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From: Katie Sweeney, National Mining Association (202/463-2627)

RE: NMA Comments on Incorporation of Risk Management
 Concepts in Regulatory Programs Docket ID NRC-2011-0269

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January 8, 2012

Cindy Bladey
Chief, Rules, Announcements & Directives
Mail Stop TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**Re: Incorporation of Risk Management Concepts in Regulatory Programs
Docket ID NRC-2011-0269**

Dear Ms. Bladey:

The National Mining Association (NMA) submits these comments in response to the Nuclear Regulatory Commission's (NRC) request for comment regarding the development of a strategic vision to better incorporate risk management concepts in to its regulatory programs. 76 Fed. Reg. 72220 (Nov. 22, 2011). NMA strongly supports NRC's efforts to fully realize its goal to move toward more risk-informed, performance based approaches in its regulatory programs.

NMA represents producers of most of America's coal, metals, industrial and agricultural minerals; manufacturers of mining and mineral processing machinery and supplies; transporters; financial and engineering firms; and other businesses related to coal and hardrock mining. These comments are submitted by NMA on behalf of its member companies who are current or prospective NRC licensees engaged in the business of uranium recovery (UR).

Risk-Informed Performance-based Regulatory Approaches Are Good Public Policy

Risk-informed performance based regulation is good public policy as it promotes efficient use of already limited agency, licensee and other stakeholder resources. Because it requires a focus on higher risk Atomic Energy Act licensed activities, a risk-informed performance-based approach results in a more efficient and effective regulatory program that optimizes protections of public health, safety and the environment.

Risk-informed, performance based approaches have the potential to better educate and inform the public about risks associated with activities regulated by NRC. It is not the

role of NRC to promote nuclear energy, however, the agency does have a duty to maintain a defensible regulatory oversight program that reassures the public regarding the protection of public health, safety and the environment. A regulatory oversight program that accurately portrays potential risks to the public can assist in clearing up misperceptions about potential risks related to radiation from AEA-licensed activities. NMA endorses the comments of the Wyoming Mining Association, which reference many scientific studies related to the potential for low-level, low-risk exposures from AEA-licensed activities generally, but also specifically illuminate the low risk nature of UR activities.

NMA has participated in and supported NRC's efforts to become more risk-informed, performance-based since NRC, in response to the 1993 Government Performance and Results Act (GPRA), developed a strategic plan in which the agency committed to move toward risk-informed, performance-based regulation. As a result of that strategic plan, when NRC proposes a new regulation, alternatives considered must include a performance-based alternative that enhances the focus on the effectiveness of the agency's regulatory programs. Over the years, NRC has continued to advance the risk-informed performance based regulation concept. See e.g., Staff Requirements - COMSECY-96-061 - *Risk Informed, Performance-Based Regulation* (DSI-12), April 15, 1997; *Use of Probabilistic Risk Assessment Methods in Nuclear Regulatory Activities; Final Policy Statement*, 60 Fed. Reg. 42622 (August 16, 1995); SECY-98-144, *White Paper on Risk-informed and Performance Based Regulation* (June 22, 1998)

NMA strongly supports NRC's establishment of the task force for "Assessment of Options for More Holistic Risk-Informed, Performance-Based Regulatory Approach" and the current effort to gather input for the task force to consider in its work. NMA believes there are many opportunities to identify and prioritize those areas that are either now, or can be made, with minimal additional effort/resources, amendable to a risk-informed, performance-based approach. We appreciate that this effort is not limited just to regulations but applies more broadly to regulatory programs. The risk-informed, performance-based approach should apply to licensing actions, development of policy and identification of inspection/enforcement priorities. NMA would be happy to provide a more detailed briefing to the Task Force or the Commission on our views.

Application of Risk Informed Performance Based Approach in the Uranium Recovery Arena

The Atomic Energy Act of 1954, as amended (AEA) mandates consideration of risk for management of byproduct material such as is produced by UR facilities. Thus, Section 84(a)(1) of the Act specifically states management of 11e.(2) byproduct material, and by implication, UR operations, is to be carried out in such a manner as the Commission deems appropriate to protect the public health and safety and the environment from radiological and non-radiological hazards associated with the processing and with the possession and transfer of such material **taking into account the risk to the public health, safety, and the environment**, with due consideration of the economic costs and such other factors as the Commission determines to be appropriate.

Additionally risk-informed, performance-based regulatory oversight approaches are well suited to the low risk nature of UR activities. If risk-informed, performance-based regulation is appropriate for licensed nuclear reactors, which pose the highest potential risk to public health, safety, and the environment in the nuclear fuel cycle, it is even more appropriate for the licensed fuel cycle facilities posing the lowest potential risks (i.e., conventional and ISR UR facilities). As explained in NUREG/CR-6733:

Regulatory programs that are RIPB [risk-informed, performance-based] consider, among other factors, the degree of risk associated with specific operations in defining the nature of the applicable regulatory requirements. In general, operations that pose a high risk to public health and safety or the environment would be subject to more stringent regulatory requirements. Conversely, those operations that pose a low risk to public health and safety or the environment would be regulated less stringently. Risk considerations may also help determine which aspects of a facility should be regulated. RIPB regulatory programs typically identify performance measures as the basis for regulatory requirements.

The Commission itself has acknowledged the low risk nature of ISR facilities in NUREG-1910, the *Generic Environmental Impact Statement for In Situ Uranium Milling Facilities*. This programmatic assessment of ISR operations provides, in significant detail, an analysis of the potential impacts/risks associated with ISR facilities and concludes most are considered small.

- **Early Success Story: Performance Based Licenses for UR Licensees**

Performance-based licenses were first raised in the context of UR in 1993 when the impending closure of the NRC uranium recovery field office (URFO) in Denver, Colorado led to the formation of a Transition Oversight Team (TOT) at NRC headquarters. The TOT met with the uranium industry numerous times to discuss transfer of URFO's responsibilities to NRC headquarters. Many of these discussions focused on ways to reduce regulatory burdens and streamline licensing activities. Performance-based licenses, modeled after 10 CFR 50.59, were discussed as an appropriate way to assist in achieving those goals.

Through the TOT process, and NRC's increased emphasis on risk-informed, performance-based approaches, NRC and industry developed generic performance based license conditions that, while allowing licensees more flexibility to make certain changes at their facilities without license amendments, still maintained in place necessary regulatory controls (i.e., mandatory license conditions) to protect public health and safety and the environment. Performance-based licensing has become the norm as most UR facilities moved to licenses that incorporate performance-based license conditions. This accepted practice is explicitly referenced in NUREG-1569, *Standard Review Plan for In Situ Leach Uranium Extraction License Applications*.

The Commission has noted the benefits of the performance-based licensing in several instances. For example, SECY-98-144, indicates:

A performance-based requirement relies upon measurable (or calculable) outcomes (i.e., performance results) to be met, but provides more flexibility to the licensee as to the means of meeting those outcomes. A performance-based regulatory approach is one that establishes performance and results as the primary basis for regulatory decision-making, and incorporates the following attributes: (1) measurable (or calculable) parameters (i.e., direct measurement of the physical parameter of interest or of related parameters that can be used to calculate the parameter of interest) exist to monitor system, including licensee, performance against clearly defined, objective criteria, (2) licensees have flexibility to determine how to meet the established performance criteria in ways that will encourage and reward improved outcomes; and (3) a framework exists in which the failure to meet a performance criterion, while undesirable, will not in and of itself constitute or result in an immediate safety concern. The measurable (or calculable) parameters may be included in the regulation itself or in formal license conditions, including reference to regulatory guidance adopted by the licensee. *This regulatory approach is not new to the NRC.*

See SECY-98-144, *White Paper on Risk-Informed and Performance-Based Regulation* (June 22, 1998) (emphasis added).

The Commission further recognized the value of performance-based licensing in the Hydro Resources, Inc. administrative litigation:

The use of this licensing concept in HRI's license is consistent with well-publicized Commission direction to the Staff to employ risk informed and performance based concepts in NRC regulatory activities. It is sensible regulatory policy to allow licensees on their own to make minor adjustments and modifications that have little safety or environmental impact. To require license amendments for all changes, no matter how inconsequential, would burden both licensees and NRC, to no good end.... It [performance based licensing] is simply an additional means through which the NRC can decrease the administrative burden of regulation while ensuring the continued protection of public health and safety.

See In the Matter of Hydro Resources, Inc., CLI-99-22

Furthermore, performance-based licensing is entirely consistent with the performance-oriented structure of Appendix A's Criteria. As the preamble thereto suggests, since "flexibility is provided in the criteria to allow achieving an optimum... program on a site-specific basis" licensees can propose alternatives to any regulatory requirement that take into account local or regional geology, topography, hydrology, and meteorology. See 10 CFR Part 40, Appendix A (Preamble) (2011) (emphasis added).

- **Recent Success Story: RIS on Equivalent Feed**

A recent example of NRC using a risk-informed, performance-based approach in the UR area relates to NRC's draft Regulatory Issue Summary (RIS) on receipt and processing, without a license amendment, of equivalent feed at NRC and Agreement State-licensed UR sites, either conventional, heap leach, or ISR. The draft RIS is risk-informed regulation at its best. In response to queries from UR licensees and uranium water treatment suppliers/operators, NRC staff took a second look at the applicability of earlier RIS, RIS 00-23 *Recent Changes to Uranium Recovery Policy*, to resin media. Under RIS 00-23, uranium loaded ion-exchange resin is treated as an alternative feed that could not be processed at a UR facility without a license amendment. In the draft RIS, NRC staff recognize that treating uranium loaded resin as alternate feed is not a risk-informed approach since the resin is essentially the same in physical form and radiological content as the source material that is normally processed at a UR facility. Thus, the draft RIS logically designates such resins as "equivalent feed." As such, uranium loaded resins can be processed at a licensed UR facility without a license amendment so long as the uranium annual production limits are not exceeded, the currently licensed process operation does not require changes, and there are no anomalous constituents in the equivalent feed. NMA has expressed strong support for this common-sense, risk-informed approach.

- **Issues that Would Benefit from a Risk-informed, Performance-based Approach**

- **Remediation/Restoration of UR Facilities**

NRC should commit to a more risk-informed, performance-based approach to remediation and restoration at both ISR and conventional UR facilities. Too often, the cleanup focus is on meeting numerical criteria for individual constituents rather than ensuring that cleanup is sufficient to protect public health, safety and the environment. For example, at ISR facilities, the emphasis appears to be on getting constituents back to baseline even when for other reasons, such as natural conditions, would prevent the water from being a source of drinking water or used for other purposes. Similarly, at mill tailing facilities, that are deeded to the federal government post-reclamation, it makes no sense to needlessly clean to drinking water standards when no completion of water wells would even be permitted in those areas. The same arguments apply for cleanup of soils in areas where the background levels are is high due to naturally occurring radioactivity.

- **Application of Timeliness in Decommissioning Rule to ISR Wellfields**

There is disagreement between industry and NRC regarding the applicability of 10 CFR 40.42 to ISR facilities, especially as restoration water is considered 11e.2 byproduct material. But even beyond that legal distinction, application of the timeliness rule does not make sense given the requirement to complete decommissioning within 24 months. While the regulations authorize the Commission to grant a request to delay or postpone initiation of the decommissioning process, it is not a risk-informed, performance-based

approach since the 24 months is generally recognized as insufficient for ISR facilities. As recognized in NRC's latest decommissioning report: "for ISR facilities with well-field restoration, 24 months is usually insufficient, because remediation of groundwater contamination is more time-consuming than remediation of surface contamination." SECY-11-0159, Status of the Decommissioning Program – 2011 Annual Report, Nov. 10, 2011. If the 24 months is insufficient for ISRs, the timeframe should either not apply or should be amended. Licensees should not be required to go through a submission for an alternate schedule as a substitute for a risk-informed, performance based regulation.

- o Health Physics Issues Raised at April 2011 Meeting

On April 11, 2011, a meeting between representatives of the UR industry and NRC staff was held to discuss certain health physics issues that have emerged during the review of license applications for new uranium recovery facilities and expansions. All Issues raised in the April 2011 Health Physics meeting are examples of issues that could use a risk informed approach. See attached meeting summary for additional details but the genesis of every item on the meeting agenda was fundamental disagreement between NRC staff and industry over risk. The issues discussed had been coming up repeatedly through the request for additional information (RAI) process and in negotiation of draft license conditions with applicants and as compliance matters with the licensees. These issues were ones that industry believed were previously settled, either by guidance, policy or past agency practice but were now being "reopened" by NRC staff without any showing that reopening was necessitated by potential or actual risk.

- o NHPA Section 106 Process

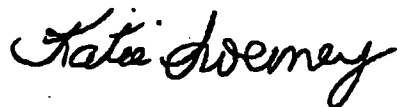
The UR industry recognizes that NRC has obligations under the Section 106 of the National Historic Preservation Act (NHPA), in that NRC must attempt to identify historic properties within the area of potential effects for proposed UR facilities. As the Advisory Council on Historic Preservation (ACHP) regulations implementing NHPA section 106 explain, the agency needs to make a "reasonable and good faith," as opposed to exhaustive, effort to identify Indian tribes to be consulted to determine existence of historic properties. To ensure a risk-informed, and frankly common sense approach to the section 106 process, NRC must not ignore the "reasonable and good faith" clause and engage in exhaustive, expensive and resource intensive consultation efforts.

Conclusion

In conclusion, the NMA strongly supports any NRC effort to risk-informed approach to regulation and makes sense from the public policy perspective by promoting efficient use of resources, streamlining processing and providing much needed flexibility without jeopardizing the environment, public health and safety. We appreciate NRC's recognition that deterministic and prescriptive approaches can limit the flexibility of industry and NRC to respond to lessons learned from operating experience and support

the adoption of improved designs or processes. If you have any questions regarding NMA's comments, please contact me at 202/463-2627.

Sincerely,

A handwritten signature in black ink that reads "Kateri Doemey". The signature is written in a cursive style with a large initial 'K' and a long, sweeping tail on the 'y'.