



LANL - perchlorate in → Ralph Far - Schmid  
COPY: LANL TA-50



Risk Reduction & Environmental Stewardship Division  
Water Quality & Hydrology Group (RRES-WQH)  
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Date: May 7, 2002  
Refer to: RRES-WQH: 02-177

Mr. Samuel Coleman, P. E., Director  
Compliance Assurance and Enforcement Division (6-EN)  
U. S. Environmental Protection Agency, Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

**SUBJECT: PERCHLORATE TREATMENT INSTALLATION AT TA-50 RLWTF,  
NPDES PERMIT NO. NM0028355**

Dear Mr. Coleman:

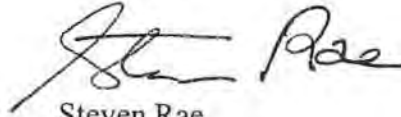
The National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 for Los Alamos National Laboratory requires the permittee to notify the U. S. Environmental Protection Agency (EPA) regarding any physical alterations or additions to the permitted facility that could significantly change the nature or the quantity of pollutants discharged. In accordance with Part III.D.1.a. *Reporting Requirements* of the Laboratory's NPDES Permit, the Laboratory notified EPA regarding the installation of perchlorate treatment units at the Technical Area 50, Radioactive Liquid Wastewater Treatment Facility (TA-50 RLWTF) on January 31, 2002 (Letter ESH-18/WQH:02-025).

On March 26, 2002, the TA-50 RLWTF began operating the Ion Exchange (IX) columns for perchlorate removal. On that day, approximately 2,000 gallons of treated water was processed through the IX columns. The concentration of effluent perchlorate was less than 4 ppb. Compliance monitoring for perchlorate in the TA-50 RLWTF's effluent will be reported in the Laboratory's Discharge Monitoring Reports (DMRs) in accordance with NPDES Permit requirements.

Also, personnel at the TA-50 RLWTF are conducting a study for the addition of a redundant and improved waste treatment membrane filtration system. The choice of a redundant and improved membrane filtration system will be determined by pilot testing small filtration units which employ different technologies. The performance of the pilot units will be compared to that of the full-scale Tubular Ultra-Filtration unit presently in use at the TA-50 RLWTF. The pilot filtration tests will be conducted from April, 2002 through July, 2002. The data obtained will enable personnel at the TA-50 RLWTF to select a membrane filtration technology that will best meet the discharge and operational requirements for a redundant, full-scale unit. Installation of new filtration treatment is expected during Fiscal Year 2003 (FY03). Enclosure 1 is the current treatment schematic for the TA-50 RLWTF, including perchlorate treatment. Enclosure 2 includes the proposed treatment schematic incorporating the redundant and improved membrane filtration technology.

Please contact Mike Saladen of the Laboratory's Water Quality and Hydrology Group at (505) 665-6085 if additional information would be helpful.

Sincerely,



Steven Rae  
Group Leader  
Water Quality & Hydrology Group

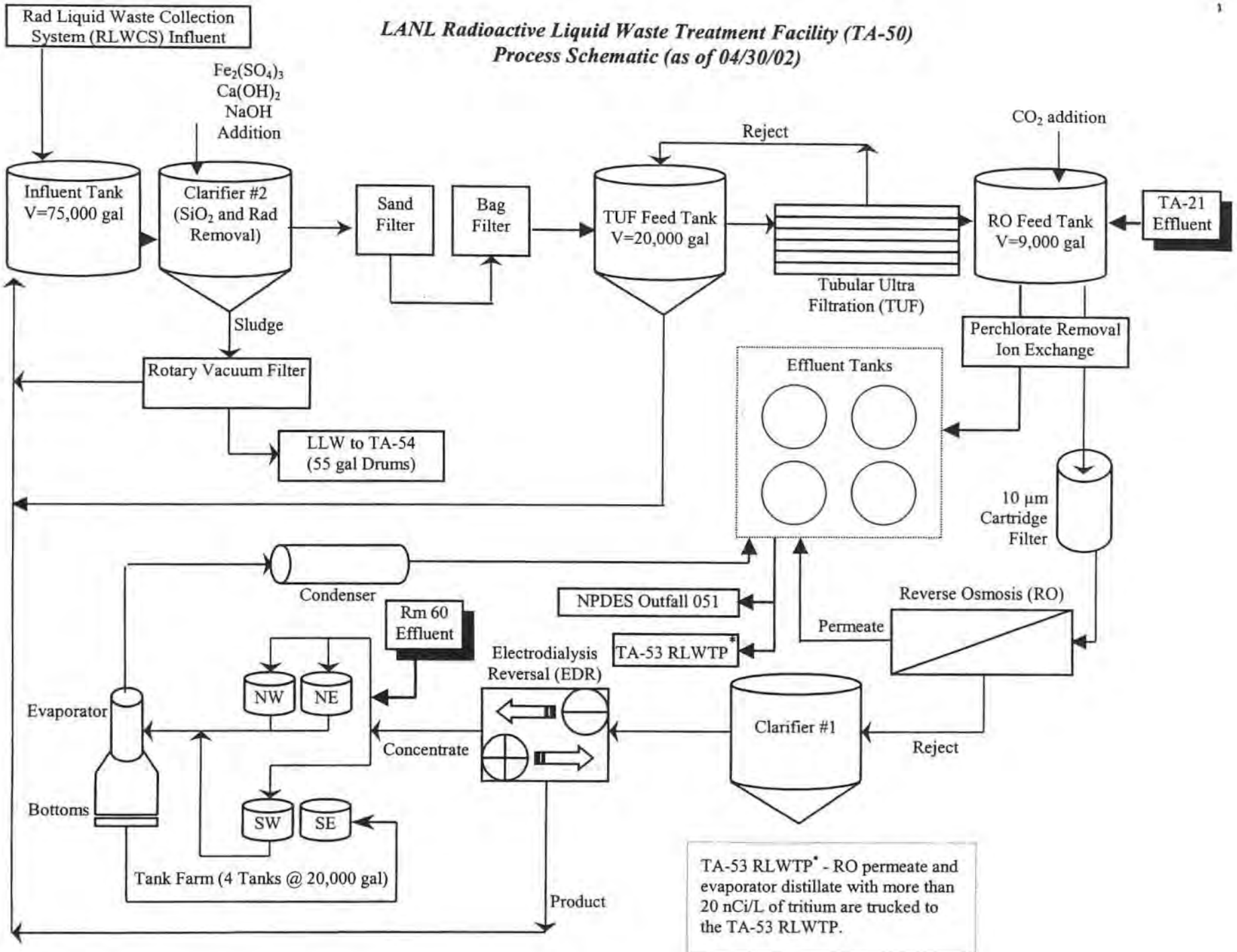
SR:MS/am

Enclosures: a/s

Cy: W. Strickley, USEPA, Region VI, Dallas, Texas, w/enc.  
J. Davis, NMED/SWQB, Santa Fe, New Mexico, w/enc.  
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G. Turner, DOE/OLASO, w/enc., MS A316  
J. Holt, ADO, w/enc., MS A104  
B. Stine, ADO, w/enc., MS A104  
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D. Woitte, LC, w/o enc., MS A187  
RRES-WQH File, w/enc., MS K497  
IM-5, w/enc., MS A150

ENCLOSURE 1

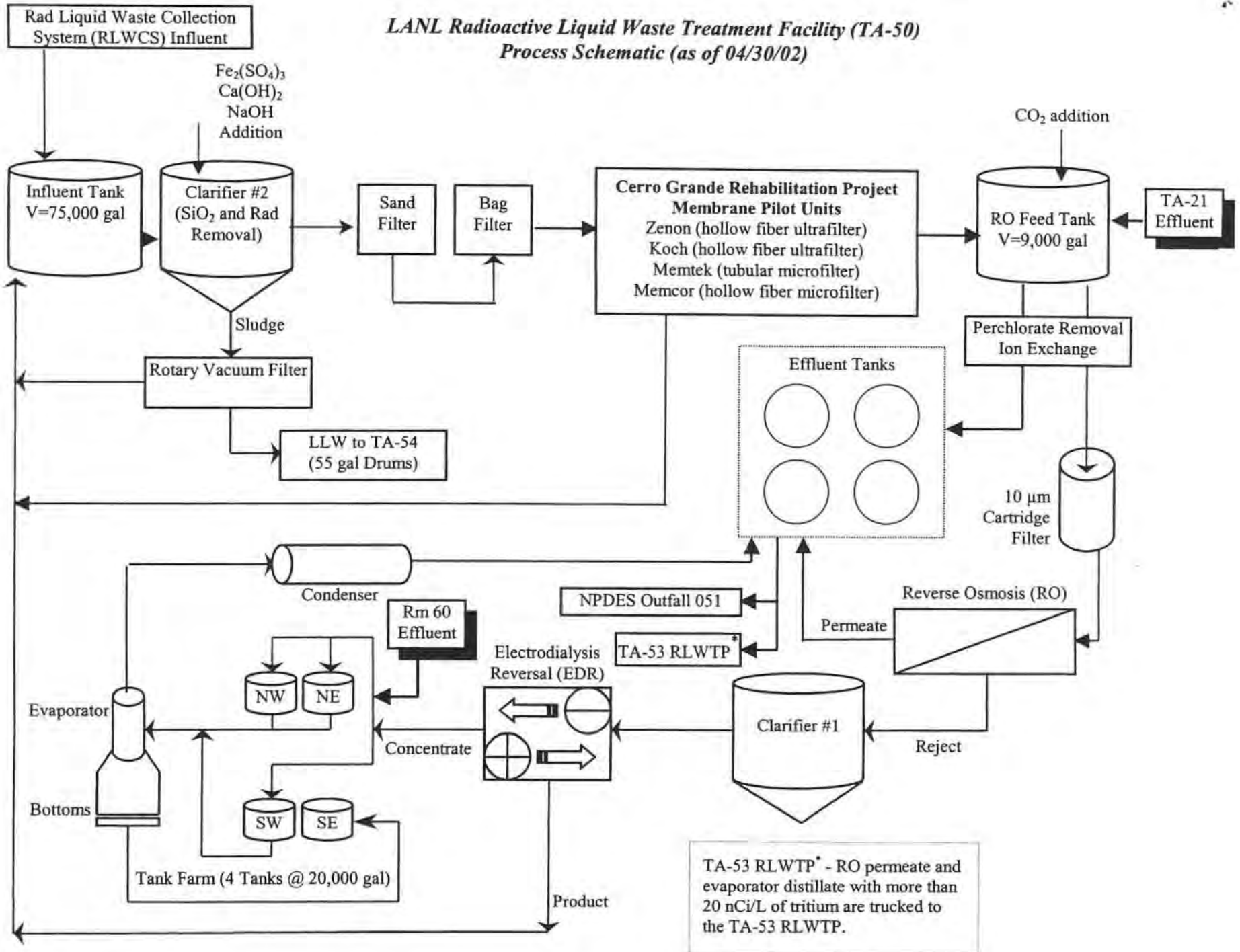
LANL Radioactive Liquid Waste Treatment Facility (TA-50)  
Process Schematic (as of 04/30/02)



TA-53 RLWTP\* - RO permeate and evaporator distillate with more than 20 nCi/L of tritium are trucked to the TA-53 RLWTP.

ENCLOSURE 2

LANL Radioactive Liquid Waste Treatment Facility (TA-50)  
Process Schematic (as of 04/30/02)



TA-53 RLWTP\* - RO permeate and evaporator distillate with more than 20 nCi/L of tritium are trucked to the TA-53 RLWTP.