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FROM: DUE: 08/22/08

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FINAL REPLY:

Senator Jeff Bingaman

TO:

Chairman Klein

FOR SIGNATURE OF :

** PRI **

CRC NO: 08-0433

Chairman Klein

DESC:

Pending License Amendment to Homestake Mining
Company Unraium Mill and Tailing Facility
(EDATS: SECY-2008-0473)

ROUTING:

Borchardt
Virgilio
Mallett
Ash
Ordaz
Cyr/Burns
Collins, RIV
Schmidt, OCA
Bagley, OEDO
Campbell, OEDO

DATE: 08/12/08

ASSIGNED TO:

FSME

CONTACT:

Miller

SPECIAL INSTRUCTIONS OR REMARKS:

Ref. G20080545.

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General Information

Assigned To: FSME

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Other Assignees:

SECY Due Date: 8/26/2008 5:00 PM

Subject: Pending License Amendment to Homestake Mining Company Uranium Mill and Tailing Facility

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Response/Package: NONE

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OCM Concurrence: NO

OCA Concurrence: NO

Special Instructions: Ref. G20080545.

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Originator Name: Senator Jeff Bingaman

Date of Incoming: 8/8/2008

Originating Organization: Congress

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OFFICE OF THE SECRETARY
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PAPER NUMBER: LTR-08-0433 **LOGGING DATE:** 08/11/2008
ACTION OFFICE: EDO
AUTHOR: SEN Jeff Bingaman
AFFILIATION: CONG
ADDRESSEE: CHRM Dale Klein
SUBJECT: Pending license amendment to the Homestake Mining Company Uranium Mill and tailing facility near Milan, New Mexico
ACTION: Signature of Chairman
DISTRIBUTION: RF, OCA to Ack.
LETTER DATE: 08/08/2008
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DATE DUE: 08/26/2008 **DATE SIGNED:**

EDO --G20080544

United States Senate

August 8, 2008

The Honorable Dale E. Klein
Chairman
United States Nuclear Regulatory Commission
One White Flint North Building
11555 Rockville Pike
Rockville, MD 20852-2738

Dear Dr. Klein:

The attached letter from the Multicultural Alliance for a Safe Environment (MASE) regards the pending license amendment to the Homestake Mining Company Uranium Mill and tailing facility near Milan, New Mexico. The MASE requests a two-year delay in NRC's decision on the amendment authorizing a new 26-acre evaporation pond at the facility.

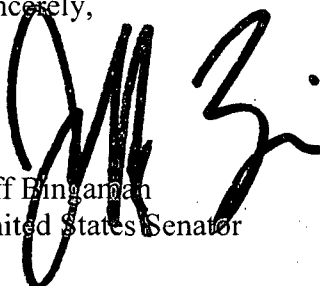
Over the past year, members of the Bluewater Valley Downstream Alliance have brought to my attention their continuing frustration over the ongoing cleanup effort and the lack of federal assistance to mitigate the problems their community is facing. Now the community is concerned that the proposed evaporation pond is undersized and may do little to stop the continuing spread of uranium in the groundwater. The MASE's case against the license amendment is detailed in an attached technical memorandum. Instead of the proposed evaporation pond, the MASE believes NRC should require Homestake to install a groundwater monitoring network to define the extent of the groundwater plume. Deferring the license amendment would also allow other agencies sufficient time to review the remediation system, study the groundwater quality and flow, and initiate critical health studies.

The letter also expresses concern that NRC continues to ignore local expertise about the groundwater contamination and has not worked effectively with other federal, state or tribal agencies and the local community in developing its plans.

In light of the community's strong objections outlined in the attached letter, and the importance of protecting human health and the environment, I respectfully request that you carefully consider MASE's request to defer the pending license amendment and consider instead the proposed groundwater monitoring network.

Thank you for your consideration of my request.

Sincerely,



Jeff Bingaman
United States Senator

MULTICULTURAL ALLIANCE FOR A SAFE ENVIRONMENT (MASE)
P.O. Box 4254, Albuquerque, NM 87196 • 505-262-1862 (office) • 505-262-1864 (fax)

Core Groups:

Bluewater Valley Downstream Alliance
Milan

Dineh Bidz'il Coalition
Navajo Nation

Eastern Navajo Diné Against Uranium Mining (ENDAUM)
Churchrock and Crownpoint

Laguna-Acoma Coalition for a Safe Environment
Acoma and Laguna Pueblos

Post-71 Uranium Workers Committee
Grants

Affiliated Groups:

Amigos Bravos
Taos and Albuquerque

McKinley Community Health Alliance
Gallup

Moquino Mutual Domestic Water Consumers Association
Cebolleta

New Mexico Environmental Justice Working Group
Albuquerque

New Mexico Environmental Law Center
Santa Fe

Office of Peace, Justice and Creation Stewardship
Gallup

Partnership for Earth Spirituality
Albuquerque

Ramah Navajo Community
Ramah

Red Water Pond Road Community Association
Coyote Canyon Chapter

SAGE Council
Albuquerque

Sierra Club Environmental Justice Office
Flagstaff

Southwest Research and Information Center
Albuquerque

Stewards of Creation
Albuquerque and Gallup

July 30, 2008

The Hon. Dale E. Klein, Chairman
U.S. Nuclear Regulatory Commission
c/o Annette L. Vietti-Cook
Secretary of the Commission
Mail Stop O-16G4
Washington, DC 20555-0001

**Re: Homestake Mining Company Uranium Mill,
License No. SUA-1471, Docket No. 40-8903**

Dear Chairman Klein,

The Multicultural Alliance for a Safe Environment (MASE), in support of the Bluewater Valley Downstream Alliance (BVDA) and residents of the Ambrosia Lake-Milan-Grants area of northwestern New Mexico, call on you and the Commission to direct the NRC Staff to delay, for a two-year period, approval of a pending license amendment for the Homestake Mining Company (HMC) Uranium Mill and tailings facility near Milan, N.M.

MASE is a regional alliance of community-based groups and nongovernmental organizations that works to restore and protect the natural and cultural environment, including engaging government and industry to remediate harm from past uranium development. One of MASE's core groups is BVDA, and scores of residents of the Milan-Grants-Acoma region are members of MASE-affiliated organizations.

Your immediate action on this issue is requested because the NRC Staff indicated at a meeting in Grants, N.M., on Tuesday July 15, 2008, that it intends to approve an amendment to License No. SUA-1471, sometime in the next month, that would authorize Homestake to build a significantly undersized evaporation pond that will do little to stop the *continuing spread* of uranium-contaminated groundwater water the Milan city water wells. The Staff's licensing action will not define or stop the down-gradient advance of five separate contaminant plumes, or resolve what has become, after nearly 50 years, a *regional groundwater pollution problem* of massive proportions.

As set forth in the attached technical memorandum, an estimated 1.2 million acre-feet of groundwater — or enough water for the city of Albuquerque for 25 years — in the Ambrosia Lake-Milan area has been contaminated by uranium mining and milling discharges, including those from Homestake, dating back to 1958. Approval of the amendment for a 26-acre pond will not materially improve what is clearly a failed ground-water remediation system at HMC.

Instead, NRC should require Homestake to immediately install a groundwater monitoring network to define the extent of the plumes, and identify and evaluate locations for a much larger wastewater disposal/evaporation operation than now proposed. Postponing approval of the license amendment will also allow other agencies time to conduct critical reviews of the current remediation system, to study regional groundwater quality and flow patterns, and to initiate long-overdue health studies in the communities affected by Homestake's operations.

Residents of Broadview Estates and Murray Acres and other communities south of HMC have suffered for decades from polluted private water wells, diminished property values, and increased health risks. Recently, the Agency for Toxic Substances and Disease Registry recently determined that living near the Homestake tailings is a "public health hazard." Yet NRC has consistently ignored local expertise about the groundwater problem and taken a combative stance toward the community's concerns about its well-being. It's time for NRC to begin immediately working with other federal, state and tribal agencies and the affected communities on a plan that will truly address the site-specific and regional impacts of uranium mill tailings releases.

Sincerely,

[signature by e-mail concurrence]

Carletta Garcia
Laguna-Acoma Coalition For A Safe Environment
Paguete, NM

[signature by e-mail concurrence]

Candace Head-Dylla
Bluewater Valley Downstream Alliance
Milan, NM

[signature by e-mail concurrence]

Hazel James
Dineh Bidziil Coalition
Flagstaff, AZ

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Christine Smith
ENDAUM
Crownpoint, NM

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Linda Evers
Post-71 Uranium Workers Committee
Grants, NM

Chris Shuey, MPH
Southwest Research and Information Center
Albuquerque, NM

[signature by e-mail concurrence]

Robert Tohe
Sierra Club Environmental Justice Office
Flagstaff, AZ

Xc: Senator Jeff Bingaman
Senator Pete Domenici
Representative Tom Udall

TECHNICAL MEMORANDUM IN SUPPORT OF MASE LETTER TO NUCLEAR REGULATORY COMMISSION REQUESTING TWO-YEAR DELAY IN APPROVAL OF LICENSE AMENDMENT FOR HOMESTAKE MINING COMPANY URANIUM MILL, SUA-1471, MILAN, NEW MEXICO

Prepared jointly by

Bluewater Valley Downstream Alliance (BVDA)
New Mexico Environmental Law Center (NMELC)
Southwest Research and Information Center (SRIC)

July 25, 2008

MASE — the Multicultural Alliance for a Safe Environment — requested the above-listed affiliate organizations to review historical and recent documentation on the Homestake Mining Co. (HMC) Uranium Mill to determine if a delay in the Nuclear Regulatory Commission's expected approval of an amendment to SUA-1471 is warranted. We have reviewed HMC documents and application materials, several agency reports (a bibliography of which appears at the end of this memorandum) and public comments on Homestake's plan to build a new 26-acre evaporation pond at the northwest corner of the existing tailings facility in preparing this memorandum. Members of our team also attended and took notes at recent community meetings addressing the Homestake site (including those on July 15, 2008; June 24, 2008, September 18, 2007 and April 25, 2007).

On the basis of the available information, we conclude that a delay in the issuance of the license amendment is warranted to allow federal, state and tribal agencies and the local community to conduct regional and local studies on groundwater quality, groundwater flow systems, and the groundwater correction action program at HMC. A delay would not unduly harm Homestake and would be beneficial for developing a regionwide approach to groundwater restoration in the Ambrosia Lake-Milan area. However, we also conclude that NRC should immediately order Homestake to install a monitor well network that defines the extent of the contaminant plumes that threaten city of Milan water wells, and that such an order can be issued *without* a lengthy license-amendment process.

Reasons for these conclusions follow, beginning with significant problems associated with NRC's oversight of the Homestake groundwater remediation program:

- We calculate that an evaporation pond at least *five times* the size of the proposed EP-3 is needed to treat the 1.15 million gallons per day of contaminated groundwater being pumped from the alluvial and bedrock aquifer down-gradient of the Homestake tailings. A pond or series of ponds even larger than 150 acres may be needed if the flow rates for the injection-pumpback system are increased. Furthermore, the location of a properly sized new evaporation pond should not be over the San Mateo Creek alluvium, as is now proposed for EP-3, even with liners and leak detection systems.

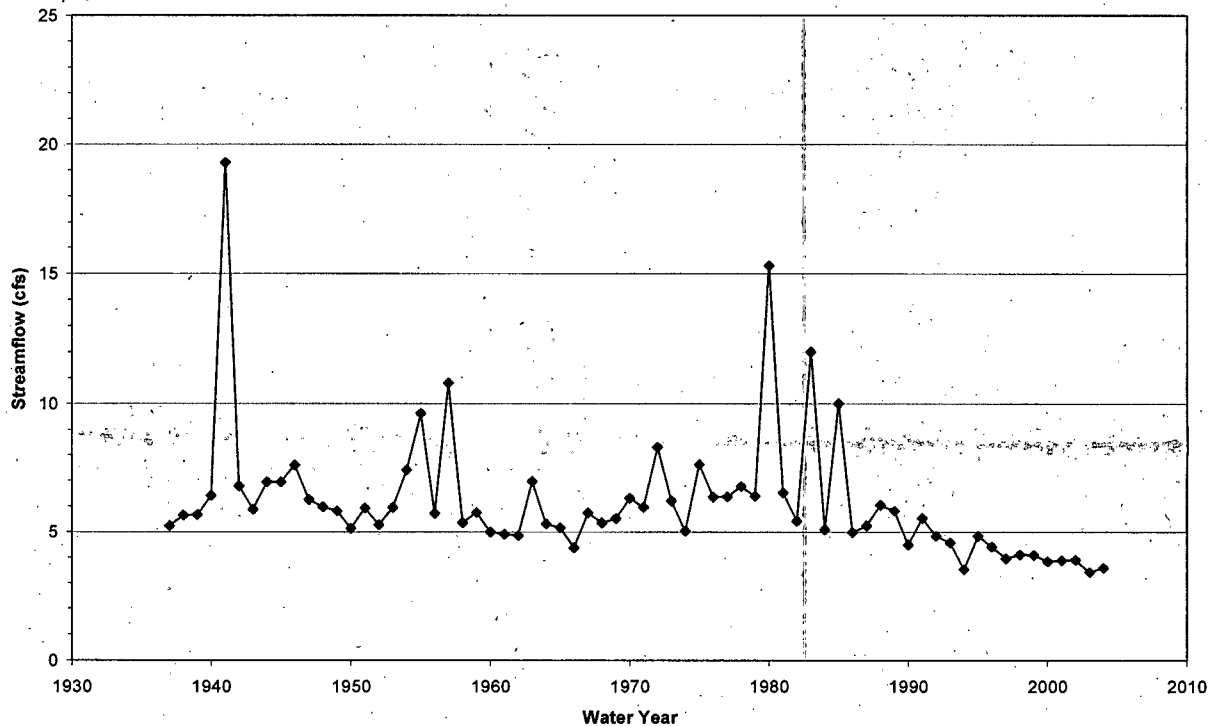
- The NRC Staff will not complete its review of HMC's revised groundwater corrective action program (CAP), and issue an environmental assessment for the revisions, until January 2009. Approval of the license amendment authorizing construction of an undersized evaporation pond that is the key new element of the revised CAP ensures that the CAP will continue to fail to remediate groundwater downgradient of the HMC tailings cells — a condition that has persisted and worsened since the injection-collection was initiated in 1978.
- In the area of the Homestake tailings operations, the alluvium and four separate units of the Chinle Formation have been contaminated, and six wells completed in the underlying San Andres Aquifer — the primary groundwater source for drinking water in Milan and Grants — now show evidence of increasing contaminant concentrations. Contaminated groundwater now underlies 4,500 acres around the Homestake site. Homestake's plumes have intersected a six-mile long contaminant plume from the former Anaconda Bluewater uranium mill and tailings operation, north along San Mateo Creek to Arroyo del Puerco through Ambrosia Lake, which we estimate covers 38,400 acres. Yet the NRC's mill license and HMC's state groundwater discharge permit for address remediation of contaminated groundwater contamination under only about 1,500 acres.
- At a community meeting in Grants in September 2007 and again in a telephone conference call in October, NRC Staff could not say conclusively that the current remediation system has stopped the down-gradient advance of the multiple contaminant plumes. The staff said that while the contaminant plumes at HMC "appear" to be contained "within the monitoring well boundaries," contamination is present outside of the boundaries. The staff did not know if the contaminant plumes in the alluvium, Chinle and San Andres aquifers have stopped spreading south toward Milan's city wells. The fact is that *NRC has never required Homestake to install monitoring wells ahead of the contamination plumes in this area, or at locations far enough north to avoid contributions from historic uranium mine and mill discharges to San Mateo Creek and the SMC alluvium from Arroyo del Puerto.* Community members and NGOs have pointed out these major gaps in the HMC groundwater remediation program, orally and in writing to both NRC and NMED,¹ and yet there is still no monitoring of groundwater at the leading edges of the plumes, or up-gradient of the Milan wells, to act as an early-warning system — despite the fact that six wells in the San Andres are now contaminated.
- The U.S. Environmental Protection Agency's Region 6 Superfund Program announced at the July 15, 2008 community meeting that it is conducting a groundwater "remediation process optimization" (RPO) study at the HMC site. The Federal Remediation Technologies Roundtable web site (see, <http://www.frtr.gov/optimization/>) defines RPO as "systematic monitoring and evaluation to detect and respond to changes in performance. System optimization offers benefits that include *enhanced protectiveness, reduced cost, shortened cleanup times, and the increased likelihood of site closeout*"

¹ We note that BVDA has repeatedly raised these issues with NRC, most recently in an April 12, 2008 letter from Milton Head to Luis Reyes of NRC. Yet NRC has not responded to BVDA's technical comments and calculations, or recommendations for improving the HMC corrective action program.

(emphasis added). EPA's initiation of a groundwater RPO at Homestake is tantamount to a sister agency of the federal government admitting that the current CAP *has failed*, and that the entire system requires a fresh look from an independent third party.

- The New Mexico Environment Department (NMED) also announced at the July 15 meeting that it intends to conduct regional groundwater studies in the vicinity of the HMC tailings site. The first will involve installing a groundwater monitoring system in the San Andres Aquifer, using existing San Andres wells, at locations between the HMC site and the Anaconda Bluewater disposal site six miles west of HMC. (The Anaconda facility is now maintained by the U.S. Department of Energy (DOE) under a license issued by NRC.) Second, NMED will study groundwater quality *upgradient* of the Homestake mill site to define water quality in the area *above, or upstream*, of the confluence of Arroyo del Puerto and San Mateo Creek — one of the few places in the regional hydrologic system that *has not been impacted* by historic discharges of uranium mine dewatering effluent and seepage from two mill tailings facilities located in the Ambrosia Lake area about 12 miles north of HMC. NMED will also examine the area at the confluence of Arroyo del Puerto and San Mateo Creek, and study water quality in the Lobo Canyon drainage area to the east of HMC.
- The regional extent of the groundwater pollution problem is undeniable. Discharges from uranium mines to Arroyo del Puerto and to groundwater from the three uranium mill tailings facilities in the region released billions of gallons of contaminated water to the regional groundwater system. Taking into account the area affected by these releases, the thicknesses of the alluvial and Chinle aquifers that are contaminated, and an average (and conservative) regional porosity of 0.2 (or, 20%), we estimate that 1.2 *million acre-feet* of groundwater have been contaminated in the region. That's enough water to meet Albuquerque's annual water supply needs for about 25 years.
- As shown in the chart below, an alarming decrease in surface water flows in the Rio San Jose at a USGS gauging station near Grants has been documented by the Pueblo of Acoma. A regional assessment of the connections between groundwater and surface water flows is needed.

USGS Gauge: Rio San Jose near Grants, New Mexico



- NRC appears to have never required a uranium milling company to restore groundwater to pre-operational water quality conditions. In fact, NRC has a history of approving alternative concentration limits (ACLs) for groundwater contamination plumes at all five active uranium mill tailings facilities in New Mexico: Anaconda Bluewater, Homestake Milan, Rio Algom Ambrosia Lake (formerly Kerr-McGee Corp. and Quivira Mining Co.), SOHIO/Kennecott L-Bar tailings facility at Cebolleta, and United Nuclear Corp. Churchrock. Allowance for ACLs may be authorized by the Atomic Energy Act, as amended, but ACLs are to be used only in rare circumstances where background water quality cannot be determined definitively. This is certainly not the case at Homestake. Water quality in monitoring wells located next to the original disposal pond was first tested and the results reported by the Public Health Service in 1961. However, the monitor wells themselves were installed when the pond was built in 1958, and water quality data obtained at that time would establish background today. These data, if they exist, should be made public by HMC, or by NRC and NMED, to address the ongoing dispute over baseline water quality.
- NRC's unwillingness to require Homestake to establish background and to install the necessary monitoring network is further reason for revising the HMC corrective action program, and is not prudent public policy in an arid region that depends on groundwater for human drinking water and livestock water supplies.

- In May, the Agency for Toxic Substances and Disease Registry (ATSDR) of the federal Centers for Disease Control and Prevention issued a “public health consultation” report that concluded that the Homestake Uranium Mill poses a “public health hazard” to those who live and work in the area. The ATSDR report demonstrates significant concern by a federal agency over exposure to toxic and radioactive contaminants by residents still using private wells near HMC. However, the ATSDR report has critical limitations and possible unintended consequences. First, its determination that a public health hazard exists in the area was not based on a site-specific health study, but on available environmental monitoring data. Neither did the ATSDR report identify the area of the health hazard, which would allow property owners to understand if their property was in or out of the hazard area — something crucial to owners and potential buyers. The report may have had the opposite of effect of further diminishing property values in the area already economically depressed by the existence of widespread groundwater contamination. A full-scale, site-specific epidemiological study is needed in the residential area around HMC, and such a study could play an important role in the development of adequate clean-up plans at the Homestake site.

A two-year delay in approving the proposed license amendment would allow sufficient time for the EPA and NMED studies to be completed, for the NRC Staff to reevaluate the efficacy of the entire Homestake CAP, and for a public health study to be funded and initiated. Such a delay would also allow the Pueblo of Acoma to assess impacts of releases of hazardous constituents from Homestake, Anaconda and other uranium facilities on water quality in the Rio San Jose — Acoma’s only perennial and tradition surface water body. Also pending in the region is the New Mexico State Engineer Office’s consideration of a water appropriations application by Homestake designed to ensure that HMC has sufficient water to conduct and complete groundwater remediation.

In lieu of approving the amendment, NRC should require Homestake to install and sample groundwater monitor wells upgradient of the Milan city wells to determine the southern and southeastern extent of the HMC contaminant plumes. Such action would be a revision to the Corrective Action Program and should be completed in six months. NRC should also require Homestake to investigate suitable sites in the area for a much larger evaporation system, and to submit plans for design and construction of the system. Eventually, NRC will also need to coordinate regulatory requirements for HMC with DOE’s management of the plume(s) from the Anaconda site to ensure that a regional response to remediation of groundwater in the San Mateo Creek alluvium. NMED’s water quality study will be useful in determining the elements of a coordinated federal response to the merging of the Anaconda and Homestake contaminant plumes.

Lastly, a full-scale public health study is needed among residents of the communities affected by uranium mining and milling operations in the Ambrosia Lake-Milan-Bluewater area. Such a study should be conducted by an academic institution with expertise in uranium exposure and environmental health.

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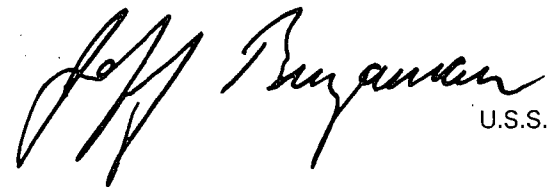
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United States Senate

WASHINGTON, DC 20510-3102

OFFICIAL BUSINESS

 U.S.S.

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