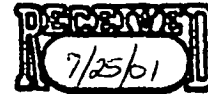




Metropolitan St. Louis Sewer District

Office of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
(314) 436-8710
FAX (314) 436-8753



July 23, 2001

Sharon R. Cotner
DEPARTMENT OF THE ARMY,
CORPS OF ENGINEERS
8945 Latty Avenue
Berkeley, MO 63134

Re: St. Louis Airport Site

Dear Ms. Cotner:

We have reviewed your application dated April 16, 2001 requesting approval to discharge treated wastewater to the Metropolitan St. Louis Sewer District. This wastewater is stormwater and groundwater that accumulates in excavations of radioactively contaminated soils at the St. Louis Airport FUSRAP Site located at 110 McDonnell Boulevard, Hazelwood, Missouri. We have also reviewed your June 15, 2001 response to our request for additional information concerning the radioactive materials in the discharge.

Based on the application and the June 15, 2001 submittal, the proposed wastewater discharge to the sanitary sewer onsite is approved when the treatment system is installed, maintained and operated to produce an effluent meeting the standards of MSD Ordinance 8472, the Nuclear Regulatory Commission in 10 CFR 20, and the Missouri Department of Health in 19 CSR 20-10. The annual allocation for radioactivity from the St. Louis Airport Site discharging to the MSD Coldwater Treatment plant is 50 milliCuries (50 mCi/year). A maximum of 100,000 gallons of wastewater is allowed to be discharged in a 24-hour period. The treatment system includes the use of sediment separation, a 5-micron filter, and ion exchange resin, as needed, to remove radioactive and toxic metals in the discharge to meet applicable standards, as follows:

<u>Pollutant</u>	<u>Discharge Limit</u>
Uranium-234	3,000 pCi/L
Uranium-235	3,000 pCi/L
Uranium-238	3,000 pCi/L
Thorium-228	2,000 pCi/L
Thorium-230	1,000 pCi/L
Radium-226	10 pCi/L
Radium-228	30 pCi/L
Gross Alpha	3,000 pCi/L
Barium	10.0 mg/L
Lead	0.4 mg/L
Selenium	0.2 mg/L

For the first two batches from each investigation area, we will require that analytical results be obtained and reviewed against applicable standards prior to discharge for the radioactive materials and toxic metals listed above. Subsequent batches must be analyzed and shown to meet applicable limits for total Uranium (KPA), Gross Alpha, Gross Beta, and Total Suspended Solids prior to discharge. Gross Alpha results that are significantly higher than levels indicated by the total Uranium result will require isotopic analysis to be reviewed against applicable standards prior to the discharge for all radionuclides listed above plus Actinium-227 and Protactinium-231. When toxic metals concentrations exceed MSD Ordinance 8472 limits in one of the first two wastewater batches, subsequent batches must also be analyzed for the toxic metals, unless the treatment system and an alternate verification methodology for the treatment of metals is approved by the district.

The isotopic analysis of radioactive materials will be required for each batch discharged. A monthly sum of the ratios (SOR) must be calculated for all radionuclides listed above, and the result must be less than 1.0 according to regulations in 10 CFR 20. The limit for Radium-226 and Radium-228 in the SOR calculation is 600 pCi/L.

To demonstrate the solubility of the radioactive materials, as required by 10 CFR 20, you will need to install a two micrometer (2 micron) filter in the treatment process, or provide the Gross Alpha results for the Suspended Solids portion of the wastewater. If the Gross Alpha analysis of suspended solids is used, the solubility test must be performed prior to any discharge from each new investigation area.

This approval is in effect for a period of five years from the date of this letter. The discharge into the sewer must be controlled at a rate that will not surcharge the lines in that area. This letter does not authorize any discharge to a separate storm sewer, or to any watercourse, as any such discharge must comply with the regulations of the Missouri Department of Natural Resources. This discharge authorization letter does not pertain to other wastes generated at the site including, but not limited to, spent filter media, or sludges or settled solids from wastewater treatment onsite.

You must submit quarterly self-monitoring reports that provide the analytical results and calculations required in this approval. In addition to including the batch results for each required parameter and the SOR calculations, the MSD Radioactive Materials Discharge Report (attached) must also be completed and signed. This report lists the total radioactivity discharged during the current calendar quarter to ensure compliance with the 50 milliCurie per year limit. The reports are due 28 days after the end of the calendar quarter.

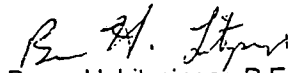
For billing purposes, you must also report the metered discharge volume. You will be billed for the volume discharged at the rate in effect at the time of discharge. The current rate, contained in MSD Ordinance 10177, is \$1.05 per hundred cubic feet. The discharge volumes should be included with the self-monitoring reports.

This discharge has been approved based upon the information and sample analysis you provided, and is subject to the conditions stated above. This approval may be revoked by the District at any time if any of the information is found to be incorrect, or if the conditions of this approval are violated. Also, if the discharge causes any operational or maintenance problem within the District's collection or treatment system, or results in violations of any conditions of the District's NPDES permit, the U.S. Army Corps of Engineers will be considered responsible for damages.

If you have any questions, please contact me at (314) 436-8757.

Sincerely,

METROPOLITAN ST. LOUIS SEWER DISTRICT


Bruce H. Litzsinger, P.E.
Civil Engineer

dh

Enclosure

Pc: Bernie Rains
Doug Mendoza
Fabian Grabski
Roland Biehl
Ken Clark

File: SD - St. Louis Airport FUSRAP Site, 110 McDunnell

PART I. IDENTIFYING INFORMATION

Permit No: _____

Reporting Period: ☐ (JAN-MAR) ☐ (APR-JUNE) ☐ (JULY-SEPT) ☐ (OCT-DEC)

RADIONUCLIDE	ACTIVITY DISCHARGED (millicuries)
TOTAL ACTIVITY DISCHARGED:	

Place your initials in the box under item A.

A. CERTIFICATION OF COMPLIANCE WITH STATE AND FEDERAL REGULATIONS



B. RADIOACTIVE MATERIALS DISCHARGE REPORT CERTIFICATION

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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Print/type name of signing official:
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Title: _____ Telephone: _____

Signature: _____ Date: _____

FUSRAP Document Management System

Year ID

00 2670

Further Info?

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Operating Unit

North County

Site

SLAPS

Area

MARKS Number

FN:1110-1-8100g

Primary Document Type

Site Management

Secondary Document Type

Sampling/Analysis Data & Plans

Subject or Title

Metropolitan Sewer District (MSD) Response to USACE Request for Modification to Approval to Discharge Treated Wastewater

Author/Originator

Bruce Litzsinger

Company

MSD

Date

7/23/01

Recipient (s)

Sharon Cotner

Company (-ies)

PM-R

Version

Final

Original's Location

Central Files

Document Format

Paper

Confidential File?

☐

Comments

SAIC number

Bechtel ID

Include in which AR(s)?

☐ North County

☐ Madison

☐ Downtown

☐ Iowa

ETL

1.12

Filed in Volume

