The CODE

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

3rd Quarter 2017 Edition

What's Inside

Welcome to the 3rd Quarter 2017 edition of *The Code*.

ICMI Seeks Comments on Use of Colorant Dyes in High-Strength Cyanide Solutions at Mining Operations

The International Cyanide Management Institute (ICMI) is seeking stakeholder comment on a proposed change to the International Cyanide Management Code program that would require mining operations to use colorant dyes as an aid in visually identifying cyanide releases.

Background

Many chemical manufacturers add colorants, odoriferants and other indicators to dangerous chemicals that do not possess an obvious identifying characteristic. The purpose is to provide a quick and distinctive way for users to identify these substances.

Although the Cyanide Code requires many measures to manage and control cyanide solutions, including piping and tank labeling, there are none to clearly identify high concentration cyanide outside of proper containment.

To provide such identification, some gold mining companies and operations since the early 1990's, have introduced a reddish pink colorant into reagent-grade cyanide solutions. Companies and mining operations have provided a number of reasons for using colorant dyes in reagent-grade cyanide solutions including:

- Providing a visual marker that readily identifies reagent-grade cyanide solutions;
- An identifier of reagent-grade cyanide solutions that are in contact with workers;
- Visual indicator to medical responders, assisting in cyanide exposure identification and decontamination;
- An indicator that hydrogen cyanide gas could be present in areas usually not at risk;
- An indicator of the loss of primary and secondary containments; such as leaks around pump seals, flanges and spillages;
- Early warning prior to a major failure;
- Visual clean-up marker for releases; and
- Identification of equipment potentially needing decontamination.

While the total number and locations of jurisdictions in which dyed cyanide is currently used is unknown, some dyes are being used in gold mine operations in Mexico, Canada, Guatemala, Argentina, Ghana, Australia and Papua New

Guinea. Current users indicate that the dyes are low cost, approximately US$2.40 per metric ton of cyanide for the food colorant powder Red Dye #40, at an addition rate of 111 grams dye per metric ton of dry cyanide.

Red Dye #40 is a food colorant being proposed as an additive to help identify reagent-grade cyanide solutions.

Proposal

The incorporation of a dye to reagent-strength cyanide as a requirement of the Cyanide Code offers an opportunity to enhance protection of personnel and the environment. Addition of colorant to reagent-grade cyanide is a proven indicator that has been adopted by a number of companies and operations (both signatory and non-signatory) as a best practice. Use of dye by these companies is believed to enhance product awareness, personnel safety, and to provide a quick indication of cyanide leaks and spillages.

ICMI proposes to require that reagent-strength cyanide solutions be clearly identified at mining operations through use of colorant dye. This requirement would be added through addition of appropriate language to the Cyanide Code's Implementation Guidance, ICMI's Mining Operations Verification Protocol, the Auditor Guidance for Use of the Mining Operations Verification Protocol, and other supporting documentation.

ICMI envisions that this proposed change would become effective July 1, 2019. This would allow companies to make changes to procedures, documentation, train workers and emergency responders about recognition of dyed cyanide solutions, and for changes to procurement contracts with chemical suppliers.

ICMI needs greater information from its stakeholders, particularly mining companies, before a decision can be made about dyes in high-strength cyanide solution. Stakeholders are invited to comment on this proposed requirement for mining operations, including its advisability, any policy or technical issues it raises, as well as any other related issues that ICMI should consider about this proposed change to the program.

Stakeholders wishing to comment are requested to provide written comments to ICMI President Paul Bateman at pbateman@cyanidecode.org no later than October 9, 2017. ICMI will announce its final action on the proposed Cyanide Code expansion after its Board of Directors has considered stakeholder comments.

For more detail about this proposal click here.

Upcoming Training Workshops

November 2, 2017 – Hermosillo, Mexico

ICMI has scheduled a training workshop on the implementation and auditing of the Cyanide Code. This one-day session is for personnel of companies that are signatories to the Cyanide Code or are considering becoming signatories, auditors and prospective auditors, and others with an interest in learning more about Cyanide Code implementation and auditing. ICMI Vice President Eric Schwamberger will provide an overview of the Cyanide Code and its certification process, and discuss Cyanide Code requirements for gold and silver mines and cyanide transporters.

Workshop attendance will be limited, so please register early to ensure your participation.

Click here for additional information and registration materials for the Hermosillo training session.

A training workshop on the implementation and auditing of the International Cyanide Management Code is scheduled to be held at the Hotel Lucerna Hermosillo.

November 16, 2017 – Elko, Nevada, USA

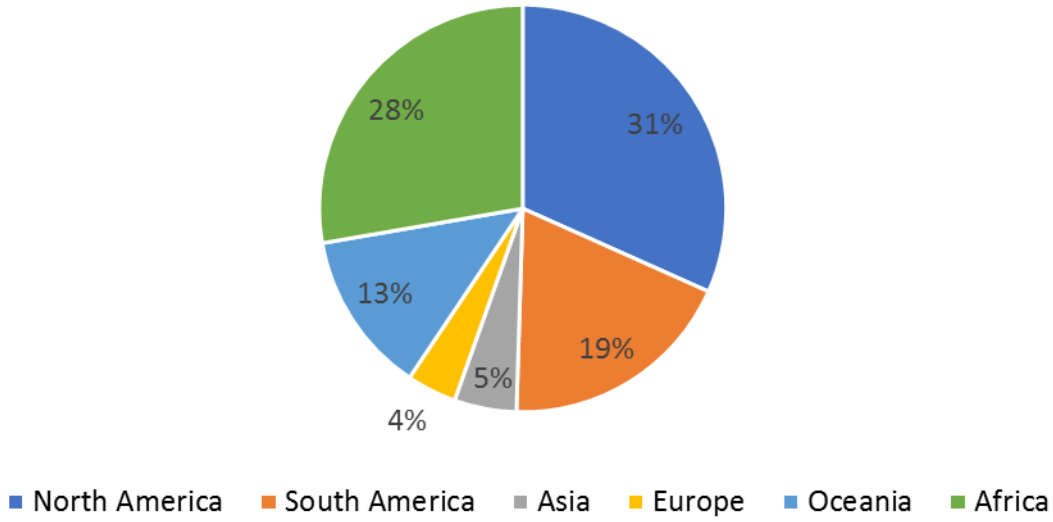
ICMI has scheduled a training workshop on Cyanide Code Implementation and Auditing in Elko, Nevada, USA.

This one-day workshop is intended to assist gold and silver mining companies, cyanide transporters, and other stakeholders in their understanding of the Code's expectations for the responsible management of cyanide and instruct auditors verifying Code compliance on how to evaluate mines and cyanide transporters and make their findings. The training will be conducted in English by ICMI Vice President Dr. Eric Schwamberger.

Click here for additional information and registration materials for the Elko training session.

Growth in Certified Operations Continues, Number of Signatories Steady

The Cyanide Code has continued to experience growth in the number of certified operations in 2017, and the number of signatory companies has remained steady at 193. The Cyanide Code added 18 new mining and transport signatories through September 25, while 10 transport signatories left the program during this period. The distribution of signatories by category is: 47 mining companies, 23 cyanide producers, and 123 transporters.



	Signatories				Certified Operations			
	Mine	Producer	Transporter	Total	Mine	Producer	Transporter	Total
January 1, 2006	10	4	1	15	0	0	0	0
January 1, 2007	15	7	5	27	2	5	3	10
January 1, 2008	14	9	8	31	18	8	6	32
January 1, 2009	19	12	12	43	37	11	9	57
January 1, 2010	21	12	25	58	63	13	14	90
January 1, 2011	29	14	46	89	76	15	41	132
January 1, 2012	32	14	61	107	85	17	60	162
January 1, 2013	36	14	72	122	93	18	68	179
January 1, 2014	36	16	98	150	97	21	92	210
January 1, 2015	41	21	109	171	93	28	110	231
January 1, 2016	43	22	114	179	97	28	121	246
January 1, 2017	46	22	128	196	102	28	139	269
September 25, 2017	47	23	125	195	101	30	147	278

As of August 31, 2017, 278 of the 340 participating operations have been certified in compliance with the Cyanide Code, consisting of 101 gold mines, 30 cyanide production facilities and 146 cyanide transporters; 177 of these (78 mines, 21 cyanide producers, 78 cyanide transporters) have been certified more than once. From January 1 through September 25, 2017, 19 operations (2 mines, 3 Cyanide Producers, 14 cyanide transporters) have been certified for the first time, and an additional 50 (16 mines, 13 cyanide production facility, 21 transporters) have been re-certified. This compares with totals of 31 initial certifications and 49 re-certifications during 2016.