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EXHIBIT
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Los Alamos

Environmental Protection Division
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Date: JUL 25 2013
Symbol: ENV-DO-13-0082
LAUR: 13-25308

RECEIVED
JUL 29 2013
SURFACE WATER

Mr. Jerry Schoeppner, Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2250
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502

Dear Mr. Schoeppner:

SUBJECT: NOTIFICATION OF PLANNED CHANGE, NEW MICROFILTER TREATMENT UNIT, RADIOACTIVE LIQUID WASTE TREATMENT FACILITY, DP-1132

The U.S. Department of Energy and Los Alamos National Security, LLC (DOE/LANS) are notifying you of a planned change in the operating conditions at the Technical Area (TA)-50 Radioactive Liquid Waste Treatment Facility (RLWTF) at Los Alamos National Laboratory. The New Mexico Environment Department (NMED) was previously notified of the installation of a new microfilter treatment unit in the August 2012 supplement to Discharge Permit Application DP-1132 (ENV-RCRA-12-0173) and in a September 2012 communication to the Environmental Protection Agency (ENV-RCRA-12-0205). The installation of the microfilter treatment unit is a necessary project to replace the 14-yr old tubular ultrafilter (TUF) treatment unit.

Enclosure 1 is the technical specifications cut sheet for Model No. EF/EFC-424 membrane microfiltration unit installed at the TA-50 RLWTF. Enclosure 2 is a process schematic showing the location of the microfilter within the RLWTF's low-level treatment system. And Enclosure 3 is a floor plan of the RLWTF showing the physical location of the microfilter within TA-50 Building 1.

Currently, DOE/LANS are conducting a readiness review of the microfilter. Startup is expected before the end of CY2013.

Please contact Robert S. Beers by telephone at (505) 667-7969 or by email at bbeers@lanl.gov if you have questions regarding this report.

Sincerely,

Alison M. Dorries
Division Leader
Environmental Protection Division
Los Alamos National Security LLC

Sincerely,

Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Field Office
U.S. Department of Energy

AMD:GET:RSB/lm

Enclosures
1. Siemens Technical Specifications Cut Sheet for the RLWTF's Microfilter Treatment Unit
2. Process Schematic of Low-Level Treatment Operations at the RLWTF
3. Floor Plan of the RLWTF Low-Level Treatment Units

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ENCLOSURE 1

Siemens Technical Specifications Cut Sheet for the
RLWTF's Microfilter Treatment Unit

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Membrane Microfiltration Systems (EF and EFC Series)

Microfiltration Systems

The Siemens tubular polymeric microfiltration systems are skid-mounted and factory assembled. The factory assembly, including wiring and testing, ensures easy reassembly and installation.

The tubular membranes are designed for very high solids loadings and can operate with up to 2.0 to 5.0 weight percent solids. The KYNAR® membrane is very chemically inert so it can withstand pH ranges from 0.0 to 14.0 standard units.

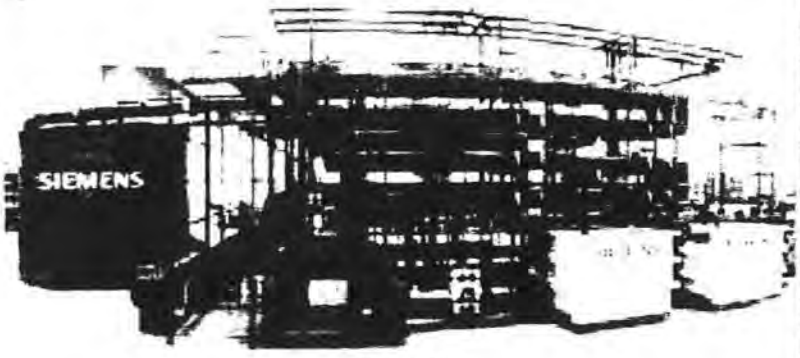
The rugged membranes are non-plugging, abrasive and chlorine resistant. All materials in contact with the wastewater or cleaning solutions are either PVC, polyethylene, stainless steel or other corrosion resistant materials.

The membrane provides for an absolute barrier to the passage of solids and therefore is capable of removing metals (and other contaminants) to their solubility limits.

This also results in the removal of most colloids and therefore provides a filtrate that exhibits a very low SDI, making the filtrate a perfect feed for a reverse osmosis unit or other polishing technology.

A fully automatic backpulse mechanism is included to periodically cause a reverse flow of filtrate across the membrane, dislodging contaminants and allowing the high velocity flow to sweep them away. The backpulse prolongs the on-line cycles and reduces the cleaning requirements.

Each system is supplied fully assembled with all necessary equipment for operation, including a piped-in-place cleaning system, which includes two tanks and a dedicated cleaning pump. Units are designed for automatic operation and can be supplied with a fully automated cleaning cycle if required.



EFC-7200

Features

- PVDF (KYNAR®) membrane provides excellent chemical resistance and long life
- Tubular design allows for high solids loading
- Piped-in-place cleaning system is standard on all units
- Units are skid-mounted
- Rapid installation assured by skidded assemblies and mistake proof electrical connections

Membrane Microfiltration Systems (EF and EFC Series)

Specifications

Model Number	EF/EFC-400	EF/EFC-424	EF/EFC-1200	EF/EFC-2400	EF/EFC-3600	EF/EFC-4800	EF/EFC-7200	EF/EFC-10800
Capacity (Nominal)	4-24 gpm 1-5.5 m³/hr	8-48 gpm 2-11 m³/hr	8-48 gpm 1.8-11 m³/hr	20-96 gpm 4.5-22 m³/hr	36-144 gpm 8-33 m³/hr	42-192 gpm 9-43 m³/hr	72-288 gpm 16-65 m³/hr	108-322 gpm 4-98 m³/hr
Tubes per Module	4	4	10	10	10	10	10	10
Quantity (min-max)	4-12	8-24	6-12	12-24	18-36	24-48	36-72	54-108
Concentration Tank Volume (Note: Included with EFC Series only.)	275 gallons 1.0 m³	550 gallons 2.1 m³	660 gallons 2.5 m³	1,375 gallons 5.2 m³	1,700 gallons 6.4 m³	2,600 gallons 9.8 m³	4,280 gallons 16.2 m³	5,000 gallons 18.9 m³
Process Pump(s)	Qty. 1 7.5 HP	Qty. 1 15 HP	Qty. 1 20 HP	Qty. 1 30 HP	Qty. 1 50 HP	Qty. 2 30 HP	Qty. 2 50 HP	Qty. 3 50 HP
Dimensions (L x W x H)	11'-10" x 4'-10" x 7'-11" 3,607 x 1,473 x 2,718 mm	18'-3" x 5'-4" x 11'-7" 5,563 x 1,626 x 3,531 mm	24'-7" x 5'-10" x 9'-10" 7,493 x 1,778 x 2,997 mm	25'-5" x 7'-1" x 10'-0" 7,747 x 2,159 x 3,048 mm	33'-0" x 8'-1" x 11'-10" 10,058 x 2,464 x 3,607 mm	26'-9" x 9'-6" x 11'-3" 8,153 x 2,896 x 3,429 mm	37'-10" x 17'-1" x 11'-11" 11,532 x 5,207 x 3,632 mm	39'-4" x 25'-3" x 11'-11" 11,989 x 7,696 x 3,632 mm
Shipping Weight	1,000 lbs 450 kg	2,000 lbs 900 kg	7,500 lbs 3,400 kg	10,000 lbs 4,550 kg	15,000 lbs 6,800 kg	18,000 lbs 8,160 kg	29,000 lbs 13,150 kg	43,000 lbs 19,500 kg
Operating Weight	4,000 lbs 1,810 kg	8,000 lbs 3,630 kg	18,000 lbs 8,160 kg	26,000 lbs 11,800 kg	34,000 lbs 15,420 kg	52,000 lbs 23,590 kg	73,000 lbs 33,110 kg	98,000 lbs 44,450 kg

The model selected by the RLWTF is the EF/EFC-424 unit with 20 tubes.

Siemens
Water Technologies
2000 Marconi Drive
Warrendale, PA 15086
866.525.0621 Toll Free
724.772.6520 Phone
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ENCLOSURE 2

Process Schematic of Low-Level Treatment Operations at the RLWTF

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(DIAGRAM OMITTED)

ENCLOSURE 3

Floor Plan of the RLWTF Low-Level Treatment Units

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