1717

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
WASHINGTON, D.C. 20503

August 15, 1997

The Honorable Shirley M. Jackson
Chair
Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Madam Chairman:

I am forwarding correspondence Vice President Gore has received from Congressman Miller and 19 other Members of Congress regarding the Atlas Corporation Moab Mill in Utah. The concerns raised in the letter appear significant and are shared by a number of affected constituencies in the region.

Recognizing the substantial attention that you and your staff have given to the Moab decommissioning activity, I would appreciate your personal leadership in working with us to convene the affected agencies so that we might better understand the concerns that have been raised. I am confident that with your leadership, and consultation with the Department of the Interior, we can assist the Nuclear Regulatory Commission in resolving areas of disagreement.

Thank you very much for your attention to this matter.

Sincerely,

Kathleen A. McGinty
Chair

KAM/pgu

8/18...To EDO to Prepare Response for Chairman's Signature...Date due Comm: Sept 2
Cpy to: Chairman, RF, SECY to Ack....97-0840

DFDP

OFFICE OF THE VICE PRESIDENT

WASHINGTON

August 15, 1997

The Honorable George Miller
United States House of Representatives
Washington, D.C. 20515-0905

Dear Representative Miller:

Thank you for your letter regarding the decommissioning of the Atlas Corporation uranium mill tailings site in Moab, Utah. I have asked the Honorable Kathleen McGinty, Chair of the Council on Environmental Quality to look into the concerns you have raised.

I share your strong commitment to protect human health and the environment. The Administration will work to ensure that your concerns are appropriately addressed. Ms. McGinty's office will keep you informed regarding of our progress on the issues you outlined.

Sincerely,

Al Gore

AG/pgu

cc: The Honorable Shirley Jackson
The Honorable Bruce B[illegible]bitt

U.S. House of Representatives
Committee on Resources
Washington, DC 20515

August 5, 1997

The Honorable Albert Gore, Jr.
The Vice President
The White House
1600 Pennsylvania Avenue NW
Washington, D.C. 20500

Dear Mr. Vice President:

On June 5, 1997, 19 other Members of Congress and I wrote to you asking for your personal intervention in resolving a dispute within the Administration over radioactive contamination of the Colorado River.

On June 27, the Fish and Wildlife Service issued a draft Biological Opinion, pursuant to section 7 of the Endangered Species Act, on the proposed plan to cap *in situ* the Atlas mill tailings pile in the floodplain of the Colorado River near Moab, Utah. Due to the many impacts to endangered species that would likely continue after the Atlas Corporation constructed the permanent cap, the Service has determined that the proposed action will jeopardize the continued existence of the Colorado squawfish, razorback sucker, humpback chub and bonytail chub.

Although one month has passed, the Nuclear Regulatory Commission has neither contacted the Fish and Wildlife Service regarding the biological opinion nor announced its decision on the proposed decommissioning plan in light of the jeopardy opinion.

This is a serious lapse as the Atlas mine is likely in direct violation of Section 9, the "take" provisions, of the Endangered Species Act. According to the Service, the Colorado squawfish, for example, may be spawning in the Colorado River at this time. Death is certain should the larvae come into contact with the high concentrations of ammonia currently being dispersed into the Colorado River from the tailings pile.

According to the Fish and Wildlife Service, even the NRC has indicated that moving the tailings away from its current location is the environmentally preferable alternative. However, the NRC is concerned that the Atlas Corporation would declare bankruptcy if forced to pay the costs of moving the tailings. In light of the jeopardy opinion, however, short of some as yet undescribed plan to stop the ongoing leakage from the unlined pile, it would appear that the tailings must be moved.

Further, the NRC itself has not done a full cost analysis, instead relying on data provided by the Atlas Corporation itself. The Atlas Corporation has provided at different times several different estimates on the various cost factors. The Grand Canyon Trust, a public interest group, has also undertaken an analysis of the cost factors and has arrived at a different conclusion as to the cost of moving the tailings. Further, the Atlas Corporation/NRC cost estimates do not include any costs for remediating the groundwater contamination. Instead they have chosen to separate this issue from the NRC decision on decommissioning. In light of the jeopardy opinion, this makes little sense. Any option for leaving the tailings in place would require some sort of ground water treatment. A responsible cost analysis should incorporate the cost to remediate groundwater as well as relocation of the tailings.

The NRC has chosen to narrowly view its responsibilities in this matter --- to approve, approve with modification, or disapprove the decommissioning plan. A coordinated federal response is clearly required if this situation is to be satisfactorily resolved to provide a satisfactory level of protection not only to the four fish species but to others who may well face danger from the continued contamination of the Colorado River from the Atlas uranium tailings.

Sincerely,

GEORGE MILLER
Senior Democratic Member
Committee on Resources

U.S. House of Representatives

Committee on Resources

Washington, DC 20515

June 4, 1997

Honorable Albert Gore, Jr.
The Vice President
The White House
1600 Pennsylvania Avenue NW
Washington, D.C. 20500

Dear Mr. Vice President:

We are writing to express our deep concern with the manner in which the Nuclear Regulatory Commission is handling the decommissioning of the Atlas Corporation Moab Mill in Utah. Several Executive Branch agencies are involved in development of the remediation proposals currently under consideration, and there is an obvious need for significantly improved coordination in order to address a serious danger to residents and to the environment of Utah, Arizona, Nevada and California.

Ten and a half million tons of toxic wastes generated by the now-defunct Atlas Mine are stored in the tailings pond which is located adjacent to the Colorado River. The tailings are radioactive and contain high concentrations of ammonia, arsenic, lead, vanadium, selenium, mercury, molybdenum, nickel, and other toxic metals left by the leaching process used to separate uranium form ore. ***The tailings are leaking alpha radioactive material in the Colorado river at levels 1,300 times above the EPA Maximum Concentration Limit.***

The tailings pond, built in the 1950's, is not lined, and as a result, ***these radioactive and toxic wastes are seeping down through the aquifer into the Colorado River***. In addition, the tailings pond is located on seismically unstable land. Water from the Colorado River makes up a significant part of the drinking water supply for Los Angeles, San Diego, Las Vegas, Phoenix and Tucson, and is used additionally to irrigate hundreds of thousands of acres of agricultural lands. Moreover, the tailings pond, which may be designated as critical habitat for four endangered species, is situated between Canyonlands and Arches National Parks.

We understand that the NRC is ready to approve leaving the tailings pond in place rather than requiring removal to a safer location. We are deeply concerned that the risks to drinking water supplies, human health and the environment have been grossly underestimated in the decision-making process. Leaving a tailings pile of the size and state of the Atlas site in place adjacent to the Colorado River does not make sense. In the event of flood, the Colorado River could easily be contaminated.

The National Park Service, the Environmental Protection Agency, the Fish and Wildlife Service, and many state and local government agencies have all expressed concerns about the quality of scientific data and information upon which NRC decisions have been and will be based.

Moving the tailings may not immediately halt the contamination, but, would remove the source of the contamination. By placing the tailings in a more modern and technologically safe situation, the threats from earthquakes, high water, flooding would be eliminated. In every similar case under the jurisdiction of the Department of Energy, tailings have been moved away from riverbeds

to lined and protected areas. Yet, the NRC seems determined to perpetuate rather than resolve this dangerous situation in the case of the Atlas site.

We ask that you personally intervene through the Council on Environmental Quality to bring a more reasonable solution to the table that will provide greater safeguards for those who rely on the Colorado River, and to resolve disagreements within the Executive Branch on how to resolve this serious contamination crisis.

Sincerely,

GEORGE MILLER

SAM FARR

WALTER CAPPS

NEIL ABERCROMBIE

BOB FILNER

RONALD DELLUMS

LUCILLE ROYBAL-ALLARD

ANNA ESHOO

ELLEN TAUSCHER

FORTNEY PETE STARK

HOWARD BERMAN

BRAD SHERMAN

NANCY PELOSI

ESTEBAN TORRES

MATTHEW MARTINEZ

HENRY WAXMAN

MAXINE WATERS

GEORGE BROWN, JR.

LORETTA SANCHEZ

U.S. House of Representatives

Committee on Resources

Washington, DC 20515

June 4, 1997

Honorable Albert Gore, Jr.
The Vice President
The White House
1600 Pennsylvania Avenue NW
Washington, D.C. 20500

Dear Mr. Vice President:

We are writing to express our deep concern with the manner in which the Nuclear Regulatory Commission is handling the decommissioning of the Atlas Corporation Moab Mill in Utah. Several Executive Branch agencies are involved in development of the remediation proposals currently under consideration, and there is an obvious need for significantly improved coordination in order to address a serious danger to residents and to the environment of Utah, Arizona, Nevada and California.

Ten and a half million tons of toxic wastes generated by the now-defunct Atlas Mine are stored in the tailings pond which is located adjacent to the Colorado River. The tailings are radioactive and contain high concentrations of ammonia, arsenic, lead, vanadium, selenium, mercury, molybdenum, nickel, and other toxic metals left by the leaching process used to separate uranium form ore. ***The tailings are leaking alpha radioactive material in the Colorado river at levels 1,300 times above the EPA Maximum Concentration Limit.***

The tailings pond, built in the 1950's, is not lined, and as a result, ***these radicactive and toxic wastes are seeping down through the aquifer into the Colorado River***. In addition, the tailings pond is located on seismically unstable land. Water from the Colorado River makes up a significant part of the drinking water supply for Los Angeles, San Diego, Las Vegas, Phoenix and Tucson, and is used additionally to irrigate hundreds of thousands of acres of agricultural lands. Moreover, the tailings pond, which may be designated as critical habitat for four endangered species, is situated between Canyonlands and Arches National Parks.

We understand that the NRC is ready to approve leaving the tailings pond in place rather than requiring removal to a safer location. We are deeply concerned that the risks to drinking water supplies, human health and the environment have been grossly underestimated in the decision-making process. Leaving a tailings pile of the size and state of the Atlas site in place adjacent to the Colorado River does not make sense. In the event of flood, the Colorado River could easily be contaminated.

The National Park Service, the Environmental Protection Agency, the Fish and Wildlife Service, and many state and local government agencies have all expressed concerns about the quality of scientific data and information upon which NRC decisions have been and will be based.

Moving the tailings may not immediately halt the contamination, but, would remove the source of the contamination. By placing the tailings in a more modern and technologically safe situation, the threats from earthquakes, high water, flooding would be eliminated. In every similar case under the jurisdiction of the Department of Energy, tailings have been moved away from riverbeds

to lined and protected areas. Yet, the NRC seems determined to perpetuate rather than resolve this dangerous situation in the case of the Atlas site.

We ask that you personally intervene through the Council on Environmental Quality to bring a more reasonable solution to the table that will provide greater safeguards for those who rely on the Colorado River, and to resolve disagreements within the Executive Branch on how to resolve this serious contamination crisis.

Sincerely,

GEORGE MILLER

SAM FARR

WALTER CAPPS

NEIL ABERCROMBIE

BOB FILNER

RONALD DELLUMS

LUCILLE ROYBAL-ALLARD

ANNA ESHOO

ELLEN TAUSCHER

FORMER PETE STARK

HOWARD BERMAN

BRAD SHERMAN

NANCY PELOSI

ESTEBAN TORRES

MATTHEW MARTINEZ

HENRY WAXMAN

MAXINE WATERS

GEORGE BROWN, JR.

LORETTA SANCHEZ

DON YOUNG, CHAIRMAN

U.S. House of Representatives
Committee on Resources
Washington, DC 20515

May 23, 1997

Dear Colleague:

I am writing to ask that you join me in sending the attached letter to Vice President Gore to ask for his personal intervention in the Nuclear Regulatory Commission's handling of the decommissioning of the Atlas uranium mill in Moab, Utah.

The defunct Atlas mill includes a tailings pond that is unlined and sits on a porous geological site where leachate seeps directly into groundwater. Ten and a half million tons of toxic wastes -- which are radioactive and contain high concentrations of ammonia, arsenic, lead, vanadium, selenium, mercury, molybdenum, nickel, and other toxic metals -- are stored in the tailings pond that is located right next to the Colorado River. The tailings pond is not lined, so these wastes are seeping down through the aquifer to the Colorado River which serves as the source of drinking and irrigation water for our constituents. **The pile is leaking alpha radioactive material in the Colorado river at levels 1,300 times above the EPA Maximum Concentration Limit.**

Yet, even though it will allow toxics to seep into the river at a rate of 8 gallons per minute, the NRC is seriously considering approval of a plan to cap the pile, and leave the tailings in place! Capping the pile will not affect the leaching for at least 66 years, according to the Atlas Corporation.

The NRC maintains that this plan is "safe" -- even though the tailings pond is located on the intersection of two active fault lines. Every other uranium millsite on the Colorado River has been moved away to higher, safer ground, where modern lined pits are used to store the toxics. Between floods and earthquakes, leaving the pile in place could contaminate the drinking water of millions of people in Los Angeles, San Diego, Las Vegas, Phoenix and Tucson. This plan is drawing justifiable criticism from the National Park Service, the Environmental Protection Agency and the Fish and Wildlife Service, but the NRC continues to advocate a flawed plan that will not end the contamination of the Colorado River.

The risk involved in leaving the tailings in place is simply not acceptable. If you agree, please contact Deborah Lanzone at 225-4945 to add your signature to mine on the attached letter. We intend to mail this letter to the Vice President no later than **May 30, 1997.**

Sincerely,

George Miller

GEORGE MILLER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

JUN 2 1997

8R-EP

Honorable John McCain
United States Senate
Washington, D.C. 20510-0303

Dear Senator McCain:

Thank you for your April 25, 1997 letter expressing interest in the Atlas Corporation uranium mill tailings near Moab, Utah. Your specific concerns included the Environmental Protection Agency's (EPA) opportunity to assess any proposed remediation of the tailings pile and protection of the Colorado River under the Clean Water Act.

Under the National Environmental Policy Act (NEPA) and the Uranium Mill Tailings Radiation Control Act (UMTRCA), EPA provides consultation to the Nuclear Regulatory Commission (NRC). In that role, EPA submitted technical comments to NRC regarding the project's Draft Technical Evaluation Report and Draft Environmental Impact Statement (DEIS).

The NRC has published a Final Technical Evaluation Report (FTER). That report, among other things, determined that acceptable remediation includes stabilization of the waste tailings pile on site. The stabilization design does take into consideration stream bank stability and erosion control. Such designs cannot guarantee that structural failure from a flood event will not result in contamination and damage to natural resources. However, the UMTRCA regulations (40 CFR 192) do intend that reclamation efforts be effective for up to 1000 years.

We realize concerns remain with regard to the proposed remedy. Removal of the tailings pile was considered as an option under the DEIS. EPA's position at the time was that the removal option had several desirable features, which EPA pointed out in its comments (enclosed). The removal option also had potentially detrimental impacts to the environment which included concern over impacts from heavy equipment needed for removal and a significant concern as to how to address contaminated soils beneath the tailings pile, once removed. In NRC's final review, the removal option was not selected after considering the requirements found in regulations at 40 CFR 192, the risk posed to human health and the environment by the on-site stabilization option and the costs of all options considered.

The NRC's engineering cost evaluation of the various options did not take into consideration potential long-term costs for restoring natural resources that could be impacted, should the proposed on-site containment system fail. Nor was there an engineering cost

evaluation of potential natural-resource impacts resulting from failure should the tailings be moved to a different location, under the removal option. While EPA encourages cost analyses that consider potential long-term natural-resource impacts, the NRC is not required to evaluate such costs.

EPA's and the National Park Service's (NPS) concerns regarding the project specifically included the potential effects of the project on the Scott Matheson Wetland Preserve on the south side of the Colorado River. EPA accepted Atlas Corporation's technical consultant's findings that there were no ground-water connections between the tailings pile contamination plume and the preserve (NRC's October 17, 1996 response to NPS and EPA, enclosed). As a result, EPA revised its rating of the DEIS from that of having Environmental Objections and Insufficient Information (EO-2) to that of having Environmental Concerns and Insufficient Information (EC-2) (also enclosed). Later, in January of 1997, the U.S. Geological Survey confirmed that there was no potential for the tailings pile to affect ground water discharged to the Matheson Preserve (letter enclosed).

The Utah Department of Environmental Quality (UDEQ) is concerned about the lack of a long-term ground-water corrective-action plan and has required one be submitted by Atlas Corporation. Since there is ground-water and surface-water interaction at this site, UDEQ is also concerned by the potential for water- quality standards not being met as a result of the localized ground-water contamination from the tailings plume. In its May 6, 1996 comments to NRC, EPA commented that a ground-water management plan should be included with the final EIS; and, at this time, this matter has not been satisfactorily addressed. Under its regulations, the NRC is not required to address ground-water remediation at the same time it considers stabilization and has requested the ground-water issue be deferred until after the stabilization decision is final.

The responsibility of assuring water-quality standards are met under the Clean Water Act is delegated to the State of Utah, with EPA assistance and oversight. Under Utah State water-quality regulations, NRC and Atlas Corporation must address water-quality requirements. As a result, UDEQ has issued an order requiring Atlas to develop and submit a ground-water corrective-action schedule. The schedule must be submitted 30 days after publication of the final EIS and must be reviewed and approved by UDEQ before construction of the cap for the tailings. For more information regarding the UDEQ order and schedule, please contact Loren Morton of UDEQ at (801) 536-4262.

As of the writing of this letter, the U.S. Fish and Wildlife Service (USFWS) is in formal Section 7 consultation pursuant to the Endangered Species Act. During this process, they will evaluate whether or not discharge from the existing tailings pile and the proposed on-site remedy would impact any endangered species or biological resources, such as habitat. USFWS will produce a determination and recommend final actions based on this determination. If there is significant impact, the proposed project may require re-evaluation. The USFWS project contact is Janet Mizzi at (801) 524-5009 x128.

Unless new information is brought to our attention, EPA has no further regulatory role in the approval or disapproval of the EIS or the final recommended remedial option. However, we remain concerned about and await resolution of the long-term ground-water corrective-action and monitoring issue. The FTER and the final EIS are the responsibility of the NRC's Uranium Recovery Branch. NRC's contact is Joseph J. Holonich at (301) 415-6629.

If you or your staff have additional questions regarding EPA's role in this matter, please connect Carol Campbell at (303) 312- 6340, the member of my staff most knowledgeable about this project.

Sincerely,

Jack W. McGraw
Acting Regional Administrator

Enclosures

cc: w/ copy of inquiry letter
Diane Nielsen, UDEQ
Joseph J. Holonich , NRC
Reed E. Harris, USFWS
Richard Blubaugh, Atlas Corporation

Decommissioning of Moab, Utah, Uranium Mill Tailings

(last updated 7 Apr 1997)

View of Atlas tailings pile: image (79k)

> Search *Deseret News* archive for Atlas tailings

> Search PR Newswire for Atlas Corp. news releases

> Search EDGAR Database for Atlas Corp. Records: via NYU / via SEC

Contents:

Information from Atlas Mill Reclamation Task Force

(reprinted here with permission)

We've been on the Nuclear Regulatory Commission's (NRC) case about the Atlas tailings since 1990. I'm the Chairman of the Atlas Mill Reclamation Task Force, also President of a small local 501(c)(3) tax-exempt non-profit which has been pursuing Atlas cleanup as a project.

Basically, what we have here is something George Orwell would understand. The NRC's August, 1990, regulations state that the ideal reclamation of uranium tailings is below grade, away from population, in a seismically stable area, where the tailings are isolated from water and air for at least 200 and preferably 1,000+ years. The Atlas tailings stand 110 feet above grade over 130 acres on the flood plain of the Colorado River and Moab Wash, bisected nicely by the geologically-active Moab Fault, next door to the City of Moab and the Visitor's Center for Arches National Park. The pile is leaking alpha radioactive material into the Colorado at levels 1,300 times above the EPA Maximum Concentration Limit, which are also exceeded by several heavy metals in the leachate. Capping the pile in place will have no effect on this leaching for at least 66 years according to Atlas's own engineering contractor.

Naturally, the NRC sees no problem with capping the thing in place with some expensive rock armor hauled in over a dangerous road which isn't up to it. As I see it, they're basically in a bunker mentality because they approved the capping-in-place plan for this Title II site in 1982 before anybody knew the fault was active, and well before they adopted their tailings reclamation regulations in 1990. They don't want to admit they goofed and that the taxpayers are going to end up having to take on some $50 million more in reclamation expenses than was bargained for. (We're all agreed the Atlas Minerals Corporation should be held harmless for more than the cost of the original reclamation plan, which was done in good faith with the best information at the time. The Corporation would go bankrupt if asked for more money for reclamation, as they are teetering along the edge of Chaper 11 as is.)

Some locals including myself came up with an alternative reclamation plan involving an ideal geophysical site 23 kilometers north of the current tailings. The tailings could be moved there by rail at low speed, buried completely below grade in a Mancos Shale medium which is competent to contain the tailings without maintenance for 1,000,000+ years - which exceeds the radioactive life of the contents.

A bit of history: the original uranium reduction mill was built on the flood plain of the Colorado River, right across the former route of the Moab Wash, in 1956 by the UTEX Corporation, created by Charlie Steen, in order to process pitchblende ore from his Mi Vida Mine to supply the U.S. Atomic Energy Commission's nuclear weapons program. The mill was later purchased by the Atlas Minerals Corporation, and continued to supply the AEC until the government quit buying uranium for atomic weapons, whereupon Atlas rebuilt the mill to process vanadium-bearing uranium ores typical of the Uruvan Uranium Belt into fuel for atomic power plants. The commercial market for uranium collapsed in 1982 in the United States, but the Atlas Mill had contracts which kept it running until March, 1984. Most of the 1950s uranium mills which used unlined tailings piles went out of business when the AEC quit buying uranium for weapons. The Atlas tailings is to my knowledge the only AEC-era pile that ended up getting added to during the uranium fuel-producing commercial era, is unlined, and is sitting on a porous geological site where leachate goes directly into groundwater. According to the Lawrence Livermore National Laboratories, it is the only Title II uranium tailings site in the U.S. which is located on a site which appears to be seismically unstable.

Cost of the reclamation project: The current Atlas proposal involves the quarrying, transportation, and placement of some unusually large basalt rock armor to resist erosion from floods of the Colorado River and the Moab Wash (which three years ago washed away U.S. Highway 191 opposite the Arches National Park Visitor's Center in a flood). This armor is much more expensive to obtain and place than that typically installed in less vulnerable sites, yet the Atlas cost estimates are much lower. In the meeting with the Nuclear Regulatory Commission (NRC) on February 28, 1996, County Councilman Bill Hedden and Utah State Radiation Control Director Bill Sinclair both presented substantial information that indicates that the Atlas capping proposal will likely cost $36 million or more, rather than the range of $11-17 million which has been presented in recent documents.

These quotations are all for the total cost of the reclamation project. My figures from the Department of Energy (DOE) indicate the portion of the tailings which was accrued supplying the Atomic Energy Commission (AEC) nuclear weapons program is 55.75%. Thus, under provisions in the Energy Act of 1992, the DOE will reimburse Atlas for 55.75% of the cost of reclamation on the site. Atlas is making a fuss because they have a surety of $6.5 million posted against the reclamation costs. $6.5 million is 44.25% of $14,689,260. If the final reclamation approved by the NRC costs $36 million, for example, then Atlas would be required to increase its surety by $9,430,000. The company, which has quit the uranium business and entered the gold mining business in the Carlin Trend in Nevada, currently has its only mine on standby. The Atlas management has been clear that, if they were asked for more than about an additional $1 million in surety, they would declare bankruptcy. [...]

Contact:
Association for the Tree of Life- ATL
Richard Lance Christie
P.O Box 166, Moab, UT 84532, USA
Tel. +1-801-259-5095, E-mail: AtLandL@aol.com

Information from U.S. Nuclear Regulatory Commission

U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards: **Final Technical Evaluation Report** - For the proposed revised reclamation plan for the Atlas Corporation Moab Mill, NUREG-1532, March 1997

ABSTRACT: This final Technical Evaluation Report (TER) summarizes the U.S. Nuclear Regulatory Commission staff's review of Atlas Corporation's proposed reclamation plan for its uranium mill tailings pile near Moab, Utah. The proposed reclamation would allow Atlas

Opinions and comments from our readers . .

lection is put to bed. This
tion, and it will be some-
n a more normal fashion.
ults. Utah was expected to
our congressional district,
ican district in the nation,
publican, ending an hon-
t Bill Orton—whose inde-
rom both sides of the aisle,
ndependent, self-sufficient
impressed me as a prag-
ne. It will be interesting to
ions in Congress that will
district. I'm betting he's up

v office-holders have their
hallenge has been thrown
sident Bill Clinton that the
wants some progress. The
t. More was accomplished
ast Congressional session
wo years. It was proof that
rway can do things if they
t a balanced budget. They
ioning. They want a stop to
iment a couple of times last
. I hope they get what they

ular Governor Mike Leavitt,
e biggest margin ever gar-
irk cut out for him, also.
nd fiscally sound state op-
ace many challenges facing

ity (and money) coming to
rograms previously handled
ly approach welfare, educa-
manner that can prove the
hem by Washington.
h I have a little experience,
highway and mass transit
and we are already a num-
ing with those needs. Some
us up to speed, and a lot of
d locally. Fortunately, Utah
that price tag. If the Gover-
l fortitude to put the fund-

rural resident, to see that
n store for any part of Utah
five years. There is no ques-
ong the Interstate 15 corri-
be done just to keep Utah
allenge of the 2002 Winter

rural areas cannot be for-
ah are going to have to de-
irement as an economic fu-
on infrastructure to handle
he expense of Wasatch Front
als and rural legislators are
ghts.

An expert speaks up . . .

Dear Sam:

I am an internationally known expert in radiological health and radiation protection and, since I live in Moab, I felt compelled to respond to Peter Haney's advertisement in last week's paper.

Mr. Haney apparently believes the Atlas tailings are high level radioactive waste and are extremely dangerous. This is not true.

The tailings are less radioactive than the naturally occurring ore from which they were derived and they should not be treated as a source of imminent hazard, which they are not.

Substantial human populations live without any ill effects in areas of the world where the natural levels of radiation are as high as those directly over the Atlas pile.

Mr. Haney implies the NRC did not analyze the consequences of the tailings pile being eroded into the Colorado River. His implication is untrue as the consequences of the pile being released to the river is analyzed on page 4-27ff of the Draft Environmental Impact Statement (NUREG 1531).

The natural radioactivity in the suspended sediments flowing down the Colorado River in a thousand years, containing the same radioactive elements found in the Atlas tailings pile, exceeds that which is in the Atlas tailings pile. The mass of suspended sediments flowing by the pile in a year exceeds the total mass of the pile.

I have measured the radioactivity over several tailings piles, including Atlas', and there is nothing unusually high about the Atlas tailings.

I have no financial connection with Atlas Corporation, although I have been frequently called upon to do consulting work for a variety of clients including the U. S. Department of Justice, the Canadian Atomic Energy Control Board and the International Atomic Energy Agency.

However, I do have a financial stake in Moab as the owner of the Sunset Motel and I support Bob Pattison's position that the unnecessary expense of $100 million for moving the pile would not have health or environmental benefits commensurate with the cost.

I have read the relevant NRC documents in our public library and conclude that the current pile location will produce no significant exposure to any single person in Moab relative to internationally accepted radiation protection standards or the natural background radiation levels here, either now or in the future.

Mr. Haney's last paragraph is devoid of any quantitative judgment or reasoning. He only wants the pile removed, without reasonable justification. As the owner of a local business I, and some of my employees, are more afraid of Mr. Haney's influence than that of the Atlas tailings pile!

Concerning his educational background, what special training does Mr. Haney have to disapprove of the ability of the NRC scientists and engineers to make valid and complex technical judgments?

When he says: "...what will happen in 500 years..." he hypothesizes a farm over the former Lake Powell. I point out the fact that a farming town in Brazil is built over a naturally occurring uranium deposit where the local population shows no ill effects from eating the food grown upon it; food that is fit for human consumption.

A similar situation exists over an even larger area in India, where 100,000 people are exposed to 2 roentgen per year of external radiation from naturally occurring thorium and its daughter products in the underlying soil, without any apparent ill effects.

When Peter Haney says that the pile will end up in the river, I ask "what will be the consequences?" as it will be buried under tons of sediment where it can not expose anyone significantly. The river can only dilute the tailings, not concentrate them, whether they flush by slow erosion or by flash floods.

Respectfully submitted,

McDonald E. Wrenn, Ph. D.
Professor of Pharmacology,
University of Utah and Adjunct
Professor of Physics and
Biology, Mesa State College,
GrandJunction, Colorado

It'my turn on arena talk . .

Dear Sam,

Eighteen months ago I moved to Moab, not for the scenery or recreational opportunities, (I was leaving a similar area), but for a challenge few people were interested in taking on professionaly.

That challenge was to make the county fairgrounds complex, (Spanish Trail Arena), active enough to be a profitable county facility.

Even before starting the job I saw the biggest challenge would be to soften the hostility some residents had toward the facility, because if locals didn't appreciate the facility, they certainly would not send visitors to the arena to see an event, and neither would the locals.

Certainly my job has been hampered to attract producers of events due to the negative reactions these people receive when they do advance work prior to their event. Many have changed their minds after coming across the wrong people.

I have worked hard to diversify the types of people using the facility so when I hear people say it is only a horse facility and that is all it will be, it is a statement without fact.

Activities such as the BMX Race Series, Indoor Soccer League, along with events like the Tour of Canyonlands, Jeep Safari, demolition derbys', Fat Tire Festival, movie productions

Letters to the editor policy

The Times-Ind[illegible]ent welcomes opinions from ject pertinent to Southeastern Utah. Letters include the writer's name, address and teleph used to replace advertisements. Cards of Thar pants to a particular event. Letters to the edito candidate that has filed for political office or f a filed candidate. Anything unsigned, of a defamatory statements will not be considered be typed or legibly written, and be 800 wor editing. Mail to "Letter to the Editor," P.O. Bo line is Tuesday before 12 noon.

Volunteers were appreciated . . .

Dear Sam

the busy congestion between traf-

THE ZEPHYR

MOAB IN A NUTSHELL

BY PETER HANEY

Is Moab Who's the Freest of the Free?

Why the NRC (Nuclear Regulatory Agency) of course! It was interesting to read Senator McCain's (R-Ariz.) concerns in the *Salt Lake Tribune*. He is rightfully upset with the recent NRC decision to cap the Atlas Tailings Pile in place. However, he is also partially responsible for that decision. In the NRC's mind it is still 1954, Eisenhower is President, and the reds are at our shores threatening to take over. The NRC was given exclusive powers in the 1954 Atomic Energy Act of Broad Discretion to get the job done. Even now some of them still accidently say Atomic Energy Commission when they answer the phone.

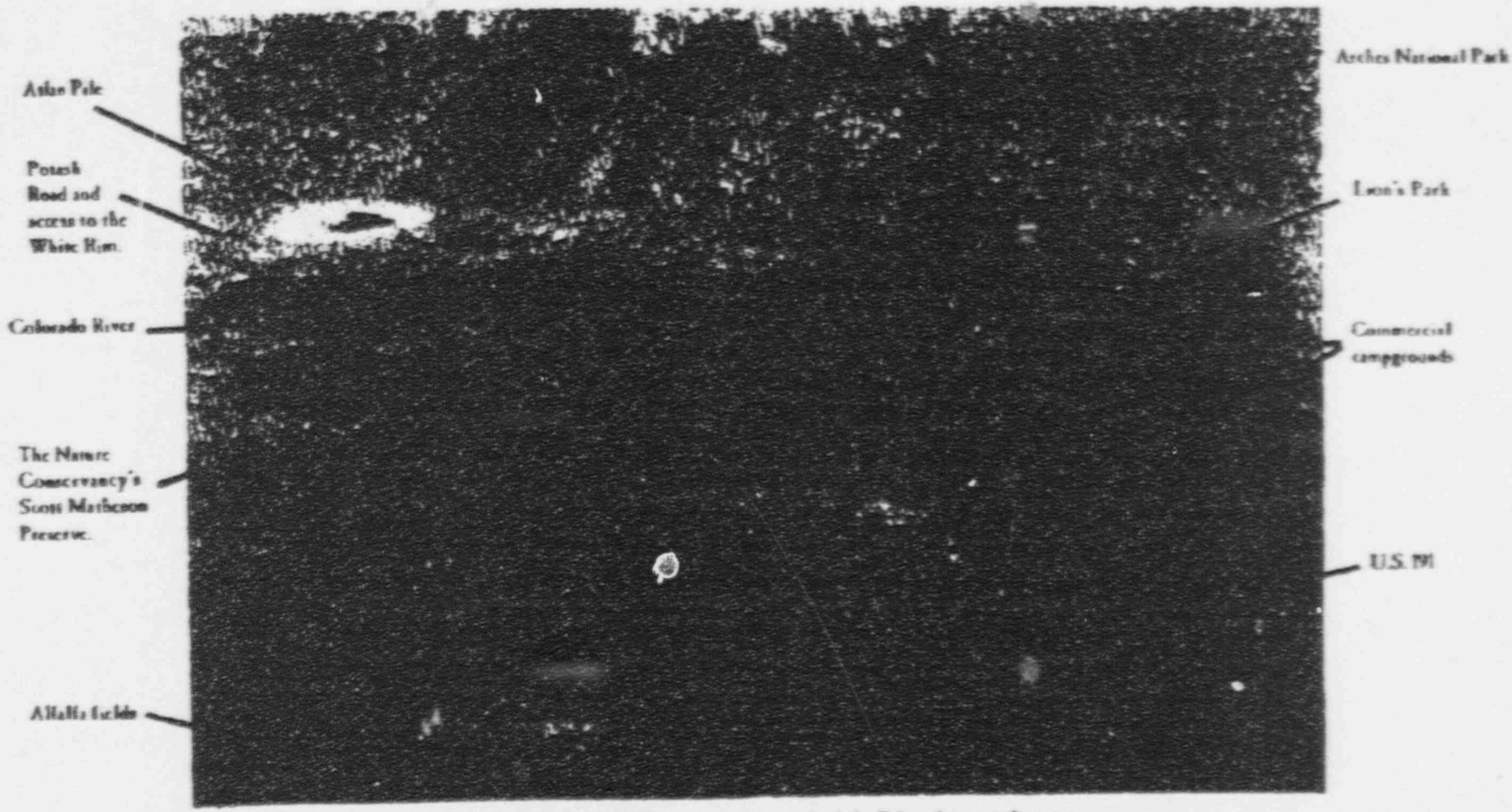
Along with their powers of Broad Discretion, the Atomic Energy Act included Section 84. Section 84(a) is where the NRC is required to place a dollar value on everything they do, and that they must chose the cheaper alternative, (and thus the tailings stay put). 84(c) is the "to the extent practicable" clause which allows the NRC to exempt everything they want to from any post Atomic Energy Act Congressional legislation.

Thus when Congress determines that for all practical purposes, uranium tailings piles amount to a "perpetual hazard" and that we, Congress, do not want to revisit them again; the NRC determines that what Congress really meant was, don't bankrupt any companies. Don't worry that these NRC decisions only ensure that there will be trouble again at the Moab Tailings as well as other sites. The NRC's interpretation of the law requires the NRC to protect companies over citizens and the environment. Senator McCain, if you want to fix the problem of the tailings pile, change the law. Finally revisit the outdated Atomic Energy Act and repeal Section 84. Make the NRC play by the same rules that we all have to, Congress's.

THE ATLAS MILL TAILINGS RECLAMATION

A CASE STUDY IN BUREAUCRATIC DOCY OR: DO CONGRESS REALLY INTEND TO PUT GEORGE ORWELL AND FRANZ KAFKA IN CHARGE OF THE NUCLEAR REGULATORY COMMISSION?

BY LANCE CHRISTIE



THE VIEW FROM ABOVE: An aerial view of the Atlas Pile and surrounding area.

Well, students of Orwellian bureaucratic reasoning ("slavery is freedom, war is peace") now have a fine example in the final Technical Evaluation Report (TER) published March 7, 1997, by the Nuclear Regulatory Commission (NRC). Basically, the TER provides the predicted answer to the question, "Can we rationalize that capping the Atlas tailings in place would meet NRC reclamation regulations?" The answer in the TER is "yes." We are not surprised.

A strenuous exercise in bureaucratic logic was required to produce this answer. The Atlas tailings site is a textbook example of the *reverse* of the major 1990 NRC tailings reclamation criteria. It took a lot of bureaucratic obfuscation to make the case that capping the pile will meet those criteria. The structure used to achieve this was to fragment the tailings reclamation project into a system of often arcane technical issues or questions. In the Draft TER, these issues were declared "open" (unresolved) or "closed," which means the NRC thinks it's got enough information to make a determination. The NRC ground away on the "open" issues until they could be declared "closed" in a final TER. The NRC analysis process documented in the TER seems to sit somewhere between an alternative reality and a delusional system, which local people reading the TER find maddening in its violation of common sense.

To understand the different way Bill Hedden, Peter Hancy, Merv Lawton, the Utah Division of Radiation Control, and almost everybody else except the NRC sees the issue, we need to review the history: In 1947, the Atomic Energy Commission established a uranium ore buying station at the site. In 1957, "uranium king" Charlie Steen's UTEX Corporation built a uranium reduction mill over the Moab Wash on the flood plain of the Colorado River to process pitchblende ore from the Mi Vida Mine, in response to US subsidy of uranium production for atomic weapons at the beginning of the "cold war" with communism. In 1960 the Atlas Corporation purchased the mill and its unlined tailings pile. In 1970 the mill was rebuilt to process vanadium ores and produce commercial uranium for atomic power. 28 AEC-supplying mills shut down, while 13 others made this transition to commercial uranium production.

In 1978 Congress passed the Uranium Mill Tailings Radiation Control Act (UMTRCA). All abandoned tailings (Type I) were to be reclaimed by the Department of Energy (DOE) at taxpayer expense, under the supervision of the new Nuclear Regulatory Commission (NRC). All operating uranium mills (Type II) were required to do an Environmental Impact Statement (EIS) to evaluate alternative reclamation plans, get a reclamation plan approved by the NRC, and post a bond sufficient to carry out the reclamation when the mill closes. Atlas evaluated capping the pile in place versus moving it to nine alternative sites. The capping plan involved covering the pile with Morrison Shale and then a layer of gravel. At the time, nobody had attempted to reclaim a tailings pile, and no criteria for reclamation had been adopted by the NRC. Atlas concluded it would cost $3.6 million to cap the pile in place, and $18.3 million to move it by truck to the nearest alternative site (7 Mile Canyon). In 1977 dollars. In 1982, the NRC approved the capping-in-place reclamation plan, and Atlas posted a bond for the estimated cost. This was done in good faith given the (lack of) information at the time.

In August, 1990 the NRC finally adopted uranium mill tailings reclamation standards incorporating the experience the DOE had reclaiming 28 Type I tailings sites. The ideal tailings reclamation is (1) below grade (2) away from population (3) in a seismically stable site (4) isolated from groundwater and air for at least 200 and preferably 1000 years without any site maintenance. The regulations specify maximum concentration limits for leachate into groundwater, and erosion control measures (like slope and rock armor) to prevent escape of radioactive materials into the air. The NRC asked Atlas to evaluate and revise their capping reclamation plan to meet the new regulations. Since the Atlas tailings site is a textbook example of the reverse of the major reclamation criteria, this put Atlas and the NRC into a bureaucratic bind. The political problem driving all activity since appears to be that, if the NRC ends up approving a different, more expensive reclamation plan than they originally approved in 1982, they have no legal choice than to demand Atlas increase their bond to cover 45% of all costs. This is unfair to Atlas, and probably illegal, since it represents applying regulatory liabilities backwards in time against a fully compliant private company. Atlas has made clear that the company will declare bankruptcy if confronted with such a demand, whereupon the NRC will be stuck with an unreclaimed tailings pile which has no "licensee" (owner), and obliged to try to recover funds from the defunct licensee (Atlas) to reclaim it. This fruitless effort would occupy years in court, enriching lawyers at taxpayer and Atlas shareholder expense while the pile sits there leaking into the Colorado River.

And significant leaking is going on, contrary to the claims in the DTER and DEIS issued in the fall of 1996. The State of Utah has since taken proper water samples evaluated by a certified laboratory, finding 10 non-radiologic contaminants in excess of Ground Water Quality Standards (GWQS): D-molybdenum was 30 times over health criteria in surface water from seeps on the riverbank; nitrate + nitrate 13, chloride 2.9, manganese 67.5, D-nitrous oxides 2.9 and T-NO2+NO3 *2.9, D-vanadium 3.5, sulfate 18.1, T-Molybdenum 34.8, and T-Vanadium 1.4 times over GWQS. The Colorado River water samples found elevated downstream concentrations for ammonia (as N), manganese (342% higher), molybdenum (488% higher), and nitrate + nitrite (as N, 139% higher), with ammonia concentrations *exceeding surface water quality standards*. Ammonia was used as a reagent in the uranium milling process, and in tailings effluent reaches 2,407 mg/l concentrations. The NRC has sole authority over radionuclides, so the state could not test for these. Monitoring wells show alpha radiation levels up to 5,600 picoCuries/liter in groundwater, versus 33 pCi/l background. The state estimates it will take at least 40 years for leaching from the pile to decline to GWQS units if the pile is capped in place.

And how does the TER deal with the state water contamination information? On page 5-14, "Staff further concludes that the concern of contamination extent on adjacent properties has minimal relevance to the review of the proposed plan for onsite surface reclamation of the tailings. The contamination extent does have a large

bearing on groundwater compliance for license termination and revision to the Corrective Action Plan (CAP) for groundwater clean up, regardless of the decision with respect to surface reclamation." I offer the following translation into standard English: "Since capping the tailings in place won't have any effect on leaching into water, and since the pile can't be found to be remediated and Atlas dismissed from responsibility until the groundwater is cleaned up, we'll just ignore the whole issue."

Putting up with this water contamination might be justified if it would truly cost five times as much to move the pile as to cap it. We don't think so. Local citizens collaborated with volunteer staff from the largest mining reclamation contractors in the world to develop a plan to use 300-ton Caterpillar mining haul trucks straddling the railroad spur as a haul road to move the tailings to a below-grade reclamation in the geophysically-ideal Mancos Shale of the Klondike Flats. These professionals estimated that the tailings could be reclaimed for a total of $20,366,396 in 314 days. This cost overlaps the range of estimates by Smith Engineering for the cost of capping the pile. The Department of the Interior has noted that Smith's cost estimates (mostly from 1994) may not include the cost of engineering features added to the capping plan during the 1996 DEIS/Draft Technical Evaluation Report critique, such as ground acceleration from earthquake, insufficient clay thickness in the cap, and protection against Colorado River migration against the toe of the pile. Moving the pile by this creative, safe, least expensive method could cost the same or even less than capping the pile in place with all the additional engineering features. Moving the pile is environmentally preferable, so an equivalent cost to capping makes moving the pile the cost-beneficial reclamation.

Every Title I pile which was unlined, sitting on a porous basement structure, and leaking into groundwater like Atlas was reclaimed by moving to another, non-permeable site by the DOE. Five were moved out of metropolitan areas, and none suffered radiation escape incidents. Several attempts to cap leaky piles in place failed, and the piles were re-reclaimed by moving at vast additional expense. What worries me is that we can expect the same if the Atlas tailings are capped - eventually, the pile plus the cap material will be moved to Klondike Flats, at 100% taxpayer expense, because of environmental problems with the capped pile.

It is a bureaucratic accident that Atlas got classified with well-sited, lined Title II tailings piles which are appropriately capped in place, instead of with unlined Title I piles leaking into watercourses which were moved to stop water contamination. We should thank Atlas for their forbearance, take their reclamation bond, release them from further responsibility; then deal with these tailings as we did with many similar sites created under the AEC national defense program. Otherwise, we're going to jack around for years wasting taxpayer and private mining industry money while at least the soluble components of the Atlas tailings patiently deposit themselves in the Colorado River.

The non-profit Association for the Tree of Life (ATL) is bearing the expense of mailing information to media, long-distance calls, etc., regarding the Atlas tailings reclamation. Tax-deductible contributions can be sent to P.O. Box 1366, Moab, UT 84532; or call 259-5095.

TOTAL P.04

The Salt Lake Tribune UTAH Wednesday, March 12, 1997

Feds Say Atlas Tailings May Be Contaminating Fish

BY JIM WOOLF
THE SALT LAKE TRIBUNE

Federal biologists are worried that contaminated water seeping from the Atlas uranium mill tailings near Moab may be creating problems for endangered fish in the adjacent Colorado River.

So Bob Williams, assistant field supervisor for the U.S. Fish and Wildlife Service, said Tuesday that the agency probably will issue a decision stating that capping the 10.8 million tons of sand-like, radioactive dirt in place on the riverbank could "jeopardize" the fish.

A jeopardy decision will not stop the project or require that it be moved to an alternate disposal site 14 miles north of Moab, stressed Williams.

But it will require Atlas to conduct additional monitoring studies to resolve any doubts about whether the endangered Colorado squawfish and razorbacked sucker are being harmed. If problems are identified, Williams said, Atlas would be required to take action to resolve them.

The U.S. Nuclear Regulatory Commission (NRC) last week issued a technical report that found Atlas' plan to cap the tailings in place complied with all federal regulations. The final step in the federal decision-making process comes this summer when an environmental impact statement is expected to be released by NRC. All indications are that it, too, will approve Atlas' plan.

That would leave one last approval from the Utah Department of Environmental Quality before Atlas could begin capping the pile. The state regulates groundwater beneath the site and has asked the company to prove that contaminated water escaping from the tailings will not harm human health or the environment. A decision on the groundwater question is expected soon after NRC's environmental study is completed.

State officials in the past have expressed doubts about leaving the Atlas tailings on the banks of the Colorado River, so there are no guarantees they will go along with NRC on this issue. The endangered-fish question could increase the state's concern about groundwater pollution at the site.

NUREG–1532

Final Technical Evaluation Report for the Proposed Revised Reclamation Plan for the Atlas Corporation Moab Mill

Source Material License No. SUA 917
Docket No. 40-3453
Atlas Corporation

U.S. Nuclear Regulatory Commission

Office of Nuclear Material Safety and Safeguards

March 1997

NUREG–1531

Draft Environmental Impact Statement Related to Reclamation of the Uranium Mill Tailings at the Atlas Site, Moab, Utah

Source Material License No. SUA 917
Docket No. 40–3453
Atlas Corporation

U.S. Nuclear Regulatory Commission

Office of Nuclear Material Safety and Safeguards

January 1996