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Stoller

established 1959

Task Order LM00-502
Control Number 09-0313

December 22, 2008

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Surface Water
Permits Processing Unit
50 West Town St.
Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

Ohio Environmental Protection Agency
Southwest District Office
401 East 5th Street
Dayton, OH 45402-2911

SUBJECT: Contract No. DE-AM01-07000LM00060, Stoller
Draft NPDES Permit U.S. Department of Energy Fernald Preserve
Ohio EPA Permit No. 1IO00004*HD
Public Notice No.: OEPA 8-11-019 DFT

Gentlemen:

Enclosed are S. M. Stoller comments on the subject draft NPDES Permit. Please note that we received a copy of the draft permit on Monday December 15, 2008, after the public notice period had expired, due to the draft permit being mailed to an incorrect address. Conversations with Ohio EPA staff indicate that our comments on the draft permit will be considered.

NPDES related correspondence should be sent to the S.M. Stoller Corporation who serves as the facility operator. The appropriate mailing address is:

S.M. Stoller Corporation
10995 Hamilton-Cleves Highway
Harrison, OH, 45030.

If you have any questions, please contact Mary Sizemore at (513) 648-3166.

Sincerely,

Frank Johnston
Fernald Preserve Site Manager

The S.M. Stoller Corporation 10995 Hamilton Cleves Highway Harrison, OH 45030 (513) 648-5294 Fax: (513) 648-3252

FLJ/MES:dsm

Enclosure

c: Jane Powell, DOE-LM
Patti Smith, OEPA Columbus
Mary Sizemore, Stoller
Michelle Waller, OEPA SWDO
John Spitler, OEPA SWDO
rc-fernald (Thru W. Sumner)
Administrative Records (Thru W. Sumner) – 2 copies

The following comments on proposed NPDES Permit 1IO00004*HD are being submitted by the S.M. Stoller Corporation, subcontractor to, and on behalf of, the U.S. Department of Energy. The S.M. Stoller Corporation is the facility operator as indicated in the NPDES Application; EPA Form 3510-1

1. Much of the proposed sampling at Outfall 4001 is no longer justified based on actual measurements under the current NPDES permit. There are instances where new parameters are being proposed that also do not seem to be justified.

   The basis for our position is explained below for each parameter we are challenging. The data used as justification are the data reported in the monthly discharge monitoring reports between November 2006 and November 2008. November 2006 is significant in that this was the first month following completion of the environmental remediation at the Fernald Preserve. As of November 2006, the only effluent to the GMR is groundwater associated with the ongoing groundwater remediation under CERCLA (a combination of treated and untreated) and leachate from the completed On-Site Disposal Facility (comprising approximately 0.016% of the effluent stream). It is not expected that the effluent will significantly change in either the amount discharged or the character of the discharge during the term of the NPDES permit.

   Arsenic: The current permit requires a monthly sample. Arsenic has never been detected based on 24 monthly samples. Based on this it is not justified to retain a monthly monitoring requirement for arsenic and we request that it be eliminated from the new permit.

   Beryllium: The current permit requires a monthly sample. Beryllium has never been detected based on 24 monthly samples. Based on this it is not justified to retain a monthly monitoring requirement for beryllium and we request that it be eliminated from the new permit.

   Barium: The current permit requires sampling three times per week. The average concentration of barium from 295 samples collected is 51.5 ug/L while the median concentration is 50.6 ug/L. This demonstrates the barium concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for barium be eliminated from the new permit.

   Boron: The current permit requires a monthly sample. The average concentration of boron from 27 samples collected is 38.6 ug/L while the median concentration is 38.7 ug/L. This demonstrates the boron concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for boron be eliminated from the new permit.

Cadmium: The current permit requires sampling three times per week. Cadmium has only been detected in the Fernald Preserve effluent 12 times out of 295 samples collected. The highest measured concentration from these 12 detections was 0.35 ug/L. This demonstrates the cadmium concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for cadmium be eliminated from the new permit.

Chromium: The current permit requires sampling three times per week. Chromium has only been detected in the Fernald Preserve effluent 4 times out of 295 samples collected. The highest measured concentration from these 4 detections was 2.4 ug/L. This demonstrates the chromium concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for chromium be eliminated from the new permit.

Chromium, Dissolved Hexavalent: Based on the data for total chromium and the known quality of the groundwater being discharged, hexavalent chromium is not a contaminant of concern. We request that sampling for hexavalent chromium be eliminated from the new permit.

Antimony: The current permit requires a monthly sample. Antimony has never been detected based on 24 monthly samples. Based on this it is not justified to retain a monthly monitoring requirement for antimony and we request that it be eliminated from the new permit.

Cobalt: The current permit requires sampling two times per week. The average concentration of cobalt from 197 samples collected is 0.246 ug/L while the median concentration is 0.230 ug/L. This demonstrates the cobalt concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for cobalt be eliminated from the new permit.

Copper: The current permit requires sampling three times per week. The average concentration of copper from 295 samples collected is 1.23 ug/L while the median concentration is 0.740 ug/L. This demonstrates the copper concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for copper be eliminated from the new permit.

Lead: The current permit requires sampling three times per week. Lead has never been detected based on 295 samples. Based on this it is not justified to retain a monitoring requirement and effluent limit for lead and we request that it be eliminated from the new permit.

Molybdenum: The current permit requires sampling three times per week. The average concentration of molybdenum from 295 samples collected is 1.82 ug/L while the median concentration is 1.80 ug/L. This demonstrates the molybdenum concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for molybdenum be eliminated from the new permit.

Nickel: The current permit requires sampling three times per week. The average concentration of nickel from 295 samples collected is 2.17 ug/L while the median concentration is 2.10 ug/L. This demonstrates the nickel concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for nickel be eliminated from the new permit.

Selenium: The current permit requires sampling three times per week. Selenium has been detected only once (1.1 ug/L) from 295 samples collected. Based on this it is not justified to retain a monitoring requirement for selenium and we request that it be eliminated from the new permit.

Silver: The current permit requires sampling three times per week. Silver has never been detected based on 295 samples. Based on this it is not justified to retain a monitoring requirement for silver and we request that it be eliminated from the new permit.

Zinc: The current permit requires sampling three times per week. The average concentration of zinc from 295 samples collected is 3.31 ug/L while the median concentration is 2.50 ug/L. This demonstrates the zinc concentration in the Fernald Preserve effluent is consistently and reliably known and does not impact any of the designated uses of the GMR per OAC 3745-1. We request that sampling for zinc be eliminated from the new permit.

Chloroform: The current permit requires sampling once per quarter. Chloroform has never been detected. Based on this it is not justified to retain a monitoring requirement for chloroform and we request that it be eliminated from the new permit.

1,1-Dichloroethane: The current permit requires sampling once per quarter. 1,1-Dichloroethane has never been detected. Based on this it is not justified to retain a monitoring requirement for 1,1-dichloroethane and we request that it be eliminated from the new permit.

Trichloroethene: The current permit requires sampling once per quarter. Trichloroethene has never been detected. Based on this it is not justified to retain a monitoring requirement for trichloroethene and we request that it be eliminated from the new permit.

Ammonia: The current permit requires sampling twice per week during the winter and three times per week during the summer. Based on 244 samples, there were only 32 instances where ammonia was detected. The average concentration of the detections was 0.067 mg/L. In addition there is no known source of ammonia from either chemical usage or related to sewage discharges. Based on this it is not justified to retain a monitoring requirement for ammonia and we request that it be eliminated from the new permit.

Total Residual Chlorine (TRC): The current permit requires sampling for TRC twice per week during the summer months. TRC has never been detected. Further, chlorine or products containing chlorine are not used anywhere on the Fernald Preserve. (A sodium hypochlorite solution was used in the past as an extraction well maintenance chemical. This has been discontinued.) Based on this it is not justified to retain a monitoring requirement or effluent limit for TRC and we request that it be eliminated from the new permit.

Acute and chronic toxicity testing: The draft permit proposes an acute and chronic toxicity test for both ceriodaphnia and pimephales. This testing is not justified based on the very low contaminant concentrations within the Fernald Preserve effluent. Toxicity testing was performed in the 1995 and 1996 time period when many different waste streams were being discharged associated with the site operations and environmental remediation at the time. No failures were experienced then, therefore, there should be no expectation that toxicity may be an issue when the overall effluent quality has improved with the completion of remediation. Based on this it is not justified to establish a toxicity monitoring requirement and we request that it be eliminated from the new permit.

Fecal coliform: The draft permit proposes a monitoring requirement for fecal coliform, three times per week during the summer months. There are no sanitary wastewater discharges in the Fernald Preserve effluent. Sewage collected at the groundwater treatment plant are collected in holding tanks and removed and discharged by a contracted waste hauler. Sewage collected at the Fernald Preserve Visitors Center is treated though the bio-wetland treatment system. This system is designed as a zero discharge system. In any event, the effluent from this bio-wetland would not be discharged through 4001. Any effluent discharged from the bio-wetland is proposed to be regulated as Outfall 4007 in the draft permit. Based on this, it is not justified to include a monitoring requirement for fecal coliform and we request that it be eliminated from the new permit.

2. Page 8 identifies the down stream monitoring location as 901. It appears this is a typographical error and should be 902 consistent with the current permit and the sampling station descriptions listed on page 9 of the draft permit.

3. The loading calculations for outfall 4001 are based on an average flow rate of 5.83 MGD. We believe the loading should be based on the average flow rate of 6.20 MGD from the Water Flow Schematic contained in the NPDES Application.

4. There is proposed monitoring for pH minimum and pH maximum for Outfall 003 on Page 5. There should only be one pH sample collected and the specified limits should be 6.5 for the minimum and 9.0 for the maximum.

5. The Public Notice contains incorrect facility information. As indicated in the NPDES Permit Application, EPA Form 3510-1, the facility where the discharge occurs is U.S. DOE Fernald Preserve, 7400 Willey Road, Harrison, OH 45013.