For gold miners, the International Cyanide Management Code is the established, proven and respected mechanism to help drive performance. It paves the way for gold mining companies to maintain their ability to use the most effective and efficient chemical for gold recovery, cyanide.

Fly the Flag!

ICMI still has Cyanide Code flags available for certified operations. The flags, which are 3 feet by 5 feet and cost US$100.00 each, show the Code logo on a white background. Certified operations can order a flag by contacting ICMI at +1-202-495-4020 or info@cyanidecode.org. Flying a Cyanide Code flag is a dramatic way to demonstrate that your operation is Code-certified.

Code Questions

1. May a gold mine certified under the Cyanide Code purchase cyanide from a company that is not a signatory to the Cyanide Code?

As indicated in ICMI's Auditor Guidance for Use of the Gold Mining Operations Verification Protocol, (*Auditor Guidance*), with regard to Verification Protocol Questions 1.1.1 and 1.1.2, compliance with Standard of Practice 1.1 requires a mine to use cyanide that has been produced at a Code-certified cyanide production facility. However, the Cyanide Code does not require that a mine's contract for its cyanide supply be with a signatory cyanide producer and certified production facility. Rather, as noted with regard to Verification Protocol Question 1.1.3 in the Auditor Guidance, mines that purchase cyanide from independent brokers and distributors can still be certified as long as it can provide evidence that the cyanide it receives and uses in its process was produced at a Cyanide Code-certified cyanide production facility.

2. A recertification audit of a gold mine found that cyanide antidote amyl nitrite, which had been available at the site during its previous certification audit, was no longer in use. Oxygen was the only antidote remaining at the mine. Is this situation in compliance with Standard of Practice 6.3 of the Cyanide Code?

Standard of Practice 6 requires mines to have emergency response equipment including an antidote for cyanide exposure available for use at cyanide unloading, storage and mixing locations and elsewhere in the plant. However, the discussion for Item 6.3.1 in the Auditor Guidance for Use of the Gold Mining Operations Verification Protocol, (*Auditor Guidance*), states that "allowable antidotes for cyanide poisoning differ between various political jurisdictions, and in some cases, no antidote other than oxygen is permitted." A mine can be certified under the Cyanide Code if oxygen is the only antidote for cyanide exposure used on site.

Oxygen is the only antidote specifically required for Cyanide Code compliance because it is recognized as the safest and most appropriate antidote for first response to cyanide exposure. Other antidotes such as amyl nitrite can be used at the discretion of the mine and if permitted by applicable laws and regulations. As noted in the discussion for Item 6.3.2 in the Auditor Guidance, an operation that provides an antidote other than oxygen is expected to maintain it within the prescribed temperature range and labeled expiration date even though its use is not specifically required by the Cyanide Code. While oxygen is the only antidote the Cyanide Code requires to be available at the mine, on-site or off-site medical responders, clinics and hospitals should also have thiosulfate or other intravenous or more aggressive antidotes available, as permitted by applicable laws and regulations.

3. Is Cyanide Code Pre-operational Certification required for a supply chain if the transporters are experienced in cyanide transportation but the consignor has not previously organized and overseen the transport of cyanide?

Pre-operational certification is necessary only if the entities that physically manage cyanide (e.g.; trucking companies, warehouses, ports, ships) have not done so previously. Pre-operational certification is not required if the signatory company acts only as a consignor and does not use any of its own transport equipment in its supply chain and the contracted carrier(s) have experience in cyanide transport and have existing procedures for cyanide management.