

NRCREP - "Uranium Recovery GEIS"

From: Nancy Hilding <nhilshat@rapidnet.com>  
To: <jrp@nrc.gov>  
Date: 09/04/2007 10:47:59 PM  
Subject: "Uranium Recovery GEIS"  
CC: <nrcprep@nrc.gov>

7/24/07  
72FR40344  
378

RECEIVED

2007 SEP 13 PM 2:51

RULES AND DIRECTIVES  
PRANDI  
15:50

I have attached this letter as document named

Uranium In Situ Leach - PHAS comments.rtf

as RTF files. However this is on a MacIntosh so I have copied text below.  
When text is copied into an e-mail , formatting is changed.

Thanks

-----  
Nancy Hilding  
President  
Prairie Hills Audubon Society  
P.O. Box 788  
Black Hawk, SD 57718

Nancy Hilding  
6300 West Elm  
Black Hawk, SD 57718  
nhilshat@rapidnet.com,  
605-787-6779

E-RIDS = ADM-03  
Call = J. Park (JRP)

SUNSI Review Complete  
Template = ADM-03  
file://C:\temp\GW\00001.HTM

Chief, Rules Review and Directives Branch,  
Mail Stop T-6D59,  
U.S. Nuclear Regulatory Commission,  
Washington, DC 20555-0001  
[nrcprep@nrc.gov](mailto:nrcprep@nrc.gov)

James R. Park,  
FSME/DWMEP/EPAD,  
U.S. Nuclear Regulatory Commission,  
(301) 415-6935,

"Uranium Recovery GEIS"

Extend the Deadline

Thank you for providing this opportunity to comment. Due to the complexity of the subject and the nationwide range; we request an extension of the scoping deadline.

Scope and tiered documents

We are completely unclear as to how this DEIS will relate to whatever NEPA documents will be done prior to NRC or EPA approving each specific in situ leach mine/mill. We are not clear as to what issues will be considered fully resolved/analyzed by this GEIS and thus will be beyond the scope of the local NEPA document. Will a local NEPA document still be done?

So Many Agencies

We are confused as to which agency - NRC vs. EPA vs. SD Department of Environment and Natural Resources or Wyoming Department of Environmental Quality has authority over what. The DEIS should have a chart, map or other graphics/analysis to explain the diverse authorities.

## Cumulative Actions

We have reviewed the list of resource areas tentatively identified in the Federal Register Notice 072407. We are especially displeased with the limit on the scope of cumulative impacts. We believe that the use that the mined uranium is put to after it is mined and leaves the facility is part of the cumulative and connected actions and as such needs to be reviewed in the DEIS.

Weapons impacts as cumulative and connected action:

Of special concern as a cumulative or connected action would be the use of the uranium for the creation of nuclear warheads and the resulting potential for environmental impacts of nuclear testing, nuclear war or dismantling/disposal of nuclear warheads. We wonder if nuclear winter could be the most horrific environmental disaster man is capable of creating. Of special concern as a cumulative or connected action would be nuclear winter should nuclear winter result from any nuclear war.. Please discuss how the generation of the new uranium will contribute to nuclear proliferation. Of special concern as a cumulative or connected action should also be future presidents of the USA deciding to invade countries/continue wars to prevent others from getting a hold of "weapons of mass destruction" (i.e. war and death and associated environmental damage, allegedly needed to prevent nuclear proliferation). Of special concern as a cumulative or connected action would be use of nuclear materials by terrorists and environmental impacts from such actions.

Of special concern as a cumulative or connected action should be the use of depleted uranium by the weapons industry and the impacts to military personnel and impacts of the dispersion of depleted uranium war residues left in countries after a war is over.

Other exposures

As cumulative impact should include other routes of environmental impact associated with other uses of uranium, such as nuclear electric power plants.

### Radioactive Waste Storage.

The DEIS should discuss what is happening nation and world wide with high and low level radioactive waste disposal. If you permit someone to mine it, than eventually someone will use it and someone will likely be permitting the disposal of rad-waste that results from such use. The DEIS should examine the statistics on where the mined uranium will be used. How much of it ends in reactors where additional radioactive materials such a plutonium are generated? The DEIS should discuss all the unresolved problems associated with existing stockpiles of radioactive waste and how the statistics show this new uranium will contribute to that ever growing stock pile of rad waste. Please discuss how long the high and low level wastes have to be quarantined from living creatures and please examine who will pay for the endless containment needed. What is the cost of the ultimate disposal of this uranium once it is waste or helps generate more rad-waste? Please discuss how some countries that may receive the new uranium will use it and then dispose of rad-wastes more carelessly than other countries.

### Range of Alternatives

We don't understand why the range of action alternatives is limited to reviewing approval of new in situ leach milling or new conventional uranium mills. As far as we can tell the in situ leach milling is actually a combination of mining and milling action. How is the in situ leach "milling" action separated from the in situ leach "mining" action? If nothing else the mining must be discussed anyways as it is a connected and similar action. Thus the juxtaposition would properly be conventional uranium mining and milling; vs in situ uranium leach mining and milling.

Other action alternatives could be to limit the various technologies for mining

the ore, such as limits on the types of solutions allowed --- for example will you consider acid or just alkaline leach materials? We believe that acid solutions will leach a greater proportion of the uranium, but also a host of toxic heavy metals. Restoration of the groundwater is thus quite difficult since both the heavy metals and the uranium and radionuclides need to be treated. Alkaline solutions will leach a lower proportion of the uranium, but don't mobilize the same dangerous levels of heavy metals.

Other action alternatives could be different limits on the local conditions where such mining/milling is allowed. For example you could limit the type of aquifers/underground geology where in situ leach mine drilling could occur or could limit in situ uranium leach mines in areas where historic exploration/extraction wells are not well documented or capped.

Specific concerns:

We are concerned about how the government decides when an aquifer is not suitable for drinking water and can be mined by in situ leach mining.

We are concerned about protection of ground water. We are concerned about adequate monitoring of underground water conditions during mining and restoration and the requirements that the government has for restoration.

We are concerned about adequate bonding.

We are concerned about situations in the west where the surface landowner never got the underground mineral rights from the BLM. How will surface landowners who don't own underground rights be treated?

We are concerned about impacts to property values of adjacent landowners.

We are concerned about impacts to Native Americans who have Reservations containing uranium resources.

We are concerned about how the outdoor plumbing that pipes water about will be constructed and maintained. Will the companies save money on plumbing fixtures and water lines and thus ironically could something as simple as a faulty valve or inadequately strong water lines, result in a leak to surface waters? How will you control the construction of the physical plant at the site

We are concerned about the potential release of radon or other air pollutants.

We are concerned about the release of secondary minerals (not uranium) as contaminants which are left in the ground water as pollutants.

We are concerned about generation of wastes at the mining/milling site and how wastes will be disposed of.

We are concerned about the transportation of the uranium from the mill.

We are concerned about the impacts to surface waters and soils.

We are concerned about the impacts to visual quality.

We are concerned about health impacts to workers as occupational exposure.

Thank you,

Nancy Hilding  
President  
Prairie Hills Audubon Society

Please accept these comments on behalf of the Society and myself as an individual.

--

Nancy Hilding  
6300 West Elm  
Black Hawk, SD 57718

605-787-6466 phone and fax and voice mail and internet hook up  
605-787-6779 alternate phone  
I have call waiting and "no answer" may mean both lines in use  
(call before faxing)

[nhilshat@rapidnet.com](mailto:nhilshat@rapidnet.com)

**Mail Envelope Properties** (46DE18D3.9C2 : 4 : 2498)

**Subject:** "Uranium Recovery GEIS"  
**Creation Date** Tue, Sep 4, 2007 10:49 PM  
**From:** Nancy Hilding <nhilshat@rapidnet.com>

**Created By:** [nhilshat@rapidnet.com](mailto:nhilshat@rapidnet.com)

**Recipients**

nrc.gov  
 TWGWPO03.HQGWDO01  
 JRP (James Park)

nrc.gov  
 TWGWPO01.HQGWDO01  
 NRCREP CC

**Post Office**

TWGWPO03.HQGWDO01  
 TWGWPO01.HQGWDO01

**Route**

nrc.gov  
 nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	8498	Tuesday, September 4, 2007 10:49 PM
TEXT.htm	11141	
Uranium*In*Situ*Leach#8293F.rtf		13744
Mime.822	41585	

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**ReplyRequested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**Junk Mail Handling Evaluation Results**

Message is eligible for Junk Mail handling  
 This message was not classified as Junk Mail

**Junk Mail settings when this message was delivered**

Junk Mail handling disabled by User  
 Junk Mail handling disabled by Administrator  
 Junk List is not enabled

Junk Mail using personal address books is not enabled  
Block List is not enabled

Nancy Hilding  
President  
Prairie Hills Audubon Society  
P.O. Box 788  
Black Hawk, SD 57718

Nancy Hilding  
6300 West Elm  
Black Hawk, SD 57718  
[nhilshat@rapidnet.com](mailto:nhilshat@rapidnet.com),  
605-787-6779

Chief, Rules Review and Directives Branch,  
Mail Stop T-6D59,  
U.S. Nuclear Regulatory Commission,  
Washington, DC 20555-0001  
[nrcprep@nrc.gov](mailto:nrcprep@nrc.gov)

James R. Park,  
FSME/DWMEP/EPAD,  
U.S. Nuclear Regulatory Commission,  
(301) 415-6935,  
[jrp@nrc.gov](mailto:jrp@nrc.gov)

"Uranium Recovery GEIS"

Extend the Deadline

Thank you for providing this opportunity to comment. Due to the complexity of the subject and the nationwide range; we request an extension of the scoping deadline.

Scope and tiered documents

We are completely unclear as to how this DEIS will relate to whatever NEPA documents will be done prior to NRC or EPA approving each specific in situ leach mine/mill. We are not clear as to what issues will be considered fully resolved/analyzed by this GEIS and thus will be beyond the scope of the local NEPA document. Will a local NEPA document still be done?

So Many Agencies

We are confused as to which agency – NRC vs. EPA vs. SD Department of Environment and Natural Resources or Wyoming Department of Environmental Quality has authority over what. The DEIS should have a chart, map or other graphics/analysis to explain the diverse authorities.

## Cumulative Actions

We have reviewed the list of resource areas tentatively identified in the Federal Register Notice 072407. We are especially displeased with the limit on the scope of cumulative impacts. We believe that the use that the mined uranium is put to after it is mined and leaves the facility is part of the cumulative and connected actions and as such needs to be reviewed in the DEIS.

Weapons impacts as cumulative and connected action:

Of special concern as a cumulative or connected action would be the use of the uranium for the creation of nuclear warheads and the resulting potential for environmental impacts of nuclear testing, nuclear war or dismantling/disposal of nuclear warheads. We wonder if nuclear winter could be the most horrific environmental disaster man is capable of creating. Of special concern as a cumulative or connected action would be nuclear winter should nuclear winter result from any nuclear war.. Please discuss how the generation of the new uranium will contribute to nuclear proliferation. Of special concern as a cumulative or connected action should also be future presidents of the USA deciding to invade countries/continue wars to prevent others from getting a hold of "weapons of mass destruction" (i.e. war and death and associated environmental damage, allegedly needed to prevent nuclear proliferation). Of special concern as a cumulative or connected action would be use of nuclear materials by terrorists and environmental impacts from such actions.

Of special concern as a cumulative or connected action should be the use of depleted uranium by the weapons industry and the impacts to military personnel and impacts of the dispersion of depleted uranium war residues left in countries after a war is over.

Other exposures

As cumulative impact should include other routes of environmental impact associated with other uses of uranium, such as nuclear electric power plants.

Radioactive Waste Storage.

The DEIS should discuss what is happening nation and world wide with high and low level radioactive waste disposal. If you permit someone to mine it, than eventually someone will use it and someone will likely be permitting the disposal of rad-waste that results from such use. The DEIS should examine the statistics on where the mined uranium will be used. How much of it ends in reactors where additional radioactive materials such a plutonium are generated? The DEIS should discuss all the unresolved problems associated with existing stockpiles of radioactive waste and how the statistics show this new uranium will contribute to that ever growing stock pile of rad waste. Please discuss how long the high and low level wastes have to be quarantined from living creatures and please examine who will pay for the endless containment needed. What is the cost of the ultimate disposal of this uranium once it is waste or helps generate more rad-waste? Please discuss how some countries that may receive the new uranium will use it and then dispose of rad-wastes more carelessly than other countries.

## Range of Alternatives

We don't understand why the range of action alternatives is limited to reviewing approval of new in situ leach milling or new conventional uranium mills. As far as we can tell the in situ leach milling is actually a combination of mining and milling action. How is the in situ leach "milling" action separated from the in situ leach "mining" action? If nothing else the mining must be discussed anyways as it is a connected and similar action. Thus the juxtaposition would properly be conventional uranium mining and milling; vs in situ uranium leach mining and milling.

Other action alternatives could be to limit the various technologies for mining the ore, such as limits on the types of solutions allowed --- for example will you consider acid or just alkaline leach materials? We believe that acid solutions will leach a greater proportion of the uranium, but also a host of toxic heavy metals. Restoration of the groundwater is thus quite difficult since both the heavy metals and the uranium and radionuclides need to be treated. Alkaline solutions will leach a lower proportion of the uranium, but don't mobilize the same dangerous levels of heavy metals.

Other action alternatives could be different limits on the local conditions where such mining/milling is allowed. For example you could limit the type of aquifers/underground geology where in situ leach mine drilling could occur or could limit in situ uranium leach mines in areas where historic exploration/extraction wells are not well documented or capped.

### Specific concerns:

We are concerned about how the government decides when an aquifer is not suitable for drinking water and can be mined by in situ leach mining.

We are concerned about protection of ground water. We are concerned about adequate monitoring of underground water conditions during mining and restoration and the requirements that the government has for restoration.

We are concerned about adequate bonding.

We are concerned about situations in the west where the surface landowner never got the underground mineral rights from the BLM. How will surface landowners who don't own underground rights be treated?

We are concerned about impacts to property values of adjacent landowners.

We are concerned about impacts to Native Americans who have Reservations containing uranium resources.

We are concerned about how the outdoor plumbing that pipes water about will be constructed and maintained. Will the companies save money on plumbing fixtures and water lines and thus ironically could something as simple as a faulty valve or inadequately strong water lines, result in a leak to surface waters? How will you control the construction of the physical plant at the site

We are concerned about the potential release of radon or other air pollutants.

We are concerned about the release of secondary minerals (not uranium) as contaminants which are left in the ground water as pollutants.

We are concerned about generation of wastes at the mining/milling site and how wastes will be disposed of.

We are concerned about the transportation of the uranium from the mill.

We are concerned about the impacts to surface waters and soils.

We are concerned about the impacts to visual quality.

We are concerned about health impacts to workers as occupational exposure.

Thank you,

Nancy Hilding  
President  
Prairie Hills Audubon Society

Please accept these comments on behalf of the Society and myself as an individual.