R.M.D. Operations, LLC

February 27, 2007

40-9059

Mr. Keith McConnell, Deputy Director
c/o Document Control Desk
United States Nuclear Regulatory Commission
Decommissioning and Uranium Recovery Licensing Directorate
Office of Federal and State Materials Licensing and Environmental Management Programs
11545 Rockville Pike
Two White Flint North
Rockville, Maryland 20852-2738

Dear Mr. McConnell:

Pursuant to Nuclear Regulatory Commission (NRC) Materials License No. SUC-1591, License Condition Nos. 19 & 20, R.M.D. Operations, LLC (RMD) hereby submits three (3) copies of the following information for inclusion in its NRC licensing file:

1. Appointment letter for RMD's Safety and Environmental Review Panel

2. Registration packages and Safety and Environmental Panel (SERP) review documents for two (2) existing uranium water treatment sites located in the States of New Jersey and Virginia under RMD's general license;

If you have any questions regarding this submission, please do not hesitate to contact me at your earliest convenience.

Respectfully Submitted,

Duane W. Bollig
Corporate Radiation Safety Officer, R.M.D. Operations, LLC

Enclosures

2 cys advanced to PM (Ron Linton)

FSME08
FSME21

9500 West 49th Avenue, Suite D100, Wheat Ridge CO 80033
phone 303.424.5355 fax 303.425.7497

R.M.D. Operations, LLC

February 21, 2007

Mr. Keith McConnell, Deputy Director
c/o Document Control Desk
Decommissioning and Uranium Recovery Licensing Directorate
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Two White Flint North
Rockville MD 20852-2738

Re: Materials License SUC-1591 (R.M.D. Operations, LLC) – Appointment of RMD Safety and Environmental Review Panel

Dear Mr. McConnell:

In accordance with Nuclear Regulatory Commission (NRC) License SUC-1591, License Condition No. 19, R.M.D. Operations, LLC (RMD) hereby establishes its Safety and Environmental Review Panel (SERP) with the following members, all full-time employees.

Permanent Members

Name and Title	SERP Role and/or Expertise
Charles S. Williams Chief Executive Officer	Chairman
Scott E. Heffner President and Chief Operating Officer	Management and financial approvals
James Thomas Senior Vice President - Engineering	Treatment system engineering and construction
Gregory Martinez Vice President - Operations	Treatment system operations
Duane W. Bollig Vice President- Environmental & Government Affairs/Corporate Radiation Safety Officer	Radiation safety and license compliance

9500 West 49th Avenue, Suite D100, Wheat Ridge CO 80033
phone 303.424.5355 *fax 303.425.7497*

In addition to the permanent SERP members, RMD will use non-permanent advisors from time to time, on an as-needed basis, to assist in the SERP's review of water treatment projects, treatment system modifications, and operating procedures. The advisors used in the review of a particular water treatment project or other action will be listed in the SERP report.

If you have any questions regarding this submission, please do not hesitate to contact either me or Duane Bollig at your earliest convenience.

Respectfully submitted,

Charles S. Williams
Chief Executive Officer
SERP Chairman

cc: Duane Bollig
Scott Heffner
Mike LaFleur
Greg Martinez
Jim Thomas

AGENDA

R.M.D. Operations, LLC
Safety and Environmental Review Panel (SERP) Meeting
February 27, 2007

1. **Introduction of SERP members and advisory members**

2. **Confirmation of appointment to the SERP**

3. **Review of RMD's NRC Material License SUC-1591 and its License Conditions**

4. **Discussion of project review procedures**
   - **Information packages**
   - **Checklists for project reviews**

5. **Site-specific project review of the uranium treatment system at Fox Run Water Company, Dinwiddie County, VA**

6. **Site-specific project review of the uranium treatment system at United Water, Inc., Sussex NJ Wells 1 and 2**

7. **General Discussion**

8. **Close**

NRC Material License SUC-1591

Proceedings of R.M.D. Operations, LLC (RMD)
Safety and Environmental Review Panel
February 27, 2007

On this day, the Safety and Environmental Review Panel (SERP) met to: (1) convene the first official SERP meeting for R.M.D. Operations, LLC and (2) review the technical and environmental aspects of two (2) uranium water treatment systems at two distinct geographic locations:
Fox Run Water Company, treatment site located in Sutherland, VA (Dinwiddie County)
United Water, Inc, one (1) treatment site for Sussex Wells #1 and #2, Sussex, NJ

The following SERP members and advisors either were physically present or present via teleconference for these proceedings:

Permanent Members/SERP Role
Charles S. Williams, Chairman
Scott E. Heffner, Management/Financial
Jim Thomas, Engineering
Greg Martinez, Operations
Duane W. Bollig, Corporate Radiation Safety Officer

Advisory Members
Anthony J. Thompson, Esq., Regulatory Advisor, Thompson & Simmons, PLLC
Christopher S. Pugsley, Esq., , Regulatory Advisor, Thompson & Simmons, PLLC

Also Attending:
Tom Thompson, WRT Chief Financial Officer

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1. The SERP committee meeting was called to order by the Chairman. It was agreed that all permanent and temporary members have been registered with the Nuclear Regulatory Commission (NRC) by letter dated February 21, 2007 in compliance with License No. SUC-1591.

2. In the initial task of this inaugural meeting, the SERP members reviewed the material license and its license conditions.

3. The SERP determined that, in accordance with License Condition No. 20, the two (2) existing uranium water treatment facilities located in the States of Virginia and New Jersey should be registered with NRC. The SERP then reviewed the technical and environmental aspects of these two operating uranium water treatment systems and reports as presented below.

Fox Run Water Company, Chesdin Manor Well
WRT Uranium Removal System
Site Information, System Operating Parameters, and Estimated Activity

Fox Run Water Company – Local Point of Contact

Mr. Bernard Nash, President
Fox Run Water Company
2478 Alvis Road
Blackridge VA 23845
Mailing address:
P.O. Box 69
Ebony VA 23845
Phone: (434) 636.5360

Chesdin Manor Well Location and Address

Vicinity of 4000 Chesdin Blvd.
Sutherland VA 23885

PWS ID# VA3053248

Well and Treatment System Operating Parameters

Well nominal flow rate	80 gpm
Estimated/contracted usage	24,000 gal/day 8.76 Mgal/yr
Uranium concentration in feed water	80 μg/L
Number of treatment vessels in system	2
Media stages per treatment vessel	1
Treatment vessel size (dia x ht)	3.5 ft x 6 ft
Treatment vessel material of construction	Reinforced fiberglass w/ polyethylene liner
Volume of media per stage	19.8 cu ft
Weight of media per stage (dry basis)	870 lb/ 0.44 ton
Weight of media on site (dry basis)	1,740/ 0.88 ton

Approximate pounds of uranium collected per year =

$$8.76 \frac{\text{Mgal}}{\text{yr}} \times 3.78 \frac{\text{L}}{\text{gal}} \times 80 \frac{\mu\text{g}}{\text{L}} = 2.65 \times 10^9 \frac{\mu\text{g U}}{\text{yr}} = 2{,}650 \frac{\text{g U}}{\text{yr}} = 5.84 \frac{\text{lb U}}{\text{yr}}$$

Maximum uranium loading on media (at 15 lb of U) =

$$\frac{15 \text{ lb U}}{1{,}740 \text{ lb media}} = 0.009 = 0.90 \text{ percent } (> 0.05 \text{ percent})$$

Estimate of Uranium Loading as of 18 Jan 2007

- The treatment system at the Chesdin Manor Well began operation on approximately 17 Oct 2004, and has operated approximately 27 months through 18 Jan 2007.

- Approximately 17,200,000 gal of water have treated during that time, averaging approximately 637,000 gal/mo (slightly less than the contracted amount of 720,000 gal/mo).

- At the average uranium concentration in the feed of 80 μg/L, the collected uranium is approximately 11.5 lb.

- At the current rate of water use, 15 lb of uranium will be collected in approximately eight (8) months from mid January 2007, or by approximately mid September 2007.

Treatment Building Description – The WRT Uranium Removal System is located in a separate treatment building, dedicated to the system. The building is approximately 25 ft long x 15 ft wide x 12 ft high, cinder block and wood frame construction, with a single access door at the front of the building. The floor is poured concrete with no floor drain. Secondary containment for a potential treatment media spill is provided by a single row of cinder blocks surrounding the treatment system, mortared in place. The well site is not fenced, but the treatment building is locked.

Operating Plan – WRT/RMD proposes to operate this small well by exchanging the media at intervals frequent enough to have less than 15 pounds of source material on site at any time. WRT will monitor the performance of the system and estimate the amount of source material collected by tracking the gallons of water treated by the system, along with the average uranium content of the feed water. With this information, WRT can calculate a mass balance of the uranium removed and collected on the treatment media.

In accordance with RMD's License Condition No. 20, a Facility Description Summary and information on the Number and Dimensions of Facility Components (information consistent with NUREG-1757, Vol. 3, Appendices A.3.4 and A.3.5, respectively) is presented at the end of this particular CWS description.

SERP Review Conclusions

After a complete review of the Environmental Report (ER) as submitted by RMD on September 27, 2005 and the technical and environmental aspects of the Uranium Removal System in place at the **Fox Run Water Company-Chesdin Manor Well** site, the SERP has concluded the following:

1. The SERP has reviewed all technical and environmental aspects of the Uranium Removal System installed at the Fox Run Water Company – Chesdin Manor Well and the site-specific aspects of the water treatment facility at which the System is located. The SERP has determined that the flow-rate of the System, the amount of uranium concentrated, and all

other technical and environmental aspects of the System and its operation fit within the parameters of the ER dated September 27, 2005;

2. The Uranium Removal System will concentrate uranium source material in excess of NRC *licensable* levels (i.e., 0.05% by weight/500 ppm) and that the System will be subject to either an NRC general or specific license;

3. Under WRT/RMD's proposed operating plan, the Uranium Removal System will not accumulate in excess of 15 lbs. of source material at any one time and will not accumulate in excess of 150 lbs. per year of source material in one year. Pursuant to License Condition No. 20 and 10 CFR § 40.22(a), the SERP has determined that this Uranium Removal System should be subject to the NRC general license for "Small Quantities of Source Material";

4. Further, pursuant to License Condition No. 20, the SERP has determined that this Uranium Removal System is not subject to specific license requirements for financial assurance or on-site NRC inspection;

February 27, 2007

R.M.D. Operations, LLC
Source Material License SUC-1591

Community Water System (CWS) Registration
Facility Description Summary
Fox Run Water Company, Chesdin Manor Well, Dinwiddie County VA
(from NUREG-1757, Vol. 3, Appendix A)

A.3.4 Facility Description Summary

NRC license numbers and types (i.e., Part 30, 40, and 70) SUC-1591, Part 40 (and in this case, the 10 CFR 40.22 General License)
Types and quantities of materials authorized under the licenses listed above. Source, unlimited quantity
Description of how licensed materials are used. The licensed material is not "used" in the traditional interpretation of that word. The licensee does not bring the licensed material onto the site, and does not produce any product or use the license material for any analysis or in any process. In the treatment system, the licensed source material, uranium, is removed from the drinking water of the community water supply (CWS) in order to comply with the EPA Maximum Contaminant Level for uranium promulgated under the Safe Drinking Water Act.
Description of facilities including building, rooms, grounds, and description of where particular types of materials are used. Separate, dedicated uranium treatment building, approximately 25 ft x 15 ft.
Quantities of materials or waste accumulated before shipping or disposal. Uranium – less than 15 lb of source material.

A.3.5 Number and Dimension of Facility Components

Use this table to summarize relevant features of the facility. Copy and complete the table as necessary for each room, laboratory, or area. Rooms, laboratories, or areas with similar levels of contamination may be consolidated in one table.

Name of room, laboratory, or area: Fox Run, Chesdin Manor Well – Uranium Removal Bldg.
Level of Contamination: less than 15 lb of uranium on site at any one time

Component	Number of Components	Dimension of Component (specify units)	Total Dimensions (specify units)
Glove Boxes	n/a		
Fume Hoods	n/a		
Lab Benches	n/a		
Sinks	n/a		
Drains	n/a		
Floors	One (1), cement	25 ft x 15 ft	375 sq ft
Walls	Four (4)		
Ceilings	One (1)		
Ventilation/Ductwork	n/a		
Hot Cells	n/a		
Equipment/Materials	n/a		
Soil Plots	n/a		
Storage Tanks	Two (2)	3.5 ft dia x 6 ft high	115 cu ft, cumulative
Storage Areas	n/a		
Radwaste Areas	n/a		
Maintenance Shop	n/a		
Equipment Decontamination Areas	n/a		
Other (specifiy)	Two (2) self-contained treatment vessels	3.5-ft dia x 6-ft high	115 cu ft, cumulative

United Water, Inc, Sussex NJ Wells 1 and 2
WRT Uranium Removal System
Site Information, System Operating Parameters, and Estimated Activity

United Water, Inc. – Local Point of Contact

Mr. Anthony Vicente
United Water, Inc.
200 Lake Shore Drive
Haworth NJ 07641
Phone: (201) 634.4255

Sussex NJ Wells 1 and 2 Location and Address

216 Overlook Drive
Sussex NJ 07462

PWS ID# NJ1922007

Well and Treatment System Operating Parameters

Nominal well flow rate	Well No. 1 – 28 gpm Well No. 2 – 18 gpm
Uranium system design flow rate	50 gpm
Estimated/contracted usage	13,000 gal/day 4.74 Mgal/yr
Uranium concentration in feed water	Well No. 1 – 38 μg/L Well No. 2 – 48 μg/L
Number of treatment vessels in system	2
Media stages per treatment vessel	1
Treatment vessel size (dia x ht)	3.5 ft x 6 ft
Treatment vessel material of construction	Reinforced fiberglass w/ polyethylene liner
Volume of media per stage	21 cu ft
Weight of media per stage (dry basis)	925 lb/ 0.46 ton
Weight of media on site (dry basis)	1,850/ 0.92 ton

Approximate pounds of uranium collected per year
(using the higher U concentration from above) =

$$4.74 \frac{\text{Mgal}}{\text{yr}} \times 3.78 \frac{\text{L}}{\text{gal}} \times \frac{48\ \mu\text{g}}{\text{L}} = 8.60 \times 10^8 \frac{\mu\text{g U}}{\text{yr}} = 860 \frac{\text{g U}}{\text{yr}} = 1.9 \frac{\text{lb U}}{\text{yr}}$$

Maximum uranium loading on media (at 15 lb of U) =

$$\frac{15\ \text{lb U}}{1{,}850\ \text{lb media}} = 0.008 = 0.80\ \text{percent}\ (> 0.05\ \text{percent})$$

United Water plans to alternate production from the two wells (e.g., Well No. 2 off when Well No. 1 is on, and vice versa), with production from the two wells being split approximately evenly (~ 6,500 gal/day, on the average).

Treatment Building Description – The WRT Uranium Removal System is currently located in a separate, small treatment building (utility-type shed), dedicated to the system. The treatment site is located on a utility easement located in a residential neighborhood. The current treatment building is a temporary structure, which will be used until the treatment system can be placed in a yet-to-be constructed underground concrete vault at the same location. The building is approximately 15 ft long x 10 ft wide x 10 ft high, wood frame construction, with a double-width access door at the front and a single door on the side of the building. The floor of this temporary building is a steel plate. The well site is not fenced, but the treatment building is locked.

Operating Plan – WRT/RMD proposes to operate this small well by exchanging the media at intervals frequent enough to have less than 15 pounds of source material on site at any time. WRT will monitor the performance of the system and estimate the amount of source material collected by tracking the gallons of water treated by the system, along with the average uranium content of the feed water. With this information, WRT can calculate a mass balance of the uranium removed and collected on the treatment media.

In accordance with RMD's License Condition No. 20, a Facility Description Summary and information on the Number and Dimensions of Facility Components (information consistent with NUREG-1757, Vol. 3, Appendices A.3.4 and A.3.5, respectively) is presented at the end of this particular CWS description.

SERP Review Conclusions

After a complete review of the Environmental Report (ER) as submitted by RMD on September 27, 2005 and the technical and environmental aspects of the Uranium Removal System in place at the **United Water, Inc., Sussex NJ Wells 1 and 2** treatment site, the SERP has concluded the following:

1. The SERP has reviewed all technical and environmental aspects of the Uranium Removal System installed at the United Water, Sussex NJ Wells 1 and 2 and the site-specific aspects of the water treatment facility at which the System is located. The SERP has determined that the flow-rate of the System, the amount of uranium concentrated, and all other technical and environmental aspects of the System and its operation fit within the parameters of the ER dated September 27, 2005;

2. The Uranium Removal System will concentrate uranium source material in excess of NRC *licensable* levels (i.e., 0.05% by weight/500 ppm) and that the System will be subject to either an NRC general or specific license;

3. Under WRT/RMD's proposed operating plan, the Uranium Removal System will not accumulate in excess of 15 lbs. of source material at any one time and will not accumulate in excess of 150 lbs. per year of source material in one year. Pursuant to License Condition No. 20 and 10 CFR § 40.22(a), the SERP has determined that this Uranium Removal System should be subject to the NRC general license for "Small Quantities of Source Material";

4. Further, pursuant to License Condition No. 20, the SERP has determined that this Uranium Removal System is not subject to specific license requirements for financial assurance or on-site NRC inspection;

February 27, 2007

R.M.D. Operations, LLC
Source Material License SUC-1591

Community Water System (CWS) Registration
Facility Description Summary
United Water, Inc., Sussex NJ Wells 1 and 2
(from NUREG-1757, Vol. 3, Appendix A)

A.3.4 Facility Description Summary

NRC license numbers and types (i.e., Part 30, 40, and 70) SUC-1591, Part 40 (and in this case, the10 CFR 40.22 General License)
Types and quantities of materials authorized under the licenses listed above. Source, unlimited quantity
Description of how licensed materials are used. The licensed material is not "used" in the traditional interpretation of that word. The licensee does not bring the licensed material onto the site, and does not produce any product or use the license material for any analysis or in any process. In the treatment system, the licensed source material, uranium, is removed from the drinking water of the community water supply (CWS) in order to comply with the EPA Maximum Contaminant Level for uranium promulgated under the Safe Drinking Water Act.
Description of facilities including building, rooms, grounds, and description of where particular types of materials are used. Separate, dedicated uranium treatment building, approximately 15 ft x 10 ft.
Quantities of materials or waste accumulated before shipping or disposal. Uranium – less than 15 lb of source material.

A.3.5 Number and Dimension of Facility Components

Use this table to summarize relevant features of the facility. Copy and complete the table as necessary for each room, laboratory, or area. Rooms, laboratories, or areas with similar levels of contamination may be consolidated in one table.

Name of room, laboratory, or area: United Water, Inc., Sussex NJ Wells 1 and 2, Uranium Treatment Building

Level of Contamination: less than 15 lb of uranium on site at any one time

Component	Number of Components	Dimension of Component (specify units)	Total Dimensions (specify units)
Glove Boxes	n/a		
Fume Hoods	n/a		
Lab Benches	n/a		
Sinks	n/a		
Drains	n/a		
Floors	One (1)	15 ft x 10 ft	150 sq ft
Walls	n/a		
Ceilings	n/a		
Ventilation/Ductwork	n/a		
Hot Cells	n/a		
Equipment/Materials	n/a		
Soil Plots	n/a		
Storage Tanks			
Storage Areas	n/a		
Radwaste Areas	n/a		
Maintenance Shop	n/a		
Equipment Decontamination Areas	n/a		
Other (specifiy)	Two (2) self-contained treatment vessels	3.5 ft dia x 6 ft high	115 cu ft, cumulative