#### The Global Reporting Initiative and Implications for the Uranium Recovery Industry - 11608

Rodney L. Grebb, Michelle. R. Rehmann HER Creative Solutions, LLC, Westminster, Colorado

#### ABSTRACT

Overcoming the legacy of uranium extraction requires new approaches to managing risk and building trust. As society moves to a new era in financial constraints, environmental concerns, resource conservation, and public and political pressure for transparency in corporate and governmental policies and actions, adaptation of sustainable development practices and policies that differentiate those organizations which subscribe to sustainable practices from uranium recovery legacy issues is imperative to the industry. Sustainable practices are determinable and measurable. Most of these practices are part of normal business risk management. Sustainable development reporting leverages a corporation's policies by measuring and reporting results of a company's activities in an atmosphere of continuous learning and adaptation, so that stakeholders are receiving full and open communication.

This paper presents the elements of Sustainable Development Reporting, or sometimes referred to as Corporate Social Responsibility policies, and it's relevance to the uranium recovery industry under the framework of the Global Reporting Initiative (GRI). The GRI framework provides uranium recovery companies, of any size or tenure, with guidelines that are supported by internationally recognized sustainable development organizations, and major mining interests. The GRI framework has profound implications for the development of sustainable uranium recovery operations for not only major mining interests, but from grassroots exploration through emerging development and production companies. The GRI framework is a vehicle that can distinguish the industry from legacy issues, and grant the companies that adopt these practices with the social license required for future operations.

#### INTRODUCTION

The history of uranium recovery is marked by controversial unsustainable recovery practices fostered from geopolitical concerns stemming from the nuclear weapons build-up starting in the 1940's. Uranium was valued for national defense interests. Uranium recovery was poorly regulated and environmental and human health consequences were not understood. However, uranium recovery was deemed necessary by the public to meet national defense interests. As public sentiment focused on environmental protection in the 1970's and uranium was increasingly being used for power production, the uranium industry and governments began to clean up sites and institute practices for sustainable uranium production. However, this transition was largely unnoticed by the public since the uranium market collapsed in the early 1980's due to reduced demand for defense purposes and the public shelf imposed moratorium on new nuclear reactors for energy production. Uranium stockpiles were sufficient to supply reactor needs and highly enriched uranium was available from weapon supplies as nuclear weapon inventories were reduced. The uranium recovery industry largely languished since the early 1980's, with the exception of France's progressive nuclear energy program. In the United States, the largest user of nuclear energy, only one of over twenty uranium mills continued to operate, along with several newly developed In-Situ Recovery operations. Corporations and governments spent billions of dollars to clean-up and decommission these sites. These clean ups exposed companies to large unaccounted liabilities, lawsuits for damages, and claims of exposures that affected the health of communities. Many companies went into bankruptcy leaving decommissioning liabilities to public utilities that had contracted for uranium supplies

with the bankrupt company. Companies that held uranium assets could not attract investment dollars and sold or abandoned uranium resource holdings.

Since the early turn of the 21<sup>st</sup> century, a resurgence of uranium recovery activity is spurred by the renaissance of the nuclear power industry. Globally, new reactor builds are underway increasing the demand for uranium fuel. However, new uranium recovery operations are hamstrung by public perceptions of the legacy of uranium recovery. Investors are skeptical of the ability for uranium recovery operators to overcome this legacy to develop a stable market, secure public trust, and overcome potential environmental liabilities. Since 2008 global economic conditions have soured financial markets and investment funds in long-term, high capital projects are difficult to attract.

However, the nuclear renaissance is continuing with aggressive reactor builds throughout the globe and in particular India and China. The global demand for uranium fuel will increase and current uranium prices have risen to sustainable levels to support many uranium recovery operations. Current uranium recovery practices have implemented controls and engineering solutions to improve human health and environmental protection. Uranium recovery operations in the United States are tightly regulated by multiple State and Federal agencies. Recently, the U.S. Nuclear Regulatory Commission (NRC) adopted rules to reduce the potential for the development of legacy sites. These rules, as applied to uranium recovery operations, primarily address which financial instruments are acceptable for making sure that the required decommissioning funds for a uranium recovery operation would be available and survive bankruptcy proceedings should a company claim bankruptcy. The new rules also broaden the financial responsibility of parent or holding companies of a bankrupt uranium recovery operation. The NRC promulgated these rules primarily to address public concerns that new uranium recovery operations would become legacy sites.

Given this environment for the uranium recovery industry to overcome legacy practices, comply with duplicative heavy regulation, overcome public mistrust, and be able to attract investment dollars in difficult economic and financial times, uranium recovery companies must adopt practices that differentiate them from the legacy of uranium recovery, and align themselves with sustainable policies that are embraced by modern major mining companies. Sustainable practices are determinable and measurable. Most of these practices are part of normal business risk management. Sustainable development reporting leverages a corporation's policies by measuring and reporting results of activities in an atmosphere of continuous learning and adaptation.

# SUSTAINABLE DEVELOPMENT

Sustainable development is a pattern of resource use that aims to meet current human needs while preserving the environment so that these needs can be met not only in the present, but also for future generations. The term was used by the Brundtland Commission, which coined what has become the most often-quoted definition of sustainable development as; "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Importantly, sustainable development ties together concern for the carrying capacity of natural systems with the social challenges facing humanity. As early as the 1970s "sustainability" was employed to describe an economy in equilibrium with basic ecological support systems. Sustainable development is not what many understand as "green development". Green development is not possible, as it considers only environmental sustainability, without consideration of economics and the community, just as economic

development is not sustainable without consideration of communities or the environment. This is apparent from the legacy of uranium recovery.

The need for sustainability has become a driver for many industries and project development. Sustainable development can be conceptually broken into three pillars, or constituent parts:

- Environment,
- Economic , and
- Sociopolitical

The third pillar in classic sustainable development is community. However, some feel that governance is so important, especially for the uranium recovery industry, that governance should be considered a fourth pillar or a part of community. Here we have incorporated governance by changing what has been called "community" into sociopolitical. Good governance and proper regulation is definitely an issue in developing countries. Many mining companies developing uranium recovery projects in countries that lack effective regulation work with the government to develop proper regulation. Companies engage in this effort to manage risk and achieve the social license to develop the project. However, in a country like the United States, some of our regulations and laws are actually discouraging sustainable development. This is manifested by overreaching laws and regulations that are not relevant to a particular project but attempt to associate all future production to legacy practices. Prohibitive regulation of this type ignores the global principle to sustainability in any industry which is continuous learning and adaptive management. This approach to regulation limits society's current and future needs to uranium resources and is therefore unsustainable.

The schematic in Figure 1 provides a picture of the seven questions to sustainability. Engagement is at the center of sustainability and this is closely connected to human well-being and ecological well-being. Economics and governance are the other components of questions, all against the backdrop of continuous learning and adaptive management.



Fig. 1 – The Seven Questions to Sustainability

There is no perfectly sustainable project or system; rather, with balancing of the economic, social and environmental factors, an optimization process allows continuous adjustment to achieve improved performance in all three of the pillars of sustainability. There are some who question whether or not resource recovery can be sustainable, because it removes a resource from nature which will no longer be available for future generations. However, sustainability economists have developed a use of the Seven Questions from which falls a hierarchy of objectives, indicators, and specific metrics for sustainable mine development. This hierarchy is presented below in Figure 2.



Fig. 2 – The Hierarchy of Objectives, Indicators, and Metrics for Sustainable Mining Development.

Simultaneously, the starting point for assessing the degree of progress toward a mining project's sustainability is provided by an "ideal answer" to the initial question. In this way a single, initial motivating question—is the net contribution to sustainability positive or negative over the long term?— cascades into progressively more detailed elements which can be tailored to the project or operation being assessed. The objective of a uranium recovery project should be to leave a net positive contribution to the environment and economics of the society being impacted by the project.

# THE GLOBAL REPORTING INITATIVE

The main goals of sustainability, as applied to the mining and minerals sectors, are to maintain the stream of benefits to society and to do so in a manner that results in a net benefit to society over the life of the mine and the product. Working from this premise, the uranium recovery industry can indeed demonstrate that uranium mining and milling makes a significant contribution to society and sustainable development through implementation of sustainable practices during operation and demonstration of the benefits to society from the product produced. To demonstrate this contribution, companies that embrace sustainable development need a mechanism that is a standard for sustainable development measurement and reporting.

The Global Reporting Initiative (GRI) produces one of the world's most prevalent standards and frameworks for sustainability reporting - also known as ecological footprint reporting, Environmental Social Governance reporting, Triple Bottom Line reporting, and Corporate Social Responsibility reporting. Sustainability reporting is a form of value reporting where an organization publicly communicates their economic, environmental, and social performance. The vision and mission of GRI framework are:

- Vision; Disclosure of economic, environmental, and social performance become as commonplace and comparable as financial reporting, and as important to organizational success.
- Mission; Create conditions for transparent and reliable exchange of sustainability information through the development and continuous improvement of the GRI sustainability reporting framework.

The GRI framework sets out the principles and indicators that organizations, of any size or tenure, can use to measure and report their economic, environmental, and social performance. The scope of the report is based on the size, complexity, and geographic extent of an organization. Many of the activities, core values, and principles of an organization are already aligned with reporting content. Reporting allows an organization to communicate these principles and values, and take credit for the organization's activities.

The cornerstone of the framework is the Sustainability Reporting Guidelines. The third version of the Guidelines – known as the G3 Guidelines - was published in 2006, and is a free public good. Other components of the framework include Sector Supplements (unique indicators for industry sectors) and National Annexes (unique to a region or country). The Mining & Metals Sector Supplement (MMSS) was developed with International Council of Minerals and Mining as co-convener. The content of the MMSS was developed by a multi-stakeholder geographically diverse working group, including: major mining corporations, trade unions, investment institutions, and conservation organizations.

The GRI Reporting Framework contains two (2) parts, Part 1 which generally describes the content of the report, judgment of the report's quality as measured against reporting guidance and principles, and boundary of the report which is the limitations of the report's scope of standard disclosures. Part 2 contains the standard disclosure topics and indicators in the three broad areas of economic, environmental and social indicators of the company's activities. The reporting guidance describes options that an organization can consider when making decisions on what to report on, or what indicators are relevant. Using the G3 guidance and the MMSS, there are 84 possible indicators across economic, environmental and social areas. Guidance is provided for defining report content and setting report boundaries. A sustainability report should have the objective to provide a balanced and reasonable representation of the sustainability performance of an organization – including both positive and negative contributions. This objective leads to transparency and trust building and enables the use of continuous learning and adaptive management to improve or extend best management practices and reduce risk.

# IMPLICATIONS FOR THE URANIUM RECOVERY INDUSTRY

The purpose for implementation of sustainability programs by the uranium recovery industry is to gain value for shareholders, attract investment, and be aligned with modern policies and practices that are transparent, engage stakeholders, and differentiate the industry from legacy issues. Sustainable

development reporting is a growing practice especially in the resource extraction sectors. Most major mining companies have embraced these sustainable principles from the highest level of corporate governance, pushing through their corporate structure to measure and report achievements and shortcomings. These practices have helped organizations to continually improve performance, build stakeholder trust, and distinguish the organization from past practices. Reporting these practices enables these operators to take maximum credit for their actions and build credibility as corporate citizens.

The largest producers of uranium worldwide, AREVA, BHP Billiton, Cameco, and Rio Tinto all have embraced sustainable development practices and principles, are active in promoting sustainable development for their industry, and generate sustainable development reports as an integral part of the business. Further, the Dow Jones Sustainability Index states:

"Increasingly, investors are diversifying their portfolios by investing in companies that set industry-wide best practices with regard to sustainability. Two factors drive this development. First, the concept of corporate sustainability is attractive to investors because it aims to increase long-term shareholder value. Since corporate sustainability performance can now be financially quantified, they (investors) now have an investable corporate sustainability concept. Second, sustainability leaders are increasingly expected to show superior performance and favorable risk/return profiles. A growing number of investors are convinced that sustainability is a catalyst for enlightened and disciplined management, and, thus, a crucial success factor."

Cameco in their 2009 Sustainable Development Report stated:

"We are confident in the business case for sustainable development. As we see it, sustainable development is a management philosophy and process that helps us: build trust, credibility and corporate reputation; gain and protect our license to operate and grow; attract and retain employees; manage risk; and direct innovation and productivity to build competitive advantage. Our ability to move forward on these objectives determines our ultimate success as a company. Sustainable development simply makes good business sense. We have begun to better understand our impact on the world, to think differently, to behave differently, and to come up with innovative courses of action. So have our competitors and many other companies. In fact, we are all learning from each other and pushing each other to improve when it comes to sustainable development and stakeholder engagement."

The implications of sustainable development reporting for the uranium recovery industry are to gain the social license to operate, affect the need for regulation, attract investment, and provide for a stable and talented workforce. The alternatives to sustainable development are to continue to litigate and increase risk and costs to develop projects. Companies in the uranium recovery industry that embrace sustainable principles and sustainability reporting are increasingly building trust with stakeholders, attracting investment, and distinguishing themselves as leaders in the industry.