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**RCRA GROUNDWATER MONITORING - PURGE  
WATER DISPOSITION**

**12/24/90**

**DOE-396-91**

**DOE-FMPC/OEPA**

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**LETTER**



**Department of Energy**

**FMPC Site Office**  
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DEC 24 1990  
DOE-396-91

Mr. Graham E. Mitchell, DOE Coordinator  
Ohio Environmental Protection Agency  
40 South Main Street  
Dayton, OH 45402

Dear Mr. Mitchell:

**RCRA GROUNDWATER MONITORING - PURGE WATER DISPOSITION**

Pursuant to your request, a program was developed to address the disposition of purged water from the RCRA groundwater monitoring network at the FMPC.

A program for handling purge water from quarterly RCRA groundwater monitoring activities is outlined below:

Containerize all purge water from each well that has or is suspected to have (based on historic analytical data review) concentrations exceeding TCLP standards. [Or will cause an exceedance of notification levels (40 CFR 122.42 and OAC 3745-33-05) if discharged to the General Sump.]

If concentrations of one or more constituents in a sample exceed TCLP standards, collect a representative sample of the accumulated purge water. Analyze the purge water for TCLP. The purge water will be handled in a RCRA hazardous waste storage area until TCLP results are delivered and evaluated.

If the TCLP test results and quarterly analytical concentrations do not exceed the TCLP standards, and discharge notification levels (40 CFR 122.42 and OAC 3745-33-05) will not be exceeded, then transfer accumulated purge water to the General Sump for treatment and discharge through the wastewater treatment system.

If the TCLP results exceed TCLP standards, then properly handle the container(s) and store in a designated RCRA waste storage area at the facility.

To demonstrate the process for the RCRA purge water disposition program, Well 1031 data will be used. Well 1031 has demonstrated the highest concentrations of hazardous constituents. Six hazardous constituents, as defined in 40 CFR 264 Appendix IX, were found in groundwater samples collected from Well 1031 in the four rounds of groundwater sampling conducted since August 1989. The constituents detected on two or more occasions, along with the average concentrations reported in the analyses are:

Acetone	0.041 ppm
1,1-Dichloroethane	0.037 ppm
Methylene chloride	0.006 ppm
Tetrachloroethane	0.194 ppm
Trichloroethene	0.352 ppm
Toluene	0.008 ppm

Under the TCLP regulation, toxicity levels have been established for Trichloroethene and Toluene, two of the constituents mentioned above. In the data collected to date, total concentrations of these constituents do not exceed the established toxicity levels.

Well 1031 has a slow recovery rate and requires purging of approximately 10 gallons each time sampling is required. This yields an annual accumulation of approximately 40 gallons. This purge water is placed in a drum in a satellite accumulation area located at the well site. Water is accumulated during sampling events and is transported to the plant wastewater system after determination testing.

The FMPC NPDES Permit (approved February 12, 1990) does not limit the discharge of VOCs, principally because levels of VOCs reported in the permit application data did not exceed stream water quality data. The FMPC NPDES Permit provides a basis for the evaluation of potential discharges of pollutants not limited by the permit. The permit does not prohibit the discharge to the FMPC wastewater treatment system material containing constituents not limited by the permit.

RCRA groundwater monitoring analytical data show that accumulated purge water collected from the quarterly groundwater sampling events is nonhazardous. Worst case concentrations of hazardous constituents present in the purge water can be demonstrated by using Well 1031 data. When these nonhazardous constituent concentrations and volumes are added to the General Sump at the FMPC NPDES notification levels, as established by 40 CFR 122.42 and OAC 3745-33-05 for routine or frequent discharges are not exceeded. If the quantity of pollutants discharged increases due to the addition of purged water from the RCRA groundwater monitoring program, then the Ohio EPA Director will be notified.

In the unlikely event that concentrations of nonhazardous purge water cause an exceedance of NPDES discharge notification levels, the Ohio EPA Director shall be notified prior to discharge, in accordance with 40 CFR 122.42 and OAC 3745-33-05. Hazardous purge water will be stored in a designated area until an appropriate treatment system can be developed on-site to treat VOC-contaminated waste waters.

In summary, the concentration of RCRA hazardous constituents detected in Well 1031 shows that the purge water presently accumulated is nonhazardous. In accordance with the outlined procedure, purge water that may potentially exceed TCLP standards will be analyzed using the TCLP test prior to determining its disposition. All nonhazardous (below TCLP standards) purge water will be discharged to the General Sump at the FMPC if it will not cause an exceedance of FMPC NPDES notification levels. All hazardous (exceeding TCLP standards) purge water will be properly handled and stored in a designated RCRA hazardous waste storage area on site until an appropriate treatment system is developed.

If you have any questions, please contact David Rast at (513) 738-6322.

Sincerely,



Gerald W. Westerbeck  
FMPC Site Manager

DP-84:Rast

cc:

E. D. Savage, WMCO  
S. G. Schneider, WMCO