

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:32 AM
To: Thornton, Marisa
Subject: Fw: Suoplement 1 to Uranium Watch et al. Subpart W Rulemaking Comments

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:07 AM
To: Collections.SubW
Subject: FW: Suoplement 1 to Uranium Watch et al. Subpart W Rulemaking Comments

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 20, 2015 1:40 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Suoplement 1 to Uranium Watch et al. Subpart W Rulemaking Comments

Dear Sir or Madame,

Attached is an amended version of Supplement 1 to Uranium Watch et. al Comments on the EPA Subpart W Rulemaking. There was an error in the Table on page 4. A period has been replaced by a comma for the radon emissions for Cell 4B in 2014. It is 1,036 pCi/m²-sec, not 1.026. Sorry for the inconvenience.

Sarah Fields
Program Director
Uranium Watch
PO Box 344
Moab, Utah 84532
435-260-8384

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:32 AM
To: Thornton, Marisa
Subject: Fw: Supplement 4 to Comments on EPA Subpart W Rulemaking

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:07 AM
To: Collections.SubW
Subject: FW: Supplement 4 to Comments on EPA Subpart W Rulemaking

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 20, 2015 2:07 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplement 4 to Comments on EPA Subpart W Rulemaking

Dear Sir or Madame,

The message I sent on January 16 entitled Supplement 3 to Comments on EPA Subpart W Rulemaking was actually Supplement 4. Supplement 3 was sent on January 15. Sorry for the inconvenience.

Sarah Fields
Program Director
Uranium Watch

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:31 AM
To: Thornton, Marisa
Subject: Fw: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:07 AM
To: Collections.SubW
Subject: FW: Status Update

From: Walker, Stuart
Sent: Wednesday, January 28, 2015 8:47 AM
To: Rosnick, Reid
Subject: Automatic reply: Status Update

I am out of the office on travel from Monday January 25 and will return on Thursday January 29. I will be periodically checking messages.

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:31 AM
To: Thornton, Marisa
Subject: Fw: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:07 AM
To: Collections.SubW
Subject: FW: Status Update

From: Jackson, Scott
Sent: Wednesday, January 28, 2015 8:47 AM
To: Rosnick, Reid
Subject: Automatic reply: Status Update

I am out of the office Monday 1/26 and Tuesday 1/27. For urgent matters, please contact Gail Tonnesen at tonnesen.gail@epa.gov or 303-312-6113

Thanks,
Scott

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:30 AM
To: Thornton, Marisa
Subject: Fw: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:06 AM
To: Collections.SubW
Subject: FW: Status Update

-----Original Appointment-----

From: Dye, Robert
Sent: Wednesday, January 28, 2015 8:49 AM
To: Rosnick, Reid
Subject: Accepted: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:29 AM
To: Thornton, Marisa
Subject: Fw: Accepted: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:06 AM
To: Collections.SubW
Subject: FW: Accepted: Status Update

-----Original Appointment-----

From: Brozowski, George
Sent: Wednesday, January 28, 2015 8:53 AM
To: Rosnick, Reid
Subject: Accepted: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:29 AM
To: Thornton, Marisa
Subject: Fw: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:06 AM
To: Collections.SubW
Subject: FW: Status Update

-----Original Appointment-----

From: Johnson, Ann
Sent: Wednesday, January 28, 2015 8:55 AM
To: Rosnick, Reid
Subject: Accepted: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:28 AM
To: Thornton, Marisa
Subject: Fw: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:06 AM
To: Collections.SubW
Subject: FW: Status Update

-----Original Appointment-----

From: Garlow, Charlie
Sent: Wednesday, January 28, 2015 9:19 AM
To: Rosnick, Reid
Subject: Accepted: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:28 AM
To: Thornton, Marisa
Subject: Fw: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:06 AM
To: Collections.SubW
Subject: FW: Status Update

-----Original Appointment-----

From: Benner, Tim
Sent: Wednesday, January 28, 2015 10:04 AM
To: Rosnick, Reid
Subject: Accepted: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:27 AM
To: Thornton, Marisa
Subject: Fw: FW: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:05 AM
To: Collections.SubW
Subject: FW: FW: Status Update

-----Original Appointment-----

From: Rosencrantz, Ingrid
Sent: Wednesday, January 28, 2015 12:37 PM
To: Rosnick, Reid
Subject: Accepted: FW: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:27 AM
To: Thornton, Marisa
Subject: Fw: Discussion on Consultation

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:05 AM
To: Collections.SubW
Subject: FW: Discussion on Consultation

-----Original Appointment-----

From: Schultheisz, Daniel
Sent: Wednesday, January 28, 2015 1:01 PM
To: Rosnick, Reid
Subject: Accepted: Discussion on Consultation
When: Friday, January 30, 2015 10:30 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:26 AM
To: Thornton, Marisa
Subject: Fw: Discussion on Consultation

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:05 AM
To: Collections.SubW
Subject: FW: Discussion on Consultation

-----Original Appointment-----

From: Peake, Tom
Sent: Thursday, January 29, 2015 8:11 AM
To: Rosnick, Reid
Subject: Accepted: Discussion on Consultation
When: Friday, January 30, 2015 10:30 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:26 AM
To: Thornton, Marisa
Subject: Fw: Discussion on Consultation

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:05 AM
To: Collections.SubW
Subject: FW: Discussion on Consultation

-----Original Appointment-----

From: Peake, Tom
Sent: Thursday, January 29, 2015 8:11 AM
To: Rosnick, Reid
Subject: Accepted: Discussion on Consultation
When: Friday, January 30, 2015 10:30 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:25 AM
To: Thornton, Marisa
Subject: Fw: FW: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:05 AM
To: Collections.SubW
Subject: FW: FW: Status Update

-----Original Appointment-----

From: Diaz, Angelique
Sent: Thursday, January 29, 2015 9:45 AM
To: Rosnick, Reid
Subject: Declined: FW: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

I have training all day and won't be able to make it.

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:25 AM
To: Thornton, Marisa
Subject: Fw: Accepted: Discussion on Consultation

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:05 AM
To: Collections.SubW
Subject: FW: Accepted: Discussion on Consultation

-----Original Appointment-----

From: Rosencrantz, Ingrid
Sent: Thursday, January 29, 2015 10:51 AM
To: Rosnick, Reid
Subject: Accepted: Discussion on Consultation
When: Friday, January 30, 2015 10:30 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:25 AM
To: Thornton, Marisa
Subject: Fw: Discussion on Consultation

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:04 AM
To: Collections.SubW
Subject: FW: Discussion on Consultation

-----Original Appointment-----

From: Scott Clow [<mailto:sclow@utemountain.org>]
Sent: Thursday, January 29, 2015 12:12 PM
To: Rosnick, Reid
Subject: Accepted: Discussion on Consultation
When: Friday, January 30, 2015 8:30 AM-9:00 AM (UTC-07:00) Mountain Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:22 AM
To: Thornton, Marisa
Subject: Fw: Pre-Meeting Regarding Ute Mountain Ute Conference Call

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:04 AM
To: Collections.SubW
Subject: FW: Pre-Meeting Regarding Ute Mountain Ute Conference Call

-----Original Appointment-----

From: Childers, Pat
Sent: Thursday, January 29, 2015 3:19 PM
To: Rosnick, Reid
Subject: Accepted: Pre-Meeting Regarding Ute Mountain Ute Conference Call
When: Friday, January 30, 2015 9:00 AM-9:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:20 AM
To: Thornton, Marisa
Subject: Fw: Pre-Meeting Regarding Ute Mountain Ute Conference Call

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:04 AM
To: Collections.SubW
Subject: FW: Pre-Meeting Regarding Ute Mountain Ute Conference Call

-----Original Appointment-----

From: Peake, Tom
Sent: Thursday, January 29, 2015 3:24 PM
To: Rosnick, Reid
Subject: Accepted: Pre-Meeting Regarding Ute Mountain Ute Conference Call
When: Friday, January 30, 2015 9:00 AM-9:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:20 AM
To: Thornton, Marisa
Subject: Fw: Pre-Meeting Regarding Ute Mountain Ute Conference Call

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:04 AM
To: Collections.SubW
Subject: FW: Pre-Meeting Regarding Ute Mountain Ute Conference Call

-----Original Appointment-----

From: Rodman, Sonja
Sent: Thursday, January 29, 2015 3:33 PM
To: Rosnick, Reid
Subject: Accepted: Pre-Meeting Regarding Ute Mountain Ute Conference Call
When: Friday, January 30, 2015 9:00 AM-9:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:20 AM
To: Thornton, Marisa
Subject: Fw: FW: Discussion on Consultation

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:03 AM
To: Collections.SubW
Subject: FW: FW: Discussion on Consultation

-----Original Appointment-----

From: Rodman, Sonja
Sent: Thursday, January 29, 2015 3:33 PM
To: Rosnick, Reid
Subject: Accepted: FW: Discussion on Consultation
When: Friday, January 30, 2015 10:30 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:19 AM
To: Thornton, Marisa
Subject: Fw: Pre-Meeting Regarding Ute Mountain Ute Conference Call

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:03 AM
To: Collections.SubW
Subject: FW: Pre-Meeting Regarding Ute Mountain Ute Conference Call

-----Original Appointment-----

From: Schultheisz, Daniel
Sent: Thursday, January 29, 2015 3:38 PM
To: Rosnick, Reid
Subject: Accepted: Pre-Meeting Regarding Ute Mountain Ute Conference Call
When: Friday, January 30, 2015 9:00 AM-9:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Uranium Watch

76 South Main Street, # 7 | P.O. Box 344
Moab, Utah 84532
435-260-8384

January 15, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW
Washington, D.C. 20460
a-and-r-docket@epa.gov

Re: Docket ID No. EPA-HQ- OAR-2008-0218. Supplement No. 3 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement 3 to the October 29, 2014, comments on Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ- OAR-2008-0218; 79 Fed. Reg. 25388, May 2, 2014. These comments are submitted by Uranium Watch and on behalf of Living Rivers and Information Network on Responsible Mining.

These comments, though submitted after the October 29, 2014, close of the Subpart W Revision comment period, are based on additional information regarding the relationship between the Clean Air Act and 40 C.F.R. Part 61, Subpart W. and consideration of an important legal issue that the EPA failed to address in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). Considering the long time for the EPA to develop the Proposed Rules and the numerous May 2, 2014, *Federal Register* Notice inadequacies, the expectation of over a year to develop the Final Rule, Uranium Watch requests that the EPA give full consideration to the following comments.

THE CLEAN AIR ACT AND 40 C.F.R. PART 61 SUBPART W

1. Commenters provided comments in the applicability of Section 112(h) of the Clean Air Act (CAA), as amended in 1990, in the October 29, 2014, Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailing. Section II.1. of the comments asserted that under the provisions of Section 112(h) of the CAA, the EPA cannot establish a design, equipment, work practice, or operational standard, or combination thereof (whether through the application of maximum available technologies or generally available technologies) **in lieu of an** emission standard unless the Administrator makes certain findings. If the EPA proposes to establish a design, equipment, work practice, or operational standard, or combination thereof, the Administrator must find that it is not feasible to prescribe or enforce an emission standard, meaning that the the application of a measurement methodology is not technologically and economically practicable. The Proposed Rules made no mention of such a provision and did not make such findings.

2. The Clean Air Act of 1977. Public Law 95-95 - August 7, 1977. 91 STAT. 703. Emission Standards for Hazardous Air Pollutants (Design or equipment standards, 42 U.S.C. 7412.). The Clean Air Act (CAA)of 1977 has language similar to the provisions in Section 112(h) of the CAA as amended in 1990. Section 110 of the CAA of 1977 states:

Section 112 of the Clean Air Act is amended by adding the following new subsection at the end thereof:

(e)(1) **For purposes of this section, if in the judgment of the Administrator, it is not feasible to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants, he may instead promulgate a design, equipment, work practice, or operational standard, or combination thereof, which in his judgment is adequate to protect the public health from such pollutant or pollutants with an ample margin of safety.** In the event the Administrator promulgates a design or equipment standard under this subsection, he shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(2) **For the purpose of this subsection, the phrase ‘not feasible to prescribe or enforce an emission standard’ means any situation in which the Administrator determines that (A) a hazardous pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State, or local law, or (B) the application of measurement methodology to a particular class of sources is not practicable due to technological or economic limitations.**

(3) If after notice and opportunity for public hearing, and person establishes to the satisfaction of the Administrator that an alternative

means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such air pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source for purposes of compliance with this section with respect to such pollutant.

(4) Any standard promulgated under paragraph (1) shall be promulgated in terms of an emission standard whenever it becomes feasible to promulgate and enforce such a standard in such terms.

[Emphasis added.]

These provisions of the CAA of 1977 were applicable to the promulgation, or lack of promulgation, of National Emission Standards for Radon Emissions From Operating Mill Tailings in the 1980s. What is clear is that the EPA invoked Section 112(e) when making a determination that the promulgation of an emission standard was not “feasible.” However, in 1989, when the EPA promulgated a radon-222 emission standard for “existing” impoundments and did not promulgate an radon-222 emission standard for similar “new” impoundments, there was no mention of a finding that it was “not feasible to prescribe or enforce an emission standard” for “new” impoundments (i.e., constructed after December 1989).

3. There are statements made by the EPA in previous *Federal Register* Notices that support the assertion above. Below are those statements:

3.1. Part 192: Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites, 40 C.F.R. Part 192, 48 Fed. Reg. 45926; October 14, 1983.¹ Part 192 in 1983 contains statements the show that the EPA was aware of the provisions in the CAA with respect the promulgation of Standard for Radon-222 Emissions From Licensed Uranium Mills.

The October 1983 Part 192 *Federal Register* Notice contains a discussion of the Relationship to the Clean Air Act Emission Standard Requirements. This section, page 45938, col. 3, at 3., to page 35939, states:

The Clean Air Act also requires that EPA provide public health protection from air emissions from tailings piles. Further, EPA is publishing an ANPR to consider additional control of radon emissions during the operational phase of mills. This discussion relates to the disposal phase.

The Clean Air Act requires that the Administrator establish a standard at the level which in his judgment provides an ample margin of safety to protect the public health from hazardous air pollutants. The Agency published proposed rules for radionuclides as National Emission Standards for Hazardous Air Pollutants [NESHAPS] on April 6, 1983 (48 FR 15076). The proposed rule addressed all of the sources of emissions of

¹ <https://blog.epa.gov/milltailingsblog/wp-content/uploads/2009/12/48fr45926.pdf>

radionuclides that EPA had identified. The proposed rule either provided standards for various source categories or proposed not to regulate them and provided reasons for that decision.

In the proposed NESHAPS for radionuclides EPA did not propose additional standards for uranium mill tailings, because the Agency believed the EPA standards to be established under UMTRCA would provide the same degree of protection as required by Section 112 of the Clean Air Act.

The Clean Air Act specifies that the Administrator promulgate emissions standards to protect the public health. The Administrator is also authorized to promulgate design, equipment, work practice, or operational standards, or a combination, if it is not feasible to prescribe or enforce emission standards. The Administrator can conclude that “it is not feasible” if a hazardous pollutant cannot be emitted through a conveyance or the use of the conveyance would be contrary to laws, or if measurement methodologies are not practicable due to technological or economic limitations. As noted above, we will consider the need for such standards for the operational phase of mills. [Emphasis added.] [Page 35939, col. 2 to col. 3.]

3.2. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Proposed Rule and Announcement of Public Hearing; 51 Fed. Reg. 6382, February 21, 1986. This Proposed Rule states, in part:

V. Summary of Proposed Standard.

Based on currently available information, EPA has determined that it is not feasible to prescribe an emission standard for radon-222 emissions from uranium mills. Therefore, the Agency is proposing a work practice standard to limit radon-222 emissions from license uranium mills.

Therefore, the EPA recognized that, if they did not prescribe an emission standard for radon-222 emissions from uranium mills, it was necessary to determine that it was not feasible to promulgate such a standard, as required under Section 1123(e) of the CAA.

3.3. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Final Rule; 51 Fed. Reg. 34056 September 24, 1986. This Final Rule states, in part:

IV. Summary of Proposed Standards. As noted earlier, EPA published a proposed rulemaking regarding control of radon-222

emissions from tailings piles at licensed sites on February 21 1986 (51 FR 6382). **That notice announced that EPA was considering various work practice standards for limiting such emissions based on its preliminary conclusions that it is not feasible to set an emissions standard,** and that the nature of the risk involved warrants a regulatory response. [Emphasis added.] [Page 34058, col. 2.]

The NRC questioned why EPA did not issue an emission standard, such as already exists in NRC and State regulations, instead of proposing a work practice standard. The Agency judges that it is not feasible to prescribe an emission standard since most of the radon emitted by a uranium mill comes from the surface of mill tailings piles. A typical pile may be from a few to hundreds of acres in area, and emissions from its surface cannot be controlled through conveyance designed and constructed to emit or capture radon. It is also not practical to accurately and consistently measure emissions because of the large size of the tailings pile and the continued modifications of the pile that take place during operations. For these and others reasons, a work practice standard is being promulgated. [Emphasis added.] [Page 34059, col. 2.]

VI. Summary and Rationale of Final Rule. A. Summary
Based on currently available information, EPA has determined that it is not feasible to prescribe an emission standard for radon emissions from uranium mills. [Emphasis added.] [Page 34060, col. 3.]

Therefore, with the 1986 Final Rule, the EPA did not issue an emission standard and made a determination that it was not “feasible” to do so. Clearly, this determination was responsive to the 1977 CAA Section 112(e) requirements.

3.4. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants: Regulations of Radionuclides; Proposed Rule and Announcement of Public Hearing; 54 Fed. Reg. 9612, March 7, 1989.

This Proposed Rule proposed National Emission Standards for Radon Emissions From Operating Mill Tailings at Subpart W. The EPA proposed 4 approaches to work practice and design standards for operating mills. However, these approaches were not accompanied by a finding that it was not feasible to prescribe an emission standard for radon emissions from uranium mills. Somehow, the EPA forgot about the requirements in Section 112(e) of the CAA.

3.5. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants: Regulations of Radionuclides; Proposed Rule and Announcement of Public Hearing; 54 Fed. Reg. 9612, March 7, 1989.

This Proposed Rule proposed National Emission Standards for Radon Emissions From Operating Mill Tailings at Subpart W. The EPA proposed 4 approaches to work practice and design standards for operating mills. However, these approaches were not

accompanied by a finding that it was not feasible to prescribe an emission standard for radon emissions from uranium mills. Somehow the EPA forgot about the requirement in Section 112(e) of the CAA.

3.6. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants: Regulations of Radionuclides; Final Rule and Notice of Reconsideration; 54 Fed. Reg. 51654, December 15, 1989.

This Final Rule established National Emission Standards for Radon Emissions From Operating Mill Tailings at Subpart W, along with standards for other Radionuclide emission sources. The final rule established an emission standard for “existing” tailings impoundments (constructed prior to December 1989). And, the EPA established work practice and design standards for “new” tailings impoundments (constructed after December 1989). The EPA did not make a finding that it was not feasible to prescribe an emission standard for radon emissions from “new” impoundments. Somehow the EPA forgot about the requirement in Section 112(e) of the CAA for such a finding. And, the reality was that the EPA could not make such a finding after establishing an emission standard for “existing” impoundments.

4. In sum:

4.1. The EPA made it clear in the October 1983 Part 192 Rulemaking and the 1986 Proposed and Final Rules that Section 112(e) of the 1977 CAA required that any EPA decision not to promulgate a radon-222 emission standard for uranium mills needed to be accompanied by a determination that such an emission standard was not feasible. (However erroneous that determination may have been.)

4.2. With the 1989 Subpart W Rulemaking, the EPA failed to, and, in fact, could not, make the determination required by Section 112(e) of the CAA of 1977 that it was not feasible to promulgate an emission standard when they promulgated a design and work practice standard for “new” tailings impoundments.

4.3. With the 2014 Subpart W Rulemaking, when the EPA proposed design and work practice standards in lieu of emission standards for all tailings impoundments, in-situ leach operations, and heap leach operations, the EPA failed to make the determination required by Section 112(h) of the CAA of 1990 that it was not feasible to promulgate an emission standard.

4.4. Therefore, it appears that the 1989 design and work practice standards for “new” impoundments were promulgated contrary to the requirements of Section 112(e) 1977 CAA. It also appears that the 2014 Subpart W Proposed Rules are contrary to the requirements of the Section 112(h) CAA of 1990, because the EPA proposed design and work practice standards without making a determination that emission standards were not feasible.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

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Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:32 AM
To: Thornton, Marisa
Subject: Fw: Supplement 3 to Comments on EPA Subpart W Rulemaking
Attachments: UW_EPA_SubpartWComments_Supplement3.150115.pdf

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:08 AM
To: Collections.SubW
Subject: FW: Supplement 3 to Comments on EPA Subpart W Rulemaking

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Thursday, January 15, 2015 2:52 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplement 3 to Comments on EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 3 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

Sarah Fields
Program Director
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Uranium Watch

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January 13, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW
Washington, D.C. 20460
a-and-r-docket@epa.gov

Re: Docket ID No. EPA-HQ- OAR-2008-0218. Supplement No. 2 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement 2 to the Uranium Watch et al. October 29, 2014, comments on Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ- OAR-2008-0218. 79 Fed. Reg. 25388, May 2, 2014. These comments are submitted by Uranium Watch and on behalf of Living Rivers and Information Network on Responsible Mining.

These comments, though submitted after the October 29, 2014, close of the Subpart W Revision comment period, are based on new information provided by Energy Fuels Resources (USA) Inc. and consideration of important issues that were not adequately addressed in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). Considering the long time for the EPA to develop the Proposed Rules and the numerous May 2, 2014, *Federal Register* Notice inadequacies, the expectation of over a year to develop the Final Rule, Uranium Watch requests that the EPA give full consideration to the following comments.

COMMENT ON ENERGY FUELS RESOURCES INC. SUBPART W COMMENTS.

Considering the importance of the proposed Subpart W regulations as they apply to the White Mesa Uranium Mill, which is owned and operated by Energy Fuels Resources (USA) Inc. (Energy Fuels), it is reasonable for an interested party to submit comments on Energy Fuels' "Comments on Proposed Revisions to 40 CFR Part 61 - Subpart W, National Emission Standards for Radon Emissions from Operating Uranium Mill Tailings," submitted to the EPA on October 29, 2014, as part of the Subpart W Rulemaking. Energy Fuels brought forward important information about the operation of the White Mesa Mill and heap leach operations that were not part of the Proposed Rules or supporting background documents. Energy Fuels has also made some statements and proposed changes to Subpart W that must be addressed.

1. Water Cover Over Evaporation Ponds (Sec. 1.1, page 1). Energy Fuels provides a number of arguments against the proposed use of 1-meter of liquid to limit the radon emissions from liquid impoundments.

Most of their arguments are sound. However, they maintain that the radon emissions from the liquid impoundments are minimal. There is no mention of the EPA Risk Assessment¹ that found that there are 7 pCi/m²-sec for every 1,000 pCi/L of radium in the liquid impoundments at White Mesa. Energy Fuels failed to use the 2013² and 2014³ data on the radium content of the liquids in Cell 1, Cell 3, Cell 4A, and Cell 4B that was submitted to the Utah Division of Radiation Control, along with the EPA Risk Assessment formula, to determine the radon flux from the fluids in these impoundments. Therefore, Energy Fuels did not provide an accurate assessment of the radon emissions from water covers and effluent impoundments at the White Mesa Mill. *See* Uranium Watch et al. Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, January 6, 2015.

2. Definition of 11e.(2) Byproduct Material (Sec. 1.2, page 2).

Commenters agree that Subpart W should have the same definition of byproduct

¹ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

² 2013 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 1, 2013. <http://www.deq.utah.gov/businesses/E/energyfuels/docs/2013/12Dec/2013AnnualTailingsReportFinal.pdf>

³ 2014 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 24, 2014. <http://www.deq.utah.gov/businesses/E/energyfuels/docs/2014/12Dec/TailingsReport2014Annual.pdf>

material as in the Atomic Energy Act of 1954, as amended, and EPA and Nuclear Regulatory Commission (NRC) regulation.

3. Definitions of “Operation” and “Closure Period” (Sec. 1.3, page 2).

3.1. Subpart W defines “operation” at Section 61.251(e): “*Operation* means that an impoundment is being used for the continued placement of new tailings or is in standby status for such placement. An impoundment is in operation from the day that tailings are first placed in the impoundment until the day that final closure begins.” Part 192, § 192.31(p) has a slightly different definition of “operation(al)”: “Operational means that a uranium mill tailings pile or impoundment is being used for the continued placement of uranium byproduct material or is in standby status for such placement. A tailings pile or impoundment is operational from the day that uranium byproduct material is first placed in the pile or impoundment until the day final closure begins.” These 2 related EPA regulations should have the same definition of “operation” (or “operational”). The EPA should use the definition in Part 192, which clearly states that it is uranium byproduct material that is placed in the impoundment.

3.2. The EPA must also provide a definition of “operation” of a heap leach pile. All aspects of a heap leach operation, including the placement of the ore on the leach pad, should be regulated under Subpart W. The definition of “operation” for heap leach piles commences when ore is moved onto the heap leach operation site, so it includes emissions from the ore during storage and transportation on site and emissions from the ore from the time it is first placed on the heap leach pad. The operation of a conventional uranium mill or heap leach operation should commence when radon producing materials are brought onto the site for processing.

3.3. Energy Fuels proposes revisions to the definition of “closure period” and proposes that “the closure period from a conventional and non-conventional would begin when the licensee provides written notice to EPA and the United States Nuclear Regulatory Commission (NRC) or NRC Agreement State that the impoundment is no longer being used for the continued placement of tailings sands from process operations and is no longer on standby for such placement.” Similarly, Energy Fuels proposes that “a non-conventional impoundment would be considered to be in operation so long as it is being used for evaporative or holding purposes or is on standby for such purposes, and the closure period for a non-conventional impoundment would start upon written notice from the licensee that the impoundment is no longer being used for evaporative or holding purposes and is no longer on standby for such purposes.”

Commenters agree with Energy Fuels that there should be written notice to initiate closure. However, more actions must be taken before “closure” can commence: 1) Agency approval of the closure plan and reclamation plan; 2) incorporation of the appropriate reclamation milestones associated with the closure of an impoundment (including dewatering of the impoundment, placement of an interim cover, and placement of the final radon barrier), pursuant to 10 C.F.R. Part 40 Appendix A, Criterion 6A(1);

and 3) a license amendment initiating the closure period. A conventional impoundment cannot enter closure unless the required milestones are incorporated into the license.

4. Other Definitions: The EPA should incorporate the Part 192 definitions of “Closure plan,” “Tailings Closure Plan (Radon),” and “Milestone” in Subpart W.

5. Proposed Application of Subpart W to Heap Leach Facilities (Sec. 1.5, page 3). Energy Fuels claims that 1) Subpart W does not apply to process operations, but only to tailings that have been finally disposed of after processing, and hence cannot impact processing; 2) Subpart W should apply only to tailings impoundments and 11e.(2) byproduct material and [do] not extend to regulating process operations; 3) once process operations have ceased at a conventional heap leach facility, the fully leached ore would become 11e.(2) byproduct material, but the facility would then go into closure in place and be subject to the requirements of 10 CFR Part 40 Appendix A; and 4) hence, there is no place for regulation under Subpart W at conventional heap leach facilities, other than any non-conventional impoundments that may exist at those facilities.

However, there is nothing in the Clean Air Act that would limit the regulation of radon from licensed uranium mills only to 11e.(2) byproduct material. The EPA has the authority to establish an emission standard for any aspect of a uranium recovery operation that emits radon, not just impoundments that contain 11e.(2) byproduct material. This would include all phases of a heap leach operation, from the time ore is received at the site through the closure period. The EPA should re-title Subpart W to read: “National Emission Standards from Licensed Uranium Mills,” or a similar title that indicates that Subpart W applies not just to radon emissions from “tailings,” which are not defined in Subpart W.

6. ISR Facilities (Sec. 1.6, page 4). Energy Fuels believes that water in reservoirs used to store treated process water prior to discharge under 40 C.F.R. § 440.32(b) should not be subject to Subpart W requirements, even though the treated water in these reservoirs could be considered to contain 11e.(2) byproduct material and, hence, could be considered to be subject to the requirements of Subpart W.

Commenters believe that the EPA should not exempt these ponds and should require these ponds to meet the construction standards in 40 CFR 61.252(c), because the radium content could increase during evaporation and leakage of fluids should be prevented by requiring the same construction and radon emission standards as for other fluid impoundments at ISLs. Currently the EPA is looking at groundwater standards for ISLs under the provisions of 40 C.F.R. Part 192 and has proposed new rules. High standards for the construction of all ponds at ISLs means a reduced potential for leaks and ground and surface water contamination.

7. WATER COVER OVER EVAPORATION PONDS, Sec. 2, page 5. Energy Fuels agrees with EPA's position “that there be no maximum area requirement for the size of evaporation or holding ponds since the chance of radon emissions is small, and that there be no limit on the number of such ponds” or the size.

Recent Energy Fuels' data on the radium content of liquid effluents at the White Mesa Mill and EPA's determination that for the Mill there are 7 pico curies per meter per second (7 pCi/m²-sec) for every 1,000 pCi of radium per liter⁴ shows that the radon emissions from evaporation ponds (non-conventional impoundments) and liquid covers and ponds on conventional impoundments at the Mill are far from "small." Therefore, there should be a maximum limit on the total number of acres of evaporative/holding capacity at a uranium recovery facility, since those ponds have the potential to emit high levels of radon. This limit should include impoundments designed to be used as liquid effluent retention ponds, impoundments designed for the permanent disposal of solid tailings that are being used initially to hold liquid effluents, and solid tailings that are fully or partially covered by liquid raffinates.

The EPA must also apply a radon emission standard and compliance requirements for such liquid impoundments. The EPA must no longer allow the unmonitored and unregulated emission of radon from these radium-laden fluids. In sum, the EPA must totally rethink and reevaluate all of its assumptions related to the radon emissions from liquid impoundments at conventional uranium mills.

Also, large evaporation ponds at ISLs increase the potential for ground and surface water contamination when there is leakage of the ponds.

8. DEFINITIONS OF "OPERATION" AND "CLOSURE PERIOD," (Sec. 4, page 12 - 19).

8.1. Energy Fuels brings forth some important issues regarding the definition of "operation" and "closure period." Energy Fuels also describes mill operation practices as they relate to conventional tailings impoundments and evaporation/holding ponds. Energy Fuels states that it is "important to distinguish between site closure and the closure of a particular tailings impoundment, and to distinguish between a tailings impoundment ceasing to be in operation, as distinct from the entire Mill facility ceasing to be in operation."

Commenters agree. One of the problems with the Proposed Rulemaking is that the EPA failed to describe, examine, clarify, and consider the various operational realities at licensed uranium mills throughout all phases of a mill's life.

8.2. Energy Fuels states (Sec. 4.1(a), page 12): "During operations, the primary function of the tailings impoundment will be to receive or be on standby to receive mill tailings sands for disposal."

This statement and, if EPA agrees, brings up the question of whether a tailings impoundment can be considered to be on "standby" if it can no longer "receive mill tailings sands for disposal." For example, the Shootaring Canyon Mill has been on "standby" since 1982. Most of the 11e.(2) byproduct material in the single tailings impoundment comes from the disposal of waste, equipment, and materials from the

⁴ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17.

cleanup of the Hydro Jet heap-leach operation. Because the impoundment does not meet the current standards for a conventional impoundment, the licensee would have to construct a new impoundment for the disposal of “mill tailings sands.” So, the impoundment is not on standby to receive future tailings from the processing of ore, it is on standby to receive over 100,000 tons of material from the cleanup and reclamation of the old mill and mill site. So, the definition of what, exactly, constitutes standby and how long can a mill reasonably be on standby must be examined in the context of the rulemaking. Also, the EPA must limit the time that a mill can remain on standby. Is over 30 years a reasonable time frame for a mill to remain on standby without final reclamation?

8.3. Energy Fuels discusses the fact that uranium mills can be licensed to directly dispose of 11e.(2) byproduct material generated at third-party in situ leach (ISL) or other facilities after closure. This is allowed under 10 C.F.R. Part 40 Appendix A, Criterion 6A (3) by a specific license amendment.

This possibility must be discussed in the Proposed Rulemaking. Commenters assert that the EPA must also regulate the emission of radon from areas left open to receive additional materials during the closure period. This is one of many reasons why the EPA must require compliance with a radon emission standard of 20 pCi/m²-sec throughout the closure period.

8.4. Energy Fuels (Sec. 4.1(b), page 13) describes the closure process for a single impoundment and states: “Once processing operations have ceased and no further tailings will be disposed of in the impoundment, interim cover will be placed over the portions of the impoundment that are filled up, to the extent such cover has not already been placed on the impoundment. This will allow the radon flux from the impoundment to be 20 pCi/m²-s or less averaged over the entire impoundment during the closure process, and will prepare the impoundment for the dewatering process.”

This statement is somewhat confusing because there is currently no EPA requirement to assure that the radon flux from the impoundment will be 20 pCi/m²-s or less averaged over the entire impoundment during the closure process. for “existing and “new” impoundments. This statement demonstrates that Energy Fuels believes that such a requirement is acceptable.

8.5. Energy Fuels (Sec. 4.1(c), pages 14 to 15) discusses Phased Closure of One Cell at a Time. Energy Fuels discussion appears to assume that any interim cover is placed on an impoundment after operation ceases and during closure.

This is not so; for example, clean materials have been placed on both Cells 2 and 3 at the Energy Fuels’ White Mesa Mill during the operational period. By the time the Utah Division of Radiation Control issued a July 23, 2014, Order stating that Cell 2 was in closure, there were no remaining liquids on the impoundment and the whole impoundment was covered with interim cover materials. Energy Fuels also states that Cell 3 has an interim cover over most of the impoundment. That means that placement of some of the interim cover occurs prior to closure.

8.6. Energy Fuels (Sec. 4.1(c), page 15) describes activities that would or might take place when an impoundment is in closure: interim cover; dewatering; disposal of 11e.(2) byproduct material from other sites; “disposal of on-site generated trash, discarded piping and equipment, containers, drums, laboratory waste, used personal protection equipment, construction debris, any potential groundwater restoration liquids and residues”; and disposal of other liquid and solid materials.

However, without an approved closure plan for the impoundment and without reclamation milestones, there is no way to know what “closure” for a specific impoundment will entail. That is why the EPA must require that there be an approved closure plan and reclamation milestones for an impoundment before the closure period commences.

8.7. Energy Fuels assumes that only tailings from the processing of ore are disposed of in a tailings impoundment during operation. That is not the case, other 11e.(2) byproduct materials from ISL operations have been disposed of in operational tailings impoundments, as has waste from the processing of materials other than “ore.” So, it would be incorrect to state the operation is the time when only tailings sands are being disposed of in the impoundment or the impoundment is in standby for such placement.

8.8. Energy Fuels (Sec. 4.2, page 16) states that the definitions of “operation” and “closure period” definitions “have been established by EPA and are intended to delineate when the schedule begins for key radon closure milestone activities, such as wind-blown tailings retrieval and placement on the impoundment, interim stabilization (including dewatering or the removal of freestanding liquids and re-contouring) and emplacement of a permanent radon barrier.”

This may be Energy Fuels’ position, but the reality is that when closure for Cell 2 at the Energy Fuels White Mesa Mill commenced on July 23, 2014, there were no schedules “for key radon closure milestone activities, such as wind-blown tailings retrieval and placement on the impoundment, interim stabilization (including dewatering or the removal of freestanding liquids and re-contouring) and emplacement of a permanent radon barrier.” Further there is no definition of “closure period” in Subpart W. Therefore, Subpart W must define “closure period” and must require that closure period cannot commence until there is a closure plan for the mill and individual impoundment that is closing and applicable reclamation milestones have been incorporated into the license.

9. Recommended Definitions of “Operation” and “Closure Period” (Sec. 4.3, pages 16 to 19): Energy Fuels proposes several amendments to the EPA Subpart W definitions.

Commenters agree that accurate and precise definitions are important to the Subpart W regulatory program and should reflect reality. Current Subpart W regulations are inadequate. Over the years the definitions have left way too much to the imagination. Commenter will not propose replacement definitions, but will discuss problems with the proposed definitions.

9.1. “Operation.” An operational conventional impoundment (at a conventional mill) has and will receive both tailings solids (sands and slimes), processing fluids, and ISL waste. Therefore it would not be accurate to define operation as the period for placement of only “tailings.” Also, this does not account for the fact that conventional impoundments are sometimes initially used for the containment and evaporation of processing effluents and other liquids.

9.2. The EPA must develop specific definition for “operation” at a heap leach operations so that all phases of a heap leach operation, from the receipt of ore at the site to commencement of closure, are included in the definition.

9.2. “Standby.” A tailings impoundment should not be considered to be on standby if the licensee can no longer use it to dispose of tailings during mill operation; for example, the Shootaring Canyon Mill impoundment. There must be a time limit on the “standby” period. A mill or impoundment must not be allowed to remain on “standby” for over 30 years.

9.3. “Closure Period.” Energy Fuels proposes a new definition of “closure period.”

First of all, if the EPA includes a definition of “closure period” in Subpart W, Part 192 should be amended so that the definitions are the same. Energy Fuels proposes that the closure period begin with the date that the owner or operator provides a written notice to the Administrator and to the Nuclear Regulatory Commission or applicable NRC Agreement State.

Commenters agree that there should be a written notice to the Administrator and NRC or applicable Agreement State. However, that notice should accompany a license amendment request. This should trigger a notice and comment period and eventual amendment to the license. Closure should commence when the license and, if applicable, Groundwater Discharge Permit, are amended to reflect the closure status of the mill or specific impoundment. Further, the closure period cannot commence until the license has been amended to include the approved closure plan and the applicable reclamation milestones. Until the license has been amended to change the status of the mill or impoundment to closure and the closure plan and applicable reclamation milestones have been incorporated into the license (as required by 10 C.F.R. Part 40 Appendix A, Criterion 6A), closure should not commence. An example of how closure should not commence, is the recent “closure” of White Mesa Cell 2. The White Mesa Mill license and Ground Water Discharge Permit have not been amended to 1) reflect the closure of Cell 2, 2) approve the closure plan, and 3) incorporate reclamation milestones.

10. Cell 3 at the White Mesa Mill (Sec. 4.4, page 19).

10.1. Energy Fuels discusses the status of Cell 3 and the EPA’s justification for eliminating the distinction between “existing” and “new” conventional impoundments.

Commenters believe that Cell 3 cannot “close” until the Mill license is amended

to change the status of Cell 3 and the closure plan and reclamation milestones are incorporated into the license, pursuant to Criterion 6A. Further, if Energy Fuels wishes to continue to dispose of ISL waste during closure, the Mill license be amended to authorize that disposal. Additionally, Cell 3 should enter closure as long as Cell 3 does not meet the current Subpart W emission standard and there are high levels of radon emissions from the solutions pond on top of the impoundment, estimated to be 573.3 pCi/m²-sec in 2013⁵ and 137.9 pCi/m²-sec in 2014⁶.

10.2. Whether or not Cell 3 is in closure in the near future, the tailings impoundments at the Shootaring Canyon and Sweetwater Mill do not meet the design standards for “new” impoundments in 40 C.F.R. §61.252(b)(1). Therefore, the EPA cannot claim that all “existing” operational tailings impoundments meet the standards for “new” impoundments.

11. HEAP LEACH FACILITIES (Sec. 6, page 22 to 37).

Commenters appreciate the more detailed description of heap leach operations provided by Energy Fuels. Such a complete description was missing in the EPA Proposed Rules and background documents.

11.1. EPA Jurisdiction Under Clean Air Act Limited to 11e.(2) Byproduct Material (Sec. 6.2 a), page 23). Energy Fuels asserts that “EPA’s jurisdiction under the Clean Air Act is therefore limited to 11e.(2) byproduct material as defined in the AEA.” Their basis for this assertion is a section of the Atomic Energy Act (AEA) (Section 275 (e)), which states: “Nothing in this Act applicable to byproduct material, as defined in section 11e.(2) of this Act, shall affect the authority of the Administrator under the Clean Air Act of 1970, as amended, or the Federal Water Pollution Control Act, as amended.”

Energy Fuels misinterprets the AEA and its impact on the provisions of the CAA. Energy Fuels errs when claiming that regulation of heap-leach process operations under the CAA would be in violation of Section 275 of the AEA.

The AEA states that the AEA provisions applicable to 11e.(2) byproduct material do not limit the authority of the Administrator under the CAA of 1970 (as subsequently amended). However, the AEA does not limit the authority of the CAA over other radionuclide sources (including radon emission sources) that may or may not fall under the authority of the AEA. Just because the AEA does not limit the CAA jurisdiction over 11e.(2) byproduct material, it does not follow that the AEA limits the CAA jurisdiction to just 11e.(2) byproduct material.

⁵ Uranium Watch et al., Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014; Sec. 45.11, Table 1, page 58. October 29, 2014. Docket ID No. EPA-HQ-OAR-2008-0218.

⁶ Uranium Watch et al., Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W), 79 Fed. Reg. 25388, May 2, 2014. January 6, 2014.

Further, the NRC and authorized Agreement States regulate more than just 11e.(2) byproduct material at licensed uranium recovery operations. The whole uranium recovery operation is regulated, and has been regulated since the AEA of 1946, except that the 11e.(2) byproduct material was not regulated to provide for perpetual storage and maintenance of that material until the AEA was amended by the Uranium Mill Tailings Radiation Control Act of 1978.

NRC and Agreement States regulation of a uranium recovery operation includes construction and maintenance, radiological and non-radiological exposure to workers and the public, ore handling and storage after it arrives at the site, well fields, processing, impacts to the onsite and offsite environment, ore processing, yellowcake handling, reclamation, and many other operational and site aspects. Therefore, the AEA does not limit the NRC or Agreement State regulatory authority to just 11e.(2) byproduct material, nor does the CAA limit the EPA's authority to just 11e.(2) byproduct material at licensed uranium recovery operations.

11.2. Conventional Heap Leach Facilities, On-Off Heap Leach Facilities, and Vat Leach Facilities (Sec. 6.2 b), c), and d), pages 24 to 26).

Contrary to assertions by Energy Fuels, EPA's jurisdiction under the Clean Air Act is NOT limited to 11e.(2) byproduct material as defined in the AEA. Nor is the NRC or Agreement State's jurisdiction limited to 11e.(2) byproduct material at a licensed uranium recovery facility. Therefore, the whole discussion of what is or is not 11e.(2) byproduct material at a heap-leach facility is irrelevant for the discussion of applying Subpart W radon emission standards to a heap-leach operation.

The EPA has the authority and the obligation under the CAA to establish radon (and other radionuclide) emission standards for all sources of such emissions at a licensed uranium recovery heap-leach operation. This would include emissions from all aspects of the heap-leach operation, including 1) ore transportation and storage on site; 2) ore loading; 3) ore leaching and resting; 4) cells for curing, rinsing, and draining of the ore; 5) vats; 6) loading and transportation of pregnant solution; 7) onsite solvent extraction or ion exchange; 8) and excavation of fully leached ore from the final operations stage to the permanent waste repository.

Additionally, the EPA has the authority and obligation to establish standards, including a radon emission limit, for the various ponds associated with a heap leach operation. These are described in Sec. 6.10 (pages 34 to 35) in Energy Fuels Comments. These ponds include: 1) collection pond for containment of uranium-rich (and radium-rich) aqueous solution, 2) raffinate pond joined to the collection pond for storage of uranium-depleted (but radium-rich) aqueous solution, and 3) holding pond for temporary storage of uranium-depleted (but radium-rich) aqueous process waste streams, evaporation of waste streams, and containment of runoff from the entire HLF footprint area under the design storm event. The estimated total acreage for these ponds is 7.5 acres and estimated volume is 43.3 million gallons of radium-laden solutions. Unfortunately, there is no mention of these liquid effluent ponds in the Proposed Rules.

There must be a limit on the radon emissions from these solutions, which can be demonstrated on a site specific basis using a formula and data on the radium content of

the solutions. If necessary to demonstrate compliance, the EPA must require the removal of radium from these effluents.

The EPA must characterize and regulate the radionuclide emissions, including radon, from all aspects of a heap-leach operation. Additionally, Section 112(h) of the CAA does not authorize the establishment of a work-practice or design standard in lieu of an emission standard unless the Administrator determines that establishing and enforcing an emission standard is not feasible. The Administrator has not made such a finding with respect heap-leach facilities.

11.4. Recommendations (Sec. 6.2 e), page 26).

The EPA must broadly a heap-leach facility, so that all operational aspects of the facility potentially fall Subpart W radon and other radionuclide emission standards.

12. HEAP LEACH FACILITIES (Sec. 6.2 to 6.12., pages 27 to 37). Just in case the EPA determines that they do have jurisdiction over the heap-leach operations under the CAA, Energy Fuels provided additional comments and proposals.

12.1. 30% Moisture Content Requirement (Sec. 6.4 to 6.7, pages 27 to 32).

It is apparent from Energy Fuels comments that the proposed 30% moisture content requirement is not feasible. However, the EPA has not found that establishing a radon emission standard and means to comply with that standard is not feasible. As stated above, Section 112(h) of the CAA does not authorize the establishment of a work-practice or design standard in lieu of an emission standard unless the Administrator determines that establishing and enforcing an emission standard is not feasible.

12.2. Alternatives to 30% Moisture Content Requirement (Sec. 6.8, page 32 to 33). Energy Fuels proposes design and operational methodologies for conventional and on-off heap-leach facilities. Energy Fuels proposes placement of a gravel layer over stacked ore within a few weeks of ore placement. They believe that “any such process operations requirements should properly be imposed by NRC or the applicable Agreement State as conditions in the facility’s license, and not by EPA under Subpart W.”

These methodologies, if required by under Subpart W, would require the EPA to acknowledge that they had regulatory authority over various phases of heap leach operations, starting with the placement of the ore on the heap leach pad. Commenters believe that the EPA has that authority. Also, there is no guarantee that the EPA and NRC will promulgate new regulations on the operation of heap leach operations. Neither agency has announced their intention of developing such rules.

12.3. As discussed above, Section 112(h) of the CAA requires the establishment of an actual emission standard for a specific emission source unless the Administrator finds that the establishment of such an emission standard is not feasible.

12.4. Based on Energy Fuels proposal, it appears that it would be feasible to monitor the radon emissions on top of the ore after the placement of the last gravel cover and during operation and closure.

12.5. Energy Fuels discusses the issue of placement of heap leach operations at the same site as a conventional mill. They believe that “a mill facility should be allowed to have two active tailings impoundments and two active conventional [heap leach facilities] at or near the same location.”

The EPA did not address this situation in the Proposed Rules, nor did the EPA address the situation of 2 operational heap leach operations and another impoundment(s) for the disposal of the spent ore. Also, the EPA has not addressed the situation with multiple heap leach piles, some in operation and some in closure—all emitting unmonitored and unregulated amounts of radon. If the EPA agrees that a facility could have 2 operational heap leach piles and 2 operational conventional impoundments, the EPA must remember that under the Proposed Rules, the radon emissions from these piles and impoundment will not be monitored and subject to any radon emission standard and compliance requirements. In addition to operational piles and conventional impoundments, there will be non-conventional impoundments for storage and evaporation of solutions (with no limit on size or number), pond(s) for storage of pregnant heap leach solutions, and heap leach piles and conventional impoundments undergoing closure. Under the EPA Proposed Rules, none of these impoundments and piles will be subject to a radon emission standard under the CAA. All of these possibilities should have been examined by the EPA in the Proposed Rules.

It is clear that the EPA must establish a radon emission standard for all piles and impoundments at conventional mills and heap leach operations during operation and closure. There must be limits on the number of piles and impoundment in operation and closure. The EPA should not permit the establishment of a heap leach operation at a conventional mill. The EPA must establish a radon emission standard for an impoundment that receives spent ore at a licensed heap leach facility. These limits and standards must be part of Subpart W. It would take years for the EPA and NRC to amend 40 C.F.R. Part 192 and 10 C.F.R. Part 40, as proposed by Energy Fuels.

12.6. Operational Life of a Heap Leach Facility (Sec. 6.9, pages 32 to 33). Energy Fuels supports EPA’s position that the processing life of heap leach operation commences when the lixiviant is first placed on the heap leach pile and ends the time of the final rinse, when the closure period would commence.

Commenters assert that the operational life should commence when the ore is first brought to the site of the heap leach operation. Closure cannot commence until the license is amended to change the status of the pile and unless there is an approved closure (reclamation) plan and reclamation milestones in place. Additionally, the EPA must establish radon emission standards for heap leach piles during closure. Energy Fuels states that the closure period may last many years and mentions the placement of an interim cover, but there is no requirement to do so before closure commences. The EPA has the authority and the obligation under the CAA to require compliance with a radon emission standard for heap leach piles during closure.

13. ISR FACILITIES (Sec. 7, pages 37 to 39).

13.1. Treated Waste Water Should Not be Subject to Subpart W (Sec. 7.1, page 38 to 39).

Energy Fuels request that the EPA not regulate reservoirs that contain treated water at ISL operations as non-conventional impoundments, even though they contain 11e.(2) byproduct material. Commenters do not agree with Energy Fuels position.

13.2. Radon Attenuation and Control at ISR Facilities (Sec. 7.2, page 39).

Energy Fuels claims that the radon emissions from non-conventional impoundments at ISL facilities are minimal and are a small fraction of the total radon emissions at an ISL facility. However, that is not a basis for not establishing an emission standard and requiring compliance with that standard. The fact that there are other radon emission sources at ISL operations is the reason that the EPA must also establish its authority over those emissions under Subpart W.

14. Application of Subpart W to Evaporation or Holding Ponds (Sec. 9.1, page 41).

Energy Fuels asserts that the EPA should not establish regulatory authority over holding and evaporations ponds because they emit little radon and do not pose a health and safety risk. Commenters disagree. As recently documented, the holding and evaporation ponds at the White Mesa Mill emit high levels of radon and pose a health and safety risk.

Energy Fuels also states that they disagree with the Proposed Rules “statement that EPA has consistently maintained that evaporation and holding ponds meet applicability criteria for Subpart W.” Commenters would agree with Energy Fuels in that respect. The EPA never regulated evaporation and holding ponds in accordance with the Subpart W requirements and mislead the public regarding the high levels of radon emissions from those solution ponds and impoundments at the White Mesa Mill.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

Jennifer Thurston
Director
Information Network for Responsible Mining
P.O. Box 27
Norwood, Colorado 81423

John Weisheit
Conservation Director
Living Rivers
P.O. Box 466
Moab, Utah 84532

cc: Rusty Lundberg, Utah DRC
Bryce Bird, Utah DAQ
Angilique Diaz, EPA Region 8
Reid Rosnick, EPA
Caryn Mullerieile, EPA
Andera Cherepy, EPA
Tom Peake, EPA
Daniel Schultheisz, EPA
Susan Stahle, EPA
Jonathan Edwards, EPA
Mike Flynn, EPA
Elliott Zenick, EPA
Wendy Blake, EPA
Davis Zhen, EPA
Lena Ferris, EPA
Tim Brenner, EPA
Charlie Garlow, EPA
Stuart Walker, EPA
Steve Hoffman, EPA
Marilyn Ginsburg, EPA
Bob Dye, EPA
Gina McCarthy, EPA
Janet McCabe, EPA
Avi Garbow, EPA
Cynthia Giles, EPA
Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:32 AM
To: Thornton, Marisa
Subject: Fw: Supplementary 2 to Comments EPA Subpart W Rulemaking
Attachments: UW_EPA_SubpartWComments_Supplement2.150113.pdf

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:08 AM
To: Collections.SubW
Subject: FW: Supplementary 2 to Comments EPA Subpart W Rulemaking

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 13, 2015 3:54 PM
To: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplementary 2 to Comments EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 2 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

Sarah Fields
Program Director
Uranium Watch
P.O. Box 344
Moab, Utah 84532

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:34 AM
To: Thornton, Marisa
Subject: Fw: Status Update

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:05 AM
To: Collections.SubW
Subject: FW: Status Update

-----Original Appointment-----

From: Jackson, Scott
Sent: Thursday, January 29, 2015 8:51 AM
To: Rosnick, Reid
Subject: Accepted: Status Update
When: Wednesday, February 04, 2015 11:30 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 866-299-3188, code 2023439563#

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:34 AM
To: Thornton, Marisa
Subject: Fw: Request for Documents on Part 192 and Subpart W Webpages

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:09 AM
To: Collections.SubW
Subject: FW: Request for Documents on Part 192 and Subpart W Webpages

From: Rosnick, Reid
Sent: Thursday, January 08, 2015 7:43 AM
To: Peake, Tom; sarah@uraniumwatch.org
Cc: Nesky, Anthony; Lee, Raymond; Wieder, Jessica
Subject: RE: Request for Documents on Part 192 and Subpart W Webpages

Tom,

I sent the FR to Marisa to be posted on the website. As for the transcripts, they are both in the docket, and they have been in for some time (11/6/14), Sarah missed them...EPA-HQ-OAR-2008-0218-173 and 174.

Reid

From: Peake, Tom
Sent: Tuesday, January 06, 2015 12:31 PM
To: sarah@uraniumwatch.org
Cc: Rosnick, Reid; Nesky, Anthony; Lee, Raymond; Wieder, Jessica
Subject: RE: Request for Documents on Part 192 and Subpart W Webpages

Hello,

Thank you for bringing these items to our attention. I will look into this.

Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

From: sarah@uraniumwatch.org [<mailto:sarah@uraniumwatch.org>]
Sent: Tuesday, January 06, 2015 4:09 AM
To: Peake, Tom

Cc: Rosnick, Reid

Subject: Request for Documents on Part 192 and Subpart W Webpages

Dear Mr. Peake,

A FEW THINGS:

1. A significant document is missing from the Subpart W Rulemaking Activity in the list of Historical Rulemakings documents. I do not understand why this document is clearly missing.

The Missing *Federal Register* Notice is:

NESHAPS: Radionuclides. Standards for Radon-222 Proposed Rule.
40 CFR Part 61. 51 Fed. Reg. 6382, February 21, 1986.

I would greatly appreciate it if you would have this *Federal Register* Notice placed on the Subpart W site as soon as possible.

It would really be great if the EPA showed an interest in posting all of the relevant Part 61 Rulemakings.

3. Also, only one of the transcripts from the Denver Subpart W hearings have been placed on the [regulations.gov](http://www.regulations.gov) website, where the comments are supposed to be put on the record of the Rulemaking. The transcript of the first day is there, but not the second.

Sincerely,

Sarah Fields
Program Director
Uranium Watch
PO Box 344
Moab, Utah 84532
435-260-8384

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:34 AM
To: Thornton, Marisa
Subject: Fw: Request for Historical Rulemaking Document

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:09 AM
To: Collections.SubW
Subject: FW: Request for Historical Rulemaking Document

From: Rosnick, Reid
Sent: Tuesday, January 13, 2015 9:13 AM
To: sarah@uraniumwatch.org
Subject: RE: Request for Historical Rulemaking Document

Sarah,

The document you want is on the Subpart W website. It is the first document under the "Historical Documents" heading.

Reid

From: sarah@uraniumwatch.org [<mailto:sarah@uraniumwatch.org>]
Sent: Tuesday, January 13, 2015 2:22 AM
To: Rosnick, Reid
Subject: Request for Historical Rulemaking Document

Dear Mr. Rosnick,

I really, really, really would appreciate it if you would send me a copy of the *Federal Register* Notice that you all neglected to place on the Subpart W Review website. It is the February 21, 1986, 51 Fed. Reg. 6382, National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Proposed Rule.

Your Website claimed on the Website that it was a list of Historical Rulemakings. But it was incomplete.

Your office must have a copy that can be copied, scanned, placed on the Website and sent to me ASAP. Also, you should place all of the early Notices referenced in these rulemakings on the Website.

Thank you,

Sarah Fields
Uranium Watch

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:33 AM
To: Thornton, Marisa
Subject: Fw: Subpart W Website

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:08 AM
To: Collections.SubW
Subject: FW: Subpart W Website

From: Rosnick, Reid
Sent: Tuesday, January 13, 2015 10:01 AM
To: Thornton, Marisa
Subject: RE: Subpart W Website

Thank you!

From: Thornton, Marisa
Sent: Tuesday, January 13, 2015 10:00 AM
To: Rosnick, Reid
Subject: RE: Subpart W Website

Done <http://epa.gov/radiation/neshaps/subpartw/rulemaking-activity.html#historical-rulemakings>

From: Rosnick, Reid
Sent: Tuesday, January 13, 2015 9:34 AM
To: Thornton, Marisa
Subject: Subpart W Website

Hi Marisa,

You know the document we placed on the website last week? The very first one under "Historical Documents." The number of pages is incorrect. Instead of 112 it is 12. Some people thought the document was incomplete. Could you please fix it? Thanks!

Reid

Reid J. Rosnick
US Environmental Protection Agency
Radiation Protection Division
202.343.9563
rosnick.reid@epa.gov

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:33 AM
To: Thornton, Marisa
Subject: Fw: Request for Historical Rulemaking Document

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:08 AM
To: Collections.SubW
Subject: FW: Request for Historical Rulemaking Document

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 13, 2015 11:43 AM
To: Rosnick, Reid
Subject: RE: Request for Historical Rulemaking Document

Reid,

The document you refer to is an April 6, 1983, FRN. That is not the one I am looking for. I am looking for a February 21, 1986, FRN (51 Fed. Reg. 6382). That proposed rule is referenced in the September 24, 1986, Final Rule on page 34058, col. 2, Sec. IV. Summary of Proposed Standards, in the first paragraph. The Feb. 1986 Proposed Rule is the one associated with the Sept. 1986 Final Rule.

I am sure your office has copy of that FRN somewhere.

Thanks,

Sarah

----- Original Message -----

Subject: RE: Request for Historical Rulemaking Document
From: "Rosnick, Reid" <Rosnick.Reid@epa.gov>
Date: Tue, January 13, 2015 7:12 am
To: "sarah@uraniumwatch.org" <sarah@uraniumwatch.org>
Sarah,

The document you want is on the Subpart W website. It is the first document under the "Historical Documents" heading.

Reid

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 13, 2015 2:22 AM
To: Rosnick, Reid
Subject: Request for Historical Rulemaking Document

Dear Mr. Rosnick,

I really, really, really would appreciate it if you would send me a copy of the *Federal Register* Notice that you all neglected to place on the Subpart W Review website. It is the February 21, 1986, 51 Fed. Reg. 6382, National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Proposed Rule.

Your Website claimed on the Website that it was a list of Historical Rulemakings. But it was incomplete.

Your office must have a copy that can be copied, scanned, placed on the Website and sent to me ASAP.

Also, you should place all of the early Notices referenced in these rulemakings on the Website.

Thank you,

Sarah Fields
Uranium Watch

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:33 AM
To: Thornton, Marisa
Subject: Fw: Request for Historical Rulemaking Document

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:08 AM
To: Collections.SubW
Subject: FW: Request for Historical Rulemaking Document

From: Rosnick, Reid
Sent: Tuesday, January 13, 2015 12:12 PM
To: 'sarah@uraniumwatch.org'
Subject: RE: Request for Historical Rulemaking Document

Sarah,

The FR notice you are looking for is immediately above the 4/6/83 FRN. It's titled <http://www.epa.gov/radiation/docs/neshaps/subpart-w/FedReg51.pdf> If you don't see it, try refreshing your browser.

Reid

From: sarah@uraniumwatch.org [<mailto:sarah@uraniumwatch.org>]
Sent: Tuesday, January 13, 2015 11:43 AM
To: Rosnick, Reid
Subject: RE: Request for Historical Rulemaking Document

Reid,

The document you refer to is an April 6, 1983, FRN. That is not the one I am looking for. I am looking for a February 21, 1986, FRN (51 Fed. Reg. 6382). That proposed rule is referenced in the September 24, 1986, Final Rule on page 34058, col. 2, Sec. IV. Summary of Proposed Standards, in the first paragraph. The Feb. 1986 Proposed Rule is the one associated with the Sept. 1986 Final Rule.

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Thanks,

Sarah

----- Original Message -----

Subject: RE: Request for Historical Rulemaking Document
From: "Rosnick, Reid" <Rosnick.Reid@epa.gov>

Date: Tue, January 13, 2015 7:12 am

To: "sarah@uraniumwatch.org" <sarah@uraniumwatch.org>

Sarah,

The document you want is on the Subpart W website. It is the first document under the "Historical Documents" heading.

Reid

From: sarah@uraniumwatch.org [<mailto:sarah@uraniumwatch.org>]

Sent: Tuesday, January 13, 2015 2:22 AM

To: Rosnick, Reid

Subject: Request for Historical Rulemaking Document

Dear Mr. Rosnick,

I really, really, really would appreciate it if you would send me a copy of the *Federal Register* Notice that you all neglected to place on the Subpart W Review website. It is the February 21, 1986, 51 Fed. Reg. 6382, National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Proposed Rule.

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Thank you,

Sarah Fields
Uranium Watch

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:32 AM
To: Thornton, Marisa
Subject: Fw: Request for Historical Rulemaking Document

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:08 AM
To: Collections.SubW
Subject: FW: Request for Historical Rulemaking Document

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 13, 2015 1:11 PM
To: Rosnick, Reid
Subject: RE: Request for Historical Rulemaking Document

Sorry. Thanks.

----- Original Message -----

Subject: RE: Request for Historical Rulemaking Document
From: "Rosnick, Reid" <Rosnick.Reid@epa.gov>
Date: Tue, January 13, 2015 10:11 am
To: "sarah@uraniumwatch.org" <sarah@uraniumwatch.org>
Sarah,

The FR notice you are looking for is immediately above the 4/6/83 FRN. It's titled <http://www.epa.gov/radiation/docs/neshaps/subpart-w/FedReg51.pdf> If you don't see it, try refreshing your browser.

Reid

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 13, 2015 11:43 AM
To: Rosnick, Reid
Subject: RE: Request for Historical Rulemaking Document

Reid,

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I am sure your office has copy of that FRN somewhere.

Thanks,

Sarah

----- Original Message -----

Subject: RE: Request for Historical Rulemaking Document
From: "Rosnick, Reid" <Rosnick.Reid@epa.gov>
Date: Tue, January 13, 2015 7:12 am
To: "sarah@uraniumwatch.org" <sarah@uraniumwatch.org>

Sarah,

The document you want is on the Subpart W website. It is the first document under the "Historical Documents" heading.

Reid

From: sarah@uraniumwatch.org [<mailto:sarah@uraniumwatch.org>]

Sent: Tuesday, January 13, 2015 2:22 AM

To: Rosnick, Reid

Subject: Request for Historical Rulemaking Document

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I really, really, really would appreciate it if you would send me a copy of the *Federal Register* Notice that you all neglected to place on the Subpart W Review website. It is the February 21, 1986, 51 Fed. Reg. 6382, National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Proposed Rule.

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Also, you should place all of the early Notices referenced in these rulemakings on the Website.

Thank you,

Sarah Fields
Uranium Watch

Uranium Watch

76 South Main Street, # 7 | P.O. Box 344
Moab, Utah 84532
435-260-8384

January 16, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW
Washington, D.C. 20460
a-and-r-docket@epa.gov

Re: Docket ID No. EPA-HQ- OAR-2008-0218. Supplement No. 4 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement 4 to the October 29, 2014, comments on Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ- OAR-2008-0218; 79 Fed. Reg. 25388, May 2, 2014. These comments are submitted by Uranium Watch and on behalf of Living Rivers and Information Network on Responsible Mining (INFORM).

These comments, though submitted after the October 29, 2014, close of the Subpart W Revision comment period, are based on additional information regarding the relationship between the Clean Air Act and 40 C.F.R. Part 61, Subpart W. and consideration of an important issue that the EPA failed to adequately address in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). Considering the long time for the EPA to develop the Proposed Rules and the numerous May 2, 2014, *Federal Register* Notice inadequacies, the expectation of over a year to develop the Final Rule, Commenters request that the EPA give full consideration to the following comments.

1. THE PROBLEM

The current EPA Subpart W regulations and proposed regulations for existing and new tailings impoundments do not apply when a tailings impoundment is no longer in “operation,” but is in “closure.” Therefore, during the closure period, when radon emissions increase due to natural and enhanced dewatering, the radon emissions are unregulated. There are no monitoring, reporting, or compliance requirements. This has been happening for several years at the Cotter Mill in Cañon City, Colorado, and is happening at the White Mesa Mill in San Juan County, Utah. This regulatory gap must be filled.

2. BACKGROUND

2.1. The current EPA 40 CFR Part 61 Subpart W regulation established an emission standard (20 pico Curies per square meter per second (20 pCi/m²-sec)) and monitoring, reporting, and corrective action requirements for “existing” impoundments during “operation” of the impoundments. The current rule defines “operation”: “*Operation* means that an impoundment is being used for the continued placement of new tailings or is in standby status for such placement,” and states that “an impoundment is in operation from the day that tailings are first placed in the impoundment until the day that final closure begins.”

2.2. This definition is found almost word for word in the 40 C.F.R. Part 192 “Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended,” at Section 192.31(p) definition of “operational.” There is a significant difference in that Part 192 states that the tailings pile or impoundment is being used for placement of uranium byproduct material, not “tailings”: “Operational means that a uranium mill tailings pile or impoundment is being used for the continued placement of uranium byproduct material or is in standby status for such placement.” Therefore, once final closure begins, the Subpart W requirements are no longer applicable to existing impoundments.

2.3. At the time closure begins there is supposed to be a closure plan and enforceable reclamation milestones, pursuant to 10 C.F.R. Part 40, Appendix A, Criterion 6A. Under that assumption, there is no EPA requirement to comply with the 20 pCi/(m²-sec) standard until a licensee requests an extension of a performance milestone that has been incorporated into the license, pursuant to 40 C.F.R. § 192.32(a)(3)(ii). During the period of the milestone extension, the license must demonstrate annual compliance with the 20 pCi/m²-sec standard. This applies to both “existing” and “new” impoundments. Historically, uranium mill licensees have not met the initial reclamation milestones and had to request milestone extensions. Examples are the Homestake and Churchrock Mills in New Mexico. The licensees must submit annual radon monitoring reports to the Nuclear Regulatory Commission (NRC) for tailings impoundments that closed decades ago.

2.4. An additional regulatory gap has been created by the States of Colorado and Utah because the Cotter Mill and Cell 2 of the White Mesa Mill do not have any reclamation milestones. So, Subpart W compliance requirements end, but there are no reclamation milestones and, therefore, no any need to extend those milestones if the milestones are not met and no need to demonstrate compliance with the 20 pCi/m²-sec standard.

2.5. So, the EPA created a lengthy period, known as closure, that commences after an impoundment ceases operation and ends with the placement of the final radon barrier. During this period (which may last for decades) radon emissions increase due to the drying out of the impoundment, inadequate interim cover, possible displacement of the interim cover material, and other factors. There is no radon emissions standard, no requirement to monitor and report radon emissions, and no requirement to take corrective actions. The EPA program authorizes the unknown and unmitigated emission of radon during closure. The EPA was not authorized under the CAA to create a long period when radon-222 emissions from uranium mill tailings were not regulated as hazardous air pollutants and the health and safety of the public is not protected.

3. SUBPART T

3.1. When Subpart W was promulgated in December 1989¹, the EPA also promulgated 40 C.F.R. Part 61 Subpart T (National Emission Standards for Radon Emissions From the Disposal of Uranium Mill Tailings).” Subpart T applied to both Title I and Title II Uranium Mill Tailings Radiation Control Act (UMTRCA) uranium mill sites.

3.2. The Subpart T standard (Section 61.222(a)) states: “Radon-222 emissions to the ambient air from uranium mill tailings pile[s] that are no longer operational shall not exceed 20 pCi/m²-sec.” Section 61.222(b) states that a tailings pile must be brought into compliance with that standard within 2 years of the day it ceases to be operational. It was assumed that the operator could complete disposal within 2 years. If the 2-year time-frame could not be met, then there were provisions to establish a compliance agreement with the EPA to assure that disposal will be completed as quickly as possible. The rule mainly applied to a number of commercial mills and those to be remediated by the Department of Energy that were no longer operational. The purpose of Subpart T was to correct inadequacies in the EPA standards for uranium mills in 40 C.F.R. Part 192 with respect the timing of the placement of a cover on a tailings impoundment.

3.3. The EPA rescinded Subpart T as it applied to Title II commercial uranium mill sites in 1994.² The rescission was based on a finding that the NRC and Agreement State programs would be protective of public health and safety and that there would be

¹ 54 Fed. Reg. 51654, December 15, 1989.

² 59 Fed. Reg. 36280, July 15, 1994.

reclamation plans and enforceable reclamation milestones incorporated into the licenses. The EPA amended 40 C.F.R. Part 192 and the NRC amended 10 C.F.R. Part 40 Appendix A to require the closure plans and reclamation milestones.

3.4. Subpart T compliance requires a single determination of compliance with the 20 pCi/m²-sec standard “60 days following the completion of covering the pile to limit radon emissions but prior to the long term stabilization of the pile.” The owners were supposed to conduct testing for all piles within the facility.

3.5. As part of the rescission of Subpart T, the EPA made provisions for the reinstatement of Subpart T on a site specific or programmatic basis, at 40 C.F.R. § 61.226. There is plenty of justification for reinstating Subpart T for the White Mesa Mill, because the EPA and Utah Division of Air Quality, and Utah Division of Radiation Control made a determination that Cell 2 was in “closure” and no longer subject to Subpart W monitoring, reporting, and corrective action requirements—even though there was no approved Cell 2 closure plan and no reclamation milestones, as required by 10 C.F.R. Part 40, Appendix A, Criterion 6A. Also, the current proposed closure plan anticipates the final closure and placement of the final radon barrier on Cell 2 at the end of the life of the mill, rather than the end of the life of the impoundment. The lack of a Cell 2 closure plan and reclamation milestones in the license and the anticipated final closure of Cell 2 at the end of the life of the mill flies in the face of the EPA and NRC justification for rescinding Subpart T for operational mills.

3.6. Although Subpart T establishes an emission standard when a mill or impoundment is no longer operational, the only compliance requirement is a single monitoring event prior to the placement of the final radon barrier. There is no requirement to monitor and control radon emissions throughout the closure period. Subpart T was never meant to be used to regulate radon emissions during the lengthy closure period for tailings impoundments at operating uranium mills.

4. CLOSING THE GAP

4.1. The question is how best to promulgate a set of regulations that establish a radon emission standard during the closure period, require radon monitoring and reporting, and require corrective actions for conventional and nonconventional existing and new uranium tailings impoundments, ISLs, and heap leach operations during the closure period. The focus here will be on conventional mills.

4.2. The EPA made statements and asked questions at the EPA Subpart W hearings in Denver on September 3 and 4, 2014, indicating their attention to the question of the gap in radon emission regulation at the very time when the emissions increase during closure. EPA staff also mentioned closing this gap at a meeting with Uranium Watch and INFORM on November 17, 2014, in Washington, D.C.

5. THE POSSIBILITIES

5.1 Redefinition of “Operation.”

From some statements made by the EPA at the Denver hearings, EPA might consider changes in the definition of an operational mill or impoundment to include the closure period. Uranium Watch proposed such changes in the Subpart W comments submitted on October 29. However, Uranium Watch has reconsidered this position and no longer thinks that the EPA should make a major change in the definition of operation to include the closure period.

Problems: Changing the definition of “operation” would also require an amendment to the Part 192 definition of “operational.” Changing the definition of operation to include impoundments in closure would interfere with the provision that there can only be 2 impoundments (now just conventional impoundments) in operation at any one time. Additionally, this change in definition of operation would not address the need for a radon standard and compliance requirements for the new impoundments in closure. Nor would it address some of the specific radon emission issues that arise during dewatering and closure.

Commenters believe there should be a clear difference between the definition of operation and the closure period, and that an impoundment cannot enter “closure” unless there is approved closure plan and reclamation milestones in license.

5.2. Applying Subpart W to Impoundments in “Closure.”

The EPA could amend Subpart W (and its name) to apply to impoundments in closure. The 1986 Subpart W title was “National Emission Standard for Radon -222 Emissions from Licensed Uranium Mill Tailings.”³ There is no legal constraint that would prevent the EPA from doing this. Closure should require a reclamation plan and reclamation milestones, a license amendment application and approval changing the status of the impoundment. Closure should also require additional monitoring requirements during the dewatering period, such as monthly monitoring and reporting. Energy Fuels Resources (USA) Inc. was aware that the White Mesa Mill Cell 2 was out of compliance with the Subpart W standard from when they received the results of the July 2012 monitoring and until they reported the monitoring results at the end of March 2013. This delay in reporting meant almost a year’s delay in taking corrective actions to reduce the radon emissions. There was no dewatering plan and dewatering milestone approved by the DRC and no interim cover plan and milestone. Since Cell 2 and now Cell 3 will have soil covers by the time they have entered closure, it is imperative that that soil cover be sufficient to limit the emission of radon throughout the whole closure

³ 51 Fed. Reg. 34056, September 24, 1986. It was the intent of the 1983 Subpart W Rule that no tailings would be placed in “existing” impoundments after December 31, 1992, if the impoundment did not meet the 40-acre and lined impoundment standard. This was revised in 1989, which allowed the continued operation of Cells 2 and 3 at White Mesa.

period. There is now Cell 2 data to support this. Also, there is data to support the assertion that the radon emissions during closure can and should be less than 20 pCi/(m²-sec). By applying a standard specifically to the closure period, there can be more control over what happens during this period and more coordination between the regulation under Subpart W and under the NRC and Agreement State regulations. It is also imperative that the EPA address the emission of high levels of radon from liquid ponds on top of any conventional impoundments during closure.

Problems: There does not appear to be any legal, regulatory, or technical problems with this approach.

5.3. Reinstatement of Subpart T:

It is also possible to request the reinstatement of Subpart T. The initiation of this process in Utah would force Utah to require reclamation plans and milestones before an impoundment enters closure and require the closure of an impoundment as expeditiously as practicable (e.g., not wait until final closure of the mill). The 1991 MOU between the EPA, NRC, and Agreement States requires that the NRC and Agreement State have enforcement petition procedures related to the enforcement of the MOU and reclamation plan and milestone requirements. These procedures could be used to demand compliance on a site specific basis. However, Utah and probably Colorado do not have enforcement proceeding procedures that the MOU requires. Therefore, Utah and probably Colorado are out of compliance with the MOU.

Problems: The reinstatement of Subpart T would not solve the problem of the control of radon emissions during the closure period. There is a standard, but no compliance requirements during closure.

5.4. Change Part 192 Regulations:

The question of amending 40 C.F.R. Part 192 was discussed at the Denver Subpart W hearings. EPA has proposed changes the Part 192 Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended. Section 192.32(a), "Standards for application during processing operations and prior to the end of the closure period," could be amended to include a radon emission standard and compliance requirements for radon emissions during the closure period.

Problems: The proposed Part 192 rules primarily address in situ leach facilities and groundwater. It is unclear when the EPA will propose substantive changes to Part 192 to address conventional mills and air quality.

6. IN SUM

Commenters believe that the EPA should promulgate a Subpart W emission standard that applies to existing and new conventional and non-conventional impoundments during the closure period. This would not include redefining operation to include the closure period,

but another section in Subpart W that specifically addresses radon emissions during closure. There is no legal or technical justification for allowing the unfettered and unregulated emission of radon from uranium mill tailings impoundments during closure.

Thank you for your consideration of these comments.

Respectfully submitted,

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Bob Dye, EPA
Gina McCarthy, EPA
Janet McCabe, EPA
Avi Garbow, EPA
Cynthia Giles, EPA
Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:34 AM
To: Thornton, Marisa
Subject: Fw: Supplement 3 to Comments on EPA Subpart W Rulemaking
Attachments: UW_EPA_SubpartWComments_Supplement4.150116.pdf

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:07 AM
To: Collections.SubW
Subject: FW: Supplement 3 to Comments on EPA Subpart W Rulemaking

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Friday, January 16, 2015 12:53 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplement 3 to Comments on EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 4 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

This is the 4th and last supplement to Uranium Watch et al. Subpart W comments, unless there is significant new information.

Sincerely,

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Uranium Watch

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January 6, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW
Washington, D.C. 20460
a-and-r-docket@epa.gov

Re: Docket ID No. EPA-HQ- OAR-2008-0218. Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement No. 1 to the Uranium Watch et al. October 29, 2014, comments (October 29 Subpart W Comments) on the Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ- OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014). These supplementary comments are submitted by Uranium Watch. Comment are also submitted on behalf of Information Network for Responsible Mining and Living Rivers (Commenters).

These comments are based on new information provided by Energy Fuels Resources (USA) Inc. (Energy Fuels) to the Utah Division of Radiation Control (DRC) and raise an important issue that was not adequately addressed in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). In light of the new information, and considering the length of time EPA has taken to develop the Proposed Rules, the estimated 2016 release date for the Final Rules, and the numerous inadequacies in the May 2, 2014, *Federal Register* Notice and the Proposed Rules, Commenters request that the EPA give full consideration to the following comments.

SIGNIFICANT INCREASE IN RADON EMISSIONS FROM LIQUID WASTES AT THE WHITE MESA MILL

1. The Uranium Watch et al. October 29 Subpart W Comments discussed the fact that there were high levels of radon emissions from the liquid effluents at the White Mesa Uranium Mill, San Juan County, Utah.¹ The radon emissions are the result of high Gross Alpha (minus radon and uranium) in the solutions exposed to the air in Cells 1, 3, 4A, and 4B. The radon emission estimations were based on the White Mesa Mill 2013 Annual Tailings Wastewater Monitoring Report.² According the Licensee, Energy Fuels Resources (USA) Inc. (Energy Fuels): Cell 1 (55 acres) is dedicated to the evaporation of Mill waste solutions; Cell 3 (71 acres) contains Mill tailings and is in the final stages of filling; Cell 4A (~ 40 acres) receives Mill tailings and is used for evaporation of Mill waste solutions; and Cell 4B (~ 40 acres) is used for evaporation of Mill waste solutions. Cell 3 has a water cover on top of solid tailings. Liquids from the active dewatering of Cell 2 are being disposed of in Cell 3. Additional information regarding the high levels of radon emissions from the radium-laden solutions at White Mesa was provided to the EPA by the Ute Mountain Ute Tribe as part of the tribal consultation process.³

2. The EPA Risk Assessment Revisions for 40 CFR Part 61 Subpart W - Radon Emissions from Operating Mill Tailings: Task 5 - Radon Emission from Evaporation; Ponds S. Cohen and Associates, November 9, 2010; Table 6, page 17, provided a formula for determining the radon emissions from liquid impoundments. The formula for the radon emissions for the White Mesa Mill, based on the radium content of the solutions and local meteorological data, was 7 pico Curies per square meter per second (7 pCi/m²-sec) for every 1,000 pico Curies per liter (pCi/L) of radium dissolved or suspended in the solutions.⁴

¹ Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W), October 29, 2014. 79 Fed. Reg. 25388, May 2, 2014. Docket ID No. EPA-HQ-OAR-2008-0218.

² 2013 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 1, 2013.
<http://www.deq.utah.gov/businesses/E/energyfuels/docs/2013/12Dec/2013AnnualTailingsReportFinal.pdf>

³ EPA Subpart W Rulemaking, Non-Privileged Records (July-Sept 2014, Part 1), pages 405-416.
<http://www.epa.gov/radiation/docs/neshaps/npr/2014-july-sept-part1.pdf>
EPA Subpart W Rulemaking, Non-Privileged Records (July-Sept 2014, Part 2), pages 1-3.
<http://www.epa.gov/radiation/docs/neshaps/npr/2014-july-sept-part2.pdf>

⁴ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

3. The EPA did not determine the actual radon emissions from the solutions in Cells 1, 3, 4A, and 4B, based on the formula in the 2010 Risk Assessment⁵ and the actual radium content of the solutions in the impoundments. Information about the radium content of the impoundments could have been obtained from Energy Fuels. Data from the 2012 and 2013 Annual Tailings Wastewater Monitoring Reports were available online.

4. EPA's failure to determine the radium content of the White Mesa Mill's impoundments is not a new problem: On May 5, 2009, the EPA required that Energy Fuels predecessor, Denison Mines Corp, provide information to the EPA, pursuant to Section 114(a) (42 U.S.C. § 7414(a)) of the Clean Air Act (CAA)⁶. As that May 2009 letter stated, failure to comply with the request for information could result in an enforcement action, pursuant to Section 133 of the CAA (42 U.S.C. § 7413). The EPA, in part, requested the results of radionuclide monitoring near evaporation ponds. The EPA, among other things, requested the daily average radium-226 concentration in the solutions discharged into the ponds and the solutions in the ponds.

There is no evidence on the record of the Subpart W Rulemaking⁷ that Denison Mines responded to the EPA demand for information, or that the EPA initiated an enforcement action when Denison failed to respond. Further, there is no evidence that the EPA requested that Energy Fuels provide the required information when the failure to respond to the May 2009 demand was brought to the attention of the EPA by Uranium Watch earlier in 2014 after the publication of the Proposed Rule. EPA's indifference to the failure of Denison Mines to respond to the May 2009 demand for information is inexplicable and inexcusable.

5. Even if Denison did provide the information in 2009, that data would have been outdated by 2014. EPA failed to obtain meaningful data on the radium content, and, thus, the radon emissions, from the liquid impoundments at White Mesa over time.

6. The 2014 Annual Tailings Wastewater Monitoring Report⁸ shows a dramatic increase in the Cells 1, 4A, and 4B radium content. The data in the Report was based on August 2014 sampling events. Based on the EPA formula for determining radon emissions from

⁵ Id.

⁶ <http://www.epa.gov/radiation/docs/neshaps/subpart-w/uranium-denison-test.pdf>

⁷ Subpart W Rulemaking Activity: <http://www.epa.gov/radiation/neshaps/subpartw/rulemaking-activity.html>

⁸ 2014 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 24, 2014.
<http://www.deq.utah.gov/businesses/E/energyfuels/docs/2014/12Dec/TailingsReport2014Annual.pdf>

White Mesa liquid impoundments⁹, the radon emissions from Cell 1 have increased from 228.9 pCi/m²-sec in 2013 to 2,317 pCi/m²-sec in 2014. The Cell 4A radon emissions have increased from 110.6 pCi/m²-sec to 1,680 pCi/m²-sec. The Cell 4B radon emissions have increased from 102.2 pCi/m²-sec to 1,036 pCi/m²-sec. Only Cell 3 showed a radon emission decrease from 573.3 pCi/m²-sec to 137.9 pCi/m²-sec. The average for the ~135 acres of liquid ponds and impoundments is 1,749 pCi/m²-sec. *See* Table 1, below.

Cell	2013 Gross Radium Alpha	2013 Radon Emissions	2014 Gross Radium Alpha	2014 Radon Emissions
Cell 1	32,700 pCi/L	228.9 pCi/m ² -sec	331,000 pCi/L	2,317 pCi/m ² -sec
Cell 3	81,900 pCi/L	573.3 pCi/m ² -sec	19,700 pCi/L	137.9 pCi/m ² -sec
Cell 4A	15,800 pCi/L	110.6 pCi/m ² -sec	240,000 pCi/L	1,680 pCi/m ² -sec
Cell 4B	14,600 pCi/L	102.2 pCi/m ² -sec	148,000 pCi/L	1.036 pCi/m ² -sec

7. Information was provided in the 2014 Annual Wastewater Monitoring Report regarding the reasons for the increase in gross radium alpha. The sampling event was in August. According to the 2014 Report:

- During June, July, and August operating period fresh water was not added to the Mill process. Re-circulated tailings liquids were used for process water. Re-circulated fluids were then returned to the tailings system or evaporation ponds.
- From August 2013 to August 2014, the Mill's production was limited, resulting in less fresh water added to the Mill process and therefore to the cells. The decrease in the addition of fresh water resulted in concentration of existing fluids.
- Drought conditions resulted in less precipitation, therefore, less rainwater and storm water going into the cells. Drought also caused higher evaporation rates.

These conditions will continue, as Energy Fuels has announced that they will put the Mill on standby in early 2015. Therefore, there will continue to be high levels of radon emissions from the solutions in these 4 impoundments. Yet, the EPA and Utah Division of Air Quality (DAQ)¹⁰ have done nothing to address this situation.

⁹ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

¹⁰ The EPA delegated responsibility for the administration and enforcement of 40 C.F.R. Part 61 Radionuclide NESHAPS to the Utah Division of Air Quality in 1995.

8. The EPA would have the public believe that the radon emissions from these radium-laden uranium mill waste solutions are ZERO.¹¹ The EPA Method for Monitoring for Radon 222 Emissions (Method 115), discusses the monitoring of Radon-222 Emissions from Uranium Mill Tailings Piles in Section 2. Section 2 states that no measurements are required for water covered areas (of tailings impoundments, not evaporation ponds), “as radon flux is assumed to be zero.” Therefore, the EPA’s claim that these emissions are zero is a carefully crafted misstatement of fact, which the EPA, apparently, intends to perpetuate.

9. In addition to significantly exceeding “zero,” the radon emissions from the liquid impoundments (Cells 1, 3, 4A, and 4B) exceed the 20 pCi/m²-sec radon emission standard for the “existing” tailings impoundments (Cells 2 and 3). This is a standard that EPA adopted to protect public and environmental health; any exceedance – much less an exceedance of over 100 times the radon emission standard – is a threat to the residents and environment of Southeast Utah.

10. For decades the EPA has misled the public regarding the radon emissions from radium-laden solutions at conventional mills. This assumption that the emissions were “zero” and did not have to be measured or calculated has been maintained throughout the years when the levels of radium-laden effluents and radium content fluctuated at the White Mesa and Cañon City Mills.

11. Under the Proposed Rules, the EPA:

- Completely failed to address the high levels of radon emissions from solutions in impoundments at conventional uranium mills.
- Failed to obtain relevant data and ignored the data that was available on the radium content of White Mesa Mill solution ponds.
- Failed to request data on the radium content of liquid impoundments over time and the depth of those liquids, so that a correlation could be made between radium content and depth.
- Failed to propose any change in the assumption that the radon emissions from liquid impoundments are “zero,” although the EPA had developed a formula for determination of those emissions and it was apparent that these emissions were not “zero” and could be significant.
- Failed to establish a radon emission standard for liquid impoundments and a methodology for determining compliance;
- Failed to require corrective actions to reduce radon emissions from liquid impoundments;

¹¹ 40 C.F.R. Part 61, Appendix B, Method 115, Subsection 2.13(a).

- Failed to consider whether the placement of water covers on top of solid tailings would, over time, not significantly attenuate the radon emissions;
- Failed to require continuous disposal of de-watered tailings for new impoundments;
- Failed to establish an overall limit on the radon emissions at a uranium recovery operation.
- Failed to consider the emission of high levels of radon from liquid impoundments and water covers in their risk assessment.

12. The EPA must not wait until the finalization of Subpart W to take action regarding the high levels of radon that are being released, and will continue to be released, from Cells 1, 3, 4A, and 4B at the White Mesa Mill. The EPA must take action NOW. The EPA must:

- Require immediate action to assure that the radon emissions from the solution ponds at the White Mesa Mill will be substantially reduced and remain reduced.
- Require the immediate use of technologies or methodologies to reduce the radium content and radon emissions from Cells 1, 3, 4A, and 4B. Corrective actions may include adding fresh water and/or treating the fluids with barium chloride to reduce the radium content.
- Require monthly determinations of the radium content and radon emissions from the solutions in Cells 1, 3, 4A, and 4B, and the reporting of that information to the DAQ and EPA.
- Require treatment of any new or recycled radium-laden solutions that are being or may be added to Cell 1, 3, 4A, and 4B to significantly reduce the radium content; e.g., use of a barium chloride treatment system. Solutions to be added would include recycled processing fluids and the solutions that are being removed from the Cell 2 Leak Detection System as part of the Cell 2 dewatering process.
- Require that no new solutions be added or recycled to the tailings cells without a determination of the radium content of those solutions and if adding those solutions to the solution impoundment would reduce or increase the radium content and radon emission levels. No new solutions that would increase the radium content and radon emission levels should be permitted to be placed in any solution pond or impoundment.

13. The 1983 EPA Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites¹² contains a discussion of Part 192 in “Relationship to the Clean Air Act Emission Standard Requirements.” This section states, in part:

EPA believes that the standard should be established at a level that will, at least, require use of best available technology. Additional actions, such as forcing the use of undemonstrated technology, closure of a facility, or other extreme measures may be considered if significant emissions remain after best available technology is in place or if there are significant emissions and there is no applicable demonstrated control technology. EPA defines best available demonstrated technology as that which, in the judgement of the Administrator, is the most advanced level of controls adequately demonstrated, considering economic, energy, and environmental impacts. We concluded that requiring the use of undemonstrated technology was appropriate for mill tailings, since their emissions are significant and there is no applicable demonstrated control technology.

Therefore, as early as 1983, the EPA realized that there might be situations where the best available technology would not be able to reduce radon emissions to acceptable levels (i.e., 20 pCi/m²-sec). In 1989,¹³ the EPA addressed the problem of possible significant levels of radon emissions from radium-laden fluids by denying that such levels were even possible. The EPA claimed that placing uranium-laden processing solutions on top of the more solid tailings would actually serve to reduce the radon emissions.

Now, the EPA must make a determination of whether there are available technologies that can be used to reduce the levels of radium and the radon emissions from liquid ponds and impoundments at the White Mesa and other conventional mills. If such technologies are not available or not feasible, then the EPA must consider closure of a facility or other extreme measures. The EPA cannot continue to sanction the emission of the high levels of radon that are currently being emitted at White Mesa.

¹² Environmental Protection Agency, Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites, 40 C.F.R. Part 192, Final Rule, Section 3. Relationship to the Clean Air Act Emission Standard Requirements. 48 Fed. Reg. 45926; October 14, 1983. <https://blog.epa.gov/milltailingsblog/wp-content/uploads/2009/12/48fr45926.pdf>

¹³ Environmental Protection Agency, National Emission Standards for Hazardous Air Pollutants; Radionuclides, Final rule and notice of reconsideration, 40 C.F.R. Part 61. 54 Fed. Reg. 51654; December 15, 1989. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/historical-rulemakings/december151989finalrule.pdf>

14. Regarding the Proposed Rules, the EPA must:

- No longer maintain the fraudulent claim that the radon emissions from liquid ponds at conventional mills are “zero.”
- No longer maintain the fiction that a water cover on solid tailings serves to attenuate the radon and reduce the radon emissions to insignificant levels.
- Either obtain a response to the May 2009 demand for information from Energy Fuels (and make that information available to the public), or initiate an enforcement action.
- Establish a numerical radon emission standard for liquid impoundments and water covers equal to or less than the 20 pCi/m²-sec.
- Require the timely provision of data on the radium content of the solutions in non-conventional and conventional impoundments on a monthly basis.
- Require use of technologies or methodologies to reduce the radium content and radon emissions from solution impoundments (non-conventional impoundments or ponds). Corrective actions may include adding fresh water and/or treating the fluids with barium chloride to reduce the radium content.
- Require that all conventional mills use the continuous method of tailings disposal, thus eliminating the use of water covers over phased disposal impoundments.
- Require “additional actions, such as forcing the use of undemonstrated technology, closure of a facility, or other extreme measures may be considered if significant emissions remain after best available technology is in place or if there are significant emissions and there is no applicable demonstrated control technology.”

15. Based on this new information and other legal, factual, and technical errors and inadequacies in the Proposed Rules (as outlined above, in Uranium Watch et al. October 29 Comments, and in other Subpart W Proposed Rule comments), the EPA must withdraw the May 2, 2014, Proposed Rules.

Thank you for your consideration of these comments.

Respectfully submitted,

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Lena Ferris, EPA
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Cynthia Giles, EPA
Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:37 AM
To: Thornton, Marisa
Subject: Fw: Supplementary Comments: EPA Subpart W Rulemaking,
Attachments: UW_EPA_SubpartWComments_Supplement1_EPA-HQ-OAR-2008-0218_150106.pdf

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:09 AM
To: Collections.SubW
Subject: FW: Supplementary Comments: EPA Subpart W Rulemaking,

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 06, 2015 4:01 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplementary Comments: EPA Subpart W Rulemaking,

Dear Sir or Madam,

Attached please find Supplement No. 1 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

Sarah Fields
Program Director
Uranium Watch
P.O. Box 344
Moab, Utah 84532

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:39 AM
To: Thornton, Marisa
Subject: Fw: OGC coverage for Friday morning tribal call?

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:43 PM
To: Collections.SubW
Subject: FW: OGC coverage for Friday morning tribal call?

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Stahle, Susan
Sent: Thursday, January 29, 2015 1:20 PM
To: Peake, Tom
Cc: Rosnick, Reid; Schultheisz, Daniel; Rodman, Sonja
Subject: RE: OGC coverage for Friday morning tribal call?

Hi Tom –

Yes, Sonja Rodman can participate. Please add her to the invitation.

If you schedule a call beforehand to prepare for this call with the tribe, please include Sonja and me on that invitation.

Thanks,

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Peake, Tom
Sent: Thursday, January 29, 2015 1:09 PM
To: Stahle, Susan
Cc: Doster, Brian; Rosnick, Reid; Schultheisz, Daniel
Subject: OGC coverage for Friday morning tribal call?

Sue,
Reid said you would not be able to make the call with the Ute Mountain Ute. Is there somebody else in OGC that could sit in on the discussion?
Thanks.

Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:38 AM
To: Thornton, Marisa
Subject: Fw: OGC coverage for Friday morning tribal call?

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:43 PM
To: Collections.SubW
Subject: FW: OGC coverage for Friday morning tribal call?

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Peake, Tom
Sent: Thursday, January 29, 2015 1:48 PM
To: Stahle, Susan
Subject: RE: OGC coverage for Friday morning tribal call?

Sue,
Thanks for getting back to me. I would have included Sonja on my earlier email but I spelled her name wrong and could not get her address correct. I included Brian in case you weren't in.

Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

From: Stahle, Susan
Sent: Thursday, January 29, 2015 1:20 PM
To: Peake, Tom
Cc: Rosnick, Reid; Schultheisz, Daniel; Rodman, Sonja
Subject: RE: OGC coverage for Friday morning tribal call?

Hi Tom –

Yes, Sonja Rodman can participate. Please add her to the invitation.

If you schedule a call beforehand to prepare for this call with the tribe, please include Sonja and me on that invitation.

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Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Peake, Tom
Sent: Thursday, January 29, 2015 1:09 PM
To: Stahle, Susan
Cc: Doster, Brian; Rosnick, Reid; Schultheisz, Daniel
Subject: OGC coverage for Friday morning tribal call?

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Thanks.

Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:38 AM
To: Thornton, Marisa
Subject: Fw: OGC coverage for Friday morning tribal call?

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:11 AM
To: Collections.SubW
Subject: FW: OGC coverage for Friday morning tribal call?

From: Schultheisz, Daniel
Sent: Thursday, January 29, 2015 1:14 PM
To: Peake, Tom
Cc: Rosnick, Reid
Subject: RE: OGC coverage for Friday morning tribal call?

Sonja Rodman is the acting air toxics practice manager. Jon and Alan reminded us of Avi Garbow's interest, so maybe Anthony Moffa should be notified of the call. He might also be able to tell us if the GC is responding to the tribe's concerns raised in the "listening session."

From: Peake, Tom
Sent: Thursday, January 29, 2015 1:09 PM
To: Stahle, Susan
Cc: Doster, Brian; Rosnick, Reid; Schultheisz, Daniel
Subject: OGC coverage for Friday morning tribal call?

Sue,
Reid said you would not be able to make the call with the Ute Mountain Ute. Is there somebody else in OGC that could sit in on the discussion?
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Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:38 AM
To: Thornton, Marisa
Subject: Fw: Phone Call

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:12 AM
To: Collections.SubW
Subject: FW: Phone Call

From: Peake, Tom
Sent: Friday, January 30, 2015 8:39 AM
To: Rosnick, Reid; Schultheisz, Daniel
Subject: RE: Phone Call

I suggest a positive spin, then, and let them know that those suggestions are helpful for us. Do you need clarification on what they suggest? This may be the area to focus the discussion.

Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

From: Rosnick, Reid
Sent: Friday, January 30, 2015 8:35 AM
To: Peake, Tom; Schultheisz, Daniel
Subject: Phone Call

Tom,

Just want to let you know that the Tribe DID provide some language in their comments. Examples are they made requests to revise the proposal to

- set a numerical standard
- Develop a method for calculating emissions from an evap pond
- develop enforcement provisions to address violations
- limit the number of non-conventional ponds

They also question our authority to use GACT since we have not defined area source for radionuclides.

We can use these examples this morning.

Reid J. Rosnick
US Environmental Protection Agency
Radiation Protection Division
202.343.9563
rosnick.reid@epa.gov

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:37 AM
To: Thornton, Marisa
Subject: Fw: Comments from Mountain Ute to Avi Garbow on monday.

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:12 AM
To: Collections.SubW
Subject: FW: Comments from Mountain Ute to Avi Garbow on monday.

From: Childers, Pat
Sent: Friday, January 30, 2015 10:59 AM
To: Rosnick, Reid
Subject: FW: Comments from Mountain Ute to Avi Garbow on monday.

[FYI - I don't know if you ever saw this](#)

From: Childers, Pat
Sent: Thursday, December 04, 2014 12:31 PM
To: Flynn, Mike
Cc: Harrison, Jed
Subject: FW: Comments from Mountain Ute to Avi Garbow on monday.

[FYI – I was going to wait until later today to send this to Janet but realized Avi and Janet may see each other today if they are at the All Hands.](#)

From: Childers, Pat
Sent: Thursday, December 04, 2014 12:20 PM
To: McCabe, Janet
Cc: Lori Stewart
Subject: Comments from Mountain Ute to Avi Garbow on monday.

Janet

After the EPA/Tribal listening session on Monday, there was an additional listening session specific to EPA General Counsel. During this session the Ute Mountain Ute Tribal representative mentioned some dissatisfaction with an OAR/Region 8 consultation on the NESHAP Subpart W rulemaking (radon emissions at operating Mills). As well as potential concern over an upcoming related rulemaking 40 CFR 192. Avi Garbow, agreed to look into the issue and respond to the tribe at a later date (likely next week at the soonest). I met This morning with Region 8, OGC and ORIA staff to discuss the consultation so Avi could respond.

From our discussions, records, and recollection, Region 8 staff and I recall that the consultation went well, though the Tribe was dissatisfied that the rule wouldn't necessarily address their enforcement concerns with the White Mesa

Uranium Mill. The only negative comments we recalled were about the tribe not being allowed to see the rule prior to it being put out (a common comment from tribes as you may recall) and that OAR staff were not attending the consultation in person. Region 8 staff and leadership attended in person and OAR participated by phone. Prior to the consultation, EPA held staff level calls and collected and responded to questions the tribe provided in advance. We worked with the tribe to set up a follow up Consultation while you were in Denver, but unfortunately they were not available on the same dates as you. With regard to the 40 CFR 192 rulemaking, EPA is planning to invite tribes including the Mountain Utes to consult on this rulemaking as well.

Both I and the regional staff thought the consultation went well, but recognize that the responses we gave likely were not fully satisfactory to their specific enforcement based issues with a single facility. Avi's staff will be briefing him soon and will craft a response from him to the tribe that will likely relay our continued availability to discuss issues with them on both rulemakings. They are keeping us in the loop as this progresses.

I wanted to make you aware of this, but also want to reiterate my belief that ORIA and Region 8 staff did a good job on the consultation preparation and follow-up.

Let me know if you have any further questions.

Pat

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:37 AM
To: Thornton, Marisa
Subject: Fw: OGC coverage for Friday morning tribal call?

From: Rosnick, Reid
Sent: Tuesday, February 3, 2015 7:10 AM
To: Collections.SubW
Subject: FW: OGC coverage for Friday morning tribal call?

From: Peake, Tom
Sent: Thursday, January 29, 2015 1:09 PM
To: Stahle, Susan
Cc: Doster, Brian; Rosnick, Reid; Schultheisz, Daniel
Subject: OGC coverage for Friday morning tribal call?

Sue,
Reid said you would not be able to make the call with the Ute Mountain Ute. Is there somebody else in OGC that could sit in on the discussion?
Thanks.

Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:39 AM
To: Thornton, Marisa
Subject: Fw: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!
Attachments: [Untitled].pdf; ATT00001.htm

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:43 PM
To: Collections.SubW
Subject: FW: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Stahle, Susan
Sent: Thursday, January 29, 2015 1:19 PM
To: Rodman, Sonja
Subject: FW: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

FYI – the letter I mentioned

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Rosnick, Reid
Sent: Monday, January 26, 2015 10:53 AM
To: Diaz, Angelique; Stahle, Susan
Subject: FW: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

FYI, The UMUT would like to schedule another consultation with EPA.

From: Edwards, Jonathan
Sent: Monday, January 26, 2015 10:42 AM
To: Rosnick, Reid; Peake, Tom; Schultheisz, Daniel; Perrin, Alan
Subject: FW: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

FYI. Here is the incoming letter from the Ute Mountain Utes. --Jon

From: Harrison, Jed
Sent: Monday, January 26, 2015 10:39 AM
To: Flynn, Mike
Cc: Edwards, Jonathan; Peake, Tom; Rosencrantz, Ingrid
Subject: FYI: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Mike-

I agree with Pat, this should come to ORIA.

RPD – If you haven't seen this yet

Let me know if you need some assistance on this.

Jed

Jed Harrison SENIOR ADVISOR FOR TRIBAL AFFAIRS
U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RADIATION & INDOOR AIR
(702) 784 8218 MOBILE: (702) 494 7050



4220 S. MARYLAND PARKWAY
BLDG. D, SUITE 800
LAS VEGAS, NEVADA 89119

From: Childers, Pat
Sent: Monday, January 26, 2015 5:50 AM
To: Harrison, Jed; Flynn, Mike; Edwards, Chebryll
Cc: Hamilton, Sabrina
Subject: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

All

incoming letter on Southern Utes on consultation for Subpart W. It was assigned to OITA originally.

Mike should I ask Sabrina to assign to ORIA?

Pat

From: Koslow, Karin
Sent: Monday, January 26, 2015 8:38 AM
To: Childers, Pat
Subject: Fwd: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Karin Koslow
Deputy Director
American Indian Environmental Office
202-564-0171

Begin forwarded message:

From: "Stewart, Lakita" <Stewart.Lakita@epa.gov>
Date: January 23, 2015 at 5:24:03 PM EST
To: "Chase, JoAnn" <Chase.JoAnn@epa.gov>, "Koslow, Karin" <Koslow.Karin@epa.gov>, "Silver, Edna" <Silver.Edna@epa.gov>, "McInnis, Marissa" <McInnis.Marissa@epa.gov>, "Baca, Andrew" <Baca.Andrew@epa.gov>
Subject: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Detail



AX-15-000-4505

Citizen Information

[Generate Control Slip](#)

Citizen/Originator: 1). Heart, Manuel - P.O. Box 248, Towaoc, CO 81334-0248
 Constituent:
 Committee:

Sub-Committee:

Control Information

[View Correspondence](#)

Control Number:	AX-15-000-4505	Alternate Number:	
Status:	<input type="text" value="Pending"/>	Closed Date:	N/A
Due Date:	Feb 04 2015	# of Extensions:	0
Letter Date:	Jan 13 2015	Received Date:	Jan 21 2015
Addressee:	AD-Administrator	Addressee Org:	EPA
Contact Type:	LTR (Letter)	Priority Code:	Normal
File Code:	404-141-02-01_141_b Controlled and Major Corr. Record copy of the offices of Division Directors and other personnel.		

Signature: (+)

CC: AO-IO-SO - Scheduling Office
 Amy Hambrick - AO-IO
 R8 - Region 8 -- Immediate Office

[Search CC](#)

Signature Date:

Primary Subject: DRF - Daily Reading File - Second Governnient-to-Government Consultation between EPA and the Ute Mountain ttle Tribe, Rulemaking Activity 40 C.F.R. Part 61, Subpart W

Secondary Subject:

Instructions: DX-Respond directly to this citizen's questions, statements, or concerns

Instruction Notes:

General Notes:

Lead Information

Lead Author: N/A

Lead Assignments:

Assigner	Assignee	Office	Assigned	Due Date	Completed	Instructions
Ken Labbe	OITA	OITA	01/21/2015	02/04/2015	N/A	DX-Respond directly to this citizen's questions, statements, or concerns

Supporting Information

Supporting Author: N/A

Supporting Assignments:

Assigner	Assignee	Office	Assigned Date
No records found.			

History

Action By	Office	Date	Action
Ken Labbe	OEX	01/21/2015	Assign OITA as lead office
Lakita Stewart	OITA	01/22/2015	Accepted the group assignment

Comments

Commentator	Date	Comments
No records found.		

*: Required field
 (+): Lookup field, press space bar for complete list

[OK] [Cancel]



UTE MOUNTAIN UTE TRIBE

P.O. Box 248
Towaoc, Colorado 81334-0248
(970) 565-3751

RECEIVED
2015 JAN 21 AM 10:12
OFFICE OF THE
EXECUTIVE SECRETARY

January 13, 2015

Ms. Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

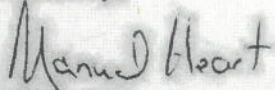
RE: Second Government-to-Government Consultation between EPA and the Ute Mountain Ute Tribe, Rulemaking Activity 40 C.F.R. Part 61, Subpart W

Dear Administrator McCarthy:

Thank you for the letter dated September 26, 2014 from Acting Assistant Administrator Janet McCabe regarding government-to-government consultation between the EPA and the Ute Mountain Ute Tribe ("Tribe") regarding the 40 C.F.R. Part 61, Subpart W (NESHAPS Subpart W) rulemaking. As you may know, because we were unable to schedule a meeting that included substantive discussion of the Tribe's outstanding questions and concerns about the rulemaking before the public comment period ended on October 29, 2014, we chose to defer the next consultation meeting until the EPA had an opportunity to review the Tribe's public comments and conduct the necessary work to answer the outstanding questions from the July 10, 2014 meeting. I am sending this letter to formally request that the EPA schedule the second consultation meeting with the Tribe on the NESHAPS Subpart W rulemaking before the EPA issues a final Subpart W rule (and far enough in advance of the final Subpart W rule for the Tribe to have meaningful involvement in the EPA's final rule). We look forward to addressing the outstanding questions from the July 10, 2014 meeting and the issues raised in our October 29, 2014 public comments.

Please contact Scott Clow, Environmental Programs Department Director, at (970) 564-5432 or sclow@utemountain.org or Celene Hawkins, Associate General Counsel, at (970) 564-5642 or chawkins@utemountain.org to set the second consultation meeting regarding the NESHAPS Subpart W rulemaking.

Sincerely,



Manuel Heart

Chairman

Ute Mountain Ute Tribe

Cc: Tribal Council

Peter Ortego, General Counsel, Ute Mountain Ute Tribe

Celene Hawkins, Associate General Counsel, Ute Mountain Ute Tribe

H. Michael Keller, Special Counsel, Ute Mountain Ute Tribe

Scott Clow, Environmental Programs Director, Ute Mountain Ute Tribe

JoAnne Chase, Director, American Indian Environmental Office, U.S. EPA

Shaun McGrath, Regional Administrator, U.S. EPA, Region 8

Dr. Yvette Roubideaux, Director, Indian Health Services

Kevin Washburn, Assistant Secretary, Indian Affairs

FedEx NEW Package
Express US Airbill

FedEx Tracking Number: 8050 0840 6059

1 From Date: 1-16-15

Sender's Name: Scott Clow

Company: Ute Mountain Ute Tribe EPD

Address: 520 Sunset Blvd PO Box 420

City: Towaoc State: CO ZIP: 81334

2 Your Internal Billing Reference: 127-8260-8715

3 To Recipient's Name: Ms. Gina McCarthy

Company: Environmental Protection Agency

Address: 1200 Pennsylvania Ave N.W.

Address: Washington DC 20460

City: Washington State: DC ZIP: 20460



8050 0840 6059

Form 399 0200

Recipient's Copy

4 Express Package Service *To most locations. NOT: Service order has changed. Please adjust accordingly. Packages up to 150 lbs. For FedEx Express freight US airbill.

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FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

FedEx 2Day A.M.
Second business morning. Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon. Thursday shipments will be delivered on Friday unless Saturday Delivery is selected.

FedEx Express Saver
Third business day. Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options

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Direct Signature
Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature
Someone at recipient's address may sign for delivery. Fee applies.

Does this shipment contain dangerous goods?
One box must be checked.

No Yes
Shipper's Declaration: Ad required.

No Yes
Shipper's Declaration: Ad required.

Dangerous goods (including flammable) cannot be shipped in FedEx packaging or placed in a FedEx Standard Drop Box.

7 Payment Bill to:

Sender Recipient Third Party Credit Card Cash/Check

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Signature: _____
Account No.: _____

Sender: _____
Account No.: _____

Total Packages: _____ Total Weight: _____ lbs.

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Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:39 AM
To: Thornton, Marisa
Subject: Fw: Messages for Tomorrow

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:44 PM
To: Collections.SubW
Subject: FW: Messages for Tomorrow

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Rosnick, Reid
Sent: Thursday, January 29, 2015 10:41 AM
To: Childers, Pat
Cc: Peake, Tom; Schultheisz, Daniel; Stahle, Susan
Subject: Messages for Tomorrow

Hi Pat,

Would you kindly give us 3 or 4 of the talking point you will use tomorrow to explain the limits of the consultation process. We'd like to be on the same page as you! Thanks

Reid

Reid J. Rosnick
US Environmental Protection Agency
Radiation Protection Division
202.343.9563
rosnick.reid@epa.gov

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
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Subject: Fw: OGC coverage for Friday morning tribal call?

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Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

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Tom Peake
US EPA Radiation Protection Division
Director, Center for Waste Management and Regulations
phone: 202-343-9765

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:40 AM
To: Thornton, Marisa
Subject: Fw: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!
Attachments: [Untitled].pdf; ATT00001.htm

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:45 PM
To: Collections.SubW
Subject: FW: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Rosnick, Reid
Sent: Monday, January 26, 2015 10:53 AM
To: Diaz, Angelique; Stahle, Susan
Subject: FW: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

FYI, The UMUT would like to schedule another consultation with EPA.

From: Edwards, Jonathan
Sent: Monday, January 26, 2015 10:42 AM
To: Rosnick, Reid; Peake, Tom; Schultheisz, Daniel; Perrin, Alan
Subject: FW: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

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To: Flynn, Mike
Cc: Edwards, Jonathan; Peake, Tom; Rosencrantz, Ingrid
Subject: FYI: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Mike-

I agree with Pat, this should come to ORIA.

RPD – If you haven't seen this yet

Let me know if you need some assistance on this.

Jed

Jed Harrison SENIOR ADVISOR FOR TRIBAL AFFAIRS

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RADIATION & INDOOR AIR
(702) 784 8218 MOBILE: (702) 494 7050



4220 S. MARYLAND PARKWAY
BLDG. D, SUITE 800
LAS VEGAS, NEVADA 89119

From: Childers, Pat

Sent: Monday, January 26, 2015 5:50 AM

To: Harrison, Jed; Flynn, Mike; Edwards, Chebryll

Cc: Hamilton, Sabrina

Subject: FW: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

All

incoming letter on Southern Utes on consultation for Subpart W. It was assigned to OITA originally.

Mike should I ask Sabrina to assign to ORIA?

Pat

From: Koslow, Karin

Sent: Monday, January 26, 2015 8:38 AM

To: Childers, Pat

Subject: Fwd: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Karin Koslow
Deputy Director
American Indian Environmental Office
202-564-0171

Begin forwarded message:

From: "Stewart, Lakita" <Stewart.Lakita@epa.gov>

Date: January 23, 2015 at 5:24:03 PM EST

To: "Chase, JoAnn" <Chase.JoAnn@epa.gov>, "Koslow, Karin" <Koslow.Karin@epa.gov>, "Silver, Edna" <Silver.Edna@epa.gov>, "McInnis, Marissa" <McInnis.Marissa@epa.gov>, "Baca, Andrew" <Baca.Andrew@epa.gov>

Subject: AX-15-000-4505 - Response Due Date is Feb. 4, 2015 - Direct Reply please prepare response for OD/DOD signature. Thanks!

Detail



AX-15-000-4505

Citizen Information

[Generate Control Slip](#)

Citizen/Originator: 1). Heart, Manuel - P.O. Box 248, Towaoc, CO 81334-0248
 Constituent:
 Committee:

Sub-Committee:

Control Information

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Control Number:	AX-15-000-4505	Alternate Number:	
Status:	<input type="text" value="Pending"/>	Closed Date:	N/A
Due Date:	Feb 04 2015	# of Extensions:	0
Letter Date:	Jan 13 2015	Received Date:	Jan 21 2015
Addressee:	AD-Administrator	Addressee Org:	EPA
Contact Type:	LTR (Letter)	Priority Code:	Normal
File Code:	404-141-02-01_141_b Controlled and Major Corr. Record copy of the offices of Division Directors and other personnel.		

Signature: (+)

CC: AO-IO-SO - Scheduling Office
 Amy Hambrick - AO-IO
 R8 - Region 8 -- Immediate Office

[Search CC](#)

Signature Date:

Primary Subject: DRF - Daily Reading File - Second Governnient-to-Government Consultation between EPA and the Ute Mountain ttle Tribe, Rulemaking Activity 40 C.F.R. Part 61, Subpart W

Secondary Subject:

Instructions: DX-Respond directly to this citizen's questions, statements, or concerns

Instruction Notes:

General Notes:

Lead Information

Lead Author: N/A

Lead Assignments:

Assigner	Assignee	Office	Assigned	Due Date	Completed	Instructions
Ken Labbe	OITA	OITA	01/21/2015	02/04/2015	N/A	DX-Respond directly to this citizen's questions, statements, or concerns

Supporting Information

Supporting Author: N/A

Supporting Assignments:

Assigner	Assignee	Office	Assigned Date
No records found.			

History

Action By	Office	Date	Action
Ken Labbe	OEX	01/21/2015	Assign OITA as lead office
Lakita Stewart	OITA	01/22/2015	Accepted the group assignment

Comments

Commentator	Date	Comments
No records found.		

*: Required field
 (+): Lookup field, press space bar for complete list

[OK] [Cancel]



UTE MOUNTAIN UTE TRIBE

P.O. Box 248
Towaoc, Colorado 81334-0248
(970) 565-3751

EXECUTIVE SECRETARIAT

OFFICE OF THE

2015 JAN 21 AM 10:12

RECEIVED

January 13, 2015

Ms. Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

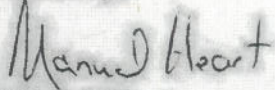
RE: Second Government-to-Government Consultation between EPA and the Ute Mountain Ute Tribe, Rulemaking Activity 40 C.F.R. Part 61, Subpart W

Dear Administrator McCarthy:

Thank you for the letter dated September 26, 2014 from Acting Assistant Administrator Janet McCabe regarding government-to-government consultation between the EPA and the Ute Mountain Ute Tribe ("Tribe") regarding the 40 C.F.R. Part 61, Subpart W (NESHAPS Subpart W) rulemaking. As you may know, because we were unable to schedule a meeting that included substantive discussion of the Tribe's outstanding questions and concerns about the rulemaking before the public comment period ended on October 29, 2014, we chose to defer the next consultation meeting until the EPA had an opportunity to review the Tribe's public comments and conduct the necessary work to answer the outstanding questions from the July 10, 2014 meeting. I am sending this letter to formally request that the EPA schedule the second consultation meeting with the Tribe on the NESHAPS Subpart W rulemaking before the EPA issues a final Subpart W rule (and far enough in advance of the final Subpart W rule for the Tribe to have meaningful involvement in the EPA's final rule). We look forward to addressing the outstanding questions from the July 10, 2014 meeting and the issues raised in our October 29, 2014 public comments.

Please contact Scott Clow, Environmental Programs Department Director, at (970) 564-5432 or sclow@utemountain.org or Celene Hawkins, Associate General Counsel, at (970) 564-5642 or chawkins@utemountain.org to set the second consultation meeting regarding the NESHAPS Subpart W rulemaking.

Sincerely,



Manuel Heart

Chairman

Ute Mountain Ute Tribe

Cc: Tribal Council

Peter Ortego, General Counsel, Ute Mountain Ute Tribe

Celene Hawkins, Associate General Counsel, Ute Mountain Ute Tribe

H. Michael Keller, Special Counsel, Ute Mountain Ute Tribe

Scott Clow, Environmental Programs Director, Ute Mountain Ute Tribe

JoAnne Chase, Director, American Indian Environmental Office, U.S. EPA

Shaun McGrath, Regional Administrator, U.S. EPA, Region 8

Dr. Yvette Roubideaux, Director, Indian Health Services

Kevin Washburn, Assistant Secretary, Indian Affairs

FedEx NEW Package
Express US Airbill

FedEx Tracking Number: 8050 0840 6059

1 From Date: 1-16-15

Sender's Name: Scott Clow

Phone: 970 564-5432

Company: Ute Mountain Ute Tribe EPD

Address: 520 Sunset Blvd PO Box 420

City: Towaoc State: CO ZIP: 81334

2 Your Internal Billing Reference: 127-8260-8715

3 To Recipient's Name: Ms. Gina McCarthy

Company: Environmental Protection Agency

Address: 1200 Pennsylvania Ave N.W.

Address: Washington DC 20460

City: Washington State: DC ZIP: 20460



8050 0840 6059

Form 399 0200

Recipient's Copy

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Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:40 AM
To: Thornton, Marisa
Subject: Fw: Suoplement 1 to Uranium Watch et al. Subpart W Rulemaking Comments

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:45 PM
To: Collections.SubW
Subject: FW: Suoplement 1 to Uranium Watch et al. Subpart W Rulemaking Comments

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 20, 2015 1:40 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Suoplement 1 to Uranium Watch et al. Subpart W Rulemaking Comments

Dear Sir or Madame,

Attached is an amended version of Supplement 1 to Uranium Watch et. al Comments on the EPA Subpart W Rulemaking. There was an error in the Table on page 4. A period has been replaced by a comma for the radon emissions for Cell 4B in 2014. It is 1,036 pCi/m²-sec, not 1.026. Sorry for the inconvenience.

Sarah Fields
Program Director
Uranium Watch
PO Box 344
Moab, Utah 84532
435-260-8384

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To: Thornton, Marisa
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From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:45 PM
To: Collections.SubW
Subject: FW: Suoplement 1 to Uranium Watch et al. Subpart W Rulemaking Comments

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 20, 2015 1:40 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
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PO Box 344
Moab, Utah 84532
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Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:40 AM
To: Thornton, Marisa
Subject: Fw: Supplement 4 to Comments on EPA Subpart W Rulemaking

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:45 PM
To: Collections.SubW
Subject: FW: Supplement 4 to Comments on EPA Subpart W Rulemaking

Susan Stahle
Attorney-Advisor
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202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 20, 2015 2:07 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplement 4 to Comments on EPA Subpart W Rulemaking

Dear Sir or Madame,

The message I sent on January 16 entitled Supplement 3 to Comments on EPA Subpart W Rulemaking was actually Supplement 4. Supplement 3 was sent on January 15. Sorry for the inconvenience.

Sarah Fields
Program Director
Uranium Watch

Uranium Watch

76 South Main Street, # 7 | P.O. Box 344
Moab, Utah 84532
435-260-8384

January 16, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW
Washington, D.C. 20460
a-and-r-docket@epa.gov

Re: Docket ID No. EPA-HQ- OAR-2008-0218. Supplement No. 4 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement 4 to the October 29, 2014, comments on Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ- OAR-2008-0218; 79 Fed. Reg. 25388, May 2, 2014. These comments are submitted by Uranium Watch and on behalf of Living Rivers and Information Network on Responsible Mining (INFORM).

These comments, though submitted after the October 29, 2014, close of the Subpart W Revision comment period, are based on additional information regarding the relationship between the Clean Air Act and 40 C.F.R. Part 61, Subpart W. and consideration of an important issue that the EPA failed to adequately address in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). Considering the long time for the EPA to develop the Proposed Rules and the numerous May 2, 2014, *Federal Register* Notice inadequacies, the expectation of over a year to develop the Final Rule, Commenters request that the EPA give full consideration to the following comments.

1. THE PROBLEM

The current EPA Subpart W regulations and proposed regulations for existing and new tailings impoundments do not apply when a tailings impoundment is no longer in “operation,” but is in “closure.” Therefore, during the closure period, when radon emissions increase due to natural and enhanced dewatering, the radon emissions are unregulated. There are no monitoring, reporting, or compliance requirements. This has been happening for several years at the Cotter Mill in Cañon City, Colorado, and is happening at the White Mesa Mill in San Juan County, Utah. This regulatory gap must be filled.

2. BACKGROUND

2.1. The current EPA 40 CFR Part 61 Subpart W regulation established an emission standard (20 pico Curies per square meter per second (20 pCi/m²-sec)) and monitoring, reporting, and corrective action requirements for “existing” impoundments during “operation” of the impoundments. The current rule defines “operation”: “*Operation* means that an impoundment is being used for the continued placement of new tailings or is in standby status for such placement,” and states that “an impoundment is in operation from the day that tailings are first placed in the impoundment until the day that final closure begins.”

2.2. This definition is found almost word for word in the 40 C.F.R. Part 192 “Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended,” at Section 192.31(p) definition of “operational.” There is a significant difference in that Part 192 states that the tailings pile or impoundment is being used for placement of uranium byproduct material, not “tailings”: “Operational means that a uranium mill tailings pile or impoundment is being used for the continued placement of uranium byproduct material or is in standby status for such placement.” Therefore, once final closure begins, the Subpart W requirements are no longer applicable to existing impoundments.

2.3. At the time closure begins there is supposed to be a closure plan and enforceable reclamation milestones, pursuant to 10 C.F.R. Part 40, Appendix A, Criterion 6A. Under that assumption, there is no EPA requirement to comply with the 20 pCi/(m²-sec) standard until a licensee requests an extension of a performance milestone that has been incorporated into the license, pursuant to 40 C.F.R. § 192.32(a)(3)(ii). During the period of the milestone extension, the license must demonstrate annual compliance with the 20 pCi/m²-sec standard. This applies to both “existing” and “new” impoundments. Historically, uranium mill licensees have not met the initial reclamation milestones and had to request milestone extensions. Examples are the Homestake and Churchrock Mills in New Mexico. The licensees must submit annual radon monitoring reports to the Nuclear Regulatory Commission (NRC) for tailings impoundments that closed decades ago.

2.4. An additional regulatory gap has been created by the States of Colorado and Utah because the Cotter Mill and Cell 2 of the White Mesa Mill do not have any reclamation milestones. So, Subpart W compliance requirements end, but there are no reclamation milestones and, therefore, no any need to extend those milestones if the milestones are not met and no need to demonstrate compliance with the 20 pCi/m²-sec standard.

2.5. So, the EPA created a lengthy period, known as closure, that commences after an impoundment ceases operation and ends with the placement of the final radon barrier. During this period (which may last for decades) radon emissions increase due to the drying out of the impoundment, inadequate interim cover, possible displacement of the interim cover material, and other factors. There is no radon emissions standard, no requirement to monitor and report radon emissions, and no requirement to take corrective actions. The EPA program authorizes the unknown and unmitigated emission of radon during closure. The EPA was not authorized under the CAA to create a long period when radon-222 emissions from uranium mill tailings were not regulated as hazardous air pollutants and the health and safety of the public is not protected.

3. SUBPART T

3.1. When Subpart W was promulgated in December 1989¹, the EPA also promulgated 40 C.F.R. Part 61 Subpart T (National Emission Standards for Radon Emissions From the Disposal of Uranium Mill Tailings).” Subpart T applied to both Title I and Title II Uranium Mill Tailings Radiation Control Act (UMTRCA) uranium mill sites.

3.2. The Subpart T standard (Section 61.222(a)) states: “Radon-222 emissions to the ambient air from uranium mill tailings pile[s] that are no longer operational shall not exceed 20 pCi/m²-sec.” Section 61.222(b) states that a tailings pile must be brought into compliance with that standard within 2 years of the day it ceases to be operational. It was assumed that the operator could complete disposal within 2 years. If the 2-year time-frame could not be met, then there were provisions to establish a compliance agreement with the EPA to assure that disposal will be completed as quickly as possible. The rule mainly applied to a number of commercial mills and those to be remediated by the Department of Energy that were no longer operational. The purpose of Subpart T was to correct inadequacies in the EPA standards for uranium mills in 40 C.F.R. Part 192 with respect the timing of the placement of a cover on a tailings impoundment.

3.3. The EPA rescinded Subpart T as it applied to Title II commercial uranium mill sites in 1994.² The rescission was based on a finding that the NRC and Agreement State programs would be protective of public health and safety and that there would be

¹ 54 Fed. Reg. 51654, December 15, 1989.

² 59 Fed. Reg. 36280, July 15, 1994.

reclamation plans and enforceable reclamation milestones incorporated into the licenses. The EPA amended 40 C.F.R. Part 192 and the NRC amended 10 C.F.R. Part 40 Appendix A to require the closure plans and reclamation milestones.

3.4. Subpart T compliance requires a single determination of compliance with the 20 pCi/m²-sec standard “60 days following the completion of covering the pile to limit radon emissions but prior to the long term stabilization of the pile.” The owners were supposed to conduct testing for all piles within the facility.

3.5. As part of the rescission of Subpart T, the EPA made provisions for the reinstatement of Subpart T on a site specific or programmatic basis, at 40 C.F.R. § 61.226. There is plenty of justification for reinstating Subpart T for the White Mesa Mill, because the EPA and Utah Division of Air Quality, and Utah Division of Radiation Control made a determination that Cell 2 was in “closure” and no longer subject to Subpart W monitoring, reporting, and corrective action requirements—even though there was no approved Cell 2 closure plan and no reclamation milestones, as required by 10 C.F.R. Part 40, Appendix A, Criterion 6A. Also, the current proposed closure plan anticipates the final closure and placement of the final radon barrier on Cell 2 at the end of the life of the mill, rather than the end of the life of the impoundment. The lack of a Cell 2 closure plan and reclamation milestones in the license and the anticipated final closure of Cell 2 at the end of the life of the mill flies in the face of the EPA and NRC justification for rescinding Subpart T for operational mills.

3.6. Although Subpart T establishes an emission standard when a mill or impoundment is no longer operational, the only compliance requirement is a single monitoring event prior to the placement of the final radon barrier. There is no requirement to monitor and control radon emissions throughout the closure period. Subpart T was never meant to be used to regulate radon emissions during the lengthy closure period for tailings impoundments at operating uranium mills.

4. CLOSING THE GAP

4.1. The question is how best to promulgate a set of regulations that establish a radon emission standard during the closure period, require radon monitoring and reporting, and require corrective actions for conventional and nonconventional existing and new uranium tailings impoundments, ISLs, and heap leach operations during the closure period. The focus here will be on conventional mills.

4.2. The EPA made statements and asked questions at the EPA Subpart W hearings in Denver on September 3 and 4, 2014, indicating their attention to the question of the gap in radon emission regulation at the very time when the emissions increase during closure. EPA staff also mentioned closing this gap at a meeting with Uranium Watch and INFORM on November 17, 2014, in Washington, D.C.

5. THE POSSIBILITIES

5.1 Redefinition of “Operation.”

From some statements made by the EPA at the Denver hearings, EPA might consider changes in the definition of an operational mill or impoundment to include the closure period. Uranium Watch proposed such changes in the Subpart W comments submitted on October 29. However, Uranium Watch has reconsidered this position and no longer thinks that the EPA should make a major change in the definition of operation to include the closure period.

Problems: Changing the definition of “operation” would also require an amendment to the Part 192 definition of “operational.” Changing the definition of operation to include impoundments in closure would interfere with the provision that there can only be 2 impoundments (now just conventional impoundments) in operation at any one time. Additionally, this change in definition of operation would not address the need for a radon standard and compliance requirements for the new impoundments in closure. Nor would it address some of the specific radon emission issues that arise during dewatering and closure.

Commenters believe there should be a clear difference between the definition of operation and the closure period, and that an impoundment cannot enter “closure” unless there is approved closure plan and reclamation milestones in license.

5.2. Applying Subpart W to Impoundments in “Closure.”

The EPA could amend Subpart W (and its name) to apply to impoundments in closure. The 1986 Subpart W title was “National Emission Standard for Radon -222 Emissions from Licensed Uranium Mill Tailings.”³ There is no legal constraint that would prevent the EPA from doing this. Closure should require a reclamation plan and reclamation milestones, a license amendment application and approval changing the status of the impoundment. Closure should also require additional monitoring requirements during the dewatering period, such as monthly monitoring and reporting. Energy Fuels Resources (USA) Inc. was aware that the White Mesa Mill Cell 2 was out of compliance with the Subpart W standard from when they received the results of the July 2012 monitoring and until they reported the monitoring results at the end of March 2013. This delay in reporting meant almost a year’s delay in taking corrective actions to reduce the radon emissions. There was no dewatering plan and dewatering milestone approved by the DRC and no interim cover plan and milestone. Since Cell 2 and now Cell 3 will have soil covers by the time they have entered closure, it is imperative that that soil cover be sufficient to limit the emission of radon throughout the whole closure

³ 51 Fed. Reg. 34056, September 24, 1986. It was the intent of the 1983 Subpart W Rule that no tailings would be placed in “existing” impoundments after December 31, 1992, if the impoundment did not meet the 40-acre and lined impoundment standard. This was revised in 1989, which allowed the continued operation of Cells 2 and 3 at White Mesa.

period. There is now Cell 2 data to support this. Also, there is data to support the assertion that the radon emissions during closure can and should be less than 20 pCi/(m²-sec). By applying a standard specifically to the closure period, there can be more control over what happens during this period and more coordination between the regulation under Subpart W and under the NRC and Agreement State regulations. It is also imperative that the EPA address the emission of high levels of radon from liquid ponds on top of any conventional impoundments during closure.

Problems: There does not appear to be any legal, regulatory, or technical problems with this approach.

5.3. Reinstatement of Subpart T:

It is also possible to request the reinstatement of Subpart T. The initiation of this process in Utah would force Utah to require reclamation plans and milestones before an impoundment enters closure and require the closure of an impoundment as expeditiously as practicable (e.g., not wait until final closure of the mill). The 1991 MOU between the EPA, NRC, and Agreement States requires that the NRC and Agreement State have enforcement petition procedures related to the enforcement of the MOU and reclamation plan and milestone requirements. These procedures could be used to demand compliance on a site specific basis. However, Utah and probably Colorado do not have enforcement proceeding procedures that the MOU requires. Therefore, Utah and probably Colorado are out of compliance with the MOU.

Problems: The reinstatement of Subpart T would not solve the problem of the control of radon emissions during the closure period. There is a standard, but no compliance requirements during closure.

5.4. Change Part 192 Regulations:

The question of amending 40 C.F.R. Part 192 was discussed at the Denver Subpart W hearings. EPA has proposed changes the Part 192 Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as Amended. Section 192.32(a), "Standards for application during processing operations and prior to the end of the closure period," could be amended to include a radon emission standard and compliance requirements for radon emissions during the closure period.

Problems: The proposed Part 192 rules primarily address in situ leach facilities and groundwater. It is unclear when the EPA will propose substantive changes to Part 192 to address conventional mills and air quality.

6. IN SUM

Commenters believe that the EPA should promulgate a Subpart W emission standard that applies to existing and new conventional and non-conventional impoundments during the closure period. This would not include redefining operation to include the closure period,

but another section in Subpart W that specifically addresses radon emissions during closure. There is no legal or technical justification for allowing the unfettered and unregulated emission of radon from uranium mill tailings impoundments during closure.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

Jennifer Thurston
Director
Information Network for Responsible Mining
P.O. Box 27
Norwood, Colorado 81423

John Weisheit
Conservation Director
Living Rivers
P.O. Box 466
Moab, Utah 84532

cc: Rusty Lundberg, Utah DRC
Bryce Bird, Utah DAQ
Angilique Diaz, EPA Region 8
Reid Rosnick, EPA
Caryn Mulleriele, EPA
Andera Cherepy, EPA
Tom Peake, EPA
Daniel Schultheisz, EPA
Susan Stahle, EPA
Jonathan Edwards, EPA
Mike Flynn, EPA
Elliott Zenick, EPA
Wendy Blake, EPA
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Marilyn Ginsburg, EPA
Bob Dye, EPA
Gina McCarthy, EPA
Janet McCabe, EPA
Avi Garbow, EPA
Cynthia Giles, EPA
Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:40 AM
To: Thornton, Marisa
Subject: Fw: Supplement 3 to Comments on EPA Subpart W Rulemaking
Attachments: UW_EPA_SubpartWComments_Supplement4.150116.pdf

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:45 PM
To: Collections.SubW
Subject: FW: Supplement 3 to Comments on EPA Subpart W Rulemaking

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

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Sent: Friday, January 16, 2015 12:53 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplement 3 to Comments on EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 4 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

This is the 4th and last supplement to Uranium Watch et al. Subpart W comments, unless there is significant new information.

Sincerely,

Sarah Fields
Program Director
Uranium Watch
P.O. Box 344
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Uranium Watch

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January 15, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
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Washington, D.C. 20460
a-and-r-docket@epa.gov

Re: Docket ID No. EPA-HQ- OAR-2008-0218. Supplement No. 3 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement 3 to the October 29, 2014, comments on Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ- OAR-2008-0218; 79 Fed. Reg. 25388, May 2, 2014. These comments are submitted by Uranium Watch and on behalf of Living Rivers and Information Network on Responsible Mining.

These comments, though submitted after the October 29, 2014, close of the Subpart W Revision comment period, are based on additional information regarding the relationship between the Clean Air Act and 40 C.F.R. Part 61, Subpart W. and consideration of an important legal issue that the EPA failed to address in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). Considering the long time for the EPA to develop the Proposed Rules and the numerous May 2, 2014, *Federal Register* Notice inadequacies, the expectation of over a year to develop the Final Rule, Uranium Watch requests that the EPA give full consideration to the following comments.

THE CLEAN AIR ACT AND 40 C.F.R. PART 61 SUBPART W

1. Commenters provided comments in the applicability of Section 112(h) of the Clean Air Act (CAA), as amended in 1990, in the October 29, 2014, Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailing. Section II.1. of the comments asserted that under the provisions of Section 112(h) of the CAA, the EPA cannot establish a design, equipment, work practice, or operational standard, or combination thereof (whether through the application of maximum available technologies or generally available technologies) **in lieu of an** emission standard unless the Administrator makes certain findings. If the EPA proposes to establish a design, equipment, work practice, or operational standard, or combination thereof, the Administrator must find that it is not feasible to prescribe or enforce an emission standard, meaning that the the application of a measurement methodology is not technologically and economically practicable. The Proposed Rules made no mention of such a provision and did not make such findings.

2. The Clean Air Act of 1977. Public Law 95-95 - August 7, 1977. 91 STAT. 703. Emission Standards for Hazardous Air Pollutants (Design or equipment standards, 42 U.S.C. 7412.). The Clean Air Act (CAA)of 1977 has language similar to the provisions in Section 112(h) of the CAA as amended in 1990. Section 110 of the CAA of 1977 states:

Section 112 of the Clean Air Act is amended by adding the following new subsection at the end thereof:

(e)(1) **For purposes of this section, if in the judgment of the Administrator, it is not feasible to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants, he may instead promulgate a design, equipment, work practice, or operational standard, or combination thereof, which in his judgment is adequate to protect the public health from such pollutant or pollutants with an ample margin of safety.** In the event the Administrator promulgates a design or equipment standard under this subsection, he shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(2) **For the purpose of this subsection, the phrase ‘not feasible to prescribe or enforce an emission standard’ means any situation in which the Administrator determines that (A) a hazardous pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State, or local law, or (B) the application of measurement methodology to a particular class of sources is not practicable due to technological or economic limitations.**

(3) If after notice and opportunity for public hearing, and person establishes to the satisfaction of the Administrator that an alternative

means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such air pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source for purposes of compliance with this section with respect to such pollutant.

(4) Any standard promulgated under paragraph (1) shall be promulgated in terms of an emission standard whenever it becomes feasible to promulgate and enforce such a standard in such terms.

[Emphasis added.]

These provisions of the CAA of 1977 were applicable to the promulgation, or lack of promulgation, of National Emission Standards for Radon Emissions From Operating Mill Tailings in the 1980s. What is clear is that the EPA invoked Section 112(e) when making a determination that the promulgation of an emission standard was not “feasible.” However, in 1989, when the EPA promulgated a radon-222 emission standard for “existing” impoundments and did not promulgate an radon-222 emission standard for similar “new” impoundments, there was no mention of a finding that it was “not feasible to prescribe or enforce an emission standard” for “new” impoundments (i.e., constructed after December 1989).

3. There are statements made by the EPA in previous *Federal Register* Notices that support the assertion above. Below are those statements:

3.1. Part 192: Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites, 40 C.F.R. Part 192, 48 Fed. Reg. 45926; October 14, 1983.¹ Part 192 in 1983 contains statements that show that the EPA was aware of the provisions in the CAA with respect to the promulgation of Standard for Radon-222 Emissions From Licensed Uranium Mills.

The October 1983 Part 192 *Federal Register* Notice contains a discussion of the Relationship to the Clean Air Act Emission Standard Requirements. This section, page 45938, col. 3, at 3., to page 35939, states:

The Clean Air Act also requires that EPA provide public health protection from air emissions from tailings piles. Further, EPA is publishing an ANPR to consider additional control of radon emissions during the operational phase of mills. This discussion relates to the disposal phase.

The Clean Air Act requires that the Administrator establish a standard at the level which in his judgment provides an ample margin of safety to protect the public health from hazardous air pollutants. The Agency published proposed rules for radionuclides as National Emission Standards for Hazardous Air Pollutants [NESHAPS] on April 6, 1983 (48 FR 15076). The proposed rule addressed all of the sources of emissions of

¹ <https://blog.epa.gov/milltailingsblog/wp-content/uploads/2009/12/48fr45926.pdf>

radionuclides that EPA had identified. The proposed rule either provided standards for various source categories or proposed not to regulate them and provided reasons for that decision.

In the proposed NESHAPS for radionuclides EPA did not propose additional standards for uranium mill tailings, because the Agency believed the EPA standards to be established under UMTRCA would provide the same degree of protection as required by Section 112 of the Clean Air Act.

The Clean Air Act specifies that the Administrator promulgate emissions standards to protect the public health. The Administrator is also authorized to promulgate design, equipment, work practice, or operational standards, or a combination, if it is not feasible to prescribe or enforce emission standards. The Administrator can conclude that “it is not feasible” if a hazardous pollutant cannot be emitted through a conveyance or the use of the conveyance would be contrary to laws, or if measurement methodologies are not practicable due to technological or economic limitations. As noted above, we will consider the need for such standards for the operational phase of mills. [Emphasis added.] [Page 35939, col. 2 to col. 3.]

3.2. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Proposed Rule and Announcement of Public Hearing; 51 Fed. Reg. 6382, February 21, 1986. This Proposed Rule states, in part:

V. Summary of Proposed Standard.

Based on currently available information, EPA has determined that it is not feasible to prescribe an emission standard for radon-222 emissions from uranium mills. Therefore, the Agency is proposing a work practice standard to limit radon-222 emissions from license uranium mills.

Therefore, the EPA recognized that, if they did not prescribe an emission standard for radon-222 emissions from uranium mills, it was necessary to determine that it was not feasible to promulgate such a standard, as required under Section 1123(e) of the CAA.

3.3. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants (NESHAPS): Regulations of Radionuclides; Withdrawal of Proposed Standards. Standard for Radon-222 Emissions From Licensed Uranium Mills; Final Rule; 51 Fed. Reg. 34056 September 24, 1986. This Final Rule states, in part:

IV. Summary of Proposed Standards. As noted earlier, EPA published a proposed rulemaking regarding control of radon-222

emissions from tailings piles at licensed sites on February 21 1986 (51 FR 6382). **That notice announced that EPA was considering various work practice standards for limiting such emissions based on its preliminary conclusions that it is not feasible to set an emissions standard,** and that the nature of the risk involved warrants a regulatory response. [Emphasis added.] [Page 34058, col. 2.]

The NRC questioned why EPA did not issue an emission standard, such as already exists in NRC and State regulations, instead of proposing a work practice standard. The Agency judges that it is not feasible to prescribe an emission standard since most of the radon emitted by a uranium mill comes from the surface of mill tailings piles. A typical pile may be from a few to hundreds of acres in area, and emissions from its surface cannot be controlled through conveyance designed and constructed to emit or capture radon. It is also not practical to accurately and consistently measure emissions because of the large size of the tailings pile and the continued modifications of the pile that take place during operations. For these and others reasons, a work practice standard is being promulgated. [Emphasis added.] [Page 34059, col. 2.]

VI. Summary and Rationale of Final Rule. A. Summary
Based on currently available information, EPA has determined that it is not feasible to prescribe an emission standard for radon emissions from uranium mills. [Emphasis added.] [Page 34060, col. 3.]

Therefore, with the 1986 Final Rule, the EPA did not issue an emission standard and made a determination that it was not “feasible” to do so. Clearly, this determination was responsive to the 1977 CAA Section 112(e) requirements.

3.4. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants: Regulations of Radionuclides; Proposed Rule and Announcement of Public Hearing; 54 Fed. Reg. 9612, March 7, 1989.

This Proposed Rule proposed National Emission Standards for Radon Emissions From Operating Mill Tailings at Subpart W. The EPA proposed 4 approaches to work practice and design standards for operating mills. However, these approaches were not accompanied by a finding that it was not feasible to prescribe an emission standard for radon emissions from uranium mills. Somehow, the EPA forgot about the requirements in Section 112(e) of the CAA.

3.5. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants: Regulations of Radionuclides; Proposed Rule and Announcement of Public Hearing; 54 Fed. Reg. 9612, March 7, 1989.

This Proposed Rule proposed National Emission Standards for Radon Emissions From Operating Mill Tailings at Subpart W. The EPA proposed 4 approaches to work practice and design standards for operating mills. However, these approaches were not

accompanied by a finding that it was not feasible to prescribe an emission standard for radon emissions from uranium mills. Somehow the EPA forgot about the requirement in Section 112(e) of the CAA.

3.6. Environmental Protection Agency, 40 C.F.R. Part 61. National Emission Standards for Hazardous Air Pollutants: Regulations of Radionuclides; Final Rule and Notice of Reconsideration; 54 Fed. Reg. 51654, December 15, 1989.

This Final Rule established National Emission Standards for Radon Emissions From Operating Mill Tailings at Subpart W, along with standards for other Radionuclide emission sources. The final rule established an emission standard for “existing” tailings impoundments (constructed prior to December 1989). And, the EPA established work practice and design standards for “new” tailings impoundments (constructed after December 1989). The EPA did not make a finding that it was not feasible to prescribe an emission standard for radon emissions from “new” impoundments. Somehow the EPA forgot about the requirement in Section 112(e) of the CAA for such a finding. And, the reality was that the EPA could not make such a finding after establishing an emission standard for “existing” impoundments.

4. In sum:

4.1. The EPA made it clear in the October 1983 Part 192 Rulemaking and the 1986 Proposed and Final Rules that Section 112(e) of the 1977 CAA required that any EPA decision not to promulgate a radon-222 emission standard for uranium mills needed to be accompanied by a determination that such an emission standard was not feasible. (However erroneous that determination may have been.)

4.2. With the 1989 Subpart W Rulemaking, the EPA failed to, and, in fact, could not, make the determination required by Section 112(e) of the CAA of 1977 that it was not feasible to promulgate an emission standard when they promulgated a design and work practice standard for “new” tailings impoundments.

4.3. With the 2014 Subpart W Rulemaking, when the EPA proposed design and work practice standards in lieu of emission standards for all tailings impoundments, in-situ leach operations, and heap leach operations, the EPA failed to make the determination required by Section 112(h) of the CAA of 1990 that it was not feasible to promulgate an emission standard.

4.4. Therefore, it appears that the 1989 design and work practice standards for “new” impoundments were promulgated contrary to the requirements of Section 112(e) 1977 CAA. It also appears that the 2014 Subpart W Proposed Rules are contrary to the requirements of the Section 112(h) CAA of 1990, because the EPA proposed design and work practice standards without making a determination that emission standards were not feasible.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

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Director
Information Network for Responsible Mining
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John Weisheit
Conservation Director
Living Rivers
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cc: Rusty Lundberg, Utah DRC
Bryce Bird, Utah DAQ
Angilique Diaz, EPA Region 8
Reid Rosnick, EPA
Caryn Mullerieile, EPA
Andera Cherepy, EPA
Tom Peake, EPA
Daniel Schultheisz, EPA
Susan Stahle, EPA
Jonathan Edwards, EPA
Mike Flynn, EPA
Elliott Zenick, EPA
Wendy Blake, EPA
Davis Zhen, EPA
Lena Ferris, EPA
Tim Brenner, EPA
Charlie Garlow, EPA
Stuart Walker, EPA
Steve Hoffman, EPA
Marilyn Ginsburg, EPA
Bob Dye, EPA
Gina McCarthy, EPA
Janet McCabe, EPA
Avi Garbow, EPA

Cynthis Giles, EPA
Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:41 AM
To: Thornton, Marisa
Subject: Fw: Supplement 3 to Comments on EPA Subpart W Rulemaking
Attachments: UW_EPA_SubpartWComments_Supplement3.150115.pdf

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:45 PM
To: Collections.SubW
Subject: FW: Supplement 3 to Comments on EPA Subpart W Rulemaking

Susan Stahle
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Air and Radiation Law Office
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From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Thursday, January 15, 2015 2:52 PM
To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplement 3 to Comments on EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 3 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

Sarah Fields
Program Director
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P.O. Box 344
Moab, Utah 84532

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:41 AM
To: Thornton, Marisa
Subject: Fw: Supplementary 2 to Comments EPA Subpart W Rulemaking

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:45 PM
To: Collections.SubW
Subject: FW: Supplementary 2 to Comments EPA Subpart W Rulemaking

Susan Stahle
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From: Stahle, Susan
Sent: Wednesday, January 14, 2015 9:21 AM
To: Blake, Wendy; Rodman, Sonja
Subject: RE: Supplementary 2 to Comments EPA Subpart W Rulemaking

Thanks. I was on the original email so I already received this. Same for the first supplement.

Susan Stahle
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From: Blake, Wendy
Sent: Tuesday, January 13, 2015 9:18 PM
To: Rodman, Sonja; Stahle, Susan
Subject: Fwd: Supplementary 2 to Comments EPA Subpart W Rulemaking

FYI

Sent from my iPhone

Begin forwarded message:

From: <sarah@uraniumwatch.org>

Date: January 13, 2015 at 3:53:52 PM EST

To: Reid Rosnick <Rosnick.Reid@epamail.epa.gov>, Phil Goble <pgoble@utah.gov>, Rusty Lundberg <rlundberg@utah.gov>, Angelique Diaz <diaz.angelique@epa.gov>, Susan Stahle <Stahle.susan@Epa.gov>, Tom Peake <Peake.tom@Epa.gov>, "Mike Flynn" <Flynn.mike@Epa.gov>, Charyn Muellerleile <Muellerleile.caryn@Epa.gov>, Jon Edwards <Edwards.jonathan@Epa.gov>, "Elliott Zenick" <zenick.elliott@epa.gov>, Wendy Blake <blake.wendy@epa.gov>, "Andrea Cherepy" <Cherepy.andrea@Epa.gov>, Tim Benner <benner.tim@epa.gov>, "Lena Ferris" <ferris.lena@epa.gov>, Charlie Garlow <garlow.charlie@epa.gov>, "Stuart Wlaker" <walker.stuart@epa.gov>, Steve Hoffman <hoffman.stephen@epa.gov>, Marilyn Ginsberg <ginsberg.marilyn@epa.gov>, George Brozowski <brozowski.george@epa.gov>, Charles Hooper <hooper.charlesa@epa.gov>, Janet <mccabe.janet@epa.gov>, Avi Garbow <garbow.avi@epa.gov>, Cynthia Giles <giles-Aa.cynthia@epa.gov>, Michael Goo <goo.michael@epa.gov>, "Mathy Stanislaus" <stanislaus.mathy@epa.gov>, Bob Dye <robert.dye@epa.gov>

Subject: Supplementary 2 to Comments EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 2 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ- OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

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January 13, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
Mailcode: 2822T
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Re: Docket ID No. EPA-HQ-OAR-2008-0218. Supplement No. 2 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement 2 to the Uranium Watch et al. October 29, 2014, comments on Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218. 79 Fed. Reg. 25388, May 2, 2014. These comments are submitted by Uranium Watch and on behalf of Living Rivers and Information Network on Responsible Mining.

These comments, though submitted after the October 29, 2014, close of the Subpart W Revision comment period, are based on new information provided by Energy Fuels Resources (USA) Inc. and consideration of important issues that were not adequately addressed in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). Considering the long time for the EPA to develop the Proposed Rules and the numerous May 2, 2014, *Federal Register* Notice inadequacies, the expectation of over a year to develop the Final Rule, Uranium Watch requests that the EPA give full consideration to the following comments.

COMMENT ON ENERGY FUELS RESOURCES INC. SUBPART W COMMENTS.

Considering the importance of the proposed Subpart W regulations as they apply to the White Mesa Uranium Mill, which is owned and operated by Energy Fuels Resources (USA) Inc. (Energy Fuels), it is reasonable for an interested party to submit comments on Energy Fuels' "Comments on Proposed Revisions to 40 CFR Part 61 - Subpart W, National Emission Standards for Radon Emissions from Operating Uranium Mill Tailings," submitted to the EPA on October 29, 2014, as part of the Subpart W Rulemaking. Energy Fuels brought forward important information about the operation of the White Mesa Mill and heap leach operations that were not part of the Proposed Rules or supporting background documents. Energy Fuels has also made some statements and proposed changes to Subpart W that must be addressed.

1. Water Cover Over Evaporation Ponds (Sec. 1.1, page 1). Energy Fuels provides a number of arguments against the proposed use of 1-meter of liquid to limit the radon emissions from liquid impoundments.

Most of their arguments are sound. However, they maintain that the radon emissions from the liquid impoundments are minimal. There is no mention of the EPA Risk Assessment¹ that found that there are 7 pCi/m²-sec for every 1,000 pCi/L of radium in the liquid impoundments at White Mesa. Energy Fuels failed to use the 2013² and 2014³ data on the radium content of the liquids in Cell 1, Cell 3, Cell 4A, and Cell 4B that was submitted to the Utah Division of Radiation Control, along with the EPA Risk Assessment formula, to determine the radon flux from the fluids in these impoundments. Therefore, Energy Fuels did not provide an accurate assessment of the radon emissions from water covers and effluent impoundments at the White Mesa Mill. *See* Uranium Watch et al. Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, January 6, 2015.

2. Definition of 11e.(2) Byproduct Material (Sec. 1.2, page 2).

Commenters agree that Subpart W should have the same definition of byproduct

¹ Risk Assessment Revision for 40 CFR Part 61 Subpart W – Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

² 2013 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 1, 2013. <http://www.deq.utah.gov/businesses/E/energyfuels/docs/2013/12Dec/2013AnnualTailingsReportFinal.pdf>

³ 2014 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 24, 2014. <http://www.deq.utah.gov/businesses/E/energyfuels/docs/2014/12Dec/TailingsReport2014Annual.pdf>

material as in the Atomic Energy Act of 1954, as amended, and EPA and Nuclear Regulatory Commission (NRC) regulation.

3. Definitions of “Operation” and “Closure Period” (Sec. 1.3, page 2).

3.1. Subpart W defines “operation” at Section 61.251(e): “*Operation* means that an impoundment is being used for the continued placement of new tailings or is in standby status for such placement. An impoundment is in operation from the day that tailings are first placed in the impoundment until the day that final closure begins.” Part 192, § 192.31(p) has a slightly different definition of “operation(al)”: “Operational means that a uranium mill tailings pile or impoundment is being used for the continued placement of uranium byproduct material or is in standby status for such placement. A tailings pile or impoundment is operational from the day that uranium byproduct material is first placed in the pile or impoundment until the day final closure begins.” These 2 related EPA regulations should have the same definition of “operation” (or “operational”). The EPA should use the definition in Part 192, which clearly states that it is uranium byproduct material that is placed in the impoundment.

3.2. The EPA must also provide a definition of “operation” of a heap leach pile. All aspects of a heap leach operation, including the placement of the ore on the leach pad, should be regulated under Subpart W. The definition of “operation” for heap leach piles commences when ore is moved onto the heap leach operation site, so it includes emissions from the ore during storage and transportation on site and emissions from the ore from the time it is first placed on the heap leach pad. The operation of a conventional uranium mill or heap leach operation should commence when radon producing materials are brought onto the site for processing.

3.3. Energy Fuels proposes revisions to the definition of “closure period” and proposes that “the closure period from a conventional and non-conventional would begin when the licensee provides written notice to EPA and the United States Nuclear Regulatory Commission (NRC) or NRC Agreement State that the impoundment is no longer being used for the continued placement of tailings sands from process operations and is no longer on standby for such placement.” Similarly, Energy Fuels proposes that “a non-conventional impoundment would be considered to be in operation so long as it is being used for evaporative or holding purposes or is on standby for such purposes, and the closure period for a non-conventional impoundment would start upon written notice from the licensee that the impoundment is no longer being used for evaporative or holding purposes and is no longer on standby for such purposes.”

Commenters agree with Energy Fuels that there should be written notice to initiate closure. However, more actions must be taken before “closure” can commence: 1) Agency approval of the closure plan and reclamation plan; 2) incorporation of the appropriate reclamation milestones associated with the closure of an impoundment (including dewatering of the impoundment, placement of an interim cover, and placement of the final radon barrier), pursuant to 10 C.F.R. Part 40 Appendix A, Criterion 6A(1);

and 3) a license amendment initiating the closure period. A conventional impoundment cannot enter closure unless the required milestones are incorporated into the license.

4. Other Definitions: The EPA should incorporate the Part 192 definitions of “Closure plan,” “Tailings Closure Plan (Radon),” and “Milestone” in Subpart W.

5. Proposed Application of Subpart W to Heap Leach Facilities (Sec. 1.5, page 3). Energy Fuels claims that 1) Subpart W does not apply to process operations, but only to tailings that have been finally disposed of after processing, and hence cannot impact processing; 2) Subpart W should apply only to tailings impoundments and 11e.(2) byproduct material and [do] not extend to regulating process operations; 3) once process operations have ceased at a conventional heap leach facility, the fully leached ore would become 11e.(2) byproduct material, but the facility would then go into closure in place and be subject to the requirements of 10 CFR Part 40 Appendix A; and 4) hence, there is no place for regulation under Subpart W at conventional heap leach facilities, other than any non-conventional impoundments that may exist at those facilities.

However, there is nothing in the Clean Air Act that would limit the regulation of radon from licensed uranium mills only to 11e.(2) byproduct material. The EPA has the authority to establish an emission standard for any aspect of a uranium recovery operation that emits radon, not just impoundments that contain 11e.(2) byproduct material. This would include all phases of a heap leach operation, from the time ore is received at the site through the closure period. The EPA should re-title Subpart W to read: “National Emission Standards from Licensed Uranium Mills,” or a similar title that indicates that Subpart W applies not just to radon emissions from “tailings,” which are not defined in Subpart W.

6. ISR Facilities (Sec. 1.6, page 4). Energy Fuels believes that water in reservoirs used to store treated process water prior to discharge under 40 C.F.R. § 440.32(b) should not be subject to Subpart W requirements, even though the treated water in these reservoirs could be considered to contain 11e.(2) byproduct material and, hence, could be considered to be subject to the requirements of Subpart W.

Commenters believe that the EPA should not exempt these ponds and should require these ponds to meet the construction standards in 40 CFR 61.252(c), because the radium content could increase during evaporation and leakage of fluids should be prevented by requiring the same construction and radon emission standards as for other fluid impoundments at ISLs. Currently the EPA is looking at groundwater standards for ISLs under the provisions of 40 C.F.R. Part 192 and has proposed new rules. High standards for the construction of all ponds at ISLs means a reduced potential for leaks and ground and surface water contamination.

7. WATER COVER OVER EVAPORATION PONDS, Sec. 2, page 5. Energy Fuels agrees with EPA's position “that there be no maximum area requirement for the size of evaporation or holding ponds since the chance of radon emissions is small, and that there be no limit on the number of such ponds” or the size.

Recent Energy Fuels' data on the radium content of liquid effluents at the White Mesa Mill and EPA's determination that for the Mill there are 7 pico curies per meter per second (7 pCi/m²-sec) for every 1,000 pCi of radium per liter⁴ shows that the radon emissions from evaporation ponds (non-conventional impoundments) and liquid covers and ponds on conventional impoundments at the Mill are far from "small." Therefore, there should be a maximum limit on the total number of acres of evaporative/holding capacity at a uranium recovery facility, since those ponds have the potential to emit high levels of radon. This limit should include impoundments designed to be used as liquid effluent retention ponds, impoundments designed for the permanent disposal of solid tailings that are being used initially to hold liquid effluents, and solid tailings that are fully or partially covered by liquid raffinates.

The EPA must also apply a radon emission standard and compliance requirements for such liquid impoundments. The EPA must no longer allow the unmonitored and unregulated emission of radon from these radium-laden fluids. In sum, the EPA must totally rethink and reevaluate all of its assumptions related to the radon emissions from liquid impoundments at conventional uranium mills.

Also, large evaporation ponds at ISLs increase the potential for ground and surface water contamination when there is leakage of the ponds.

8. DEFINITIONS OF "OPERATION" AND "CLOSURE PERIOD," (Sec. 4, page 12 - 19).

8.1. Energy Fuels brings forth some important issues regarding the definition of "operation" and "closure period." Energy Fuels also describes mill operation practices as they relate to conventional tailings impoundments and evaporation/holding ponds. Energy Fuels states that it is "important to distinguish between site closure and the closure of a particular tailings impoundment, and to distinguish between a tailings impoundment ceasing to be in operation, as distinct from the entire Mill facility ceasing to be in operation."

Commenters agree. One of the problems with the Proposed Rulemaking is that the EPA failed to describe, examine, clarify, and consider the various operational realities at licensed uranium mills throughout all phases of a mill's life.

8.2. Energy Fuels states (Sec. 4.1(a), page 12): "During operations, the primary function of the tailings impoundment will be to receive or be on standby to receive mill tailings sands for disposal."

This statement and, if EPA agrees, brings up the question of whether a tailings impoundment can be considered to be on "standby" if it can no longer "receive mill tailings sands for disposal." For example, the Shootaring Canyon Mill has been on "standby" since 1982. Most of the 11e.(2) byproduct material in the single tailings impoundment comes from the disposal of waste, equipment, and materials from the

⁴ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17.

cleanup of the Hydro Jet heap-leach operation. Because the impoundment does not meet the current standards for a conventional impoundment, the licensee would have to construct a new impoundment for the disposal of “mill tailings sands.” So, the impoundment is not on standby to receive future tailings from the processing of ore, it is on standby to receive over 100,000 tons of material from the cleanup and reclamation of the old mill and mill site. So, the definition of what, exactly, constitutes standby and how long can a mill reasonably be on standby must be examined in the context of the rulemaking. Also, the EPA must limit the time that a mill can remain on standby. Is over 30 years a reasonable time frame for a mill to remain on standby without final reclamation?

8.3. Energy Fuels discusses the fact that uranium mills can be licensed to directly dispose of 11e.(2) byproduct material generated at third-party in situ leach (ISL) or other facilities after closure. This is allowed under 10 C.F.R. Part 40 Appendix A, Criterion 6A (3) by a specific license amendment.

This possibility must be discussed in the Proposed Rulemaking. Commenters assert that the EPA must also regulate the emission of radon from areas left open to receive additional materials during the closure period. This is one of many reasons why the EPA must require compliance with a radon emission standard of 20 pCi/m²-sec throughout the closure period.

8.4. Energy Fuels (Sec. 4.1(b), page 13) describes the closure process for a single impoundment and states: “Once processing operations have ceased and no further tailings will be disposed of in the impoundment, interim cover will be placed over the portions of the impoundment that are filled up, to the extent such cover has not already been placed on the impoundment. This will allow the radon flux from the impoundment to be 20 pCi/m²-s or less averaged over the entire impoundment during the closure process, and will prepare the impoundment for the dewatering process.”

This statement is somewhat confusing because there is currently no EPA requirement to assure that the radon flux from the impoundment will be 20 pCi/m²-s or less averaged over the entire impoundment during the closure process. for “existing and “new” impoundments. This statement demonstrates that Energy Fuels believes that such a requirement is acceptable.

8.5. Energy Fuels (Sec. 4.1(c), pages 14 to 15) discusses Phased Closure of One Cell at a Time. Energy Fuels discussion appears to assume that any interim cover is placed on an impoundment after operation ceases and during closure.

This is not so; for example, clean materials have been placed on both Cells 2 and 3 at the Energy Fuels’ White Mesa Mill during the operational period. By the time the Utah Division of Radiation Control issued a July 23, 2014, Order stating that Cell 2 was in closure, there were no remaining liquids on the impoundment and the whole impoundment was covered with interim cover materials. Energy Fuels also states that Cell 3 has an interim cover over most of the impoundment. That means that placement of some of the interim cover occurs prior to closure.

8.6. Energy Fuels (Sec. 4.1(c), page 15) describes activities that would or might take place when an impoundment is in closure: interim cover; dewatering; disposal of 11e.(2) byproduct material from other sites; “disposal of on-site generated trash, discarded piping and equipment, containers, drums, laboratory waste, used personal protection equipment, construction debris, any potential groundwater restoration liquids and residues”; and disposal of other liquid and solid materials.

However, without an approved closure plan for the impoundment and without reclamation milestones, there is no way to know what “closure” for a specific impoundment will entail. That is why the EPA must require that there be an approved closure plan and reclamation milestones for an impoundment before the closure period commences.

8.7. Energy Fuels assumes that only tailings from the processing of ore are disposed of in a tailings impoundment during operation. That is not the case, other 11e.(2) byproduct materials from ISL operations have been disposed of in operational tailings impoundments, as has waste from the processing of materials other than “ore.” So, it would be incorrect to state the operation is the time when only tailings sands are being disposed of in the impoundment or the impoundment is in standby for such placement.

8.8. Energy Fuels (Sec. 4.2, page 16) states that the definitions of “operation” and “closure period” definitions “have been established by EPA and are intended to delineate when the schedule begins for key radon closure milestone activities, such as wind-blown tailings retrieval and placement on the impoundment, interim stabilization (including dewatering or the removal of freestanding liquids and re-contouring) and emplacement of a permanent radon barrier.”

This may be Energy Fuels’ position, but the reality is that when closure for Cell 2 at the Energy Fuels White Mesa Mill commenced on July 23, 2014, there were no schedules “for key radon closure milestone activities, such as wind-blown tailings retrieval and placement on the impoundment, interim stabilization (including dewatering or the removal of freestanding liquids and re-contouring) and emplacement of a permanent radon barrier.” Further there is no definition of “closure period” in Subpart W. Therefore, Subpart W must define “closure period” and must require that closure period cannot commence until there is a closure plan for the mill and individual impoundment that is closing and applicable reclamation milestones have been incorporated into the license.

9. Recommended Definitions of “Operation” and “Closure Period” (Sec. 4.3, pages 16 to 19): Energy Fuels proposes several amendments to the EPA Subpart W definitions.

Commenters agree that accurate and precise definitions are important to the Subpart W regulatory program and should reflect reality. Current Subpart W regulations are inadequate. Over the years the definitions have left way too much to the imagination. Commenter will not propose replacement definitions, but will discuss problems with the proposed definitions.

9.1. “Operation.” An operational conventional impoundment (at a conventional mill) has and will receive both tailings solids (sands and slimes), processing fluids, and ISL waste. Therefore it would not be accurate to define operation as the period for placement of only “tailings.” Also, this does not account for the fact that conventional impoundments are sometimes initially used for the containment and evaporation of processing effluents and other liquids.

9.2. The EPA must develop specific definition for “operation” at a heap leach operations so that all phases of a heap leach operation, from the receipt of ore at the site to commencement of closure, are included in the definition.

9.2. “Standby.” A tailings impoundment should not be considered to be on standby if the licensee can no longer use it to dispose of tailings during mill operation; for example, the Shootaring Canyon Mill impoundment. There must be a time limit on the “standby” period. A mill or impoundment must not be allowed to remain on “standby” for over 30 years.

9.3. “Closure Period.” Energy Fuels proposes a new definition of “closure period.”

First of all, if the EPA includes a definition of “closure period” in Subpart W, Part 192 should be amended so that the definitions are the same. Energy Fuels proposes that the closure period begin with the date that the owner or operator provides a written notice to the Administrator and to the Nuclear Regulatory Commission or applicable NRC Agreement State.

Commenters agree that there should be a written notice to the Administrator and NRC or applicable Agreement State. However, that notice should accompany a license amendment request. This should trigger a notice and comment period and eventual amendment to the license. Closure should commence when the license and, if applicable, Groundwater Discharge Permit, are amended to reflect the closure status of the mill or specific impoundment. Further, the closure period cannot commence until the license has been amended to include the approved closure plan and the applicable reclamation milestones. Until the license has been amended to change the status of the mill or impoundment to closure and the closure plan and applicable reclamation milestones have been incorporated into the license (as required by 10 C.F.R. Part 40 Appendix A, Criterion 6A), closure should not commence. An example of how closure should not commence, is the recent “closure” of White Mesa Cell 2. The White Mesa Mill license and Ground Water Discharge Permit have not been amended to 1) reflect the closure of Cell 2, 2) approve the closure plan, and 3) incorporate reclamation milestones.

10. Cell 3 at the White Mesa Mill (Sec. 4.4, page 19).

10.1. Energy Fuels discusses the status of Cell 3 and the EPA’s justification for eliminating the distinction between “existing” and “new” conventional impoundments.

Commenters believe that Cell 3 cannot “close” until the Mill license is amended

to change the status of Cell 3 and the closure plan and reclamation milestones are incorporated into the license, pursuant to Criterion 6A. Further, if Energy Fuels wishes to continue to dispose of ISL waste during closure, the Mill license be amended to authorize that disposal. Additionally, Cell 3 should enter closure as long as Cell 3 does not meet the current Subpart W emission standard and there are high levels of radon emissions from the solutions pond on top of the impoundment, estimated to be 573.3 pCi/m²-sec in 2013⁵ and 137.9 pCi/m²-sec in 2014⁶.

10.2. Whether or not Cell 3 is in closure in the near future, the tailings impoundments at the Shootaring Canyon and Sweetwater Mill do not meet the design standards for “new” impoundments in 40 C.F.R. §61.252(b)(1). Therefore, the EPA cannot claim that all “existing” operational tailings impoundments meet the standards for “new” impoundments.

11. HEAP LEACH FACILITIES (Sec. 6, page 22 to 37).

Commenters appreciate the more detailed description of heap leach operations provided by Energy Fuels. Such a complete description was missing in the EPA Proposed Rules and background documents.

11.1. EPA Jurisdiction Under Clean Air Act Limited to 11e.(2) Byproduct Material (Sec. 6.2 a), page 23). Energy Fuels asserts that “EPA’s jurisdiction under the Clean Air Act is therefore limited to 11e.(2) byproduct material as defined in the AEA.” Their basis for this assertion is a section of the Atomic Energy Act (AEA) (Section 275 (e)), which states: “Nothing in this Act applicable to byproduct material, as defined in section 11e.(2) of this Act, shall affect the authority of the Administrator under the Clean Air Act of 1970, as amended, or the Federal Water Pollution Control Act, as amended.”

Energy Fuels misinterprets the AEA and its impact on the provisions of the CAA. Energy Fuels errs when claiming that regulation of heap-leach process operations under the CAA would be in violation of Section 275 of the AEA.

The AEA states that the AEA provisions applicable to 11e.(2) byproduct material do not limit the authority of the Administrator under the CAA of 1970 (as subsequently amended). However, the AEA does not limit the authority of the CAA over other radionuclide sources (including radon emission sources) that may or may not fall under the authority of the AEA. Just because the AEA does not limit the CAA jurisdiction over 11e.(2) byproduct material, it does not follow that the AEA limits the CAA jurisdiction to just 11e.(2) byproduct material.

⁵ Uranium Watch et al., Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014; Sec. 45.11, Table 1, page 58. October 29, 2014. Docket ID No. EPA-HQ-OAR-2008-0218.

⁶ Uranium Watch et al., Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W), 79 Fed. Reg. 25388, May 2, 2014. January 6, 2014.

Further, the NRC and authorized Agreement States regulate more than just 11e.(2) byproduct material at licensed uranium recovery operations. The whole uranium recovery operation is regulated, and has been regulated since the AEA of 1946, except that the 11e.(2) byproduct material was not regulated to provide for perpetual storage and maintenance of that material until the AEA was amended by the Uranium Mill Tailings Radiation Control Act of 1978.

NRC and Agreement States regulation of a uranium recovery operation includes construction and maintenance, radiological and non-radiological exposure to workers and the public, ore handling and storage after it arrives at the site, well fields, processing, impacts to the onsite and offsite environment, ore processing, yellowcake handling, reclamation, and many other operational and site aspects. Therefore, the AEA does not limit the NRC or Agreement State regulatory authority to just 11e.(2) byproduct material, nor does the CAA limit the EPA's authority to just 11e.(2) byproduct material at licensed uranium recovery operations.

11.2. Conventional Heap Leach Facilities, On-Off Heap Leach Facilities, and Vat Leach Facilities (Sec. 6.2 b), c), and d), pages 24 to 26).

Contrary to assertions by Energy Fuels, EPA's jurisdiction under the Clean Air Act is NOT limited to 11e.(2) byproduct material as defined in the AEA. Nor is the NRC or Agreement State's jurisdiction limited to 11e.(2) byproduct material at a licensed uranium recovery facility. Therefore, the whole discussion of what is or is not 11e.(2) byproduct material at a heap-leach facility is irrelevant for the discussion of applying Subpart W radon emission standards to a heap-leach operation.

The EPA has the authority and the obligation under the CAA to establish radon (and other radionuclide) emission standards for all sources of such emissions at a licensed uranium recovery heap-leach operation. This would include emissions from all aspects of the heap-leach operation, including 1) ore transportation and storage on site; 2) ore loading; 3) ore leaching and resting; 4) cells for curing, rinsing, and draining of the ore; 5) vats; 6) loading and transportation of pregnant solution; 7) onsite solvent extraction or ion exchange; 8) and excavation of fully leached ore from the final operations stage to the permanent waste repository.

Additionally, the EPA has the authority and obligation to establish standards, including a radon emission limit, for the various ponds associated with a heap leach operation. These are described in Sec. 6.10 (pages 34 to 35) in Energy Fuels Comments. These ponds include: 1) collection pond for containment of uranium-rich (and radium-rich) aqueous solution, 2) raffinate pond joined to the collection pond for storage of uranium-depleted (but radium-rich) aqueous solution, and 3) holding pond for temporary storage of uranium-depleted (but radium-rich) aqueous process waste streams, evaporation of waste streams, and containment of runoff from the entire HLF footprint area under the design storm event. The estimated total acreage for these ponds is 7.5 acres and estimated volume is 43.3 million gallons of radium-laden solutions. Unfortunately, there is no mention of these liquid effluent ponds in the Proposed Rules.

There must be a limit on the radon emissions from these solutions, which can be demonstrated on a site specific basis using a formula and data on the radium content of

the solutions. If necessary to demonstrate compliance, the EPA must require the removal of radium from these effluents.

The EPA must characterize and regulate the radionuclide emissions, including radon, from all aspects of a heap-leach operation. Additionally, Section 112(h) of the CAA does not authorize the establishment of a work-practice or design standard in lieu of an emission standard unless the Administrator determines that establishing and enforcing an emission standard is not feasible. The Administrator has not made such a finding with respect heap-leach facilities.

11.4. Recommendations (Sec. 6.2 e), page 26).

The EPA must broadly a heap-leach facility, so that all operational aspects of the facility potentially fall Subpart W radon and other radionuclide emission standards.

12. HEAP LEACH FACILITIES (Sec. 6.2 to 6.12., pages 27 to 37). Just in case the EPA determines that they do have jurisdiction over the heap-leach operations under the CAA, Energy Fuels provided additional comments and proposals.

12.1. 30% Moisture Content Requirement (Sec. 6.4 to 6.7, pages 27 to 32).

It is apparent from Energy Fuels comments that the proposed 30% moisture content requirement is not feasible. However, the EPA has not found that establishing a radon emission standard and means to comply with that standard is not feasible. As stated above, Section 112(h) of the CAA does not authorize the establishment of a work-practice or design standard in lieu of an emission standard unless the Administrator determines that establishing and enforcing an emission standard is not feasible.

12.2. Alternatives to 30% Moisture Content Requirement (Sec. 6.8, page 32 to 33). Energy Fuels proposes design and operational methodologies for conventional and on-off heap-leach facilities. Energy Fuels proposes placement of a gravel layer over stacked ore within a few weeks of ore placement. They believe that “any such process operations requirements should properly be imposed by NRC or the applicable Agreement State as conditions in the facility’s license, and not by EPA under Subpart W.”

These methodologies, if required by under Subpart W, would require the EPA to acknowledge that they had regulatory authority over various phases of heap leach operations, starting with the placement of the ore on the heap leach pad. Commenters believe that the EPA has that authority. Also, there is no guarantee that the EPA and NRC will promulgate new regulations on the operation of heap leach operations. Neither agency has announced their intention of developing such rules.

12.3. As discussed above, Section 112(h) of the CAA requires the establishment of an actual emission standard for a specific emission source unless the Administrator finds that the establishment of such an emission standard is not feasible.

12.4. Based on Energy Fuels proposal, it appears that it would be feasible to monitor the radon emissions on top of the ore after the placement of the last gravel cover and during operation and closure.

12.5. Energy Fuels discusses the issue of placement of heap leach operations at the same site as a conventional mill. They believe that “a mill facility should be allowed to have two active tailings impoundments and two active conventional [heap leach facilities] at or near the same location.”

The EPA did not address this situation in the Proposed Rules, nor did the EPA address the situation of 2 operational heap leach operations and another impoundment(s) for the disposal of the spent ore. Also, the EPA has not addressed the situation with multiple heap leach piles, some in operation and some in closure—all emitting unmonitored and unregulated amounts of radon. If the EPA agrees that a facility could have 2 operational heap leach piles and 2 operational conventional impoundments, the EPA must remember that under the Proposed Rules, the radon emissions from these piles and impoundment will not be monitored and subject to any radon emission standard and compliance requirements. In addition to operational piles and conventional impoundments, there will be non-conventional impoundments for storage and evaporation of solutions (with no limit on size or number), pond(s) for storage of pregnant heap leach solutions, and heap leach piles and conventional impoundments undergoing closure. Under the EPA Proposed Rules, none of these impoundments and piles will be subject to a radon emission standard under the CAA. All of these possibilities should have been examined by the EPA in the Proposed Rules.

It is clear that the EPA must establish a radon emission standard for all piles and impoundments at conventional mills and heap leach operations during operation and closure. There must be limits on the number of piles and impoundment in operation and closure. The EPA should not permit the establishment of a heap leach operation at a conventional mill. The EPA must establish a radon emission standard for an impoundment that receives spent ore at a licensed heap leach facility. These limits and standards must be part of Subpart W. It would take years for the EPA and NRC to amend 40 C.F.R. Part 192 and 10 C.F.R. Part 40, as proposed by Energy Fuels.

12.6. Operational Life of a Heap Leach Facility (Sec. 6.9, pages 32 to 33). Energy Fuels supports EPA’s position that the processing life of heap leach operation commences when the lixiviant is first placed on the heap leach pile and ends the time of the final rinse, when the closure period would commence.

Commenters assert that the operational life should commence when the ore is first brought to the site of the heap leach operation. Closure cannot commence until the license is amended to change the status of the pile and unless there is an approved closure (reclamation) plan and reclamation milestones in place. Additionally, the EPA must establish radon emission standards for heap leach piles during closure. Energy Fuels states that the closure period may last many years and mentions the placement of an interim cover, but there is no requirement to do so before closure commences. The EPA has the authority and the obligation under the CAA to require compliance with a radon emission standard for heap leach piles during closure.

13. ISR FACILITIES (Sec. 7, pages 37 to 39).

13.1. Treated Waste Water Should Not be Subject to Subpart W (Sec. 7.1, page 38 to 39).

Energy Fuels request that the EPA not regulate reservoirs that contain treated water at ISL operations as non-conventional impoundments, even though they contain 11e.(2) byproduct material. Commenters do not agree with Energy Fuels position.

13.2. Radon Attenuation and Control at ISR Facilities (Sec. 7.2, page 39).

Energy Fuels claims that the radon emissions from non-conventional impoundments at ISL facilities are minimal and are a small fraction of the total radon emissions at an ISL facility. However, that is not a basis for not establishing an emission standard and requiring compliance with that standard. The fact that there are other radon emission sources at ISL operations is the reason that the EPA must also establish its authority over those emissions under Subpart W.

14. Application of Subpart W to Evaporation or Holding Ponds (Sec. 9.1, page 41).

Energy Fuels asserts that the EPA should not establish regulatory authority over holding and evaporation ponds because they emit little radon and do not pose a health and safety risk. Commenters disagree. As recently documented, the holding and evaporation ponds at the White Mesa Mill emit high levels of radon and pose a health and safety risk.

Energy Fuels also states that they disagree with the Proposed Rules “statement that EPA has consistently maintained that evaporation and holding ponds meet applicability criteria for Subpart W.” Commenters would agree with Energy Fuels in that respect. The EPA never regulated evaporation and holding ponds in accordance with the Subpart W requirements and mislead the public regarding the high levels of radon emissions from those solution ponds and impoundments at the White Mesa Mill.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

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Davis Zhen, EPA
Lena Ferris, EPA
Tim Brenner, EPA
Charlie Garlow, EPA
Stuart Walker, EPA
Steve Hoffman, EPA
Marilyn Ginsburg, EPA
Bob Dye, EPA
Gina McCarthy, EPA
Janet McCabe, EPA
Avi Garbow, EPA
Cynthia Giles, EPA
Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:41 AM
To: Thornton, Marisa
Subject: Fw: Supplementary 2 to Comments EPA Subpart W Rulemaking
Attachments: UW_EPA_SubpartWComments_Supplement2.150113.pdf; ATT00001.htm

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:46 PM
To: Collections.SubW
Subject: FW: Supplementary 2 to Comments EPA Subpart W Rulemaking

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From: Blake, Wendy
Sent: Tuesday, January 13, 2015 9:18 PM
To: Rodman, Sonja; Stahle, Susan
Subject: Fwd: Supplementary 2 to Comments EPA Subpart W Rulemaking

FYI

Sent from my iPhone

Begin forwarded message:

From: <sarah@uraniumwatch.org>
Date: January 13, 2015 at 3:53:52 PM EST
To: Reid Rosnick <Rosnick.Reid@epamail.epa.gov>, Phil Goble <pgoble@utah.gov>, Rusty Lundberg <rlundberg@utah.gov>, Angelique Diaz <diaz.angelique@epa.gov>, Susan Stahle <Stahle.susan@Epa.gov>, Tom Peake <Peake.tom@Epa.gov>, "Mike Flynn" <Flynn.mike@Epa.gov>, Charyn Muellerleile <Muellerleile.caryn@Epa.gov>, Jon Edwards <Edwards.jonathan@Epa.gov>, "Elliott Zenick" <zenick.elliott@epa.gov>, Wendy Blake <blake.wendy@epa.gov>, "Andrea Cherepy" <Cherepy.andrea@Epa.gov>, Tim Benner <benner.tim@epa.gov>, "Lena Ferris" <ferris.lena@epa.gov>, Charlie Garlow <garlow.charlie@epa.gov>, "Stuart Wlaker" <walker.stuart@epa.gov>, Steve Hoffman <hoffman.stephen@epa.gov>, Marilyn Ginsberg <ginsberg.marilyn@epa.gov>, George Brozowski <brozowski.george@epa.gov>, Charles Hooper <hooper.charlesa@epa.gov>, Janet <mccabe.janet@epa.gov>, Avi Garbow <garbow.avi@epa.gov>, Cynthia Giles <giles-Aa.cynthia@epa.gov>, Michael Goo <goo.michael@epa.gov>, "Mathy Stanislaus"

[<stanislaus.mathy@epa.gov>](mailto:stanislaus.mathy@epa.gov), Bob Dye [<robert.dye@epa.gov>](mailto:robert.dye@epa.gov)

Subject: Supplementary 2 to Comments EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 2 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

Sarah Fields
Program Director
Uranium Watch
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January 13, 2015

via electronic mail

Air and Radiation Docket
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Mailcode: 2822T
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Washington, D.C. 20460
a-and-r-docket@epa.gov

Re: Docket ID No. EPA-HQ-OAR-2008-0218. Supplement No. 2 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement 2 to the Uranium Watch et al. October 29, 2014, comments on Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218. 79 Fed. Reg. 25388, May 2, 2014. These comments are submitted by Uranium Watch and on behalf of Living Rivers and Information Network on Responsible Mining.

These comments, though submitted after the October 29, 2014, close of the Subpart W Revision comment period, are based on new information provided by Energy Fuels Resources (USA) Inc. and consideration of important issues that were not adequately addressed in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). Considering the long time for the EPA to develop the Proposed Rules and the numerous May 2, 2014, *Federal Register* Notice inadequacies, the expectation of over a year to develop the Final Rule, Uranium Watch requests that the EPA give full consideration to the following comments.

COMMENT ON ENERGY FUELS RESOURCES INC. SUBPART W COMMENTS.

Considering the importance of the proposed Subpart W regulations as they apply to the White Mesa Uranium Mill, which is owned and operated by Energy Fuels Resources (USA) Inc. (Energy Fuels), it is reasonable for an interested party to submit comments on Energy Fuels' "Comments on Proposed Revisions to 40 CFR Part 61 - Subpart W, National Emission Standards for Radon Emissions from Operating Uranium Mill Tailings," submitted to the EPA on October 29, 2014, as part of the Subpart W Rulemaking. Energy Fuels brought forward important information about the operation of the White Mesa Mill and heap leach operations that were not part of the Proposed Rules or supporting background documents. Energy Fuels has also made some statements and proposed changes to Subpart W that must be addressed.

1. Water Cover Over Evaporation Ponds (Sec. 1.1, page 1). Energy Fuels provides a number of arguments against the proposed use of 1-meter of liquid to limit the radon emissions from liquid impoundments.

Most of their arguments are sound. However, they maintain that the radon emissions from the liquid impoundments are minimal. There is no mention of the EPA Risk Assessment¹ that found that there are 7 pCi/m²-sec for every 1,000 pCi/L of radium in the liquid impoundments at White Mesa. Energy Fuels failed to use the 2013² and 2014³ data on the radium content of the liquids in Cell 1, Cell 3, Cell 4A, and Cell 4B that was submitted to the Utah Division of Radiation Control, along with the EPA Risk Assessment formula, to determine the radon flux from the fluids in these impoundments. Therefore, Energy Fuels did not provide an accurate assessment of the radon emissions from water covers and effluent impoundments at the White Mesa Mill. *See* Uranium Watch et al. Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, January 6, 2015.

2. Definition of 11e.(2) Byproduct Material (Sec. 1.2, page 2).

Commenters agree that Subpart W should have the same definition of byproduct

¹ Risk Assessment Revision for 40 CFR Part 61 Subpart W – Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

² 2013 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 1, 2013. <http://www.deq.utah.gov/businesses/E/energyfuels/docs/2013/12Dec/2013AnnualTailingsReportFinal.pdf>

³ 2014 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 24, 2014. <http://www.deq.utah.gov/businesses/E/energyfuels/docs/2014/12Dec/TailingsReport2014Annual.pdf>

material as in the Atomic Energy Act of 1954, as amended, and EPA and Nuclear Regulatory Commission (NRC) regulation.

3. Definitions of “Operation” and “Closure Period” (Sec. 1.3, page 2).

3.1. Subpart W defines “operation” at Section 61.251(e): “*Operation* means that an impoundment is being used for the continued placement of new tailings or is in standby status for such placement. An impoundment is in operation from the day that tailings are first placed in the impoundment until the day that final closure begins.” Part 192, § 192.31(p) has a slightly different definition of “operation(al)”: “Operational means that a uranium mill tailings pile or impoundment is being used for the continued placement of uranium byproduct material or is in standby status for such placement. A tailings pile or impoundment is operational from the day that uranium byproduct material is first placed in the pile or impoundment until the day final closure begins.” These 2 related EPA regulations should have the same definition of “operation” (or “operational”). The EPA should use the definition in Part 192, which clearly states that it is uranium byproduct material that is placed in the impoundment.

3.2. The EPA must also provide a definition of “operation” of a heap leach pile. All aspects of a heap leach operation, including the placement of the ore on the leach pad, should be regulated under Subpart W. The definition of “operation” for heap leach piles commences when ore is moved onto the heap leach operation site, so it includes emissions from the ore during storage and transportation on site and emissions from the ore from the time it is first placed on the heap leach pad. The operation of a conventional uranium mill or heap leach operation should commence when radon producing materials are brought onto the site for processing.

3.3. Energy Fuels proposes revisions to the definition of “closure period” and proposes that “the closure period from a conventional and non-conventional would begin when the licensee provides written notice to EPA and the United States Nuclear Regulatory Commission (NRC) or NRC Agreement State that the impoundment is no longer being used for the continued placement of tailings sands from process operations and is no longer on standby for such placement.” Similarly, Energy Fuels proposes that “a non-conventional impoundment would be considered to be in operation so long as it is being used for evaporative or holding purposes or is on standby for such purposes, and the closure period for a non-conventional impoundment would start upon written notice from the licensee that the impoundment is no longer being used for evaporative or holding purposes and is no longer on standby for such purposes.”

Commenters agree with Energy Fuels that there should be written notice to initiate closure. However, more actions must be taken before “closure” can commence: 1) Agency approval of the closure plan and reclamation plan; 2) incorporation of the appropriate reclamation milestones associated with the closure of an impoundment (including dewatering of the impoundment, placement of an interim cover, and placement of the final radon barrier), pursuant to 10 C.F.R. Part 40 Appendix A, Criterion 6A(1);

and 3) a license amendment initiating the closure period. A conventional impoundment cannot enter closure unless the required milestones are incorporated into the license.

4. Other Definitions: The EPA should incorporate the Part 192 definitions of “Closure plan,” “Tailings Closure Plan (Radon),” and “Milestone” in Subpart W.

5. Proposed Application of Subpart W to Heap Leach Facilities (Sec. 1.5, page 3). Energy Fuels claims that 1) Subpart W does not apply to process operations, but only to tailings that have been finally disposed of after processing, and hence cannot impact processing; 2) Subpart W should apply only to tailings impoundments and 11e.(2) byproduct material and [do] not extend to regulating process operations; 3) once process operations have ceased at a conventional heap leach facility, the fully leached ore would become 11e.(2) byproduct material, but the facility would then go into closure in place and be subject to the requirements of 10 CFR Part 40 Appendix A; and 4) hence, there is no place for regulation under Subpart W at conventional heap leach facilities, other than any non-conventional impoundments that may exist at those facilities.

However, there is nothing in the Clean Air Act that would limit the regulation of radon from licensed uranium mills only to 11e.(2) byproduct material. The EPA has the authority to establish an emission standard for any aspect of a uranium recovery operation that emits radon, not just impoundments that contain 11e.(2) byproduct material. This would include all phases of a heap leach operation, from the time ore is received at the site through the closure period. The EPA should re-title Subpart W to read: “National Emission Standards from Licensed Uranium Mills,” or a similar title that indicates that Subpart W applies not just to radon emissions from “tailings,” which are not defined in Subpart W.

6. ISR Facilities (Sec. 1.6, page 4). Energy Fuels believes that water in reservoirs used to store treated process water prior to discharge under 40 C.F.R. § 440.32(b) should not be subject to Subpart W requirements, even though the treated water in these reservoirs could be considered to contain 11e.(2) byproduct material and, hence, could be considered to be subject to the requirements of Subpart W.

Commenters believe that the EPA should not exempt these ponds and should require these ponds to meet the construction standards in 40 CFR 61.252(c), because the radium content could increase during evaporation and leakage of fluids should be prevented by requiring the same construction and radon emission standards as for other fluid impoundments at ISLs. Currently the EPA is looking at groundwater standards for ISLs under the provisions of 40 C.F.R. Part 192 and has proposed new rules. High standards for the construction of all ponds at ISLs means a reduced potential for leaks and ground and surface water contamination.

7. WATER COVER OVER EVAPORATION PONDS, Sec. 2, page 5. Energy Fuels agrees with EPA's position “that there be no maximum area requirement for the size of evaporation or holding ponds since the chance of radon emissions is small, and that there be no limit on the number of such ponds” or the size.

Recent Energy Fuels' data on the radium content of liquid effluents at the White Mesa Mill and EPA's determination that for the Mill there are 7 pico curies per meter per second (7 pCi/m²-sec) for every 1,000 pCi of radium per liter⁴ shows that the radon emissions from evaporation ponds (non-conventional impoundments) and liquid covers and ponds on conventional impoundments at the Mill are far from "small." Therefore, there should be a maximum limit on the total number of acres of evaporative/holding capacity at a uranium recovery facility, since those ponds have the potential to emit high levels of radon. This limit should include impoundments designed to be used as liquid effluent retention ponds, impoundments designed for the permanent disposal of solid tailings that are being used initially to hold liquid effluents, and solid tailings that are fully or partially covered by liquid raffinates.

The EPA must also apply a radon emission standard and compliance requirements for such liquid impoundments. The EPA must no longer allow the unmonitored and unregulated emission of radon from these radium-laden fluids. In sum, the EPA must totally rethink and reevaluate all of its assumptions related to the radon emissions from liquid impoundments at conventional uranium mills.

Also, large evaporation ponds at ISLs increase the potential for ground and surface water contamination when there is leakage of the ponds.

8. DEFINITIONS OF "OPERATION" AND "CLOSURE PERIOD," (Sec. 4, page 12 - 19).

8.1. Energy Fuels brings forth some important issues regarding the definition of "operation" and "closure period." Energy Fuels also describes mill operation practices as they relate to conventional tailings impoundments and evaporation/holding ponds. Energy Fuels states that it is "important to distinguish between site closure and the closure of a particular tailings impoundment, and to distinguish between a tailings impoundment ceasing to be in operation, as distinct from the entire Mill facility ceasing to be in operation."

Commenters agree. One of the problems with the Proposed Rulemaking is that the EPA failed to describe, examine, clarify, and consider the various operational realities at licensed uranium mills throughout all phases of a mill's life.

8.2. Energy Fuels states (Sec. 4.1(a), page 12): "During operations, the primary function of the tailings impoundment will be to receive or be on standby to receive mill tailings sands for disposal."

This statement and, if EPA agrees, brings up the question of whether a tailings impoundment can be considered to be on "standby" if it can no longer "receive mill tailings sands for disposal." For example, the Shootaring Canyon Mill has been on "standby" since 1982. Most of the 11e.(2) byproduct material in the single tailings impoundment comes from the disposal of waste, equipment, and materials from the

⁴ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17.

cleanup of the Hydro Jet heap-leach operation. Because the impoundment does not meet the current standards for a conventional impoundment, the licensee would have to construct a new impoundment for the disposal of “mill tailings sands.” So, the impoundment is not on standby to receive future tailings from the processing of ore, it is on standby to receive over 100,000 tons of material from the cleanup and reclamation of the old mill and mill site. So, the definition of what, exactly, constitutes standby and how long can a mill reasonably be on standby must be examined in the context of the rulemaking. Also, the EPA must limit the time that a mill can remain on standby. Is over 30 years a reasonable time frame for a mill to remain on standby without final reclamation?

8.3. Energy Fuels discusses the fact that uranium mills can be licensed to directly dispose of 11e.(2) byproduct material generated at third-party in situ leach (ISL) or other facilities after closure. This is allowed under 10 C.F.R. Part 40 Appendix A, Criterion 6A (3) by a specific license amendment.

This possibility must be discussed in the Proposed Rulemaking. Commenters assert that the EPA must also regulate the emission of radon from areas left open to receive additional materials during the closure period. This is one of many reasons why the EPA must require compliance with a radon emission standard of 20 pCi/m²-sec throughout the closure period.

8.4. Energy Fuels (Sec. 4.1(b), page 13) describes the closure process for a single impoundment and states: “Once processing operations have ceased and no further tailings will be disposed of in the impoundment, interim cover will be placed over the portions of the impoundment that are filled up, to the extent such cover has not already been placed on the impoundment. This will allow the radon flux from the impoundment to be 20 pCi/m²-s or less averaged over the entire impoundment during the closure process, and will prepare the impoundment for the dewatering process.”

This statement is somewhat confusing because there is currently no EPA requirement to assure that the radon flux from the impoundment will be 20 pCi/m²-s or less averaged over the entire impoundment during the closure process. for “existing and “new” impoundments. This statement demonstrates that Energy Fuels believes that such a requirement is acceptable.

8.5. Energy Fuels (Sec. 4.1(c), pages 14 to 15) discusses Phased Closure of One Cell at a Time. Energy Fuels discussion appears to assume that any interim cover is placed on an impoundment after operation ceases and during closure.

This is not so; for example, clean materials have been placed on both Cells 2 and 3 at the Energy Fuels’ White Mesa Mill during the operational period. By the time the Utah Division of Radiation Control issued a July 23, 2014, Order stating that Cell 2 was in closure, there were no remaining liquids on the impoundment and the whole impoundment was covered with interim cover materials. Energy Fuels also states that Cell 3 has an interim cover over most of the impoundment. That means that placement of some of the interim cover occurs prior to closure.

8.6. Energy Fuels (Sec. 4.1(c), page 15) describes activities that would or might take place when an impoundment is in closure: interim cover; dewatering; disposal of 11e.(2) byproduct material from other sites; “disposal of on-site generated trash, discarded piping and equipment, containers, drums, laboratory waste, used personal protection equipment, construction debris, any potential groundwater restoration liquids and residues”; and disposal of other liquid and solid materials.

However, without an approved closure plan for the impoundment and without reclamation milestones, there is no way to know what “closure” for a specific impoundment will entail. That is why the EPA must require that there be an approved closure plan and reclamation milestones for an impoundment before the closure period commences.

8.7. Energy Fuels assumes that only tailings from the processing of ore are disposed of in a tailings impoundment during operation. That is not the case, other 11e.(2) byproduct materials from ISL operations have been disposed of in operational tailings impoundments, as has waste from the processing of materials other than “ore.” So, it would be incorrect to state the operation is the time when only tailings sands are being disposed of in the impoundment or the impoundment is in standby for such placement.

8.8. Energy Fuels (Sec. 4.2, page 16) states that the definitions of “operation” and “closure period” definitions “have been established by EPA and are intended to delineate when the schedule begins for key radon closure milestone activities, such as wind-blown tailings retrieval and placement on the impoundment, interim stabilization (including dewatering or the removal of freestanding liquids and re-contouring) and emplacement of a permanent radon barrier.”

This may be Energy Fuels’ position, but the reality is that when closure for Cell 2 at the Energy Fuels White Mesa Mill commenced on July 23, 2014, there were no schedules “for key radon closure milestone activities, such as wind-blown tailings retrieval and placement on the impoundment, interim stabilization (including dewatering or the removal of freestanding liquids and re-contouring) and emplacement of a permanent radon barrier.” Further there is no definition of “closure period” in Subpart W. Therefore, Subpart W must define “closure period” and must require that closure period cannot commence until there is a closure plan for the mill and individual impoundment that is closing and applicable reclamation milestones have been incorporated into the license.

9. Recommended Definitions of “Operation” and “Closure Period” (Sec. 4.3, pages 16 to 19): Energy Fuels proposes several amendments to the EPA Subpart W definitions.

Commenters agree that accurate and precise definitions are important to the Subpart W regulatory program and should reflect reality. Current Subpart W regulations are inadequate. Over the years the definitions have left way too much to the imagination. Commenter will not propose replacement definitions, but will discuss problems with the proposed definitions.

9.1. “Operation.” An operational conventional impoundment (at a conventional mill) has and will receive both tailings solids (sands and slimes), processing fluids, and ISL waste. Therefore it would not be accurate to define operation as the period for placement of only “tailings.” Also, this does not account for the fact that conventional impoundments are sometimes initially used for the containment and evaporation of processing effluents and other liquids.

9.2. The EPA must develop specific definition for “operation” at a heap leach operations so that all phases of a heap leach operation, from the receipt of ore at the site to commencement of closure, are included in the definition.

9.2. “Standby.” A tailings impoundment should not be considered to be on standby if the licensee can no longer use it to dispose of tailings during mill operation; for example, the Shootaring Canyon Mill impoundment. There must be a time limit on the “standby” period. A mill or impoundment must not be allowed to remain on “standby” for over 30 years.

9.3. “Closure Period.” Energy Fuels proposes a new definition of “closure period.”

First of all, if the EPA includes a definition of “closure period” in Subpart W, Part 192 should be amended so that the definitions are the same. Energy Fuels proposes that the closure period begin with the date that the owner or operator provides a written notice to the Administrator and to the Nuclear Regulatory Commission or applicable NRC Agreement State.

Commenters agree that there should be a written notice to the Administrator and NRC or applicable Agreement State. However, that notice should accompany a license amendment request. This should trigger a notice and comment period and eventual amendment to the license. Closure should commence when the license and, if applicable, Groundwater Discharge Permit, are amended to reflect the closure status of the mill or specific impoundment. Further, the closure period cannot commence until the license has been amended to include the approved closure plan and the applicable reclamation milestones. Until the license has been amended to change the status of the mill or impoundment to closure and the closure plan and applicable reclamation milestones have been incorporated into the license (as required by 10 C.F.R. Part 40 Appendix A, Criterion 6A), closure should not commence. An example of how closure should not commence, is the recent “closure” of White Mesa Cell 2. The White Mesa Mill license and Ground Water Discharge Permit have not been amended to 1) reflect the closure of Cell 2, 2) approve the closure plan, and 3) incorporate reclamation milestones.

10. Cell 3 at the White Mesa Mill (Sec. 4.4, page 19).

10.1. Energy Fuels discusses the status of Cell 3 and the EPA’s justification for eliminating the distinction between “existing” and “new” conventional impoundments.

Commenters believe that Cell 3 cannot “close” until the Mill license is amended

to change the status of Cell 3 and the closure plan and reclamation milestones are incorporated into the license, pursuant to Criterion 6A. Further, if Energy Fuels wishes to continue to dispose of ISL waste during closure, the Mill license be amended to authorize that disposal. Additionally, Cell 3 should enter closure as long as Cell 3 does not meet the current Subpart W emission standard and there are high levels of radon emissions from the solutions pond on top of the impoundment, estimated to be 573.3 pCi/m²-sec in 2013⁵ and 137.9 pCi/m²-sec in 2014⁶.

10.2. Whether or not Cell 3 is in closure in the near future, the tailings impoundments at the Shootaring Canyon and Sweetwater Mill do not meet the design standards for “new” impoundments in 40 C.F.R. §61.252(b)(1). Therefore, the EPA cannot claim that all “existing” operational tailings impoundments meet the standards for “new” impoundments.

11. HEAP LEACH FACILITIES (Sec. 6, page 22 to 37).

Commenters appreciate the more detailed description of heap leach operations provided by Energy Fuels. Such a complete description was missing in the EPA Proposed Rules and background documents.

11.1. EPA Jurisdiction Under Clean Air Act Limited to 11e.(2) Byproduct Material (Sec. 6.2 a), page 23). Energy Fuels asserts that “EPA’s jurisdiction under the Clean Air Act is therefore limited to 11e.(2) byproduct material as defined in the AEA.” Their basis for this assertion is a section of the Atomic Energy Act (AEA) (Section 275 (e)), which states: “Nothing in this Act applicable to byproduct material, as defined in section 11e.(2) of this Act, shall affect the authority of the Administrator under the Clean Air Act of 1970, as amended, or the Federal Water Pollution Control Act, as amended.”

Energy Fuels misinterprets the AEA and its impact on the provisions of the CAA. Energy Fuels errs when claiming that regulation of heap-leach process operations under the CAA would be in violation of Section 275 of the AEA.

The AEA states that the AEA provisions applicable to 11e.(2) byproduct material do not limit the authority of the Administrator under the CAA of 1970 (as subsequently amended). However, the AEA does not limit the authority of the CAA over other radionuclide sources (including radon emission sources) that may or may not fall under the authority of the AEA. Just because the AEA does not limit the CAA jurisdiction over 11e.(2) byproduct material, it does not follow that the AEA limits the CAA jurisdiction to just 11e.(2) byproduct material.

⁵ Uranium Watch et al., Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014; Sec. 45.11, Table 1, page 58. October 29, 2014. Docket ID No. EPA-HQ-OAR-2008-0218.

⁶ Uranium Watch et al., Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W), 79 Fed. Reg. 25388, May 2, 2014. January 6, 2014.

Further, the NRC and authorized Agreement States regulate more than just 11e.(2) byproduct material at licensed uranium recovery operations. The whole uranium recovery operation is regulated, and has been regulated since the AEA of 1946, except that the 11e.(2) byproduct material was not regulated to provide for perpetual storage and maintenance of that material until the AEA was amended by the Uranium Mill Tailings Radiation Control Act of 1978.

NRC and Agreement States regulation of a uranium recovery operation includes construction and maintenance, radiological and non-radiological exposure to workers and the public, ore handling and storage after it arrives at the site, well fields, processing, impacts to the onsite and offsite environment, ore processing, yellowcake handling, reclamation, and many other operational and site aspects. Therefore, the AEA does not limit the NRC or Agreement State regulatory authority to just 11e.(2) byproduct material, nor does the CAA limit the EPA's authority to just 11e.(2) byproduct material at licensed uranium recovery operations.

11.2. Conventional Heap Leach Facilities, On-Off Heap Leach Facilities, and Vat Leach Facilities (Sec. 6.2 b), c), and d), pages 24 to 26).

Contrary to assertions by Energy Fuels, EPA's jurisdiction under the Clean Air Act is NOT limited to 11e.(2) byproduct material as defined in the AEA. Nor is the NRC or Agreement State's jurisdiction limited to 11e.(2) byproduct material at a licensed uranium recovery facility. Therefore, the whole discussion of what is or is not 11e.(2) byproduct material at a heap-leach facility is irrelevant for the discussion of applying Subpart W radon emission standards to a heap-leach operation.

The EPA has the authority and the obligation under the CAA to establish radon (and other radionuclide) emission standards for all sources of such emissions at a licensed uranium recovery heap-leach operation. This would include emissions from all aspects of the heap-leach operation, including 1) ore transportation and storage on site; 2) ore loading; 3) ore leaching and resting; 4) cells for curing, rinsing, and draining of the ore; 5) vats; 6) loading and transportation of pregnant solution; 7) onsite solvent extraction or ion exchange; 8) and excavation of fully leached ore from the final operations stage to the permanent waste repository.

Additionally, the EPA has the authority and obligation to establish standards, including a radon emission limit, for the various ponds associated with a heap leach operation. These are described in Sec. 6.10 (pages 34 to 35) in Energy Fuels Comments. These ponds include: 1) collection pond for containment of uranium-rich (and radium-rich) aqueous solution, 2) raffinate pond joined to the collection pond for storage of uranium-depleted (but radium-rich) aqueous solution, and 3) holding pond for temporary storage of uranium-depleted (but radium-rich) aqueous process waste streams, evaporation of waste streams, and containment of runoff from the entire HLF footprint area under the design storm event. The estimated total acreage for these ponds is 7.5 acres and estimated volume is 43.3 million gallons of radium-laden solutions. Unfortunately, there is no mention of these liquid effluent ponds in the Proposed Rules.

There must be a limit on the radon emissions from these solutions, which can be demonstrated on a site specific basis using a formula and data on the radium content of

the solutions. If necessary to demonstrate compliance, the EPA must require the removal of radium from these effluents.

The EPA must characterize and regulate the radionuclide emissions, including radon, from all aspects of a heap-leach operation. Additionally, Section 112(h) of the CAA does not authorize the establishment of a work-practice or design standard in lieu of an emission standard unless the Administrator determines that establishing and enforcing an emission standard is not feasible. The Administrator has not made such a finding with respect heap-leach facilities.

11.4. Recommendations (Sec. 6.2 e), page 26).

The EPA must broadly a heap-leach facility, so that all operational aspects of the facility potentially fall Subpart W radon and other radionuclide emission standards.

12. HEAP LEACH FACILITIES (Sec. 6.2 to 6.12., pages 27 to 37). Just in case the EPA determines that they do have jurisdiction over the heap-leach operations under the CAA, Energy Fuels provided additional comments and proposals.

12.1. 30% Moisture Content Requirement (Sec. 6.4 to 6.7, pages 27 to 32).

It is apparent from Energy Fuels comments that the proposed 30% moisture content requirement is not feasible. However, the EPA has not found that establishing a radon emission standard and means to comply with that standard is not feasible. As stated above, Section 112(h) of the CAA does not authorize the establishment of a work-practice or design standard in lieu of an emission standard unless the Administrator determines that establishing and enforcing an emission standard is not feasible.

12.2. Alternatives to 30% Moisture Content Requirement (Sec. 6.8, page 32 to 33). Energy Fuels proposes design and operational methodologies for conventional and on-off heap-leach facilities. Energy Fuels proposes placement of a gravel layer over stacked ore within a few weeks of ore placement. They believe that “any such process operations requirements should properly be imposed by NRC or the applicable Agreement State as conditions in the facility’s license, and not by EPA under Subpart W.”

These methodologies, if required by under Subpart W, would require the EPA to acknowledge that they had regulatory authority over various phases of heap leach operations, starting with the placement of the ore on the heap leach pad. Commenters believe that the EPA has that authority. Also, there is no guarantee that the EPA and NRC will promulgate new regulations on the operation of heap leach operations. Neither agency has announced their intention of developing such rules.

12.3. As discussed above, Section 112(h) of the CAA requires the establishment of an actual emission standard for a specific emission source unless the Administrator finds that the establishment of such an emission standard is not feasible.

12.4. Based on Energy Fuels proposal, it appears that it would be feasible to monitor the radon emissions on top of the ore after the placement of the last gravel cover and during operation and closure.

12.5. Energy Fuels discusses the issue of placement of heap leach operations at the same site as a conventional mill. They believe that “a mill facility should be allowed to have two active tailings impoundments and two active conventional [heap leach facilities] at or near the same location.”

The EPA did not address this situation in the Proposed Rules, nor did the EPA address the situation of 2 operational heap leach operations and another impoundment(s) for the disposal of the spent ore. Also, the EPA has not addressed the situation with multiple heap leach piles, some in operation and some in closure—all emitting unmonitored and unregulated amounts of radon. If the EPA agrees that a facility could have 2 operational heap leach piles and 2 operational conventional impoundments, the EPA must remember that under the Proposed Rules, the radon emissions from these piles and impoundment will not be monitored and subject to any radon emission standard and compliance requirements. In addition to operational piles and conventional impoundments, there will be non-conventional impoundments for storage and evaporation of solutions (with no limit on size or number), pond(s) for storage of pregnant heap leach solutions, and heap leach piles and conventional impoundments undergoing closure. Under the EPA Proposed Rules, none of these impoundments and piles will be subject to a radon emission standard under the CAA. All of these possibilities should have been examined by the EPA in the Proposed Rules.

It is clear that the EPA must establish a radon emission standard for all piles and impoundments at conventional mills and heap leach operations during operation and closure. There must be limits on the number of piles and impoundment in operation and closure. The EPA should not permit the establishment of a heap leach operation at a conventional mill. The EPA must establish a radon emission standard for an impoundment that receives spent ore at a licensed heap leach facility. These limits and standards must be part of Subpart W. It would take years for the EPA and NRC to amend 40 C.F.R. Part 192 and 10 C.F.R. Part 40, as proposed by Energy Fuels.

12.6. Operational Life of a Heap Leach Facility (Sec. 6.9, pages 32 to 33). Energy Fuels supports EPA’s position that the processing life of heap leach operation commences when the lixiviant is first placed on the heap leach pile and ends the time of the final rinse, when the closure period would commence.

Commenters assert that the operational life should commence when the ore is first brought to the site of the heap leach operation. Closure cannot commence until the license is amended to change the status of the pile and unless there is an approved closure (reclamation) plan and reclamation milestones in place. Additionally, the EPA must establish radon emission standards for heap leach piles during closure. Energy Fuels states that the closure period may last many years and mentions the placement of an interim cover, but there is no requirement to do so before closure commences. The EPA has the authority and the obligation under the CAA to require compliance with a radon emission standard for heap leach piles during closure.

13. ISR FACILITIES (Sec. 7, pages 37 to 39).

13.1. Treated Waste Water Should Not be Subject to Subpart W (Sec. 7.1, page 38 to 39).

Energy Fuels request that the EPA not regulate reservoirs that contain treated water at ISL operations as non-conventional impoundments, even though they contain 11e.(2) byproduct material. Commenters do not agree with Energy Fuels position.

13.2. Radon Attenuation and Control at ISR Facilities (Sec. 7.2, page 39).

Energy Fuels claims that the radon emissions from non-conventional impoundments at ISL facilities are minimal and are a small fraction of the total radon emissions at an ISL facility. However, that is not a basis for not establishing an emission standard and requiring compliance with that standard. The fact that there are other radon emission sources at ISL operations is the reason that the EPA must also establish its authority over those emissions under Subpart W.

14. Application of Subpart W to Evaporation or Holding Ponds (Sec. 9.1, page 41).

Energy Fuels asserts that the EPA should not establish regulatory authority over holding and evaporations ponds because they emit little radon and do not pose a health and safety risk. Commenters disagree. As recently documented, the holding and evaporation ponds at the White Mesa Mill emit high levels of radon and pose a health and safety risk.

Energy Fuels also states that they disagree with the Proposed Rules “statement that EPA has consistently maintained that evaporation and holding ponds meet applicability criteria for Subpart W.” Commenters would agree with Energy Fuels in that respect. The EPA never regulated evaporation and holding ponds in accordance with the Subpart W requirements and mislead the public regarding the high levels of radon emissions from those solution ponds and impoundments at the White Mesa Mill.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

Jennifer Thurston
Director
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Charlie Garlow, EPA
Stuart Walker, EPA
Steve Hoffman, EPA
Marilyn Ginsburg, EPA
Bob Dye, EPA
Gina McCarthy, EPA
Janet McCabe, EPA
Avi Garbow, EPA
Cynthia Giles, EPA
Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:41 AM
To: Thornton, Marisa
Subject: Fw: Supplementary 2 to Comments EPA Subpart W Rulemaking
Attachments: UW_EPA_SubpartWComments_Supplement2.150113.pdf

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:46 PM
To: Collections.SubW
Subject: FW: Supplementary 2 to Comments EPA Subpart W Rulemaking

Susan Stahle
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Air and Radiation Law Office
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From: sarah@uraniumwatch.org [mailto:sarah@uraniumwatch.org]
Sent: Tuesday, January 13, 2015 3:54 PM
To: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplementary 2 to Comments EPA Subpart W Rulemaking

Dear Sir or Madam,

Attached please find Supplement No. 2 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

Sarah Fields
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P.O. Box 344
Moab, Utah 84532

Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:42 AM
To: Thornton, Marisa
Subject: Fw: Subpart W

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:46 PM
To: Collections.SubW
Subject: FW: Subpart W

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From: Rodman, Sonja
Sent: Tuesday, January 06, 2015 4:30 PM
To: Stahle, Susan
Subject: Subpart W

Sue, Would you be willing to take a few minutes to bring me up to date on where we are with respect to Subpart W? I'll send you an invite for sometime next week. If the time I suggest isn't convenient for you, please feel free to suggest another time. Thanks! – Sonja

Sonja L. Rodman
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This message may contain sensitive, privileged information covered by the deliberative process, attorney-client and/or attorney work product privileges. If you believe you have received this e-mail in error, please notify me and delete the e-mail immediately.

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Sent: Tuesday, January 06, 2015 4:42 PM
To: Rodman, Sonja
Subject: RE: Subpart W

Yes, I'd be happy to.

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January 6, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
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a-and-r-docket@epa.gov

Re: Docket ID No. EPA–HQ– OAR–2008–0218. Supplement No. 1 to Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W). 79 Fed. Reg. 25388, May 2, 2014.

Dear Sir or Madam:

Below please find Supplement No. 1 to the Uranium Watch et al. October 29, 2014, comments (October 29 Subpart W Comments) on the Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA–HQ–OAR–2008–0218 (79 Fed. Reg. 25388, May 2, 2014). These supplementary comments are submitted by Uranium Watch. Comment are also submitted on behalf of Information Network for Responsible Mining and Living Rivers (Commenters).

These comments are based on new information provided by Energy Fuels Resources (USA) Inc. (Energy Fuels) to the Utah Division of Radiation Control (DRC) and raise an important issue that was not adequately addressed in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). In light of the new information, and considering the length of time EPA has taken to develop the Proposed Rules, the estimated 2016 release date for the Final Rules, and the numerous inadequacies in the May 2, 2014, *Federal Register* Notice and the Proposed Rules, Commenters request that the EPA give full consideration to the following comments.

SIGNIFICANT INCREASE IN RADON EMISSIONS FROM LIQUID WASTES AT THE WHITE MESA MILL

1. The Uranium Watch et al. October 29 Subpart W Comments discussed the fact that there were high levels of radon emissions from the liquid effluents at the White Mesa Uranium Mill, San Juan County, Utah.¹ The radon emissions are the result of high Gross Alpha (minus radon and uranium) in the solutions exposed to the air in Cells 1, 3, 4A, and 4B. The radon emission estimations were based on the White Mesa Mill 2013 Annual Tailings Wastewater Monitoring Report.² According the Licensee, Energy Fuels Resources (USA) Inc. (Energy Fuels): Cell 1 (55 acres) is dedicated to the evaporation of Mill waste solutions; Cell 3 (71 acres) contains Mill tailings and is in the final stages of filling; Cell 4A (~ 40 acres) receives Mill tailings and is used for evaporation of Mill waste solutions; and Cell 4B (~ 40 acres) is used for evaporation of Mill waste solutions. Cell 3 has a water cover on top of solid tailings. Liquids from the active dewatering of Cell 2 are being disposed of in Cell 3. Additional information regarding the high levels of radon emissions from the radium-laden solutions at White Mesa was provided to the EPA by the Ute Mountain Ute Tribe as part of the tribal consultation process.³

2. The EPA Risk Assessment Revisions for 40 CFR Part 61 Subpart W - Radon Emissions from Operating Mill Tailings: Task 5 - Radon Emission from Evaporation; Ponds S. Cohen and Associates, November 9, 2010; Table 6, page 17, provided a formula for determining the radon emissions from liquid impoundments. The formula for the radon emissions for the White Mesa Mill, based on the radium content of the solutions and local meteorological data, was 7 pico Curies per square meter per second (7 pCi/m²-sec) for every 1,000 pico Curies per liter (pCi/L) of radium dissolved or suspended in the solutions.⁴

¹ Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W), October 29, 2014. 79 Fed. Reg. 25388, May 2, 2014. Docket ID No. EPA-HQ-OAR-2008-0218.

² 2013 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 1, 2013.
<http://www.deq.utah.gov/businesses/E/energyfuels/docs/2013/12Dec/2013AnnualTailingsReportFinal.pdf>

³ EPA Subpart W Rulemaking, Non-Privileged Records (July-Sept 2014, Part 1), pages 405-416.
<http://www.epa.gov/radiation/docs/neshaps/npr/2014-july-sept-part1.pdf>
EPA Subpart W Rulemaking, Non-Privileged Records (July-Sept 2014, Part 2), pages 1-3.
<http://www.epa.gov/radiation/docs/neshaps/npr/2014-july-sept-part2.pdf>

⁴ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

3. The EPA did not determine the actual radon emissions from the solutions in Cells 1, 3, 4A, and 4B, based on the formula in the 2010 Risk Assessment⁵ and the actual radium content of the solutions in the impoundments. Information about the radium content of the impoundments could have been obtained from Energy Fuels. Data from the 2012 and 2013 Annual Tailings Wastewater Monitoring Reports were available online.

4. EPA's failure to determine the radium content of the White Mesa Mill's impoundments is not a new problem: On May 5, 2009, the EPA required that Energy Fuels predecessor, Denison Mines Corp, provide information to the EPA, pursuant to Section 114(a) (42 U.S.C. § 7414(a)) of the Clean Air Act (CAA)⁶. As that May 2009 letter stated, failure to comply with the request for information could result in an enforcement action, pursuant to Section 133 of the CAA (42 U.S.C. § 7413). The EPA, in part, requested the results of radionuclide monitoring near evaporation ponds. The EPA, among other things, requested the daily average radium-226 concentration in the solutions discharged into the ponds and the solutions in the ponds.

There is no evidence on the record of the Subpart W Rulemaking⁷ that Denison Mines responded to the EPA demand for information, or that the EPA initiated an enforcement action when Denison failed to respond. Further, there is no evidence that the EPA requested that Energy Fuels provide the required information when the failure to respond to the May 2009 demand was brought to the attention of the EPA by Uranium Watch earlier in 2014 after the publication of the Proposed Rule. EPA's indifference to the failure of Denison Mines to respond to the May 2009 demand for information is inexplicable and inexcusable.

5. Even if Denison did provide the information in 2009, that data would have been outdated by 2014. EPA failed to obtain meaningful data on the radium content, and, thus, the radon emissions, from the liquid impoundments at White Mesa over time.

6. The 2014 Annual Tailings Wastewater Monitoring Report⁸ shows a dramatic increase in the Cells 1, 4A, and 4B radium content. The data in the Report was based on August 2014 sampling events. Based on the EPA formula for determining radon emissions from

⁵ Id.

⁶ <http://www.epa.gov/radiation/docs/neshaps/subpart-w/uranium-denison-test.pdf>

⁷ Subpart W Rulemaking Activity: <http://www.epa.gov/radiation/neshaps/subpartw/rulemaking-activity.html>

⁸ 2014 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 24, 2014.
<http://www.deq.utah.gov/businesses/E/energyfuels/docs/2014/12Dec/TailingsReport2014Annual.pdf>

White Mesa liquid impoundments⁹, the radon emissions from Cell 1 have increased from 228.9 pCi/m²-sec in 2013 to 2,317 pCi/m²-sec in 2014. The Cell 4A radon emissions have increased from 110.6 pCi/m²-sec to 1,680 pCi/m²-sec. The Cell 4B radon emissions have increased from 102.2 pCi/m²-sec to 1,036 pCi/m²-sec. Only Cell 3 showed a radon emission decrease from 573.3 pCi/m²-sec to 137.9 pCi/m²-sec. The average for the ~135 acres of liquid ponds and impoundments is 1,749 pCi/m²-sec. See Table 1, below.

Cell	2013 Gross Radium Alpha	2013 Radon Emissions	2014 Gross Radium Alpha	2014 Radon Emissions
Cell 1	32,700 pCi/L	228.9 pCi/m ² -sec	331,000 pCi/L	2,317 pCi/m ² -sec
Cell 3	81,900 pCi/L	573.3 pCi/m ² -sec	19,700 pCi/L	137.9 pCi/m ² -sec
Cell 4A	15,800 pCi/L	110.6 pCi/m ² -sec	240,000 pCi/L	1,680 pCi/m ² -sec
Cell 4B	14,600 pCi/L	102.2 pCi/m ² -sec	148,000 pCi/L	1.036 pCi/m ² -sec

7. Information was provided in the 2014 Annual Wastewater Monitoring Report regarding the reasons for the increase in gross radium alpha. The sampling event was in August. According to the 2014 Report:

- During June, July, and August operating period fresh water was not added to the Mill process. Re-circulated tailings liquids were used for process water. Re-circulated fluids were then returned to the tailings system or evaporation ponds.
- From August 2013 to August 2014, the Mill's production was limited, resulting in less fresh water added to the Mill process and therefore to the cells. The decrease in the addition of fresh water resulted in concentration of existing fluids.
- Drought conditions resulted in less precipitation, therefore, less rainwater and storm water going into the cells. Drought also caused higher evaporation rates.

These conditions will continue, as Energy Fuels has announced that they will put the Mill on standby in early 2015. Therefore, there will continue to be high levels of radon emissions from the solutions in these 4 impoundments. Yet, the EPA and Utah Division of Air Quality (DAQ)¹⁰ have done nothing to address this situation.

⁹ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

¹⁰ The EPA delegated responsibility for the administration and enforcement of 40 C.F.R. Part 61 Radionuclide NESHAPS to the Utah Division of Air Quality in 1995.

8. The EPA would have the public believe that the radon emissions from these radium-laden uranium mill waste solutions are ZERO.¹¹ The EPA Method for Monitoring for Radon 222 Emissions (Method 115), discusses the monitoring of Radon-222 Emissions from Uranium Mill Tailings Piles in Section 2. Section 2 states that no measurements are required for water covered areas (of tailings impoundments, not evaporation ponds), “as radon flux is assumed to be zero.” Therefore, the EPA’s claim that these emissions are zero is a carefully crafted misstatement of fact, which the EPA, apparently, intends to perpetuate.

9. In addition to significantly exceeding “zero,” the radon emissions from the liquid impoundments (Cells 1, 3, 4A, and 4B) exceed the 20 pCi/m²-sec radon emission standard for the “existing” tailings impoundments (Cells 2 and 3). This is a standard that EPA adopted to protect public and environmental health; any exceedance – much less an exceedance of over 100 times the radon emission standard – is a threat to the residents and environment of Southeast Utah.

10. For decades the EPA has mislead the public regarding the radon emissions from radium-laden solutions at conventional mills. This assumption that the emissions were “zero” and did not have to be measured or calculated has been maintained throughout the years when the levels of radium-laden effluents and radium content fluctuated at the White Mesa and Cañon City Mills.

11. Under the Proposed Rules, the EPA:

- Completely failed to address the high levels of radon emissions from solutions in impoundments at conventional uranium mills.
- Failed to obtain relevant data and ignored the data that was available on the radium content of White Mesa Mill solution ponds.
- Failed to request data on the radium content of liquid impoundments over time and the depth of those liquids, so that a correlation could be made between radium content and depth.
- Failed to propose any change in the assumption that the radon emissions from liquid impoundments are “zero,” although the EPA had developed a formula for determination of those emissions and it was apparent that these emissions were not “zero” and could be significant.
- Failed to establish a radon emission standard for liquid impoundments and a methodology for determining compliance;
- Failed to require corrective actions to reduce radon emissions from liquid impoundments;

¹¹ 40 C.F.R. Part 61, Appendix B, Method 115, Subsection 2.13(a).

- Failed to consider whether the placement of water covers on top of solid tailings would, over time, not significantly attenuate the radon emissions;
- Failed to require continuous disposal of de-watered tailings for new impoundments;
- Failed to establish an overall limit on the radon emissions at a uranium recovery operation.
- Failed to consider the emission of high levels of radon from liquid impoundments and water covers in their risk assessment.

12. The EPA must not wait until the finalization of Subpart W to take action regarding the high levels of radon that are being released, and will continue to be released, from Cells 1, 3, 4A, and 4B at the White Mesa Mill. The EPA must take action NOW. The EPA must:

- Require immediate action to assure that the radon emissions from the solution ponds at the White Mesa Mill will be substantially reduced and remain reduced.
- Require the immediate use of technologies or methodologies to reduce the radium content and radon emissions from Cells 1, 3, 4A, and 4B. Corrective actions may include adding fresh water and/or treating the fluids with barium chloride to reduce the radium content.
- Require monthly determinations of the radium content and radon emissions from the solutions in Cells 1, 3, 4A, and 4B, and the reporting of that information to the DAQ and EPA.
- Require treatment of any new or recycled radium-laden solutions that are being or may be added to Cell 1, 3, 4A, and 4B to significantly reduce the radium content; e.g., use of a barium chloride treatment system. Solutions to be added would include recycled processing fluids and the solutions that are being removed from the Cell 2 Leak Detection System as part of the Cell 2 dewatering process.
- Require that no new solutions be added or recycled to the tailings cells without a determination of the radium content of those solutions and if adding those solutions to the solution impoundment would reduce or increase the radium content and radon emission levels. No new solutions that would increase the radium content and radon emission levels should be permitted to be placed in any solution pond or impoundment.

13. The 1983 EPA Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites¹² contains a discussion of Part 192 in “Relationship to the Clean Air Act Emission Standard Requirements.” This section states, in part:

EPA believes that the standard should be established at a level that will, at least, require use of best available technology. Additional actions, such as forcing the use of undemonstrated technology, closure of a facility, or other extreme measures may be considered if significant emissions remain after best available technology is in place or if there are significant emissions and there is no applicable demonstrated control technology. EPA defines best available demonstrated technology as that which, in the judgement of the Administrator, is the most advanced level of controls adequately demonstrated, considering economic, energy, and environmental impacts. We concluded that requiring the use of undemonstrated technology was appropriate for mill tailings, since their emissions are significant and there is no applicable demonstrated control technology.

Therefore, as early as 1983, the EPA realized that there might be situations where the best available technology would not be able to reduce radon emissions to acceptable levels (i.e., 20 pCi/m²-sec). In 1989,¹³ the EPA addressed the problem of possible significant levels of radon emissions from radium-laden fluids by denying that such levels were even possible. The EPA claimed that placing uranium-laden processing solutions on top of the more solid tailings would actually serve to reduce the radon emissions.

Now, the EPA must make a determination of whether there are available technologies that can be used to reduce the levels of radium and the radon emissions from liquid ponds and impoundments at the White Mesa and other conventional mills. If such technologies are not available or not feasible, then the EPA must consider closure of a facility or other extreme measures. The EPA cannot continue to sanction the emission of the high levels of radon that are currently being emitted at White Mesa.

¹² Environmental Protection Agency, Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites, 40 C.F.R. Part 192, Final Rule, Section 3. Relationship to the Clean Air Act Emission Standard Requirements. 48 Fed. Reg. 45926; October 14, 1983. <https://blog.epa.gov/milltailingsblog/wp-content/uploads/2009/12/48fr45926.pdf>

¹³ Environmental Protection Agency, National Emission Standards for Hazardous Air Pollutants; Radionuclides, Final rule and notice of reconsideration, 40 C.F.R. Part 61. 54 Fed. Reg. 51654; December 15, 1989. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/historical-rulemakings/december151989finalrule.pdf>

14. Regarding the Proposed Rules, the EPA must:

- No longer maintain the fraudulent claim that the radon emissions from liquid ponds at conventional mills are “zero.”
- No longer maintain the fiction that a water cover on solid tailings serves to attenuate the radon and reduce the radon emissions to insignificant levels.
- Either obtain a response to the May 2009 demand for information from Energy Fuels (and make that information available to the public), or initiate an enforcement action.
- Establish a numerical radon emission standard for liquid impoundments and water covers equal to or less than the 20 pCi/m²-sec.
- Require the timely provision of data on the radium content of the solutions in non-conventional and conventional impoundments on a monthly basis.
- Require use of technologies or methodologies to reduce the radium content and radon emissions from solution impoundments (non-conventional impoundments or ponds). Corrective actions may include adding fresh water and/or treating the fluids with barium chloride to reduce the radium content.
- Require that all conventional mills use the continuous method of tailings disposal, thus eliminating the use of water covers over phased disposal impoundments.
- Require “additional actions, such as forcing the use of undemonstrated technology, closure of a facility, or other extreme measures may be considered if significant emissions remain after best available technology is in place or if there are significant emissions and there is no applicable demonstrated control technology.”

15. Based on this new information and other legal, factual, and technical errors and inadequacies in the Proposed Rules (as outlined above, in Uranium Watch et al. October 29 Comments, and in other Subpart W Proposed Rule comments), the EPA must withdraw the May 2, 2014, Proposed Rules.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

Jennifer Thurston
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Information Network for Responsible Mining
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Michael Goo, EPA
Mathy Stanislaus

Thornton, Marisa

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To: Thornton, Marisa
Subject: Fw: Supplementary Comments: EPA Subpart W Rulemaking,
Attachments: UW_EPA_SubpartWComments_Supplement1_EPA-HQ-OAR-2008-0218_150106.pdf

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Sent: Thursday, February 12, 2015 4:46 PM
To: Collections.SubW
Subject: FW: Supplementary Comments: EPA Subpart W Rulemaking,

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From: Blake, Wendy
Sent: Tuesday, January 06, 2015 4:16 PM
To: Stahle, Susan; Rodman, Sonja
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FYI

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To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplementary Comments: EPA Subpart W Rulemaking,

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Sincerely,

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January 6, 2015

via electronic mail

Air and Radiation Docket
Environmental Protection Agency
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a-and-r-docket@epa.gov

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Dear Sir or Madam:

Below please find Supplement No. 1 to the Uranium Watch et al. October 29, 2014, comments (October 29 Subpart W Comments) on the Environmental Protection Agency (EPA) Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA–HQ–OAR–2008–0218 (79 Fed. Reg. 25388, May 2, 2014). These supplementary comments are submitted by Uranium Watch. Comment are also submitted on behalf of Information Network for Responsible Mining and Living Rivers (Commenters).

These comments are based on new information provided by Energy Fuels Resources (USA) Inc. (Energy Fuels) to the Utah Division of Radiation Control (DRC) and raise an important issue that was not adequately addressed in the EPA Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (Proposed Rules). In light of the new information, and considering the length of time EPA has taken to develop the Proposed Rules, the estimated 2016 release date for the Final Rules, and the numerous inadequacies in the May 2, 2014, *Federal Register* Notice and the Proposed Rules, Commenters request that the EPA give full consideration to the following comments.

SIGNIFICANT INCREASE IN RADON EMISSIONS FROM LIQUID WASTES AT THE WHITE MESA MILL

1. The Uranium Watch et al. October 29 Subpart W Comments discussed the fact that there were high levels of radon emissions from the liquid effluents at the White Mesa Uranium Mill, San Juan County, Utah.¹ The radon emissions are the result of high Gross Alpha (minus radon and uranium) in the solutions exposed to the air in Cells 1, 3, 4A, and 4B. The radon emission estimations were based on the White Mesa Mill 2013 Annual Tailings Wastewater Monitoring Report.² According the Licensee, Energy Fuels Resources (USA) Inc. (Energy Fuels): Cell 1 (55 acres) is dedicated to the evaporation of Mill waste solutions; Cell 3 (71 acres) contains Mill tailings and is in the final stages of filling; Cell 4A (~ 40 acres) receives Mill tailings and is used for evaporation of Mill waste solutions; and Cell 4B (~ 40 acres) is used for evaporation of Mill waste solutions. Cell 3 has a water cover on top of solid tailings. Liquids from the active dewatering of Cell 2 are being disposed of in Cell 3. Additional information regarding the high levels of radon emissions from the radium-laden solutions at White Mesa was provided to the EPA by the Ute Mountain Ute Tribe as part of the tribal consultation process.³

2. The EPA Risk Assessment Revisions for 40 CFR Part 61 Subpart W - Radon Emissions from Operating Mill Tailings: Task 5 - Radon Emission from Evaporation; Ponds S. Cohen and Associates, November 9, 2010; Table 6, page 17, provided a formula for determining the radon emissions from liquid impoundments. The formula for the radon emissions for the White Mesa Mill, based on the radium content of the solutions and local meteorological data, was 7 pico Curies per square meter per second (7 pCi/m²-sec) for every 1,000 pico Curies per liter (pCi/L) of radium dissolved or suspended in the solutions.⁴

¹ Comments on Proposed Rule: Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings (40 C.F.R. Part 61 Subpart W), October 29, 2014. 79 Fed. Reg. 25388, May 2, 2014. Docket ID No. EPA-HQ-OAR-2008-0218.

² 2013 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 1, 2013.
<http://www.deq.utah.gov/businesses/E/energyfuels/docs/2013/12Dec/2013AnnualTailingsReportFinal.pdf>

³ EPA Subpart W Rulemaking, Non-Privileged Records (July-Sept 2014, Part 1), pages 405-416.
<http://www.epa.gov/radiation/docs/neshaps/npr/2014-july-sept-part1.pdf>
EPA Subpart W Rulemaking, Non-Privileged Records (July-Sept 2014, Part 2), pages 1-3.
<http://www.epa.gov/radiation/docs/neshaps/npr/2014-july-sept-part2.pdf>

⁴ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

3. The EPA did not determine the actual radon emissions from the solutions in Cells 1, 3, 4A, and 4B, based on the formula in the 2010 Risk Assessment⁵ and the actual radium content of the solutions in the impoundments. Information about the radium content of the impoundments could have been obtained from Energy Fuels. Data from the 2012 and 2013 Annual Tailings Wastewater Monitoring Reports were available online.

4. EPA's failure to determine the radium content of the White Mesa Mill's impoundments is not a new problem: On May 5, 2009, the EPA required that Energy Fuels predecessor, Denison Mines Corp, provide information to the EPA, pursuant to Section 114(a) (42 U.S.C. § 7414(a)) of the Clean Air Act (CAA)⁶. As that May 2009 letter stated, failure to comply with the request for information could result in an enforcement action, pursuant to Section 133 of the CAA (42 U.S.C. § 7413). The EPA, in part, requested the results of radionuclide monitoring near evaporation ponds. The EPA, among other things, requested the daily average radium-226 concentration in the solutions discharged into the ponds and the solutions in the ponds.

There is no evidence on the record of the Subpart W Rulemaking⁷ that Denison Mines responded to the EPA demand for information, or that the EPA initiated an enforcement action when Denison failed to respond. Further, there is no evidence that the EPA requested that Energy Fuels provide the required information when the failure to respond to the May 2009 demand was brought to the attention of the EPA by Uranium Watch earlier in 2014 after the publication of the Proposed Rule. EPA's indifference to the failure of Denison Mines to respond to the May 2009 demand for information is inexplicable and inexcusable.

5. Even if Denison did provide the information in 2009, that data would have been outdated by 2014. EPA failed to obtain meaningful data on the radium content, and, thus, the radon emissions, from the liquid impoundments at White Mesa over time.

6. The 2014 Annual Tailings Wastewater Monitoring Report⁸ shows a dramatic increase in the Cells 1, 4A, and 4B radium content. The data in the Report was based on August 2014 sampling events. Based on the EPA formula for determining radon emissions from

⁵ Id.

⁶ <http://www.epa.gov/radiation/docs/neshaps/subpart-w/uranium-denison-test.pdf>

⁷ Subpart W Rulemaking Activity: <http://www.epa.gov/radiation/neshaps/subpartw/rulemaking-activity.html>

⁸ 2014 Annual Wastewater Monitoring Report; Groundwater Quality Discharge Permit UGW370004, White Mesa Uranium Mill, November 24, 2014. <http://www.deq.utah.gov/businesses/E/energyfuels/docs/2014/12Dec/TailingsReport2014Annual.pdf>

White Mesa liquid impoundments⁹, the radon emissions from Cell 1 have increased from 228.9 pCi/m²-sec in 2013 to 2,317 pCi/m²-sec in 2014. The Cell 4A radon emissions have increased from 110.6 pCi/m²-sec to 1,680 pCi/m²-sec. The Cell 4B radon emissions have increased from 102.2 pCi/m²-sec to 1,036 pCi/m²-sec. Only Cell 3 showed a radon emission decrease from 573.3 pCi/m²-sec to 137.9 pCi/m²-sec. The average for the ~135 acres of liquid ponds and impoundments is 1,749 pCi/m²-sec. See Table 1, below.

Cell	2013 Gross Radium Alpha	2013 Radon Emissions	2014 Gross Radium Alpha	2014 Radon Emissions
Cell 1	32,700 pCi/L	228.9 pCi/m ² -sec	331,000 pCi/L	2,317 pCi/m ² -sec
Cell 3	81,900 pCi/L	573.3 pCi/m ² -sec	19,700 pCi/L	137.9 pCi/m ² -sec
Cell 4A	15,800 pCi/L	110.6 pCi/m ² -sec	240,000 pCi/L	1,680 pCi/m ² -sec
Cell 4B	14,600 pCi/L	102.2 pCi/m ² -sec	148,000 pCi/L	1.036 pCi/m ² -sec

7. Information was provided in the 2014 Annual Wastewater Monitoring Report regarding the reasons for the increase in gross radium alpha. The sampling event was in August. According to the 2014 Report:

- During June, July, and August operating period fresh water was not added to the Mill process. Re-circulated tailings liquids were used for process water. Re-circulated fluids were then returned to the tailings system or evaporation ponds.
- From August 2013 to August 2014, the Mill's production was limited, resulting in less fresh water added to the Mill process and therefore to the cells. The decrease in the addition of fresh water resulted in concentration of existing fluids.
- Drought conditions resulted in less precipitation, therefore, less rainwater and storm water going into the cells. Drought also caused higher evaporation rates.

These conditions will continue, as Energy Fuels has announced that they will put the Mill on standby in early 2015. Therefore, there will continue to be high levels of radon emissions from the solutions in these 4 impoundments. Yet, the EPA and Utah Division of Air Quality (DAQ)¹⁰ have done nothing to address this situation.

⁹ Risk Assessment Revision for 40 CFR Part 61 Subpart W — Radon Emissions from Operating Mill Tailings Task 5 – Radon Emission from Evaporation Ponds; S. Cohen and Associates, November 9, 2010; Table 6, page 17. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/riskassessmentrevision.pdf>

¹⁰ The EPA delegated responsibility for the administration and enforcement of 40 C.F.R. Part 61 Radionuclide NESHAPS to the Utah Division of Air Quality in 1995.

8. The EPA would have the public believe that the radon emissions from these radium-laden uranium mill waste solutions are ZERO.¹¹ The EPA Method for Monitoring for Radon 222 Emissions (Method 115), discusses the monitoring of Radon-222 Emissions from Uranium Mill Tailings Piles in Section 2. Section 2 states that no measurements are required for water covered areas (of tailings impoundments, not evaporation ponds), “as radon flux is assumed to be zero.” Therefore, the EPA’s claim that these emissions are zero is a carefully crafted misstatement of fact, which the EPA, apparently, intends to perpetuate.

9. In addition to significantly exceeding “zero,” the radon emissions from the liquid impoundments (Cells 1, 3, 4A, and 4B) exceed the 20 pCi/m²-sec radon emission standard for the “existing” tailings impoundments (Cells 2 and 3). This is a standard that EPA adopted to protect public and environmental health; any exceedance – much less an exceedance of over 100 times the radon emission standard – is a threat to the residents and environment of Southeast Utah.

10. For decades the EPA has misled the public regarding the radon emissions from radium-laden solutions at conventional mills. This assumption that the emissions were “zero” and did not have to be measured or calculated has been maintained throughout the years when the levels of radium-laden effluents and radium content fluctuated at the White Mesa and Cañon City Mills.

11. Under the Proposed Rules, the EPA:

- Completely failed to address the high levels of radon emissions from solutions in impoundments at conventional uranium mills.
- Failed to obtain relevant data and ignored the data that was available on the radium content of White Mesa Mill solution ponds.
- Failed to request data on the radium content of liquid impoundments over time and the depth of those liquids, so that a correlation could be made between radium content and depth.
- Failed to propose any change in the assumption that the radon emissions from liquid impoundments are “zero,” although the EPA had developed a formula for determination of those emissions and it was apparent that these emissions were not “zero” and could be significant.
- Failed to establish a radon emission standard for liquid impoundments and a methodology for determining compliance;
- Failed to require corrective actions to reduce radon emissions from liquid impoundments;

¹¹ 40 C.F.R. Part 61, Appendix B, Method 115, Subsection 2.13(a).

- Failed to consider whether the placement of water covers on top of solid tailings would, over time, not significantly attenuate the radon emissions;
- Failed to require continuous disposal of de-watered tailings for new impoundments;
- Failed to establish an overall limit on the radon emissions at a uranium recovery operation.
- Failed to consider the emission of high levels of radon from liquid impoundments and water covers in their risk assessment.

12. The EPA must not wait until the finalization of Subpart W to take action regarding the high levels of radon that are being released, and will continue to be released, from Cells 1, 3, 4A, and 4B at the White Mesa Mill. The EPA must take action NOW. The EPA must:

- Require immediate action to assure that the radon emissions from the solution ponds at the White Mesa Mill will be substantially reduced and remain reduced.
- Require the immediate use of technologies or methodologies to reduce the radium content and radon emissions from Cells 1, 3, 4A, and 4B. Corrective actions may include adding fresh water and/or treating the fluids with barium chloride to reduce the radium content.
- Require monthly determinations of the radium content and radon emissions from the solutions in Cells 1, 3, 4A, and 4B, and the reporting of that information to the DAQ and EPA.
- Require treatment of any new or recycled radium-laden solutions that are being or may be added to Cell 1, 3, 4A, and 4B to significantly reduce the radium content; e.g., use of a barium chloride treatment system. Solutions to be added would include recycled processing fluids and the solutions that are being removed from the Cell 2 Leak Detection System as part of the Cell 2 dewatering process.
- Require that no new solutions be added or recycled to the tailings cells without a determination of the radium content of those solutions and if adding those solutions to the solution impoundment would reduce or increase the radium content and radon emission levels. No new solutions that would increase the radium content and radon emission levels should be permitted to be placed in any solution pond or impoundment.

13. The 1983 EPA Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites¹² contains a discussion of Part 192 in “Relationship to the Clean Air Act Emission Standard Requirements.” This section states, in part:

EPA believes that the standard should be established at a level that will, at least, require use of best available technology. Additional actions, such as forcing the use of undemonstrated technology, closure of a facility, or other extreme measures may be considered if significant emissions remain after best available technology is in place or if there are significant emissions and there is no applicable demonstrated control technology. EPA defines best available demonstrated technology as that which, in the judgement of the Administrator, is the most advanced level of controls adequately demonstrated, considering economic, energy, and environmental impacts. We concluded that requiring the use of undemonstrated technology was appropriate for mill tailings, since their emissions are significant and there is no applicable demonstrated control technology.

Therefore, as early as 1983, the EPA realized that there might be situations where the best available technology would not be able to reduce radon emissions to acceptable levels (i.e., 20 pCi/m²-sec). In 1989,¹³ the EPA addressed the problem of possible significant levels of radon emissions from radium-laden fluids by denying that such levels were even possible. The EPA claimed that placing uranium-laden processing solutions on top of the more solid tailings would actually serve to reduce the radon emissions.

Now, the EPA must make a determination of whether there are available technologies that can be used to reduce the levels of radium and the radon emissions from liquid ponds and impoundments at the White Mesa and other conventional mills. If such technologies are not available or not feasible, then the EPA must consider closure of a facility or other extreme measures. The EPA cannot continue to sanction the emission of the high levels of radon that are currently being emitted at White Mesa.

¹² Environmental Protection Agency, Environmental Standards for Uranium and Thorium Mill Tailings at Licensed Commercial Processing Sites, 40 C.F.R. Part 192, Final Rule, Section 3. Relationship to the Clean Air Act Emission Standard Requirements. 48 Fed. Reg. 45926; October 14, 1983. <https://blog.epa.gov/milltailingsblog/wp-content/uploads/2009/12/48fr45926.pdf>

¹³ Environmental Protection Agency, National Emission Standards for Hazardous Air Pollutants; Radionuclides, Final rule and notice of reconsideration, 40 C.F.R. Part 61. 54 Fed. Reg. 51654; December 15, 1989. <http://www.epa.gov/radiation/docs/neshaps/subpart-w/historical-rulemakings/december151989finalrule.pdf>

14. Regarding the Proposed Rules, the EPA must:

- No longer maintain the fraudulent claim that the radon emissions from liquid ponds at conventional mills are “zero.”
- No longer maintain the fiction that a water cover on solid tailings serves to attenuate the radon and reduce the radon emissions to insignificant levels.
- Either obtain a response to the May 2009 demand for information from Energy Fuels (and make that information available to the public), or initiate an enforcement action.
- Establish a numerical radon emission standard for liquid impoundments and water covers equal to or less than the 20 pCi/m²-sec.
- Require the timely provision of data on the radium content of the solutions in non-conventional and conventional impoundments on a monthly basis.
- Require use of technologies or methodologies to reduce the radium content and radon emissions from solution impoundments (non-conventional impoundments or ponds). Corrective actions may include adding fresh water and/or treating the fluids with barium chloride to reduce the radium content.
- Require that all conventional mills use the continuous method of tailings disposal, thus eliminating the use of water covers over phased disposal impoundments.
- Require “additional actions, such as forcing the use of undemonstrated technology, closure of a facility, or other extreme measures may be considered if significant emissions remain after best available technology is in place or if there are significant emissions and there is no applicable demonstrated control technology.”

15. Based on this new information and other legal, factual, and technical errors and inadequacies in the Proposed Rules (as outlined above, in Uranium Watch et al. October 29 Comments, and in other Subpart W Proposed Rule comments), the EPA must withdraw the May 2, 2014, Proposed Rules.

Thank you for your consideration of these comments.

Respectfully submitted,

Sarah Fields
Program Director

And on behalf of:

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Thornton, Marisa

From: Thornton, Marisa on behalf of Collections.SubW
Sent: Monday, February 23, 2015 9:42 AM
To: Thornton, Marisa
Subject: Fw: Supplementary Comments: EPA Subpart W Rulemaking,
Attachments: UW_EPA_SubpartWComments_Supplement1_EPA-HQ-OAR-2008-0218_150106.pdf

From: Stahle, Susan
Sent: Thursday, February 12, 2015 4:46 PM
To: Collections.SubW
Subject: FW: Supplementary Comments: EPA Subpart W Rulemaking,

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To: A-AND-R-DOCKET
Cc: Rosnick, Reid; Phil Goble; rlundberg@utah.gov; Diaz, Angelique; Stahle, Susan; Peake, Tom; Flynn, Mike; Muellerleile, Caryn; Edwards, Jonathan; Zenick, Elliott; Blake, Wendy; Cherepy, Andrea; Benner, Tim; Ferris, Lena; Garlow, Charlie; Walker, Stuart; Hoffman, Stephen; Ginsberg, Marilyn; Brozowski, George; Hooper, Charles A.; McCabe, Janet; Garbow, Avi; Giles-AA, Cynthia; Michael Goo; Stanislaus, Mathy; Bob Dye
Subject: Supplementary Comments: EPA Subpart W Rulemaking,

Dear Sir or Madam,

Attached please find Supplement No. 1 to the Uranium Watch et al. October 29, 2014, comments on the Environmental Protection Agency Proposed Revisions to National Emission Standards for Radon Emissions From Operating Mill Tailings, 49 C.F.R. Part 61 Subpart W, Docket ID No. EPA-HQ-OAR-2008-0218 (79 Fed. Reg. 25388, May 2, 2014).

Sincerely,

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