

EDO Principal Correspondence Control

FROM: DUE: 08/29/00 EDO CONTROL: G20000403
DOC DT: 08/14/00
Senator Rick Santorum FINAL REPLY:

TO:
Rathbun, OCA

FOR SIGNATURE OF : ** GRN ** CRC NO: 00-0539
Travers, EDO

DESC: Proposed Low-Level Radioactive Material Disposal
Site for Molycorp (Diana L. Irely)

ROUTING:
Travers
Paperiello
Miraglia
Norry
Craig
Burns/Cyr
Miller, RI

DATE: 08/18/00

ASSIGNED TO: CONTACT:
NMSS Kane

SPECIAL INSTRUCTIONS OR REMARKS:

OFFICE OF THE SECRETARY
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ACTION OFFICE: EDO

AUTHOR: SEN Rick Santorum
AFFILIATION: SEN
ADDRESSEE: Mr. Dennis Rathbun
SUBJECT: Constituent concerns regarding the proposed low-level radioactive material disposal site for Molycorp (Irey)

ACTION: Signature of EDO
DISTRIBUTION: Chairman, Comrs, OGC, SECY/RAS, OCA to Ack

LETTER DATE: 08/14/2000
ACKNOWLEDGED: No
SPECIAL HANDLING:

NOTES:

FILE LOCATION: ADAMS

DATE DUE: 08/31/2000 **DATE SIGNED:**

EDO --G20000403

RICK SANTORUM
PENNSYLVANIA

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United States Senate

WASHINGTON, DC 20510-3804

202-224-6324

August 14, 2000

Mr. Dennis K. Rathbun
Director Congressional Affairs
Nuclear Regulatory Commission
1 White Flint North
Washington, D.C. 20555-0001

Dear Mr. Rathbun,

The enclosed information concerning my constituent, The Honorable Diana L. Ireys, is submitted for your consideration.

I would greatly appreciate your assistance in investigating this matter and informing me of your findings and of any action you are able to take on behalf of my constituent.

Thank you very much for your kind attention to this problem. Please respond to me at my Pittsburgh office.

Sincerely,



Rick Santorum
United States Senate

RJSjk

REC'D BY

17 AUG 00

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JUN 05 2000

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May 23, 2000

The Honorable Rick Santorum
U. S. Senate
Room 120, Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Santorum:

As a Commissioner for Washington County, I would like to take this opportunity to forward some information from concerned citizens regarding the proposed low-level radioactive material disposal site for Molycorp (Unocal Corp. Subsidiary) in Canton Township.

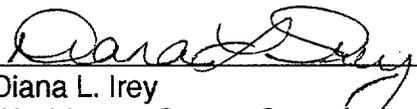
Currently, a significant amount of byproduct containing thorium is on the Molycorp property. As part of the decommissioning of this site, Molycorp has proposed to permanently contain and store this material on the Canton Township property. Secondly, the company is pursuing the possibility of importing and storing similar material from their Reading site to Canton Township.

Although the Nuclear Regulatory Commission (NRC) and PA Department of Environmental Protection (DEP) have been involved with the review of plans for this facility, your assistance is respectfully required to ensure the health and safety of our mutual constituents.

Any guidance and/or influence you could render to allow increased public input and accountability of the parties involved would, indeed, be greatly appreciated.

Please do not hesitate to contact me for further information and/or clarification. Thank you in advance for your anticipated cooperation in this important matter.

Sincerely,


Diana L. IreY
Washington County Commissioner

DLI/ds
Xc: File

JUN 05 2000

Report
Site Specific Advisory Board
under the auspices of the
Nuclear Regulatory Commission for
the Molycorp Decommissioning Plan
Washington, Pennsylvania

Restricted area section of the plan

License Number SMB-1393
Docket Number 040-08778
May 9, 2000

PREFACE

The Site Specific Advisory Board in this case was hampered by constantly changing applicant parameters. The applicant changed all aspects of the cell on February 24, 2000 and declined to provide information requested by the board. When provided we were told that only one copy, and in some cases two, of the amended reports would be available for review and changes continue as of this writing.

The board, as did individual members, utilized private channel resources, and worked to read thousands of pages of material to determine the real facts. The facts, once obtained independently or from the applicant, reveals: increased concentrations of radioactive material than originally provided by the applicant; a portion of the land within the cell boundary may not be owned by the applicant; material has migrated off site; and the economic impacts to the region are potentially severe.

The board also considered citizen testimony at the meetings. In this, the board heard a constant and resounding **"we do not want this in our community"**. The community has many fears concerning health, economic impact, taxation and freedom of speech issues emanating from the conduct of Molycorp representatives during meetings. The community message has been constant for over one year on this issue starting with a citizens group centered in Elwood Park (testimony at an NRC public meeting on April 15, 1999). This same message has been repeated in every public meeting.

The applicant, it would appear, is reluctant to provide information to the board. At the meeting of March 23, 2000, according to a constitutional lawyer who attend the meeting, Molycorp violated the first amendment rights of citizens and elected officials. This denial of public right to comment was observed by NRC officials and a representative of the NRC Office of General Counsel.

It is a testimonial to the board members that they have worked in cooperation to produce this document attempting, as much as civilians can to stay within the regulations, draft guidelines and draft for comment NUREGS.

The most striking aspect of this paper is that people demand that radioactive waste be placed away from populated areas. The public came to the initial meetings feeling that their federal government was on their side but quickly realized that the regulations are written supporting the applicants needs without regard to the regulatory outcome. It would appear that public policy needs to be enlightened regarding its affect. In this case the cost to the community, it would appear, is already high. The regulations, if strictly administered in this case, will result in general and particular injury.

The whole application and review process needs to be rewritten and new laws

established that while not community intrusive, encourages the industry to store radioactive waste in unpopulated areas, with government underwriting of costing structures.

We found the SSAB process to be dysfunctional in both design and operation. The board shall specifically address that issue and provide an addendum to the NRC. In the meantime, let it suffice it to say that so much of this filing is based on Draft Guides for Comment is disturbing.

Financial Assurances:

One assumption is that the waste from York is to be combined with the waste present on the site. Even though they are being treated separately as legal matters, the combination is relevant considering the responses by Molycorp consultants at the SSAB meetings.

The board finds the requirements of section 30.35 defined prepayment method under 30.35 F. (1) to be the best method for securing this site's financial capability. The best selection is an escrow account, in cash. This of course would require outside auditors, one for the corporation and one for the beneficiaries. This option was considered best in light of the longevity of the cell's material contents, its half-life, information from the site characterization report showing mixtures of slag containing possible hazardous substances. For these reasons, considering the capacity for institutional and perhaps physical failure of the cell, the board believes the cash method is the most secure. In light of this circumstance the suggestion made by Canton Township that an estimated value of 10 cents per ton over a period of seven billion years is advanced. The estimated total cash equivalent is \$1.1 billion or a combination of precious metals. This amount replaces the frail structure offered by the applicant.

The cash preference is related to increased concentration levels, exposure levels, ground water issues, and mixed hazardous waste within the irradiated mass. This is essentially necessary when viewed in combination with site geometry and the operation and maintenance program presented by Molycorp. Undoubtedly, there is strong possibility that the material might migrate into the test wells on the north side of the site. There is also strong possibility due to the adverse economic outcomes and legal taking, law suits will be initiated from affected property owners within an estimated 2km to 2 mile radius. Further, if the cell is compromised either due to deficient engineering or catastrophic incident, the financial liability is certainly more than that proposed by Molycorp through its Site Maintenance Corporation. There is also a regulatory history relative to Molycorp that needs to be considered. There was an initial violation of the AEC Act in 1971, and noted Pennsylvania Department of Environment Protection violations between 1970 and 1995. There are also continuing violations with an outstanding fine being negotiated with the California Attorney General's Office, and the Lahontan Regional Water Quality Control Board concerning water quality discharge permits: fines and penalties now exceed \$100,000. Given the issues in New Mexico that the company now faces, with possible Superfund designation of the Molycorp molybdenum mine near Questa, NM. This mine is on the verge of listing by the Environmental Protection Agency (EPA) as a Superfund cleanup site, it would appear that the company's track record concerning decommissioning is suspect. In Canton there is the existing contention over the presence of a public water line under a significant waste pile. It also appears that for about 10 years or more an evaporation leaching pond containing thorium and perhaps uranium was directly over an existing water line and no attempt was

made to take corrective action. It has further come to the boards' attention, through the question of it members, that Molycorp may not own the old railroad right-of-way on the north section of the proposed cell area. It is also possible that the company does not own the mineral rights to the property. This increases the issue of undermining if it has not already occurred. All of these issues and others mentioned elsewhere provides an envelope of "potential for consequences". This envelope is a rolling envelope along with the 100 year court envelope. Therefore it is an envelope in perpetuity. It lends further credence to the potential consequences from a regulatory point of view concerning the imposition of an undue burden to the community or other affected parties. It is likewise anticipated that the SMC Corporation would be the subject of multiple lawsuits regarding the site during its existence. Insurance is not an acceptable modality; "...insurance has almost never been used by licensees and when insurance has been used, the submittals usually have not met the NRC's acceptance criteria".

Economic injury both general and specific from the existence of the cell is another area of concern. In a answer to a question posed to the NRC dated January 24, 2000, the NRC indicates:

Question: What is the Agency definition of injury? Are you and the applicant liable to cover all of the costs to everyone affected by your actions?

Answer: NRC regulations do not define injury. Under the Atomic Energy Act, the NRC is authorized to regulate licensees in order to protect public health and safety. NRC regulations provide adequate protection of the public health and safety. As a general matter, the NRC is not liable for the impacts of a licensee's actions. Depending on the situation, the licensee may have some responsibility for the effects of its actions.

While it is not presently in the scope of the regulations, one of the major public testimony issues was the anticipated adverse economic impact of the cell¹. This, combined with the aforementioned items, would appear to create an area of concern due to undue burden and hardship that should be addressed through regulation.

The reliance on the trust agreements, letters of credit and other methods may reduce this Corporation into receivership. Letters of credit are faulty, difficult to interpret and may not always be payable. It is entirely possible for default to occur or for the instrument not to be renewed. The proposed stand-by trust agreement is deficient. The trustees investment capabilities provide only a 2.2 percent return on investment (although it is within the regulations it appears to limit the long-term fiscal capability of the corporation). In an inflation environment this could jeopardize fiscal integrity. Over 25 years ago (1975) interest rates in the United States were over 20 percent. Government policy today, in the minds

¹ To be addressed in the addendum with other subjects

of some economists, is based on the 1970s mentality concerning monetary policy decisions. (Source Wall Street Week, statement by guest 4.27.2000) The reliance on bonds, particularly those with ratings BBB / BAA, is disturbing. Any beneficiary and trust management would most likely want to have A-AAA ratings. Various aspects of the agreements are faulty in their capacity for adequate trust management. One suggestion is to have an outside board or ombudsman to act on behalf of the 3rd party beneficiaries. A hold harmless clause has been placed in the trust agreement. This could promote nefarious behavior even though it is part of the regulatory structure.

Certain aspects of the trust agreement and an agreement between SMC and Molycorp has been rewritten and it is puzzling to the SSAB as to which documents are now intended to be submitted. Since this item arrive at the board members residences on a Saturday, May 6 with no instructions as to its standing we have decided to review it like all the other documents. The caveat is that this is a quick response, we reserve the right to revisit this later in the process through other aforementioned submittals. Even though this item touches on trust management mechanisms, express powers of the trustee, includes an attorney, trustee compensation, a successor clause, and instructions to the trust the regarding amendments of the instrument. The same value level, \$1,007,700 remains. The trust agreement though increasing the operations of trust management still is faulty regarding DG 3014, DG3002, regarding the prepayment methodologies management and operations.

The prevailing law of, Pennsylvania, is recognized regarding amendments, there is a feedback loop regarding inspection worked out by Molycorp relative to SMC, a provision for specific performance, a series of items under Molycorp failure to perform as well as a default obligation by Molycorp, a schedule of work, and an escrow account. This document still falls short as illustrated in other sections of the paper, such agreements in and of themselves on an operations level without meticulous care remain faulty. Even though this agreement provides for somewhat increased management ability, the capabilities still fail regarding a complete operations and management plan which is loosely attempted on the last page. The creation of the document in and of itself relies on the supposition that Molycorp will be going out of business and is, literally, a management turnover document to SMC of Molycorp responsibilities. SMC remains an LLC chartered in Delaware.

Even though these documents attempt to meet regulations of DG3002 it still falls short. If this is the established model then various other required documents from DG 3014 are missing in their entirety.

Due to the lack of long-term custodial care, especially as related to security, and refined value of thorium there is a concern about potential terrorist activity against the site. In addition, the site characteristics leads one to suspect there needs to be increases to general maintenance, security, road and bridge

maintenance, increased well maintenance and well monitoring, and more thought to cell invasion by animals which could lead to ground water contamination.

The lack of professional on sight management, corporate operations structure, independent accounting for the corporation and for the third party beneficiaries leave serious organizational survivor capability questions regarding SMC. Furthermore, UNOCAL has not seen fit to provide a Parent Company Guarantee, which is the financial instrument of choice in such cases. This is another reason for the utilization of the prepayment method. This, combined with evidence discovered by board members showing an alleged trail of financial separation of the parent UNOCAL from Molycorp as a financial entity, provide another reason for this recommendation. Members of the board also feel that the control issue over the SMC by Molycorp should be revisited. It is felt that the SMC needs to be a completely separate organization devoid of any Molycorp influence. Legal and accounting mechanisms should be put into place to defend the SMC against the quagmire that might someday surround Molycorp. The board feels that criteria should be developed that if Molycorp is unable to perform, a trigger definition be put into place as to when the SMC takes over. In essence a transition trigger needs to be established.

The maintenance and monitoring of the cell would require a trained staff of security, maintenance and scientific personnel. Given the controversial aspects of the cell it could not be imagined that the facility could be operated without staff. Management at a distance would seem a greater public threat over the long-term.

To all outward appearance, the cell design seems to be grossly insufficient. A seven billion year time-frame would require a much more substantive structure than that proposed. An example might be a structure well below ground (by thousands of feet) insulated by reinforced concrete and wrapped in a synthetic liner with the waste in separate, multi-modality, containers prepared for possible removal via an automated system to railroad cars. Another approach could be something much sturdier, by orders of magnitude, above ground which might resemble the pyramids of Egypt, this would have a chance of lasting the requisite 7 billion years. Reference the Carlsbad New Mexico site and the preparations for the Yucca Flats site in Nevada. Granted these are for high level waste yet the time considerations in this case seem to provide parity juxtaposed to a more intense, higher grade, shorter half-life materials as opposed to materials with a much longer half life.

The potential of increased exposure rates requires additional engineering work. We will assume that this would increase the overall financial assurance required for the life of the cell. Given the circumstances other methods of waste management need to be considered. These would include shipment off-site to an approved NRC facility such as Evirocare of Utah, International Uranium (USA) Corporation of Utah, or Barnwell SC or other new facility. An alternative for the

York material under the interim storage application to the NRC was listed as alternative #3 in the Draft Environmental Assessment of proposed construction and operation of Interim Storage Structure at Washington Molycorp facility for storage of Molycorp York Decommissioning waste; License Number SMB -1393, Docket Number 040-8778, Alternative #3 page, Section 4.3, page 5. This might be one place to start. At an SSAB meeting held on 3.23.2000 a Molycorp consultant stated that some of the material slated for the proposed permanent cell would be shipped off site. The Board requested comparative figures from Molycorp regarding off site shipment as an alternative. Molycorp, however, declined to provide these figures even though that conveyed a belief that the cost to ship off site was dropping. When questioned the company stated that they believed that the cost to ship was dropping.

Citations and References:

We base these considerations on a review of: NRC regulations to 20.1402 radiological criteria for restricted use; NRC regulation 20.1403 criteria for license termination under restricted conditions; NRC regulation 30.34 terms and conditions of licenses; NRC regulation 30.35 financial assurance record-keeping for decommissioning; 30.36 expiration termination of licenses and decommissioning of site to separate buildings or outdoor areas; 40.42 expiration termination of licenses and decommissioning of site separate buildings or outdoor areas; 50.82 termination of license; 70.38 expiration termination of license and decommissioning of site separate buildings or outdoor areas; 72.54 expiration termination of licenses and decommissioning of site separate buildings or outdoor areas supplemental appendix B part 30 quantities of licensed material requiring labeling, draft regulatory guide nuclear regulatory commission D. G. 4006, demonstrate compliance with the radiological criteria for license termination; and NRC letter dated January 24, 2000, SUMMARY REPORT. In addition: Details of the Institutional Controls and Financial Assurances Applied or Planned at Various Hazardous and Radioactive Material Sites in the United States, Prepared for Site Specific Advisory Board, Molycorp . Inc. Washington PA, decommissioning Project, November 28, 1999, Radiological Services, DG 3014, Draft environmental assessment of proposed construction and operation of interim storage structure at Molycorp's Washington Facility for storage of Molycorp York Decommissioning Waste, Docket Number 040-8778, Amigos Bravos, Molycorp Washington PA Facility Decommissioning Plan, Part 1 Revision June 30.1999. Charter, Site Specific Advisory Board Molycorp, Inc., DG 3002. Standard Format and Content of Financial assurance Mechanisms required for Decommissioning Under 10 CFR parts 30, 40, 70, and 72, DG 3002

Institutional and Proprietary controls

The board through its subcommittee report brings to the attention of the applicant and the NRC that the Site Characterization Report presented by the applicant allegedly shows increased concentrations - exposure capability as well as off-site

migration, and aquifer issues. We find all aspects of the plan could be drastically increased by orders of magnitude. The slag, as illustrated in the site characterization report, has the potential to be mixed with other hazardous wastes already on site or, in fact, are mixed presently. The same report shows in the northwest segment of the main plant site radioactive material is already co-existing with selenium and cadmium. The board therefore feels all aspects of institutional controls and financial assurances need increased by orders of magnitude.

The operation of the institutional controls are dependent solely upon the capacity of the organization, they are creatures of legality and of operating systems. The underlying assumptions are that the systems will be in place or remain in a steady-state capability. Since change is one of the main forces of history (especially over a 7 billion year half life) we can only assume the governmental institutions, organizations and other systems may be caught in this constant change.

Given the insufficiency of institutional and propriety controls, the board finds it is difficult to prevent unauthorized access to the cell without some form of permanent security on-site, twenty-four hours a day, year round. This type of security should include adequate security lighting encompassing both restricted and unrestricted areas.

It is possible, given the Securities and Exchange Commission 10k report submitted as evidence, that Molycorp may not be a long-lived system. As stated, there is no parent company guarantee. The parent company would seem to be separating itself financially from Molycorp. Therefore the emphasis on long-term responsibility must be upon the SMC. Given the fact that the NRC and DEP will be third party beneficiaries of the SMC under any agreement, we believe that the financial assurance (the prepayment option) would protect the third party agreement against liabilities regarding the cell's existence. If the SMC fails the NRC does not have financial responsibility. If failure occurs the site will become an EPA Superfund site. In light of this issue the board requests the financial assurance as stated above utilizing the cash option be implemented so the SMC operates in a strong fiscally managed environment.

The proposed criteria of controls for the Site Maintenance Corp. leave the board with the conclusion that enforceability aspects of land use restrictions and sufficient public notice to prevent unintended disturbance of the storage cell fall short. In order to provide a scenario where institutional and financial controls could be compromised we illustrate the following scenario:

Dateline 2094
Canton Township

Today Elmur Fudd II, supervisor, with his children Proton and Gamma accept the SMC site as parkland. This due to the petition by friends of nuclear science (some of whom are SMC board members) who petitioned that the land was to be deemed safe.

SMC sold to Kentucky Associated an off shore corporation located on the Island of Trougas.

2 years later, Elmur Fudd II of Trougas (no extradition treaty with U.S.), formerly of Canton Township ,Pa, today was awarded the Trougas cup for his polo team's win, his children, Proton and Gamma, are members of the team.

3 years later, Government reports massive clean up of former waste site seen to cost \$1.8 billion. Known as the site from which the deadly Canton Andromeda Strain started, the site has been quarantined and a 3 mile perimeter established.

Although somewhat dramatic in its prose, the above metaphoric example relates one method under which the proposed institutional controls and financial assurances could be broken. The use of failure engineering is practical in protecting the capability of a modality. This simple example is provided as a means for illustrating the capability to breaking the institutional controls. Given the lack of oversight it is possible that a site could be deemed safe and the material wealth of the SMC placed into an non-accessible offshore corporation. Many countries and newly formed nation states do not have an extradition treaty with the United States. Seeking criminal accountability against an individual or individuals would be extremely difficult.

One of the important sociological aspects related to exposure is that persons in the area live in their houses for long periods, 20-30 years. This does not fit the assumptive modeling that people will live in a home for 5-7 years and move. Thereby reducing the exposure level during a life span, those assumptions do not apply in this case. In Western Pennsylvania people have a tendency to own one home for much of their life span. It is not unusual to have the same home owned for 40 years by the same person. In light of this issue, the exposure modeling may need to be revisited.

The use of covenants, conditions and restrictions is a management issue. Under the proposed structure a set of CC&R's can be broken. The other concept associated with this type of legal instrument is that that it is only as good as its ability to be managed. The word "enforcement" is used in this respect, as has the phrase "self-zoning". We believe that this is erroneous, enforcement and self-zoning implies police powers and that is the sovereign capability of the government. Municipal, state and federal governments are capable of enforcement. Most CC&R's are set up to protect the asset value of a common

system and do not attract special treatment unless for some reason the asset to be protected is declared a dangerous instrument.

We would all like to believe that order rules over disorder in the universe. That is unfortunately not always true. The life span of this cell is measured in the life of a star. As a matter of fact our sun is due to go nova in 5 billion years, 2 billion years before the material reaches its half life.

One of the critical aspects of the SSAB process is to examine stewardship and quality of life issues. As subjective as these may sound they in many ways create the fabric of a community. It is apparent the impact of such a facility as the one under discussion here is a detriment to the quality of life in the Greater Washington region. Quite simply, just as one would not expect a citizen to place a potential hazard next to his neighbors the same is true here. A mature and responsible decision and regulatory process does not place material of this variety, for the proposed period, in populated areas. Stewardship brings with it responsibility **and that responsibility is not to take from others while saving corporate costs.**

NRC and DEP roles

With regard to The Department of Environmental Resources (DEP) having control over the facility, the SSAB has the following comments and concerns.

During the March 23, 2000 meeting the committee had specific conversations with Mr. Woods who was attending the meeting on the behalf of the DEP. During that conversation Mr. Woods indicated that the DEP would be the responsible authority for monitoring the sight after the NRC portions of the cleanup where completed. He stated that the DEP in part was created to perform oversight of such facilities and the budget process ensures that it will have the staff to do it. The DEP, therefore, would not be interested in maintaining the facility, as it would be a conflict of interest.

Mr. Woods also stated that if the proposed Site Maintenance Corporation became defunct for some reason that the DEP would have the authority to assign another company to care for the site and ensure the duties are performed. Mr. Woods said the DEP would require there be funds in place so that the taxpayers would not have to pay for the maintenance of the site. However, the DEP would ultimately drive a remediation if all parties failed and actions were required, i.e. it would become a Superfund site.

With these comments in mind it seems reasonable to request that Molycorp enter a consent order with the DEP which would outline the duties of the Site Maintenance Corporation and the DEP. The order should be specific about the DEP duties to monitor the sight, what perimeters would be monitored and what the acceptance criteria would be. It should also cover the specific duties of the

Site Maintenance Corporation. This would be considered an Operation and Maintenance plan. The plan should describe the frequency of maintenance, specific items, which will be maintained, and contingencies. For example, industrial sites are required to have a *Preparedness Prevention and Contingency Plan*. These plans outline likely modes of failure, contact persons and the likely steps, which would be used to mitigate a failure.

In order to insure that the necessary duties would be performed, a separate trust fund should be set up with the DEP as the authorized administrator. The fund would be used to cover the cost of maintaining the sight should the Site Maintenance Corporation fail. **The monies set aside should equal those being proposed for the Site Maintenance Corporation. This item is important, as there are no guaranties that legislation will not change and budgeting for this type of facility could be cut.**

Items the board suggested.

1. There is no guarantee the legislature and the executive at the commonwealth level would adequately fund a line item in the budget funding the DEP role.
2. Several of the board members also remember Mr. Woods stating that if the cell did fail or if some catastrophic event occurred and the financial assurances are inadequate the government is the financial party in essence of last resort. i.e. health safety and welfare issues
3. The board discussed the need for an operations and management plan within paragraph #4
4. The board discussed the discussion of a reference to there being no insurance, since insurance; " ...insurance has almost never been used by licensees and when insurance has been used, the submittals usually have not met NRC's acceptance criteria".
5. The board applauded the last paragraph

Institutional Controls

Physical Controls

Storage Cell

Without consultation with an independent third party qualified to evaluate the efficacy of the storage cell to prevent radioactive emissions, the board cannot provide advice on whether the storage cell will comply with regs. 1 and 3.

Fence, Markers, and Signs

A fence maker and signs will place an undue financial and psychological burden on the community because they signal a potential danger from radioactivity. The perception of danger may cause property values to decrease, and result in extreme psychological stress for residents concerned with financial loss or health problems.

Cap

The cap is part of the storage cell. Please see comments above under storage cell.

Ground Water Monitoring:

Molycorp has proposed annual monitoring of 6 wells in order to guarantee detection of Radioactive Thorium and other heavy metals if the ground water carries these materials through the aquifer and out of the site area. This proposal is not adequate for the following reasons.

1. There has not been a thorough study of the geological structure under the proposed cell

Molycorp does not know if this area was coal mined, if there are old oil or gas wells on site, if the proposed sandstone base of the cell is cracked or if it is even large enough or strong enough to support the weight of 90lbs/sqft. of the thorium slag in a cell with a grade of 3 to 1.

2. The most recent design model does not even have a clay or plastic liner to help support the cell from natural water flow which could increase considerably in the case of a catastrophic event such as flood, tornado, hurricane, earth quake or even burrowing animals or erosion.
3. The cell base is expected to be approximately 20 to 30 feet below the present ground level. This hill has many natural springs and water flow

from outside the cell area, could in time drain through the cell and down through the natural aquifer system and carry radioactive particles off site and into the local water system. This relates to the liability issues as stated in the Financial Assurance section.

4. Please refer to the attached article from The New York Times of March 21, 2000. This article discusses ground water movement through the aquifer at the Nevada Nuclear Test Site. It acknowledges the possibility of radioactive particles becoming attached by colloids, which allows to particles to become buoyant and then floats with the water through the aquifer to possibly pollute ground water off site.

Because of the above, and in compliance with DG_4006 section 3.1.6_a much more stringent testing protocol must be used.

Direct Radiation Thermoluminescent Dosimeters

Molycorp has proposed quarterly replacement and readout of radiation testing devices and TLD enclosure replacement every 5 years.

The SSAB Board finds this to be outside of their expertise, however, there are some unanswered questions as to the 25 mrem per year limit. The question that is most important to us is, when the 125,000 cu yd of thorium slag is compressed into the cell along with other metals present such as Cadmium, Selenium, Manganese and Magnesium, does the radioactivity increase the overall energy or radiation of the mass? If the NRC cannot answer this question, then the radiation levels at this site should be monitored on a daily basis, not quarterly.

Surveillance/Inspection

Molycorp has proposed only periodic inspections. The SSAB believes that more attention should be given to security to the site. The security should be no less than 24 hrs. a day/7 days a week of on-site guards, with adequate lighting, warning signs and state of the art remote sensing capabilities. The reasons are as follows:

1. Cell or site inspection for damage due to vandalism, burrowing animals, erosion, etc.
2. Due to reactor design developments, radioactive thorium could be used in a terrorist action.
3. Thorium is a high-energy source and in the future could become extremely valuable.

Damage to this site could occur due to terrorist action or others who wish to sell this thorium. The present estimate of refined thorium is approximately \$150. Per ounce and is expected to increase.

4. This site could be listed in The Registered Thorium National Stockpile and would need to be under secure guard.

Maintenance of Physical Controls & Monitoring

The following are the SSAB's remarks regarding the maintenance summary of costs as reported in Exhibit D page #1 of the "Proposed Institutional Controls Draft" of March 23, 2000.

1. Molycorp should add instrument calibration to their schedule, similar to the ISO Standards.
2. All regular maintenance inspections should be **done no less than weekly**.
3. Two bridges were omitted from the Molycorp report, they will need routine and replacement maintenance schedules.
4. Management fee will have to be increased to support the above increases.

The above increases are needed due to the following:

1. The heavy weight mass of the Thorium slag on a 3 to 1 slope of the north side of the site will cause slippage, thus exposing the atmosphere to the radiation, or contaminating the test wells.
2. Similar results could occur due to fresh water springs or mine subsidence.

Thorium is odorless and tasteless, so you cannot tell if you are being exposed to radiation. Very little is known about the specific exposure levels of Thorium radiation that results in harmful effects to people or animals. For this reason, and since this site is planned for a very densely populated area, everything must be done to protect the citizens. Preventative maintenance inspection and planning is a necessity. Due to the 7 billion year time line complete replacement of all maintained operations is a given. Given the density of the surrounding population, the maintenance needs due to climatic and ecological impacts it is requested the any reexamination of TEDE above the 25mrm level be denied. Given the precariousness of this environment any reexamination should see the TEDE reduced to 10 mrm.

The signage repair and maintenance is an important issue since reports have seen young people breaking in other facilities and causing damage.

Signature Page

Jim Brisson
Jim Brisson

5/10/00
Date

Mike Bench
Mike Bench

5/10/00
Date

Elmer Gregor
Elmer Gregor

May 10 - 2000
Date

Jeffrey Verhauser
Jeff Verhauser

5/11/2000
Date

Chuck Neff
Chuck Neff

5/10/00
Date

Barry Fiacenza
Barry Fiacenza

5.10.2000
Date

Mark Remcheck
Mark Remcheck

5/10/00
Date

In Harm's Way: the proposed storage of low-level radioactive waste at the Molycorp facility in Canton Township, Washington County, Pennsylvania

- An Executive Summary -

JUN 05 2000

- prepared by

The Citizen's Action Committee of Canton Township

Political & Physical Geography / Location of Site

The Molycorp, Inc. site in Washington County, Pennsylvania, consists of approximately 55 acres on the outskirts of the City of Washington. The governing municipality is Canton Township, a second class township with a population of 10,000. Canton Township's population ranges from middle to lower income economic groups living in single residence homes. The area in which Molycorp's plant is located is zoned "heavy industrial" and contains industries such as steel production, steel fabrication, plastics manufacturing, paint and chemical coatings manufacturing and assorted by-products industries. The area on which Molycorp proposes to build the permanent radioactive storage cell is zoned R-2, medium density residential. Local zoning ordinances prohibits the storage of hazardous waste materials.

The topography of the area in question is flat with one mature stream, Chartiers Creek, traversing the lowlands. Most of the area is located within the 100-year flood plain. The Chartiers Creek water shed is one of the largest in Western Pennsylvania. Two rail lines once crossed the area (one is now abandoned) to serve the industries, oil and gas wells, and the coal mines located near the western corner of the region. The topsoil is predominately organic material deposited by the stream and other fill materials spread over the flood plain by the industries. Subsurface structure is sandstone and clay. Wet weather springs are prevalent and, in addition, there are several oil and gas wells located throughout this area. Much of this land was originally swampland (as evidenced by some of the contiguous areas) that has been filled-in and developed since World War I.

Contiguous land use is made up of medium-density residential, light-industrial areas, and commercial zones. Immediately to the East, South and West of the Molycorp facility are residential neighborhoods and other public facilities. The area closest to the planned storage site is medium-density, middle-income residential with homes within 130 feet from the proposed radioactive material disposal cell. Within one-third of a mile of the site are a large shopping mall and numerous restaurants and motels. Interstate 70, one of the most heavily traveled highways in the United States, borders the property along its southeastern perimeter. Approximately one-half of the population of the Greater Washington Area, close to 35,000 residents, live within two miles of the Molycorp site and the aggregate value of that property is in the range of 75 to 150 million dollars. Businesses within one mile of the site have an approximate annual income of 250 million dollars. Most of the homes within a half-mile of the Molycorp property have assessed values of seventy to one hundred fifty thousand dollars.

History of the Waste Management Problem

The Molybdenum Corporation of America was formed and began producing metal alloys at the site on June 16, 1920. From 1963 through 1969, the facility produced an alloy called ferrocolumbium, using ore imported from Brazil. This ore contained thorium as an accessory mineral. Because thorium is naturally radioactive, and because the concentration of thorium in this ore is relatively high, Molycorp was required by the U.S. Atomic Energy Commission (AEC) to acquire a Source Materials License in order to perform manufacturing operations using this material.

During the period of 1963- 1969 the company created molybdenum from raw materials containing thorium and small amounts of Uranium 238. The half-life of these materials is approximate 7.2 billion years. In 1971, the Atomic Energy Commission, predecessor to the Nuclear Regulatory Commission, determined that Molycorp had large quantities of thorium bearing slag on site and ordered Molycorp to remove the material to permanent storage/disposal. In 1972, Molycorp shipped 14 truckloads of this material to the Waste Valley site in New York State. Because of the low-levels of the radioactivity and the vast quantities anticipated for storage, the West Valley site stopped accepting shipments. Molycorp, without approval, began burying the thorium slag on their site in the flood plain bordering Chartiers Creek, one of the largest watersheds in Southwestern Pennsylvania. They (Molycorp) also buried slag in the land mass located

directly south of the plant. The company created settling ponds, lagoons, and the material subsequently migrated into the creek and was used as fill on their property and an adjacent company's property.

Molycorp was ordered (by the Pennsylvania Department of Environmental Protection) to remove the mound containing 64,000 cubic yards of radioactive waste adjacent to Chartiers Creek because the mound is located in a flood plain. In addition, Molycorp was also ordered to clean up neighboring property owned by Findlay Clay Refractory (immediately adjacent to Molycorp to the north). Molycorp had given Findlay fill material that was contaminated with radioactive waste. This contaminated soil has been removed from the Findlay Clay site and is temporarily being stored in 194 roll off boxes within the Molycorp complex next to Caldwell Avenue, a heavily traveled public road. Each roll-off box contains 8,000 pounds of contaminated soil and is covered only by tarpaulins.

Molycorp Incorporated and the Decommissioning Plan

Because of the vast quantities of low-level radioactive waste and the high cost of transporting the material to an existing disposal facility, the company initially proposed to the U.S. Nuclear Regulatory Commission their intent to store the approximately 70,000 cubic yards of waste material, on site, in a disposal cell at its Washington, Pennsylvania facility. Initially, until Molycorp asked to include waste from their York, Pennsylvania facility, the proposed storage cell was to have encompassed an area of approximately 2 acres. The maximum height of cell above grade was to have been 15 feet. Molycorp, however, reveals that the proposed cell now has to hold 120,000 cubic yards because of recently identified contaminated material previously not included in their decommissioning plan. Molycorp has also petitioned the NRC to permit a transfer of similar waste from their York, Pennsylvania to the Washington, Pennsylvania facility for temporary storage. If Molycorp is successful in getting the NRC to permit transfer of their waste from York, Pennsylvania and, ultimately, given permission to combine that material with material presently on-site, the cell will have to contain the additional 5,000 cubic yards bringing the total waste to 125,000 cubic yards. The acreage for the cell is now at a proposed 5+ acres.

In its attempt to satisfy NRC guidelines regarding public input into the development of financial assurances and institutional controls, Molycorp has assembled a group of local residents (representing Canton, the City of Washington, and Washington County) as a Site Specific Advisory Board. This board is charged with reviewing the decommissioning plan and assisting the company with establishing those assurances. The board, unfortunately, has been at-odds with Molycorp over disclosure of information since the first meeting. The board feels that information is sparse and has not revealed the true magnitude of the liability. In February the company disclosed that some of the material is much higher in radioactivity and will be shipped off site. At the most recent meeting of the SSAB, on March 23, 2000, Molycorp introduced their latest cell design that locates the proposed cell on the hillside at the Southwest border of their property next to an active rail line. The cell's dimensions are approximately 700 ft. x 700 ft. and it will be 130 ft. from the Elwood Park residential area. The plan also calls for the mound to rise 12-20 feet above the existing terrain.

When asked the weight of a cubic yard of the material to be stored in the cell, Molycorp officials indicated that a cubic foot of the waste would weigh 90 pounds. The total weight of the 125,000 cubic yard of material, therefore, could be an estimated 303,750,000 pounds or 151,875 Tons. Molycorp has also changed the design of the cell to eliminate a geo-plastic liner or a clay liner. Given the instability of the substructure and the propensity of land use problems involving slides and subsidence, there is considerable concern that the cell will fail and material will migrate into the groundwater.

In all the confusion and misinformation regarding this storage of radioactive waste, what seems to be forgotten is that Molycorp doesn't have a choice: they have to move the material to an approved site. The rationale for choosing to build a site at the Washington facility is obviously grounded by economics. Unfortunately, while the NRC must consider the economic impact on the company and the environmental / health impact, there are no allowances within existing law for considering the economic impact to the community as part of the NRC review process.

Impact on the Community and Regional Economy

According to studies on property impact, storing this material just off Caldwell Avenue will have an appreciable effect on property values in a two mile radius from the site. This is not simple conjecture. In its initial proposal for siting low-level radioactive waste, the Commonwealth of Pennsylvania proposed that companies opening these types of storage sites buy all the property in a two mile radius to insure public health and safety, and to protect adjacent property values.

Currently, real estate agents have already found that the value of nearby property has significantly dropped. In a community that is coping with the loss of heavy industry – one can imagine the impact this site might have on the local economy? If you consider the cost of the average homes adjacent to the proposed storage cell in the Elwood Park, Lacock Plan or Valley View sections of Canton Township to be \$90,000 (there are approximately 250 homes in those neighborhoods), the value of the property there is approximately \$22,500,000. According to law, a property owner desiring to sell their home must inform the potential buyer of the home's proximity to the danger (real estate agencies and banks do not care if the NRC says the site is safe). So, if an individual wants to sell their home (some houses in Elwood Park have been up for sale for over a year), statistics indicate they might get 75% of the market value. The potential loss of value in real estate works out to be an estimated \$5,625,000. This does not take into account the potential loss of value in business property and retail sales within ¼ to ½ mile from the proposed site (this would include the newly renovated Washington Crown Center Mall). The question is, given the economic health (or lack thereof) of the Greater Washington Area, who benefits from putting this radioactive waste dump so close to people? Only the company that created the waste.

Is Public Health an Issue?

People living near Molycorp's Washington, Pennsylvania facility have been getting sick and dying. In one particular area within ¼ mile of the proposed storage cell, twelve of the seventeen homes on one street have incidence of cancer. In two homes both the mother and father have cancer; and in one home the mother, father and all four daughters have had cancer. Needless to say, people are frightened. Molycorp has published document after document showing the "relatively low risk" to public health without significantly decreasing the public's fear, and people are still getting sick. In 1997 a citizens action committee conducted a health study (with the help of the University of Pittsburgh's Graduate School of Public Health). While the study was limited and inconclusive, it was discovered that the areas within ¼ mile of the Molycorp plant did have significantly higher incidence of cancer, respiratory problems and heart disease. Molycorp was concerned enough to hire two noted professionals to look at the public health impact. Both concluded (they were hired by the company) that the material posed no significant risk to public health. Both men were on hand at an open house where the public was invited to visit and ask questions relating to public health.

At the open house conducted by Molycorp to release its health impact study a question was posed to both Dr. Dade Moeller (who represented Dade Moeller & Associates) and to Dr. Edward Emmett (the physician who wrote the report on potential health risks of human exposure to the thorium-bearing slag): "... if it were not for the economic factors, would you recommend siting this low-level radioactive waste storage cell so close to a residential setting?" Drs. Moller and Emmett both responded, "No."

Recently, Canton Township became aware of yet another health concern. Unbeknownst to the NRC, the Pennsylvania DEP, and the local governments, Molycorp had placed 64,000 cubic yards of radioactive slag on top of a one hundred year old, 16 inch, main water line that is owned by the Pennsylvania American Water Company. This main line is bi-directional and serves the people of Canton Township, the City of Washington and North Franklin Township. Co-located with the water line are a main sewage line and a high pressure gas line. This irresponsible placing of the slag dump presents not only a potential health risk for water service customers in the municipalities but a direct risk for utility workers who may have to repair the lines. Also, a water line break under the pile could wash quantities of thorium into the adjacent Chartiers Creek, the main tributary for the largest watershed in Western Pennsylvania. While Molycorp has offered to pay for the relocation of the line, damage may well have already occurred.

What is the present status of the case and what positions have been taken by elected officials?

Canton Township, the City of Washington, Washington County, and numerous other state and federal elected officials believe that the situation can best be resolved by moving this waste material to a site where it would never impact people. Looking at the half-life of the material, 7.2 billion years, and the life expectancy of the proposed disposal cell, 100 years: storing the material at the Molycorp facility in Washington, Pennsylvania is not an acceptable long term solution. The most appropriate solution to the problem is to dispose of the material at an approved site, such as Environcare in Utah. Another alternative might be for the Commonwealth of Pennsylvania to identify a low-level waste disposal site (as per its position in the Compact with several other states) as required by the Low -Level Radioactive Waste Disposal Act of 1980 (as amended in 1985). Given this company's track record for irresponsible handling of low-level radioactive waste, it is difficult to imagine the public having trust in Molycorp's ability to manage the proposed site even with the oversight of the NRC. Again, it is recommended that the radioactive waste be moved as far away from people as is possible, certainly more than 130 feet from where families and their children live and play.

Canton Township and the City of Washington have been granted a public hearing on Molycorp's proposed transfer of waste from York, PA to Washington, PA, and the company's plans to temporarily store the York material at Washington. This public hearing was granted over the NRC staff objections that cited that neither municipality had "standing" in the matter. In his ruling the administrative judge found that three concerns posed by the municipalities are germane: the proximity of the proposed temporary storage area to Chartiers Creek, the water line, and the 100 year floodplain; the instability of the underlying geology and topography of the proposed temporary storage site; and the uncontrolled mixing of the radioactive waste with other toxic and/or hazardous materials such as coal tar already found on-site. The pre-hearing conference is tentatively scheduled for mid-July 2000. The administrative judge also agreed to hold in abeyance other concerns related to the permanent storage cell that will be described in Molycorp's decommissioning plan which is expected to be submitted sometime this summer.

List of things we are going to do. . .

To the best of my recollection, here is what we have promised to do following our meeting this morning.

John Bevec

- Contact Tony Colaizzo to set up a meeting between John, Chad and Tony to discuss how to encourage Bud to schedule caucus meetings in Washington, PA.

Diana

- Contact Senator Santorum's office and propose he get involved to support the effort to block the storage of radioactive waste in Canton Township.
- Contact the Governor's office to ask that they convey to the PA DEP a desire for the DEP to act as a "friend of the court" and appear at the NRC Public Hearing over the transfer of radioactive waste from York to Washington, PA. The DEP has already gone on record that they could not approve of the construction of a permanent storage cell in Canton Township. If that is true, what purpose is served by moving the material twice – once to Washington and again when a permanent storage area is later identified?

Marlene

- Will read the draft report given to her by Barry Piacenza and will direct Jeff as to how he will interact in the construction of the final report submitted by the SSAB.

Barry

- Will provide Diana and John with messages from Senator Sanforum regarding our previous attempt to solicit the Senator's help.
- Will provide Diana, John and Marlene with draft revisions of the SSAB's report as soon as they are available.

Chad

- Will forward to John and Diana an "Executive Summary", four pages or less, on the problem Molycorp's plan presents.
- Will contact Representative Trich, Congressman Mascara and Senator Stout to follow through with promises they've made regarding Molycorp.