The CODE

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

First Quarter 2009 Edition

What's Inside

Welcome to the International Cyanide Management Institute's (ICMI) First Quarter 2009 Newsletter. It may seem like the Code has been in place for a short time, but the first operating facility that was certified under the Code will reach the end of its initial three-year audit period in June 2009, and will then require a new audit to maintain its certification. ICMI has recently received a number of inquires about the recertification process, and we therefore have devoted the bulk of this Newsletter to the second audit of gold mines, production facilities and cyanide transporters that are approaching the end of their first audit cycle.

2008 Highlights

2008 marked the third full year of operations for the ICMI. The commitment to responsible cyanide management continued to grow around the world as more companies became Code signatories and as more operations were certified in compliance with the Code during the year. The Code experienced an increase in the number of signatory companies of over 40 percent from 30 at the start of the year to 43 at year's end. Collectively, these 19 signatory gold mining companies, 12 signatory cyanide producers and 12 signatory cyanide transporters companies had 134 operations in 32 countries on 6 continents.

The 13 new signatory companies consist of five mining companies, four cyanide producers and four transporters. These include Australia-based Newcrest, one of the world's top-ten gold producers, Canadian intermediate producer Yamana Gold, and our first signatories from China, Japan, Mexico and the Czech Republic. Twenty-five operations were certified during 2008, and the Code ended the year with a total of 57 certified mines, cyanide producers and cyanide transporters.

ICMI conducted training workshops in South America, North America and China during 2008. In January, we held a highly successful workshop in Lima, Peru. The workshop, our first in Latin America, was conducted in Spanish, and attracted nearly 90 attendees representing almost 30 mining companies, cyanide producers and transporters, consultants and government officials from Argentina, Brazil, Chile and Peru. A second workshop, focused on Code implementation and auditing, was conducted in Toronto, Canada in June.

ICMI also held a workshop in Brazil in October to help build auditing capacity in that region. In addition to an auditing firm, three signatory mining companies operating in Brazil, as well as a Brazilian cyanide producer and a Brazilian transporter which have since become Code signatories, attended the training.

In December, ICMI conducted its first training in China. The workshop was held in Beijing and presented in Chinese, with approximately 20 representatives of Chinese companies participating. The China Chamber of Commerce of Metals, Minerals & Chemicals Importers and Exporters together with the China Nonferrous Metals Industry Association assisted ICMI in organizing the event.

More Global Groups Endorse the Code

The World Gold Council and the Council for Responsible Jewellery Practices have both recognized the Code as the best practice for management of cyanide in the gold mining industry. In doing so, these global organizations join the G8 Group of Nations (See ICMI's Summer 2007 Newsletter) and the International Finance Corporation (See ICMI's First Quarter 2008 Newsletter) in acknowledging the Code as the guide to responsible cyanide management.

The World Gold Council (WGC) is an international association of gold mining companies that seeks to stimulate and maximize the demand for and holding of gold. In discussing its commitment to the development of a responsible gold mining industry, the WGC notes on its web site (http://www.trustingold.com/) that it and its member companies "support the International Cyanide Management Code, a voluntary industry program that promotes the responsible management of cyanide used in gold mining, enhancing the protection of human health and reducing the potential for environmental impacts." Further, on its web page addressing the risks of cyanide (http://www.trustingold.com/content/view/62/101/), the WGC characterizes the Code as "the accepted authority for the use of cyanide in gold mining." ICMI salutes the WGC for its commitment, and hopes that it will result in continued improvement of cyanide management practices around the world.

The Council for Responsible Jewellery Practices is an international not-for-profit organization representing over 80 member companies across the gold and diamond jewelry supply chain. Members are committed to promoting responsible ethical, human rights, social and environmental practices in a transparent and accountable manner throughout the industry from mine to retail, with the aim of reinforcing consumer and stakeholder confidence in diamond and gold jewelry products.

The Responsible Jewellery Council (RJC) -- the trading name of the Council for Responsible Jewellery Practices -- has developed a certification system, scheduled to begin operating in the third quarter of 2009, which will require all of its commercial members that contribute to the diamond and gold jewelry supply chain to be audited by accredited, third party auditors to verify their conformance with the RJC's *Code of Practices*. In its section on Environmental Performance, the RJC's *Principles and Code of Practices* requires that all of its mining company members (currently three gold mining companies, AngloGold Ashanti, Newmont, and Rio Tinto) that use cyanide for gold recovery have their mines "certified to the International Cyanide Management Code" within three years of joining the RJC. The RJC's *Assessment Questions* and *Assessment Workbook*, which are similar to the Cyanide Code's Verification Protocol and Auditor Guidance documents, include this same requirement as one of the factors to be considered when determining if the mine complies with its Code of Practices and can be certified under the RJC's program.

While the G8 Group of Nations has encouraged gold mines to implement the Code, and the International Finance Corporation requires that gold mines comply with the Code as a condition of its loan agreements, the RJC is the first international organization to specifically require that its gold mining company members actually sign the Code, undergo a Code audit, and be certified in compliance with the Code.

The RJC is currently developing a Mining Supplement that expands its *Code of Practices* to cover additional mining-specific issues. See: www.responsiblejewellery.com

Recertification

ICMI has received many questions from its stakeholders about the recertification process. How does it differ from an operation's initial audit? Must the auditor revisit each and every issue that was evaluated during the initial audit? How does the auditor determine compliance over a three year period, and how would an auditor view cyanide spills or exposures, missing documentations and/or other instances of potential non-compliance that may have occurred at some time during the three years between audits? ICMI has answered these and many other questions below. This information is intended to be considered in conjunction with ICMI's *Auditor Guidance for Use of the Gold Mining Operations Verification Protocol (Mining Auditor Guidance)* and *Auditor Guidance for Use of the Cyanide Transportation Verification Protocol (Transportation Auditor Guidance)* with specific reference to the recertification audit process.

1. Deadlines for Recertification

In order to maintain its certification, an operation must be audited on a three-year cycle. The three-year period begins when ICMI takes formal certification action based on an auditor's findings. ICMI sends a formal certification letter to a signatory

company when its operation is certified, indicating the operation's formal certification date. In most, but not all cases, this is the same date as the press release ICMI posts on its the web site announcing the certification. However, the operation is not required to receive its formal recertification within three years of its previous certification. Rather, the deadline applies to the field portion of the audit, and the deadline is met as long as the auditor's site visit and inspection have been completed within three years of the operation's previous certification date. The auditor then has 90 days from the end of the site visit to submit the audit report to ICMI. Since it may then take weeks or months after submission of the report before ICMI takes final action with respect to an operation's certification, the actual duration of an audit cycle can be somewhat longer than three years.

2. Auditors

The same requirements regarding an auditor's qualifications apply to initial and recertification audits. Auditors and audit companies are allowed to audit an operation for two consecutive audit cycles, so the same auditor(s) or company that conducted an operation's initial audit can also conduct its first recertification audit. Once a site has been audited at least once by a different auditor/audit company, the same auditor(s) or company that conducted the first two audits can return for two more audit cycles.

3. Audit Protocol, Potential Findings and Certification Process

The same Verification Protocol is used for initial and recertification audits, and in both cases, detailed responses are required for each Protocol question. However, as discussed below under Section 5, the nature of the responses may differ. Some Protocol questions during recertification audits may require more in-depth evaluations and responses than were necessary during the initial audit, while the responses to other Protocol questions during recertification may simply refer to the findings of the initial audit.

Recertification audits result in the same three potential findings as an initial audit: full compliance, substantial compliance and non-compliance. However, determining the appropriate finding can be more involved during a recertification audit due to its coverage of the entire three-year period between audits. Because an initial audit evaluates compliance at the time of audit, all the identified deficiencies exist at that time, and determining the operations compliance status is relatively straight-forward. Operations are in full compliance if all the Code's provisions are met; they are in substantial compliance if the three criteria discussed in the *Auditor Guidance* documents (good-faith effort, readily correctable, and no immediate or substantial risk) are met; and they are in non-compliance if any of these criteria are not met.

If a deficiency exists at the time of a recertification audit, then the auditor makes his finding in the same manner as during an initial audit. However, if a deficiency occurring at some time during a three-year audit cycle has been corrected prior to a recertification audit, application of the three criteria for a substantial compliance finding becomes a more complex task.

All procedural requirements applicable to initial audits are also applicable to recertification audits. The auditor has 90 days from the end of the field portion of the audit to submit the audit report to ICMI, which will then conduct its Completeness Review to determine if the Detailed Audit Findings Report has fully responded to the Protocol and if the Summary Audit Report accurately portrays the audit findings to Code stakeholders. Once all necessary revisions and/or clarifications have been made, ICMI will post the Summary Audit Report, Auditor Credentials Form and, if necessary, the Corrective Action Plan on its web site.

4. Operational Changes During Three-Year Audit Cycle

It is recognized that operations may revise operating practices, modify cyanide management procedures and/or construct new cyanide facilities during the three-year period between certification audits. The Code does not require these operations to notify ICMI or seek prior approval regarding such changes, or to conduct internal audits for Code compliance between audits. Regardless, certified operations are expected to maintain their full compliance throughout the three-year period until their recertification audit.

During a recertification audit, the auditor should evaluate all changes since the previous audit related to the operation's management of cyanide. It is the responsibility of the operation to demonstrate to the auditor that such changes are in full compliance with the Code. The logical first question for an auditor to ask at a recertification audit is "What changes to the operation's management of cyanide have been made since the last audit was conducted?" The answer to this question will determine whether the audit simply revisits the same issues as in the previous audit to determine if compliance was maintained, or whether it must evaluate new or revised procedures and cyanide facilities for compliance in addition to confirming the

ongoing compliance of the operation's existing procedures and facilities.

In determining whether changes to cyanide management practices constitute full, substantial or non-compliance with the Code, the auditor should use the criteria discussed below in Item 6.

5. Nature of Protocol Responses

The necessary nature of the responses to Verification Protocol questions is the same for the initial audit and all subsequent recertification audits. This is discussed in the *Mining Auditor Guidance* and the *Transportation Auditor Guidance* as follows, and the *Cyanide Production Verification Protocol* includes a similar statement:

"Detailed written responses to each Protocol question are necessary. Since the completed Verification Protocol becomes the Detailed Audit Report, answers to each question must be of sufficient detail to provide a clear justification for the resulting audit finding. A simple "yes," or "no" or "not applicable" answer is not adequate. In response to each question, the auditor must describe the evidence that supports the finding. What evidence demonstrates that the operation is in full compliance? What deficiency results in only substantial compliance? Why is a question "not applicable?" Data to support a finding, such as the cyanide concentration in open waters or discharged to a stream, should also be provided, where applicable."

However, while recertification audits must provide sufficient detail to justify their findings, the nature of the evidence presented in a recertification audit report may differ from that included in the report of the initial audit.

Some of these differences are already identified in Code documentation. For example, the *Mining Auditor Guidance* for question 5 under Standard of Practice 4.8 notes the following:

> "Information regarding the design, construction and quality assurance/quality control of cyanide facilities need only be verified during the initial audit. In subsequent audits, the auditor should reference the initial audit report as evidence that the operation is in compliance with these Standards of Practice. Additional QA/QC information would be necessary in subsequent Verification Audits only if the cyanide facilities have been modified or additional cyanide facilities have been constructed."

In the above case, it is important to distinguish between the need to <u>verify</u> the QA/QC data and the need to fully <u>answer</u> the Protocol question. The Detailed Audit Findings Report of a recertification audit must answer the question in the same comprehensive manner as required in the initial audit, but, for example, the auditor need not independently review the as-built drawings of cyanide facilities to verify that they were certified by a professional engineer. Since conducting a QA/QC program was a one-time event that was done in the past, there is no need to evaluate continuous compliance with this provision (other than to confirm that the QA/QC records have been retained). The auditor can cite the previous audit report's statement that these documents were reviewed as evidence of compliance.

The same concept applies to many other Code provisions where compliance is achieved at a single point in time. Examples include the development of standard operating procedures, contingency plans, training programs, emergency response plans, and decommissioning strategies and financial assurance. However, while the previous audit report can be used as evidence that these have been developed, a recertification audit would still need to evaluate whether these programs have been implemented over the entire three years since the last audit. Further, if these have been changed in any way, the auditor must also determine if the changes conform to the Code.

For example, an initial audit's finding that all secondary containments are adequately sized and competent to prevent seepage may be acceptable evidence that these cyanide facilities were constructed to meet Code requirements. However, an auditor conducting a recertification audit would still need to inspect them to confirm that their integrity remained sound, and should also review the reports of their periodic inspection to confirm that they were adequately maintained throughout the three-year audit period.

Having a complete and detailed write-up of the evidence for a finding, even if the evidence is the finding of a previous audit, is also necessary to provide the basis for the information presented in the Summary Audit Report. Since the Summary Audit Report cannot present any information not found in the Detailed Audit Findings Report, complete descriptions of the basis of each response must be available so they can be summarized for the benefit of the Code's stakeholders viewing the audit results on the ICMI web site.

Code auditors must have access to the previous Detailed Audit Findings Report to facilitate the recertification audit. Therefore, the Verification and Certification section of the Code requires operations to "make all relevant data available to the auditors, including the complete findings of their most recent independent Code Verification Audit."

6. Factors to Consider When Evaluating Compliance During Three-Year Audit Cycle

The most significant difference between initial and recertification audits is that recertification audits evaluate compliance over the entire three years since previous audit. Since an operation is expected to have evidence of its continuous compliance over those three years, auditors will evaluate the significance of deficiencies that may have occurred in the past but which have been corrected by the time of the recertification audit, in determining the compliance status of an operation.

Auditor Guidance:

The *Mining Auditor Guidance* already addresses one type of problem that may occur at certified mining operations; the use of cyanide that has not been produced or transported by companies that have demonstrated their responsible cyanide management. With regard to question 2 under Standard of Practice 1.1, the *Mining Auditor Guidance* states the following:

"It is possible that during the three-year period between certification audits, a certified gold mining operation's supply of cyanide manufactured by a certified producer may be disrupted. The mine is not expected to cease operations if it cannot immediately contract with another certified cyanide producer (or one that has otherwise demonstrated its responsible management of cyanide as described below in questions 3 and 4), nor is it necessarily in non-compliance with the Code. In such a case, the auditor's finding depends on the nature of the disruption and the mine's response. The auditor should consider the following factors when determining whether the gold mining operation was in full, substantial or non-compliance with Standards of Practice 1.1 during the preceding three-year audit cycle:

- What caused the disruption in the supply from the certified producer?
- How did the mine operator respond when its certified supply was disrupted?
- Did the mine operator re-establish a certified cyanide supply as soon as reasonably practical?

In general, full or substantial compliance could be indicated when a) the disruption was due to forces beyond the mine's control, b) the mine made a good-faith effort to purchase cyanide from another certified supplier (or one that has otherwise demonstrated its responsible management of cyanide as described below in questions 3 and 4), but was unable to due so, and/or c) the mine re-established its certified supply in a reasonable period of time. Substantial or non-compliance may result when a) the mine elected to use a non-certified producer due to the higher cost of certified cyanide production, b) the mine used up a large stockpile of certified cyanide before it sought an alternate certified supply, and was then forced to use non-certified vendors because it had not made arrangements to receive certified cyanide in a timely manner, and/or c) when the mine continued to use a non-certified producer for a prolonged period even though a certified producer was available. The auditor's decision is highly dependent on site-specific circumstances, and should be well supported in the Detailed Audit Findings Report and Summary Audit Report. Mining operations that experience such disruptions should document their circumstances and responses to provide the auditor with a basis for his finding."

The *Mining Auditor Guidance* for question 2 under Standard of Practice 2.2 includes similar language with regard to the non-certified transport of cyanide to a certified mine. Pursuant to Item 6 of the Instructions for completing the *Signatory Application Form*, certified gold mines are required to notify ICMI of the use of "non-certified cyanide," and an auditor conducting a recertification audit should inquire if the operation has made any such notifications during the current audit cycle.

Cause, Duration and Response:

The conceptual basis for the auditor's finding with respect to the use of non-certified cyanide can be generally applied to any deficiency identified during a recertification audit; the auditor's finding and resulting compliance determination will primarily depend on the cause and duration of the problem and the nature of the operation's response. However, applying these seemingly straight-forward criteria to the numerous potential deficiencies that may be identified during a recertification audit may not be as simple a matter as evaluating the use of non-certified cyanide.

Because an operation manages the cyanide at its site, it may appear that few deficiencies could be the result of forces beyond the operation's control. However, cyanide exposures or releases directly attributable to worker error can be considered as analogous to being beyond the operation's control as long as the operation took all required measures from a programmatic perspective.

For example, if an operation had maintained its standard operating procedures and task training programs in full compliance with the Code, then a release caused by a worker who failed to follow proper procedures could still result in a finding of full compliance as long as the operation had a rapid and effective response to the incident. A release or exposure that results from a pipe rupture or other equipment failure may be viewed similarly if the operation had conducted the required QA/QC or fit-for-service programs, and had implemented procedures for spill prevention and containment, inspection and preventive maintenance that fully complied with the Code.

However, if these same releases and exposures occurred but the underlying management systems had broken down (e.g., task training not documented, inspections or preventive maintenance not conducted), then their prevention was within the operation's control and was a result, at least in part, of deficiencies in the operation's cyanide management systems. An operation could still be found in full compliance if its response to the deficiency was appropriate; that is, the cause of the deficiency was identified and corrected, and in the judgment of the auditor, sufficient time had passed to demonstrate that the corrective measures are effective in preventing a reoccurrence of the situation. Alternately, an auditor could find the operation in substantial compliance if its response did not fully achieve these goals, or even in non-compliance if the operation did not make a good-faith effort to return to full compliance, the existing deficiency could not be corrected within one year, or the situation still presented an immediate or substantial risk to health and the environment.

The duration of the deficiency may also have direct implications on the resulting audit finding. While situations that present significant risks to workers, communities and the environment obviously require as immediate a response and correction as practical, operations are expected to take prompt action to remedy all deficiencies regardless of the risk they present, in order to demonstrate the operation's good faith efforts to comply with the Code. It therefore is possible for a relatively minor deficiency such as failure to maintain required documentation to result in a finding of substantial or even non-compliance if allowed to go on for an unreasonably long period of time, while a full compliance finding could result from a more serious problem that is corrected immediately.

Regardless of how diligently an operation oversees its cyanide management program, problems may arise due to equipment failures, human error and environmental conditions. Therefore, a rapid and effective response is required in all cases for an operation to be found in full compliance. This should include a determination of the cause of the deficiency, the implementation of measures to prevent its reoccurrence, and follow-up evaluations as needed to ensure that the remedy remains effective.

The existence of a deficiency at some time during the three-year audit cycle does not preclude a finding of full compliance, particularly when the deficiency was quickly corrected, measures were taken to prevent its reoccurrence, and sufficient time has passed to demonstrate that the operation has regained control of the situation. However, it is incumbent on the operation to make the auditor aware of the circumstance that caused the deficiency, as well as the measures taken in response to the deficiency, to facilitate the audit process and provide the necessary support for the audit findings.

Isolated Incident versus Programmatic Failure:

Deficiencies can be separated into those that are isolated incidents and those that represent programmatic failures. Isolated incidents can include anything from a single missing monthly inspection form from three years of inspections to an upset in a cyanide destruction system that causes a discharge of tailings in excess of 50 mg/l WAD cyanide to a tailings impoundment. If these situations are quickly remedied, measures are taken to prevent their reoccurrence, and the operation has demonstrated that it can maintain compliance, these situations may be found in full compliance. However, programmatic failures such as not having inspection forms for one of the three years being audited or not being able to re-establish the discharge within Code limits for several days, could result in a finding of substantial or even non-compliance if the operation did not make a good-faith effort to comply with the Code's provisions.

Ongoing Compliance Efforts:

An operation's efforts to maintain its full compliance status are indicative of its commitment to manage cyanide responsibly, and may therefore provide context with respect to the deficiency. Assuming that the deficiency was readily and appropriately corrected, an operation that periodically audits or reviews its Code compliance during the three-year audit cycle is more likely to be viewed as fully compliant than one that evaluates its compliance only during its triennial certification audit. Although not required by the Code, operations that conduct their own internal or third-party audits or program reviews demonstrate to their workforce that responsible cyanide management is an integral part of operations rather than something that needs attention only every three years. This focus can enhance worker acceptance and Code compliance. These audits or reviews can

also identify potential problems before they occur and prevent a slow, incremental deterioration of the operation's cyanide management programs that may otherwise go unnoticed until an incident or accident occurs. As a result, the operation may maintain full compliance with the Code rather than falling into substantial compliance. It should eliminate the need for a major compliance effort immediately prior to the recertification audit and create a record of continuous compliance, which then provides context to any isolated deficiencies that may be observed during the audit. Most importantly, periodic audits during the three-year audit cycles help meet the Code's ultimate goal of enhanced protection of workers, communities and the environment.

How a deficiency was identified may also be a legitimate factor in evaluating an operation's compliance status during a recertification audit. A finding of full or substantial compliance is more easily supported if an operation identifies and addresses a problem as part of its standard practices before it caused or became a significant cyanide incident or was identified during a regulatory inspection. In this regard, periodic audits or program reviews, along with effective inspection and preventive maintenance programs, show that an operation actively seeks to ensure its continuous compliance.

Other Factors:

As noted in the Signatory Application Form, a signatory's certified operations are required to notify ICMI of any cyanide exposure, release and/or impact that is considered to constitute a "significant cyanide incident." While the specific cause and duration of the incident, as well as the operation's response, are critical factors in determining the operation's compliance status, a secondary consideration is whether the required notice was provided to ICMI. Compliance with the notification provision shows that the operation is focused on its responsibilities under the Code and the identification of out-of-compliance situations, while the lack of the necessary notification suggests that Code compliance is not a high priority for the operation. Therefore, the auditor should inquire whether an operation being audited for recertification has submitted any "significant cyanide incident" notifications to ICMI during the current audit cycle.

Another factor for the auditor's consideration is the point in the three-year audit cycle in which the deficiency occurred. A finding of full compliance is more easily justified when a deficiency which occurred early in the audit cycle has not reoccurred, because it suggests that the operation's response has effectively addressed the cause of the deficiency. However, if the same problem had occurred just prior to the recertification audit, the adequacy of the response may be less clear, and a finding of substantial compliance may be more appropriate to allow the operation to demonstrate its control of the situation.

7. Findings and Compliance Status

Making a finding with respect to a deficiency that exists at the time of a recertification audit is no different than evaluating compliance during an initial audit. The challenge that auditors face in recertification audits involves making findings and determining the compliance status of an operation that has experienced a deficiency in the past but has corrected it prior to its recertification audit. Given the number of site and issue-specific variables involved with determining an operation's compliance status in such a situation, it is not possible to prejudge the numerous possible circumstances to create a workable decision matrix or flow chart that could be used to generate appropriate and consistent findings at all operations. Auditors must use their professional judgment to make the required determinations based on the factors discussed above, as well as other site-specific circumstances that bear on how well an operation has lived up to its commitments.

Once a deficiency has been corrected, a finding of substantial compliance loses its significance because there is no need for a Corrective Action Plan. Therefore, an operation that has corrected a deficiency and has had sufficient time to demonstrate that its remedy is effective, would typically be found in full compliance and be fully certified.

However, if its response to a past deficiency was not complete or effective, or the deficiency was sufficiently recent that the auditor cannot be certain of its effectiveness, a finding of substantial compliance should be made and the operation should be conditionally certified, subject to implementation of a Corrective Action Plan. To be found in substantial compliance, the operation must have made a good-faith effort to comply with the Code, the deficiency must be correctable within one year, and the situation cannot present an immediate or substantial risk to health or the environment. If any of these three criteria are not met, the operation must be found in non-compliance and it cannot be recertified.