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G-000-709.36

QUARTERLY REPORT LIQUID RADIATION DISCHARGES OCTOBER THROUGH DECEMBER 1990

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REPORT

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ENCLOSURE 2

QUARTERLY REPORT
LIQUID RADIATION DISCHARGES
OCTOBER THROUGH DECEMBER, 1990

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QUARTERLY REPORT
LIQUID RADIATION DISCHARGES
OCTOBER THROUGH DECEMBER, 1990

FEDERAL FACILITIES COMPLIANCE AGREEMENT
RADIATION DISCHARGE INFORMATION SECTION - ITEM A.1

U. S. DEPARTMENT OF ENERGY
FEED MATERIALS PRODUCTION CENTER
FERNALD, OHIO

2

LIQUID DISCHARGE MONITORING DATA IN RESPONSE TO ITEM A.1. OF THE RADIATION DISCHARGE INFORMATION SECTION FEDERAL FACILITY COMPLIANCE AGREEMENT

Introduction

This report is submitted in response to Item A.1. of the Radiation Discharge Information Section of the Federal Facility Compliance Agreement (FFCA), specifically, the U.S. EPA has required the following action:

> "Maintain continuous liquid discharge sample collectors at all discharge points, monitor and report results quarterly to U.S. EPA, Ohio EPA and Ohio Department of Public Health."

Attached are Monthly Discharge Monitoring Reports and Effluent Radiation Reports (except Discharge 602) for Discharges 001, 002, 601 through 606 for the period October through December, 1990. These reports detail the monthly operation of each of the discharge points. Also included is radionuclide monthly/quarterly composite sample data for Discharge 001 for 1990. Analysis of some composite samples has not been completed; results will be provided in a subsequent quarterly report.

Discharge 001 - Total Discharge

This discharge consists of the combined treated sanitary and industrial wastewaters, and stormwater. The industrial wastewaters are from the chemical and metallurgical refining of uranium. The principal product of the FMPC is uranium metal. The monitoring point for this discharge is Manhole 175. The treated effluents are discharged to the Great Miami River via Manhole 175.

Discharge 001 is continuously monitored for flow and pH. Discharges are analyzed daily for alpha and beta radiation, and uranium. The alpha, beta, and uranium data are tabulated, converted to activity units and reported to the U.S. EPA, Ohio EPA, and the Ohio Department of Public Health. Copies of these reports are included in this submittal. In addition, at an average frequency of once every 7 days, this discharge is also analyzed for oil and grease, total suspended solids, fluorides, nitrates, ammonia, dissolved oxygen, CBOD, cyanide, copper, hexavalent and total chromium, lead, silver, and nickel. These data are tabulated and reported monthly to the Ohio EPA, as required by the NPDES permit. Copies of these reports are included in this submittal. Weekly grab samples are analyzed for thorium-234. These results have been tabulated on a monthly basis and are included in this submittal. The daily samples are composited and analyzed monthly for neptunium-237, plutonium-238, plutonium-239/240, technetium-99, potassium-40, actinium-227, lead-210, thorium-228, thorium-230, thorium-232, uranium-233, uranium-234, uranium-235, uranium-236, uranium-238, radium-226, and radium-228. The daily samples are composited and analyzed quarterly for cesium-137, ruthenium-106, and strontium-90. Available results have been tabulated, converted to activity units and are included in this submittal.

Discharge 002 - Stormwater Retention Basin Spillway

The Stormwater Retention Basin is designed to contain a 10-year, 24-hour precipitation event. Occasionally, the Stormwater Retention Basin does overflow into a ditch leading to Paddy's Run.

During these infrequent overflows to the ditch, Discharge 002 is monitored daily during overflows for flow and pH. Each overflow is also analyzed daily for alpha and beta radiation and uranium. The alpha, beta, and uranium data have been tabulated, converted to activity units and included in this submittal. Discharges from 002 are also analyzed daily for oil and grease, total suspended solids, hexavalent and total chromium, copper, nickel, silver, ammonia-nitrogen, nitrate-nitrogen and fluorides. These data are tabulated and reported monthly to the Ohio EPA, as required by the NPDES permit. Copies of these reports are included in this submittal.

Discharge 601 - Sanitary Treatment Plant

Sanitary sewage is generated at the restrooms, locker rooms, and laundry. The Sewage Treatment Plant is a secondary-type facility (trickling filter). The treated effluent is discharged to Manhole 175.

Discharge 601 is continuously monitored for flow and pH. Discharges are analyzed daily for uranium. The uranium data has been tabulated, converted to activity units and included in this submittal. In addition, at an average frequency of once every 7 days, this discharge is also analyzed for total suspended solids, BOD, fecal coliform bacteria (May through October), fluorides, total chromium, copper, nickel, and ammonia. These data are tabulated and reported monthly to the Ohio EPA, as required by the NPDES permit. Copies of these reports are included in this submittal.

Discharge 602 - General Sump

The General Sump is capable of receiving three types of industrial wastewaters. First are untreated wastewaters from the Refinery. These are raffinate and evaporator condensate, which are combined, neutralized, and transferred to Plant 8 for filtration. The filtrate is returned to the General Sump and pumped to the BDN facility for further treatment. Uranium and pH are analyzed for process control purposes. These data are not reported to any outside organization.

Second are the effluents from the pretreatment facilities serving the refinery, recovery, and metals operations. These are accumulated and pumped to the BDN facility for further treatment. Uranium, copper, and pH are analyzed for process control purposes. These data are not reported to any outside organization.

Third are the potable water production and powerhouse waste streams. These are combined and decanted. The sludge is pumped to storage lagoons. Discharge 602 supernate is grab-sampled and discharged on a batch basis to Manhole 175. At an average frequency of once every 7 days, this discharge is analyzed for pH, hexavalent and total chromium, copper, and nickel. These data, along with daily flows are tabulated and reported monthly to the Ohio EPA, as required by the NPDES permit. Copies of these reports are included in this submittal. Discharge 602 is considered to be uncontaminated; accordingly, radionuclides are not analyzed.

Discharge 603 - Clearwell

This discharge consists of the collected stormwater runoff from the waste pit area. This effluent is pumped to the biosurge lagoon as necessary to control the water level. Approval of OEPA would be required prior to any discharges to Manhole 175. Such discharges would be continuously monitored for flow and analyzed daily for pH, alpha and beta radiation, and uranium.

Discharge 604 - Storm Sewer Lift Station

This discharge consists of the stormwater runoff from the production area. It is monitored at Manhole 34, from which stormwater is pumped to Manhole 175. If the pumps are surcharged, the excess overflows to the Stormwater Retention Basin.

Discharge 604 is continuously monitored for flow and pH. Discharges are also analyzed daily for uranium. The uranium data are tabulated, converted to activity units, and included in this submittal. In addition, at an average frequency of once every 7 days, this discharge is also analyzed for total suspended solids, oil and grease, fluorides, and nitrates. These data are tabulated and reported monthly to the Ohio EPA, as required by the NPDES permit. Copies of these reports are included in this submittal.

Discharge 605 - Biodenitrification Effluent Treatment

This discharge consists of denitrified industrial wastewaters. These wastewaters originate primarily from the pretreatment facilities serving the recovery, refinery, and metals plants. The denitrified BDN effluent is aerated and allowed to settle before being discharged to Manhole 175.

Discharge 605 is continuously monitored for flow and pH. Discharges are also analyzed daily for alpha and beta radiation and uranium. The alpha, beta and uranium data are tabulated, converted to activity units and are included in this submittal. In addition, at an average frequency of once every 7 days, this discharge is also analyzed for total suspended solids, BOD, nitrates, fluorides, hexavalent and total chromium, copper, nickel, and ammonia. These data are tabulated and reported monthly to the Ohio EPA, as required by the NPDES permit. Copies of these reports are included in this submittal.

Discharge 606 - Stormwater Retention Basin

This discharge consists of the collected stormwater runoff from the employee parking areas and excess stormwater from the production area. It is pumped to Manhole 175.

Discharge 606 is continuously monitored for flow and pH (when it is pumped). It is also analyzed daily for total suspended solids and oil and grease (when it is pumped). These data are tabulated and reported monthly to the Ohio EPA, as required by the NPDES permit. Copies of these reports are included in this submittal.

Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

EFFLUENT RADIATION REPORT 1990

Manhole 175 (Effluent to Great Miami River)
11000004001 Total Discharge

Monthly/Quarterly Composites

Radionuclide	Jan (pCi/l)	Feb (pCi/l)	Mar (pCi/l)	Apr (pCi/l)	May (pCi/l)	Jun (pCi/l)	Jul (pCi/l)	Aug (pCi/l)	Sep (pCi/l)	Oct (pCi/l)	Nov (pCi/l)	Dec (pCi/l)	MIN. (pCi/l)	MAX. (pCi/l)	AVG.* (pCi/l)	DOE DCG	% DOE DCG #
Ac-227	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0	AH	AH	AH	AH	< 1.0	< 1.0	< 1.0	10	< 10.0
K-40	276	< 170	< 130	151	240	115	< 130	< 180	AH	AH	AH	AH	< 115	276	< 162.5	7000	< 2.3
Np-237	< 0.07	< 0.18	< 1.0	< 0.29	< 0.06	< 0.14	< 0.14	< 0.13	AH	AH	AH	AH	< 0.06	< 1.00	< 0.23	30	< 0.8
Pb-210	< 20.0	< 20.0	< 20.0	< 20.0	AH	AH	AH	AH	AH	AH	AH	AH	< 20.0	< 20.0	< 20.0	30	< AE
Pu-238	< 0.072	0.25	< 0.17	< 0.048	< 0.07	< 0.049	< 0.052	< 0.051	AH	AH	AH	AH	< 0.048	0.250	< 0.10	40	< 0.3
Pu-239/240	< 0.18	0.375	< 0.25	< 0.048	< 0.13	< 0.065	< 0.039	< 0.051	AH	AH	AH	AH	< 0.039	0.375	< 0.14	30	< 0.5
Th-228	< 0.18	< 0.17	< 0.41	< 0.25	0.20	0.13	< 0.22	0.17	AH	AH	AH	AH	< 0.13	< 0.41	< 0.2	400	< 0.1
Th-230	1.06	1.70	0.55	0.58	0.81	1.06	0.64	0.81	AH	AH	AH	AH	0.55	1.70	0.8	300	0.3
Th-232	0.72	1.39	< 0.41	< 0.25	< 0.15	< 0.13	< 0.22	< 0.16	AH	AH	AH	AH	< 0.13	1.39	< 0.5	50	< 1.0
Cs-137	N/R	N/R	< 15	N/R	N/R	< 12	N/R	N/R	AH	N/R	N/R	AH	< 12	< 15	< 13	3000	AE
Ru-106	N/R	N/R	< 92	N/R	N/R	< 110	N/R	N/R	AH	N/R	N/R	AH	< 92	< 110	< 101	6000	AE
Sr-90	N/R	N/R	0.662	N/R	N/R	0.312	N/R	N/R	AH	N/R	N/R	AH	0.31	0.66	0.49	1000	AE
Ra-226	1.9	8.9	< 2.9	< 0.9	< 1.9	< 1.8	28	8.9	< 0.9	< 0.7	1.4	AH	< 0.7	28.0	< 5.1	100	< 5.1
Ra-228	< 4.0	9.0	< 3.3	< 3.4	23.0	40.0	< 3.8	< 3.6	< 5.2	10.4	11.0	AH	< 3.3	40.0	< 10.9	100	< 10.9
Tc-99	< 290	290	< 5300	< 5300	< 5300	< 650	< 650	< 22	< 240	530	< 290	< 290	< 22	< 5300	< 1692	100000	< 1.7
U-233	< 99.1	< 91.1	< 84.0	< 69.0	< 94.1	< 93.0	< 61.6	< 54.6	< 54.4	< 77.7	< 73.5	< 62.9	< 54.4	< 99.1	< 77.3	500	< 15.5
U-234	320.8	118.0	163.2	178.7	243.7	240.9	119.6	106.0	105.6	251.6	190.3	162.8	105.6	320.8	185.4	500	37.1
U-235	15.3	12.9	11.5	10.0	12.2	12.3	9.2	7.9	8.3	12.5	11.0	9.2	7.9	15.3	11.1	600	1.9
U-236	12.6	7.9	9.0	6.0	7.6	8.1	7.0	5.5	5.1	4.2	6.9	5.1	4.2	12.6	7.0	500	1.4
U-238	342.8	315.3	290.8	238.7	325.9	322.0	213.0	188.9	188.0	268.7	254.3	217.6	188.0	342.8	267.4	600	44.6

AVG.* is flow-weighted and shown as <, if more than one quarter of the values are less than the detection limit.

% DOE DCG is based on the average concentration for the previous twelve months. AE - Insufficient data available results will be included in year end report

Location : 001 Total Discharge
Manhole 175

Date: Fourth Quarter 1990

October

Day	Flow (MGD)	Th-234 pCi/l*
5	0.776	180.00
11	1.341	42.00
19	1.413	<0.38
26	1.268	180.00
TOTAL	4.798	402.38
AVE.	1.200	88.53
MAX.	1.413	180.00
MIN.	0.776	<0.38

November

Day	Flow (MGD)	Th-234 pCi/l*
1	1.208	<0.41
9	0.295	4.00
16	0.314	140.00
23	0.301	<0.41
31	1.567	17.00
TOTAL	3.685	161.82
AVE.	0.737	19.65
MAX.	1.567	140.00
MIN.	0.295	<0.41

December

Day	Flow (MGD)	Th-234 pCi/l*
8	0.382	<0.44
15	0.439	<0.44
22	1.386	22.00
29	1.357	150.00
TOTAL	3.564	172.88
AVE.	0.891	65.77
MAX.	1.386	150.00
MIN.	0.382	<0.44

* - Average values presented are flow weighted

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ILY REPORT FORM

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ODRESS. CITY. COUNTY. ZIP	STATION CODE	DATE (MONTH. YEAR)	PAGE OF	PRINTING DATE	APPLICATI
S. DEPARTMENT OF ENERGY	1IO00004001	OCT 1990	1 2	03/24/90	OH000

:ed Materials Prod. Center
O. Box 398705
:rnald 45239 Hamilton

SAMPLING STATION DESCRIPTION
001 MANHOLE 175, FINAL EFFLUENT TO GREAT MI

NOTE: THIS FORM MUST BE

R 1 FOR CONTINUOUS. 2 FOR COMPOSITE. 3 FOR GRAB SAMPLE
R FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	1	1	3	2	3	2	2	3	2
999	999	999	1	998	1	998	998	1	99
pH MAX) S.U. ORTING CODE	pH (MIN) S.U. REPORTING CODE	CONDUI FLOW MGD REPORTING CODE	DISS. OXYGEN MG/L REPORTING CODE	RESIDU T. NFL MG/L REPORTING CODE	O&G TOTAL MG/L REPORTING CODE	AMMONI NH3-N MG/L REPORTING CODE	NITRAT NO3-N MG/L REPORTING CODE	CYANID CN MG/L REPORTING CODE	FLU F,T MG REPORTI
0401	00402	50050	00300	00530	00550	00610	00620	00720	009
8.2	7.5	0.468							
8.4	6.9	0.425	7.7	4	AA	AA	6.8	AA	1.
7.9	7.3	0.364							
8.2	7.5	0.433							
8.2	7.5	0.776							
8.3	7.7	0.666							
7.7	7.3	0.609							
8.3	7.7	0.426							
8.2	7.5	0.526							
7.7	7.5	0.878	7.7	10	AA	0.17	3.7	AA	0.
7.9	7.6	1.341							
8.0	7.8	1.263							
7.8	7.5	1.293							
7.8	7.5	1.134							
7.7	7.2	1.045							
7.7	7.3	1.168							
8.0	7.5	0.831							
8.1	7.5	0.321	10.9	31	AA	AA	3.8	AA	1.
8.1	7.7	1.413							
8.0	7.3	1.226							
8.0	7.4	1.098							
7.8	7.4	1.095	8.3	8	AA	AA	1.2	AA	0.
7.8	4.3	1.282							
7.8	7.3	1.094							
7.9	7.2	1.224							
8.0	7.6	1.268							
7.8	7.4	1.248							
7.8	7.2	1.119							
8.2	7.1	1.110	8.1	8	AA	0.10	0.6	AA	0.
8.1	6.9	1.140							
8.4	7.4	0.287							
N/A	N/A	28.571	42.7	61.	AA	0.57	16.1	AA	4.
N/A	N/A	0.922	8.3	10	AA	0.12	2.4	AA	0.
8.4	7.8	1.413	10.9	31	AA	0.17	6.8	AA	1.
7.7	4.3	0.287	7.7	4	AA	AA	0.6	AA	0.

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
.A: 00530 - 2.0 mg/l; 00550 - 5.0 mg/l; 00610 - 0.10 mg/l; 00720 - 0.005 mg

BUTION
AGENCY
. AGENCY
REPORTER
PA-4500 (8-86)
PA-SUR-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQ THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

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9002 M 9501 900212

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IE. ADDRESS. CITY. COUNTY. ZIP	STATION CODE	DATE (MONTH. YEAR)	PAGE	PRINTING DATE	APPLICATIO
U.S. DEPARTMENT OF ENERGY	1IO00004001	OCT 1990	2 OF 2	03/24/90	OH0009

1153

Feed Materials Prod. Center SAMPLING STATION DESCRIPTION
P.O. Box 398705 001 MANHOLE 175, FINAL EFFLUENT TO GREAT MIA
Fernald 45239 Hamilton

NOTE: THIS FORM MUST BE T

ENTER 1 FOR CONTINUOUS. 2 FOR COMPOSITE. 3 FOR GRAB SAMPLE
ENTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

2	2	2	2	2	2	2			
998	998	998	998	998	998	998			
CHROM CR,TOT UG/L REPORTING CODE 01034	COPPER CU,TOT UG/L REPORTING CODE 01042	LEAD PB,TOT UG/L REPORTING CODE 01051	NICKEL NI,TOT UG/L REPORTING CODE 01067	SILVER AG,TOT UG/L REPORTING CODE 01077	CHROMI HEX-DS UG/L REPORTING CODE 01220	CB-BOD 5 DAY MG/L REPORTING CODE 80082	REPORTING CODE	REPORTING CODE	REPORTIN
AA	AA	AA	AA	AA	AA				
						1.46			
AA	AA	26.6	11.6	AA	AA	1.29			
						4.00			
AA	14.0	41.0	9.0	AA	AA				
AA	AA	12.0	10.8	AA	AA				
						10.26			
AA	AA	AA	AA	AA	AA				
						8.53			

AA	70.0	91.6	49.4	AA	AA	25.54			
AA	14.0	15.4	10.1	AA	AA	5.40			
AA	14.0	41.0	11.6	AA	AA	10.26			
AA	AA	AA	AA	AA	AA	1.29			

IAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AA: 01034 - 6.0 ug/l; 01042 - 14.0 ug/l; 01051 - 6.0 ug/l; 01067 - 9.0 ug/l.
AA: 01077 - 3.0 ug/l; 01220 - 6.0 ug/l.

90

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TRIBUTION
E - AGENCY
OW - AGENCY
N - REPORTER
IO EPA-4500 (8-86)
RLY EPA-SUR-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUI THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE. ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

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.S. DEPARTMENT OF ENERGY	1IO000004002	OCT 1990	1 2	03/24/90	OH0009

eed Materials Prod. Center
.O. Box 398705
ernald 45239 Hamilton

SAMPLING STATION DESCRIPTION
002 SPILLWAY FROM STORMWATER RETENTION BASIN

1153

NOTE: THIS FORM MUST BE T

ER 1 FOR CONTINUOUS, 2 FOR COMPOSITE 3 FOR GRAB SAMPLE
ER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

3	2	3	2	2	2	2	2	2	2
1	4	1	4	4	4	4	4	4	4
pH S.U.	RESIDU T. NFL MG/L	O & G Total MG/L	AMMONI NH3-N MG/L	NITRAT NO3-N MG/L	FLUORI F,TOT MG/L	CHROM CR,TOT UG/L	COPPER CU,TOT UG/L	NICKEL NI,TOT UG/L	SILV AG/T UG/
PORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTIN
00400	00530	00550	00610	00620	00951	01034	01042	01067	0107
AH									

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AH - NO WATER OVERFLOWED FROM THE STORMWATER RETENTION BASIN.

10

BUTION
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- AGENCY
REPORTER
PA-4500 (8-86)
EPA-SUR-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIR THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

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U.S. DEPARTMENT OF ENERGY	1IO00004002	OCT 1990	2 2	03/24/90	OH0,00

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Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

SAMPLING STATION DESCRIPTION

002 SPILLWAY FROM STORMWATER RETENTION BASI

NOTE: THIS FORM MUST BE

ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE

ENTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1)	2	2								
2)	4	4								
	CHROMI HEX-DS UG/L	CONDUI FLOW MGD								
	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTIN
	01220	50050								
		AH								

NAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AH - NO WATER OVERFLOWED FROM THE STORMWATER RETENTION BASIN.

12D
7/90

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STRIBUTION
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OW - AGENCY
N - REPORTER
NO EPA-4500 (8-86)
RLY EPA-SUR-1

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DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

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U.S. DEPARTMENT OF ENERGY | 1IO00004601 | OCT 1990 | 1 OF 2 | 03/24/90 | OH000

Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

SAMPLING STATION DESCRIPTION
601 SEWAGE TREATMENT PLANT EFFLUENT

1153

NOTE: THIS FORM MUST BE

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ENTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	2	2	2	2	2	2	2	2	
999	998	998	998	998	998	998	998	998	
CONDUI FLOW MGD REPORTING CODE	BOD 5 DAY MG/L REPORTING CODE	RESIDU T. NFL MG/L REPORTING CODE	AMMONI NH3-N MG/L REPORTING CODE	FLUORI F,TOT MG/L REPORTING CODE	CHROM CR,TOT UG/L REPORTING CODE	COPPER CU,TOT UG/L REPORTING CODE	NICKEL NI,TOT UG/L REPORTING CODE	FEC CO MF-FCB #/100M REPORTING CODE	REPORTI
50050	00310	00530	00610	00951	01034	01042	01067	31616	
0.022									
0.095		3	0.24	0.4	AA	AA	AA	80	
0.100	9.43	1							
0.156									
0.157									
0.119									
0.102									
0.042									
0.120									
0.288	10.30	8	1.23	0.4	AA	AA	AA	1	
0.193									
0.144									
0.210									
0.116									
0.049									
0.126									
0.148	5.36	2							
0.220		AA	0.12	0.4	AA	AA	AA	130	
0.202									
0.163									
0.055									
0.051		AA	AA	0.4	AA	14.0	AA	3	
0.121									
0.186	2.72	2							
0.117									
0.109									
0.166									
0.092									
0.090		AA	0.12	0.3	AA	AA	AA	1	
0.125									
0.123	5.06	3							

4.007	32.87	25	1.81	1.9	AA	70.0	AA	215	
0.129	6.90	3	0.56	0.4	AA	14.0	AA	8	
0.288	10.30	8	1.23	0.4	AA	14.0	AA	130	
0.022	2.72	1	AA	0.3	AA	AA	AA	1	

AL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

9 AA: 00530 - 2.0 mg/l; 00610 - 0.10 mg/l; 01034 - 6.0 ug/l; 01042 - 14.0 uc
/90 AA: 01067 - 9.0 ug/l.

RIBUTION
E - AGENCY
W - AGENCY
- REPORTER
D EPA-4500 (8-86)
LY EPA-SUR-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQU THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLET AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
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)005 M 9009 900212
THLY REPORT FORM

REPORTED

OhioEPA

ADDRESS, CITY, COUNTY, ZIP	STATION CODE	DATE (MONTH, YEAR)	PAGE OF	PRINTING DATE	APPLICATI
J.S. DEPARTMENT OF ENERGY	4500 1IO00004601	OCT 1990	2 2	03/24/90	OH000

'eed Materials Prod. Center
'.O. Box 398705
'ernald 45239 Hamilton

SAMPLING STATION DESCRIPTION
601 SEWAGE TREATMENT PLANT EFFLUENT

1153

NOTE: THIS FORM MUST BE

TER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
TER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	1								
999	999								
pH (MAX) S.U.	pH (MIN) S.U.								
EPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTI
00401	00402								
7.8	7.3								
7.3	7.2								
7.6	7.3								
7.3	7.2								
7.5	7.3								
7.5	7.3								
7.4	7.3								
8.0	7.3								
7.7	7.4								
7.7	7.4								
7.7	7.5								
7.6	7.4								
7.7	7.4								
8.0	7.6								
7.8	7.7								
7.8	7.5								
8.0	7.5								
7.8	7.5								
7.7	7.5								
7.9	7.7								
8.1	7.7								
7.7	7.6								
7.8	7.6								
7.6	7.4								
7.7	7.5								
7.7	7.5								
7.7	7.6								
8.8	7.2								
9.3	5.9								
9.3	6.7								
7.6	6.6								
N/A	N/A								
N/A	N/A								
9.3	7.7								
7.3	5.9								

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

D
90

13

IBUTION
- AGENCY
/ - AGENCY
REPORTER
EPA-4500 (8-86)
EPA-SUR-1

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9002 M 9501 900212
)NTHLY REPORT FORM

4500 REPORTED

OhioEPA

ME. ADDRESS. CITY. COUNTY. ZIP	STATION CODE	DATE (MONTH. YEAR)	PAGE OF	PRINTING DATE	APPLICATI(
U.S. DEPARTMENT OF ENERGY	1IO00004602	OCT 1990	1 1	03/24/90	OH000

Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

SAMPLING STATION DESCRIPTION
602 GENERAL SUMP EFFLUENT TO MANHOLE 175

1153

NOTE: THIS FORM MUST BE

ENTER 1 FOR CONTINUOUS. 2 FOR COMPOSITE. 3 FOR GRAB SAMPLE
ENTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1)	1	3	2	2	2	2				
2)	999	1	1	1	1	1				
	CONDUI FLOW MGD REPORTING CODE	pH S.U. REPORTING CODE	CHROM CR,TOT UG/L REPORTING CODE	COPPER CU,TOT UG/L REPORTING CODE	NICKEL NI,TOT UG/L REPORTING CODE	CHROMI HEX-DS UG/L REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTI
	50050	00400	01034	01042	01067	01220				
	0.040									
	0.038	7.8	AA	AA	AA	AA				
	0.080									
	0.080									
	0.080									
	0.080									
	0.040									
	0.040									
	0.120									
	0.120	8.1	AA	AA	9.2	AA				
	0.080									
	0.080									
	0.120									
	0.080									
	0.080									
	0.080									
	0.040									
	0.000									
	0.160	7.8	AA	AA	36.0	AA				
	0.120									
	0.040									
	0.040	8.2	AA	AA	18.0	AA				
	0.120									
	0.080									
	0.080									
	0.080									
	0.000									
	0.040									
	0.040	7.9	AA	AA	AA	AA				
	0.080									
	0.040									
	2.198	N/A	AA	AA	81.2	AA				
	0.071	N/A	AA	AA	20.8	AA				
	0.160	8.2	AA	AA	36.0	AA				
	0.000	7.8	AA	AA	AA	AA				

NAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AA: 01034 - 6.0 ug/l; 01042 - 14.0 ug/l; 01067 - 9.0 ug/l; 01220 - 6.0 ug/

/90

14

STRIBUTION
TE - AGENCY
OW - AGENCY
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DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
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)02 M 9501 900212
ILY REPORT FORM 4500 REPORTED

OhioEPA

DDRESS. CITY. COUNTY. ZIP	STATION CODE	DATE (MONTH. YEAR)	PAGE	PRINTING DATE	APPLICATI(
.S. DEPARTMENT OF ENERGY	1IO00004604	OCT 1990	1 OF 1	03/24/90	OH000'

ɜed Materials Prod. Center SAMPLING STATION DESCRIPTION 1153
.O. Box 398705 604 STORM SEWER LIFT STATION EFFLUENT TO MH
ɜrnald 45239 Hamilton

NOTE: THIS FORM MUST BE

:R 1 FOR CONTINUOUS. 2 FOR COMPOSITE. 3 FOR GRAB SAMPLE
:R FREQUENCY OF SAMPLING
REPORTING LAB
ANALYST

1	1	1	2	3	2	2			
999	999	999	998	1	998	998			
pH (MAX) S.U.	pH (MIN) S.U.	CONDUI FLOW MGD	RESIDU T. NFL MG/L	O&G TOTAL MG/L	NITRAT NO3-N MG/L	FLUORI F,TOT MG/L			
ORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTI.
)0401	00402	50050	00530	00550	00620	00951			
7.8	7.8	0.080							
7.8	7.8	0.088	AA	AA	2.6	0.5			
7.9	7.8	0.066							
8.4	7.6	0.050							
7.9	7.9	0.182							
8.3	8.0	0.119							
8.0	7.5	0.070							
8.0	7.8	0.064							
7.8	6.8	0.059							
7.8	7.5	0.184	31	AA	1.6	0.8			
8.0	7.8	0.232							
8.3	8.0	0.176							
8.3	8.1	0.107							
8.2	8.1	0.094							
8.3	7.5	0.074							
8.2	8.2	0.071							
8.2	6.8	0.069							
		AC							
8.0	7.8	0.206	11	AA	2.3	1.1			
8.0	7.8	0.206							
8.0	8.0	0.090							
7.9	7.5	0.079	AA	AA	3.1	0.8			
8.0	7.3	0.206							
7.9	7.8	0.057							
8.0	7.9	0.088							
8.2	8.0	0.083							
8.2	8.0	0.071							
8.1	8.0	0.063							
8.1	8.0	0.055	AA	AA	4.4	0.9			
8.3	7.9	0.066							
8.8	8.3	0.070							
N/A	N/A	3.125	48	AA	14.0	4.1			
N/A	N/A	0.104	14	AA	2.4	0.9			
8.8	8.3	0.232	31	AA	4.4	1.1			
7.8	6.8	0.050	AA	AA	1.6	0.5			

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
- AA: 00530 - 2.0 mg/l; 00550 - 5.0 mg/l.

)

15

BUTION
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REPORTER
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I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQU THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE. ACCURATE AND COMPLET AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION. INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manac

9002 M 9501 900212

ITHLY REPORT FORM 4500 REPORTED OhioEPA

ADDRESS, CITY, COUNTY, ZIP	STATION CODE	DATE (MONTH, YEAR)	PAGE OF	PRINTING DATE	APPLICATI
U.S. DEPARTMENT OF ENERGY	1IO00004605	OCT 1990	1 2	03/24/90	OH000

1153

Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

SAMPLING STATION DESCRIPTION
605 BIODENITRIFICATION EFFLUENT TO MANHOLE

NOTE: THIS FORM MUST BE

NTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
NTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	1	1	2	2	2	2	2	2	2
999	999	999	998	998	998	998	998	998	99
pH (MAX) S.U. REPORTING CODE	pH (MIN) S.U. REPORTING CODE	CONDUI FLOW MGD REPORTING CODE	BOD 5 DAY MG/L REPORTING CODE	RESIDU T. NFL MG/L REPORTING CODE	AMMONI NH3-N MG/L REPORTING CODE	NITRAT NO3-N MG/L REPORTING CODE	FLUORI F,TOT MG/L REPORTING CODE	CHROM CR,TOT UG/L REPORTING CODE	COP CU, UG, REPORTI
00401	00402	50050	00310	00530	00610	00620	00951	01034	010
7.7	7.4	0.044							
7.7	7.4	0.111	3.93	15	AA	14.0	4.0	6.0	1
7.7	7.4	0.119							
7.6	7.4	0.147							
7.7	7.6	0.105							
7.7	7.6	0.124							
7.6	7.4	0.117							
7.7	7.4	0.108							
7.6	7.4	0.123							
7.6	7.4	0.098	4.11	13	AA	11.0	3.5	6.0	A
7.7	7.3	0.110							
7.6	7.1	0.123							
7.4	7.1	0.100							
7.6	7.0	0.074							
		AC							
7.0	6.9	0.061							
7.4	7.0	0.050							
7.7	7.6	0.035	30.70	88	0.12	0.7	8.3	14.0	24
7.7	7.6	0.052							
7.6	7.4	0.116							
7.3	7.0	0.122							
7.1	6.9	0.119		13	AA	4.1	3.9	AA	AA
7.1	6.9	0.103							
7.3	7.0	0.124							
7.4	7.1	0.147	31.10						
7.6	7.3	0.146							
7.6	7.3	0.151							
7.4	7.1	0.149							
7.6	7.1	0.137		20	AA	0.1	3.7	AA	AA
7.6	7.1	0.104							
7.6	7.3	0.054							
N/A	N/A	3.173	69.84	149	0.52	29.9	23.4	38.0	82
N/A	N/A	0.106	16.59	21	0.10	6.3	4.1	6.6	15
7.7	7.6	0.151	31.10	88	0.12	14.0	8.3	14.0	24
7.0	6.9	0.035	3.93	13	AA	0.1	3.5	AA	A

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AA: 00530 - 2.0 mg/l; 00610 - 0.10 mg/l; 01034 - 6.0 ug/l; 01042 - 14.0 ug/

7
'90

16

IBUTION
· AGENCY
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REPORTER
EPA-4500 (8-86)
EPA-SUR-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUI THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

9002 M 9501 900212

ITHLY REPORT FORM 4500 REPORTED

E, ADDRESS, CITY, COUNTY, ZIP | STATION CODE | DATE (MONTH, YEAR) | PAGE | PRINTING DATE | APPLICATI

U.S. DEPARTMENT OF ENERGY 1IO00004605 OCT 1990 2 OF 2 03/24/90 OH000

1153

Feed Materials Prod. Center SAMPLING STATION DESCRIPTION

P.O. Box 398705 605 BIODENITRIFICATION EFFLUENT TO MANHOLE

Fernald 45239 Hamilton

NOTE: THIS FORM MUST BE

NTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE | REPORTING LAB | ANALYST

NTER FREQUENCY OF SAMPLING

2	2								
998	998								
NICKEL NI,TOT UG/L	CHROMI HEX-DS UG/L								
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTIN
01067	01220								
24.0	AA								
31.0	AA								
34.0	9.0								
42.6	AA								
33.4	AA								

165.0	33.0								
33.1	6.2								
42.6	9.0								
24.0	AA								

AL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AA: 01067 -- 9.0 ug/l; 01220 -- 6.0 ug/l.

D
7/90

17

RIBUTION
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W - AGENCY
- REPORTER
D EPA-4500 (8-86)
LY EPA-SUR-1

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DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

02 M 9501 900212
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DDRESS, CITY, COUNTY, ZIP	STATION CODE	DATE (MONTH, YEAR)	PAGE	PRINTING DATE	APPLICATIC
S. DEPARTMENT OF ENERGY	1IO00004606	OCT 1990	1 OF 1	03/24/90	OH000

1153

ed Materials Prod. Center
O. Box 398705
rnald 45239 Hamilton

SAMPLING STATION DESCRIPTION
606 STORMWATER RETENTION BASIN EFFLUENT TO MH

NOTE: THIS FORM MUST BE

1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	1	1	2	3					
999	999	999	998	1					
pH (MAX) S.U.	pH (MIN) S.U.	CONDUI FLOW MGD	RESIDU T, NFL MG/L	O&G TOTAL MG/L					
ORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTIN
0401	00402	50050	00530	00550					
8.1	7.7	0.282	AA	AA					
8.2	7.0	0.094	6	AA					
		AC							
		AC							
8.5	6.9	0.251	6	AA					
8.0	6.8	0.224	3	AA					
7.3	7.3	0.280	4	AA					
8.3	7.1	0.172	8	AA					
9.8	7.5	0.104	10	AA					
7.8	7.5	0.189	12	AA					
7.8	7.5	0.726	8	AA					
7.7	7.5	0.741	6	AA					
7.7	7.6	0.756	3	AA					
7.8	7.7	0.770	AA	AA					
7.8	7.6	0.842	4	AA					
7.8	7.7	0.830	AA	AA					
7.9	7.4	0.524	AA	AA					
7.9	7.1	0.066	58	AA					
7.9	7.8	0.792	17	AA					
7.9	7.8	0.700	9	AA					
7.8	7.7	0.792	4	AA					
7.8	7.6	0.806	3	AA					
7.8	7.2	0.784	3	AA					
7.8	7.7	0.647	2	AA					
7.8	7.6	0.792	AA	AA					
8.0	7.7	0.850	AA	AA					
8.2	8.0	0.860	AA	AA					
8.3	8.1	0.776	2	AA					
8.5	8.3	0.789	3	AA					
8.4	7.9	0.764	AA	AA					
		AC							
N/A	N/A	16.203	187	AA					
N/A	N/A	0.579	4	AA					
9.8	8.3	0.860	58	AA					
7.3	6.8	0.066	AA	AA					

EMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 00530 - 2.0 mg/1; 00550 - 5.0 mg/1.

1

18

UTION
GENCY
AGENCY
PORTER
4500 (8-86)
A-SUR-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIR THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manage

)2 M 9501 900212
.Y REPORT FORM

4500 REPORTED

ORESS CITY, COUNTY ZIP | STATION CODE | DATE (MONTH YEAR) | PAGE OF | PRINTING DATE | APPLICATION NO

3.? DEPARTMENT OF ENERGY | 11000004001 | NOV 1990 | 1 2 | 03/24/90 | OH0C0958

1153

ed Materials Prod. Center
O. Box 398705
rnald 45239 Hamilton

SAMPLING STATION DESCRIPTION
001 MANHOLE 175, FINAL EFFLUENT TO GREAT MIAMI

NOTE THIS FORM MUST BE TYPED

1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE / FREQUENCY OF SAMPLING				REPORTING LAB			ANALYST		
1	1	1	3	2	3	2	2	3	2
999	999	999	1	998	1	998	998	1	998
pH MAX) S.U.	pH (MIN) S.U.	CONDUI FLOW MGD	DISS. OXYGEN MG/L	RESIDU T. NFL MG/L	O&G TOTAL MG/L	AMMONI NH3-N MG/L	NITRAT NO3-N MG/L	CYANID CN MG/L	FLUORI F,TOT MG/L
ORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
00401	00402	50050	00300	00530	00550	00610	00620	00720	00951
8.4	7.3	1.208							
8.6	7.4	1.205							
7.7	7.4	1.102							
8.1	7.2	0.876							
7.8	7.2	0.168							
7.7	7.1	0.791							
7.7	7.1	0.290	9.5	8	AA	2.05	8.5	AA	0.8
7.8	7.2	0.295							
8.9	6.5	0.295							
8.0	7.3	0.351							
7.9	7.6	0.356							
9.4	7.5	0.260							
7.9	7.4	0.250							
7.8	7.3	0.441							
8.1	7.5	0.374	6.6	19	AA	0.70	5.5	AA	1.3
7.8	6.6	0.258							
7.8	7.5	0.922							
7.8	7.4	1.046							
7.9	7.4	0.310	10.0	3	AA	AA	2.3	AA	0.9
7.9	7.3	0.434							
8.0	7.5	0.373							
7.8	7.3	0.398							
7.9	7.5	0.301							
7.9	7.6	0.290							
8.0	7.5	0.353							
8.3	7.3	0.352							
8.5	6.8	0.444	9.6	11	AA	AA	4.3	AA	1.7
8.6	7.0	0.391							
8.5	7.5	0.962							
8.3	7.2	1.567							
N/A	N/A	16.663	35.7	41	AA	2.95	20.6	AA	4.7
N/A	N/A	0.555	8.9	11	AA	0.66	5.0	AA	1.2
9.4	7.6	1.567	10.0	19	AA	2.05	8.5	AA	1.7
7.7	6.5	0.168	6.6	3	AA	AA	2.3	AA	0.8

AL REMARKS (ALL REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AA: 00530 - 2.0 mg/l; 00550 - 5.0 mg/l; 00610 - 0.10 mg/l; 00720 - 0.005 mg/l

190

19

TRIBUTION
TE - AGENCY
OW - AGENCY
N - REPORTER
NO. EPA 4500 (8 86)

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

M 9501 900212
REPORT FORM

ESS CITY, COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE OF	PRINTING DATE	APPLICATION NO
. DEPARTMENT OF ENERGY	11000004001	NOV 1990	2 OF 2	03/24/90	OH000958

4500

1153

1 Materials Prod. Center
. Box 398705
nald 45239 Hamilton

SAMPLING STATION DESCRIPTION
001 MANHOLE 175, FINAL EFFLUENT TO GREAT MIAMI

NOTE: THIS FORM MUST BE TYPED

FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE
FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

2	2	2	2	2	2	2			
98	998	998	998	998	998	998			
ROM :,TOT IG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	NICKEL NI,TOT UG/L	SILVER AG,TOT UG/L	CHROMI HEX-DS UG/L	CB-BOD 5 DAY MG/L			
ATING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
034	01042	01051	01067	01077	01220	80082			
AA	AA	AA	AA	AA	AA	11.18			
						1.54			
6.0	24.0	13.0	13.0	AA	7.0				
AA	AA	AA	AA	AA	AA				
						2.58			
6.0	AA	AA	AA	AA	AA				
						1.31			
24.0	66.0	31.0	40.0	AA	25.0	16.61			
6.0	16.6	7.8	10.1	AA	6.3	3.61			
6.0	24.0	13.0	13.0	AA	7.0	11.18			
AA	AA	AA	AA	AA	AA	1.31			

L REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AA: 01034 - 6.0 ug/l; 01042 - 14.0 ug/l; 01051 - 6.0 ug/l; 01067 - 9.0 ug/l.
AA: 01077 - 3.0 ug/l; 01220 - 6.0 ug/l.

20

RIBUTION
E - AGENCY
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- REPORTER
D. EPA 4500 (8 86)
Y EPA SUR 1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manage

2 M 9501 900212 4500 REPORTED

Y REPORT FORM

STATION CODE	DATE (MONTH YEAR)	PAGE	PRINTING DATE	APPLICATION NO
11000004002	NOV 1990	1 OF 2	03/24/90	OH000958

1153

DRESS, CITY, COUNTY ZIP

.. DEPARTMENT OF ENERGY

ed Materials Prod. Center

SAMPLING STATION DESCRIPTION

002 SPILLWAY FROM STORMWATER RETENTION BASIN

O. Box 398705

cnald 45239 Hamilton

NOTE THIS FORM MUST BE TYPED

1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE

REPORTING LAB

ANALYST

FREQUENCY OF SAMPLING										
3	2	3	2	2	2	2	2	2	2	2
1	4	1	4	4	4	4	4	4	4	4
pH S.U.	RESIDU T. NFL MG/L	O & G Total MG/L	AMMONI NH3-N MG/L	NITRAT NO3-N MG/L	FLUORI F,TOT MG/L	CHROM CR,TOT UG/L	COPPER CU,TOT UG/L	NICKEL NI,TOT UG/L	SILVEF AG/TOT UG/L	
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	
00400	00530	00550	00610	00620	00951	01034	01042	01067	01077	
AH										

ONAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AH - NO WATER OVERFLOWED FROM THE STORMWATER RETENTION BASIN.

1/10/90

21

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AND AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

ISTRIBUTION
HITE - AGENCY
LLOW - AGENCY
EEN - REPORTER
NO EPA 4500 (8 86)

M 9501 900212
ELPORT FORM

4500

REPORTED

S CITY COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE OF	PRINTING DATE	APPLICATION NO
DEPARTMENT OF ENERGY	1IO000004002	NOV 1990	2 2	03/24/90	OH0009580

1153

Materials Prod. Center
Box 398705
ild 45239 Hamilton

SAMPLING STATION DESCRIPTION
002 SPILLWAY FROM STORMWATER RETENTION BASIN

NOTE THIS FORM MUST BE TYPED

R CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE	REPORTING LAB	ANALYST
QUENCY OF SAMPLING		

OMI -DS /L NG CODE	CONDUI FLOW MGD REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
	2								
	4								
20	50050								
	AH								

REMARKS AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION.

AH - NO WATER OVERFLOWED FROM THE STORMWATER RETENTION BASIN.

10

22

BUTION
AGENCY
AGENCY
REPORTER
EPA 4500 (8 86)

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manager

5 M 9009 900212
Y REPORT FORM 4500 REPORTED

NAME CITY COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE OF	PRINTING DATE	APPLICATION NO
. DEPARTMENT OF ENERGY	11000004601	NOV 1990	1 2	03/24/90	OH0009581

1153

d Materials Prod. Center
). Box 398705
nald 45239 Hamilton

SAMPLING STATION DESCRIPTION
601 SEWAGE TREATMENT PLANT EFFLUENT

NOTE THIS FORM MUST BE TYPED

1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE
FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	2	2	2	2	2	2	2	1	1
999	998	998	998	998	998	998	998	999	999
ONDUI FLOW MGD ORTING CODE	BOD 5 DAY MG/L REPORTING CODE	RESIDU T. NFL MG/L REPORTING CODE	AMMONI NH3-N MG/L REPORTING CODE	FLUORI F,TOT MG/L REPORTING CODE	CHROM CR,TOT UG/L REPORTING CODE	COPPER CU,TOT UG/L REPORTING CODE	NICKEL NI,TOT UG/L REPORTING CODE	pH (MAX) S.U. REPORTING CODE	pH (MIN) S.U. REPORTING CODE
0050	00310	00530	00610	00951	01034	01042	01067	00401	00402
0.128								7.5	7.3
0.092								7.8	7.0
0.165								7.7	7.4
0.076								7.6	7.1
0.029								7.6	7.4
0.062								7.7	7.4
0.107	2.05	4	1.10	0.3	AA	20.5	AA	7.8	6.7
0.122								7.9	7.5
0.129								7.5	7.4
0.137								7.6	7.4
0.081								7.7	7.5
0.061								8.0	7.7
0.106								7.8	7.6
0.182	3.83	AE						7.9	7.6
0.133		5	0.91	0.3	AA	AA	AA	7.8	7.4
0.122								7.7	7.5
0.130								7.6	7.5
0.020								7.8	7.6
0.047		AA	0.24	0.3	AA	AA	AA	7.7	7.6
0.130								7.6	2.7
0.122	2.27							7.5	7.4
0.108								7.4	7.3
0.074								7.5	7.4
0.037								8.2	7.3
0.123								8.0	7.8
0.035								7.8	7.6
0.113		AA	0.20	0.5	AA	AA	AA	8.0	7.5
0.129	5.19	AA						7.8	7.6
0.148								7.6	7.4
0.239								7.5	7.4
3.187	13.34	15	2.45	1.4	AA	62.5	AA	N/A	N/A
0.106	3.45	3	0.68	0.4	AA	15.7	AA	N/A	N/A
0.239	5.19	5	1.10	0.5	AA	20.5	AA	8.2	7.
0.020	2.05	AA	0.20	0.3	AA	AA	AA	7.4	2.

IAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
) AA: 00530 - 2.0 mg/l; 00610 - 0.10 mg/l; 01034 - 6.0 ug/l; 01042 - 14.0 ug
90 AA: 01067 - 9.0 ug/l.

STRIBUTION
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I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQU THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

23

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

: M 9501 900212
REPORT FORM

4500

REPORTED

ESS CITY COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE	PRINTING DATE	APPLICATION NO
. DEPARTMENT OF ENERGY	11000004602	NOV 1990	1 OF 1	03/24/90	OH000958

1153

d Materials Prod. Center
. Box 398705
nald 45239 Hamilton

SAMPLING STATION DESCRIPTION
602 GENERAL SUMP EFFLUENT TO MANHOLE 175

NOTE THIS FORM MUST BE TYPED

FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE
REQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	3	2	2	2	2				
99	1	1	1	1	1				
NDUI LOW GD TING CODE	pH S.U. REPORTING CODE	CHROM CR,TOT UG/L REPORTING CODE	COPPER CU,TOT UG/L REPORTING CODE	NICKEL NI,TOT UG/L REPORTING CODE	CHROMI HEX-DS UG/L REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
050	00400	01034	01042	01067	01220				
.040									
.040									
.040									
.000									
.000									
.080									
.040	7.3	AA	AA	16.2	AA				
.040									
.040									
.040									
.080									
.040									
.000									
.120									
.080	7.7	7.0	AA	AA	AA				
0.040									
0.040									
0.040									
0.000									
0.130	7.7	AA	AA	AA	AE				
0.080									
0.080									
0.000									
0.000									
0.000									
0.120									
0.080	7.2	AA	AA	AA	AA				
0.080									
0.120									
0.080									
1.570	N/A	25.0	AA	43.2	AA				
0.052	N/A	6.2	AA	9.9	AA				
0.130	7.7	7.0	AA	16.2	AA				
0.000	7.2	AA	AA	AA	AA				

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AA: 01034 - 6.0 ug/l; 01042 - 14.0 ug/l; 01067 - 9.0 ug/l; 01220 - 6.0 ug/l

)

IBUTION
- AGENCY
- AGENCY
REPORTER
EPA 4500 (8 86)

24

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AND AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manage

12 M 9501 900212
Y REPORT FORM 4500

ADDRESS CITY COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE	PRINTING DATE	APPLICATION
S. DEPARTMENT OF ENERGY	11000004604	NOV 1990	1 OF 1	03/24/90	OH000952

1153

ed Materials Prod. Center — SAMPLING STATION DESCRIPTION
O. Box 398705 604 STORM SEWER LIFT STATION EFFLUENT TO MH 17
nald 45239 Hamilton

NOTE THIS FORM MUST BE TYPE

1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE — REPORTING LAB — ANALYST

FREQUENCY OF SAMPLING									
1	1	1	2	3	2	2			
999	999	999	998	1	998	998			
pH MAX) S.U. REPORTING CODE	pH (MIN) S.U. REPORTING CODE	CONDUI FLOW MGD REPORTING CODE	RESIDU T. NFL MG/L REPORTING CODE	O&G TOTAL MG/L REPORTING CODE	NITRAT NO3-N MG/L REPORTING CODE	FLUORI F,TOT MG/L REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
0401	00402	50050	00530	00550	00620	00951			
8.7	8.1	0.056							
8.5	8.1	0.042							
8.2	8.0	0.056							
8.1	8.0	0.060							
8.1	7.2	0.073							
8.1	7.6	0.048							
7.9	7.8	0.084	10	AA	3.4	0.9			
8.0	7.8	0.072							
8.2	7.6	0.073							
8.0	7.7	0.106							
8.1	8.0	0.131							
8.1	8.0	0.101							
8.1	8.0	0.085							
8.2	8.0	0.082							
8.2	8.0	0.095	AA	AA	4.2	0.9			
8.3	7.4	0.096							
8.1	7.8	0.123							
8.0	7.9	0.083							
8.1	8.0	0.087	AA	AA	4.0	0.8			
8.0	7.9	0.094							
8.4	8.0	0.088							
8.0	7.7	0.116							
8.1	8.0	0.115							
8.1	8.0	0.144							
8.2	7.6	0.120							
8.1	7.7	0.106							
8.0	7.7	0.140	6	AA	3.1	0.7			
8.5	7.6	0.152							
8.0	7.8	0.100							
8.0	7.8	0.219							
N/A	N/A	2.947	20	AA	14.7	3.3			
N/A	N/A	0.098	5	AA	3.6	0.8			
8.7	8.1	0.219	10	AA	4.2	0.9			
7.9	7.2	0.042	AA	AA	3.1	0.7			

L REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 00530 - 2.0 mg/l; 00550 - 5.0 mg/l.

10

25

RIBUTION
E - AGENCY
W - AGENCY
- REPORTER
) EPA 4500 (8 86)
V FOR COPY 1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQ THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

2 M 9501 900212
Y REPORT FORM 4500 REPORTED

RESS CITY COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE OF	PRINTING DATE	APPLICATION N.
. DEPARTMENT OF ENERGY	11000004605	NOV 1990	1 2	03/24/90	OH000958

1153

d Materials Prod. Center SAMPLING STATION DESCRIPTION
. Box 398705 605 BIODENITRIFICATION-EFFLUENT TO MANHOLE 175
nald 45239 Hamilton

NOTE THIS FORM MUST BE TYPED

1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE FREQUENCY OF SAMPLING				REPORTING LAB			ANALYST		
1	1	1	2	2	2	2	2	2	2
99	999	999	998	998	998	998	998	998	998
pH (MAX) S.U. REPORTING CODE	pH (MIN) S.U. REPORTING CODE	CONDUI FLOW MGD REPORTING CODE	BOD 5 DAY MG/L REPORTING CODE	RESIDU T. NFL MG/L REPORTING CODE	AMMONI NH3-N MG/L REPORTING CODE	NITRAT NO3-N MG/L REPORTING CODE	FLUORI F,TOT MG/L REPORTING CODE	CHROM CR,TOT UG/L REPORTING CODE	COPPEF CU,TOT UG/L REPORTING CODE
401	00402	50050	00310	00530	00610	00620	00951	01034	01042
7.6	7.2	0.060							
7.6	7.3	0.051							
7.8	7.3	0.049							
7.8	7.3	0.046							
7.5	7.4	0.065							
7.5	7.2	0.050							
7.5	7.1	0.059	74.70	10	AA	0.1	3.9	AA	AA
7.2	7.1	0.061							
7.5	7.1	0.058							
7.5	7.2	0.068							
7.9	7.2	0.064							
7.8	7.6	0.058							
8.2	7.6	0.059							
8.1	7.2	0.057	12.10						
7.6	7.1	0.067		4	0.61	6.7	4.1	AA	30.0
7.8	7.5	0.056							
7.8	7.7	0.082							
7.8	7.7	0.079							
8.1	7.6	0.085		AA	AA	1.5	3.8	AA	AA
8.1	7.7	0.081							
8.0	7.7	0.083	11.30						
8.1	7.8	0.094							
8.1	7.9	0.112							
8.1	7.8	0.109							
8.1	7.8	0.109							
7.9	7.7	0.092							
7.8	7.8	0.111		5	AA	0.8	4.6	7.0	14.0
8.1	7.8	0.030	18.50						
		AC							
8.4	7.8	0.069							
N/A	N/A	2.064	116.60	21	0.91	9.1	16.4	25.0	72.0
N/A	N/A	0.071	28.78	5	0.21	2.1	4.2	6.3	17.3
8.4	7.9	0.112	74.70	10	0.61	6.7	4.6	7.0	30.0
7.2	7.1	0.030	11.30	AA	AA	0.1	3.8	AA	AA

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 00530 - 2.0 mg/l; 00610 - 0.10 mg/l; 01034 - 6.0 ug/l; 01042 - 14.0 ug/l

.0190

26

BUTION AGENCY
· AGENCY REPORTER
PA 4500 (8 86)

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manage

M 9501 900212
REPORT FORM

4500

CITY COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE	PRINTING DATE	APPLICATION NO
DEPARTMENT OF ENERGY	11000004605	NOV 1990	2 of 2	03/24/90	OH0009580

1153

Materials Prod. Center
Box 398705
ald 45239 Hamilton

SAMPLING STATION DESCRIPTION
605 BIODENITRIFICATION EFFLUENT TO MANHOLE 175

NOTE THIS FORM MUST BE TYPED

OR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE / EQUENCY OF SAMPLING	REPORTING LAB	ANALYST

	2								
8	998								
KEL TOT /L	CHROMI HEX-DS UG/L								
NG CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
067	01220								
28.8	AA								
24.0	AA								
36.0	AA								
24.0	AA								
112.8	AA								
28.0	AA								
36.0	AA								
24.0	AA								

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 01067 - 9.0 ug/l; 01220 - 6.0 ug/l.

90

27

BUTION AGENCY
- AGENCY REPORTER
EPA 4500 (8 86)

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manager

2 M 9501 900212
Y REPORT FORM 4500 REPORTED

ORESS CITY COUNTY ZIP	STATION CODE	DATE (MONTH YEAR)	PAGE	PRINTING DATE	APPLICATION
S. DEPARTMENT OF ENERGY	11000004606	NOV 1990	1 OF 1	03/24/90	OH00095

1153

ed Materials Prod. Center
O. Box 398705
nnald 45239 Hamilton

SAMPLING STATION DESCRIPTION
606 STORMWATER RETENTION BASIN EFFLUENT TO MH 1

NOTE THIS FORM MUST BE TYP

1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE
FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1	1	1	2	3					
199	999	999	998	1					
pH (MAX) S.U.	pH (MIN) S.U.	CONDUI FLOW MGD	RESIDU T, NFL MG/L	O&G TOTAL MG/L					
RTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
01401	00402	50050	00530	00550					
8.7	8.2	0.924	3	AA					
8.6	7.9	0.981	AA	AA					
8.1	7.7	0.792	2	AA					
8.2	7.3	0.693	4	AA					
		AC							
7.7	6.9	0.551	31	AA					
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
8.4	7.5	0.546	4	AA					
8.4	8.2	0.823	AA	AA					
8.5	7.6	0.092	6	AA					
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
		AC							
8.6	8.0	0.444	10	AA					
8.8	8.0	1.001	9	AA					
N/A	N/A	6.857	73	AA					
N/A	N/A	0.685	7	AA					
8.8	8.2	1.001	31	AA					
7.7	6.9	0.092	AA	AA					

REMARKS (ALL REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 00530 - 2.0 mg/l; 00550 - 5.0 mg/l.

28

BUTION
AGENCY
AGENCY
REPORTER
PA 4500 (8 86)
PA SUR 1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manage

002 N 9501 900212 4500

REPORT FORM — REPORTED

CITY, COUNTY, ZIP	STATION CODE	DATE (MONTH, YEAR)	PAGE	PRINTING DATE	APPLICATI
.S. DEPARTMENT OF ENERGY	11C000004001	DEC 1990	1 OF 2	03/24/90	CH000

1153

SAMPLING STATION DESCRIPTION

ed Materials Prod. Center
.O. Box 398705
ernald 45239 Hamilton

001 MANHOLE 175, FINAL EFFLUENT TO GREAT MI

NOTE: THIS FORM MUST BE TY

R 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
R FREQUENCY OF SAMPLING | REPORTING LAB | ANALYST

1	1	1	3	2	3	2	2	3	2
999	999	999	1	998	1	998	998	1	99
pH (MAX) S.U.	pH (MIN) S.U.	CONDUI FLOW MGD	DISS. OXYGEN MG/L	RESIDU T. NFI. MG/L	O&G TOTAL MG/L	AMMONI NH3-N MG/L	NITRAT NO3-N MG/L	CYANID CN MG/L	FLU F,T MG
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTIN
00401	00402	50050	00300	00530	00550	00610	00620	00720	009
8.2	7.5	0.540							
8.1	7.5	0.339							
8.2	6.8	1.191							
7.8	6.9	1.223	10.0	17	AA	AA	2.1	AA	0.
8.0	7.6	1.222							
7.6	7.4	1.123							
7.7	6.8	0.507							
7.7	7.4	0.383							
7.6	7.2	0.340							
8.2	6.9	0.273							
7.8	7.4	0.346	10.1	2	AA	1.49	5.0	AA	1.
8.4	7.4	0.383							
8.2	7.2	0.600							
7.8	7.0	0.691							
7.8	7.2	0.439							
8.0	7.4	0.308							
7.8	7.5	0.889	10.5	21	AA	0.11	2.0	AA	1.
7.8	4.7	1.312							
7.8	6.5	1.374							
7.8	7.6	1.327							
7.9	7.3	1.421							
7.8	7.4	1.386							
8.0	7.7	1.379							
8.3	7.7	1.347							
8.3	7.7	1.352							
8.0	7.7	1.362	13.8	9	AA	AA	1.5	AA	0.
8.0	7.6	1.301							
8.0	7.6	1.266							
7.9	7.4	1.357							
8.6	7.6	1.383							
8.0	7.3	1.450							
N/A	N/A	29.813	44.4	49	AA	1.80	10.6	AA	3.
N/A	N/A	0.962	11.5	14	AA	0.23	2.1	AA	0.
10.2	7.7	1.450	13.8	21	AA	1.49	5.0	AA	1.
7.6	4.7	0.273	10.0	2	AA	AA	1.5	AA	0.

REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
A: 00530 - 2.0 mg/l; 00550 - 5.0 mg/l; 00610 - 0.10 mg/l; 00720 - 0.005 mg/

29

UTION AGENCY
AGENCY
EPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

3 M 9501 900212 4500

PORT FORM | STATE CODE | DATE (MONTH YEAR) | PAGE | PRINTING DATE | APPLICATION

S. DEPARTMENT OF ENERGY | 11000004001 | DEC 1990 | 2 OF 2 | 03/24/90 | OH00095

SAMPLING STATION DESCRIPTION

1153

ed Materials Prod. Center
O. Box 398705 | 001 MANHOLE 175, FINAL EFFLUENT TO GREAT MIAM
nnald | 45239 Hamilton

NOTE: THIS FORM MUST BE TYPE

1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
FREQUENCY OF SAMPLING | REPORTING LAB | ANALYST

2	2	2	2	2	2	2			
998	998	998	998	998	998	998			
CHROM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	NICKEL NI,TOT UG/L	SILVER AG,TOT UG/L	CHROMI HEX-DS UG/L	CB-BOD 5 DAY MG/L			
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REMARKS
01034	01042	01051	01067	01077	01220	80082			
AA	AA	7.2	AA	AA	AA	3.86			
AA	AA	AA	AA	AA	AA	12.16			
AA	AA	7.1	9.0	AA	AE	1.69			
AA	AA	AA	AA	AA	AA	1.57			
AA	AA	26.3	36.0	AA	AA	19.28			
AA	AA	6.6	9.0	AA	AA	3.19			
AA	AA	7.2	9.0	AA	AA	12.16			
AA	AA	AA	AA	AA	AA	1.57			

AL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 01034 - 6.0 ug/l; 01042 - 14.0 ug/l; 01051 - 6.0 ug/l; 01067 - 9.0 ug/l.
AA: 01077 - 3.0 ug/l; 01220 - 6.0 ug/l.

30

TRIBUTION
E - AGENCY
RY - AGENCY
- REPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE I AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

002 M 9501 990212

4500

REPORT FORM

STATE, CITY, COUNTY, ZIP	STATION CODE	REPORTED DATE (MONTH, YEAR)	PAGE	PRINTING DATE	AUDIT
.S. DEPARTMENT OF ENERGY	11000004002	DEC 1990	1	03/24/90	

1153

SAMPLING STATION DESCRIPTION

eed Materials Prod. Center
.O. Box 398705
ernald 45239 Hamilton

002 SPILLWAY FROM STORMWATER RETENTION BASI

NOTE: THIS FORM MUST BE TY

ENTER FOR CONTINUOUS OR COMPOSITE 3 FOR GRAB SAMPLE
ENTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

3 / 1	2 / 4	3 / 1	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4
pH S.U.	RESIDU T. NFL MG/L	O & G Total MG/L	AMMONI NH3-N MG/L	NITRAT NO3-N MG/L	FLUORI F,TOT MG/L	CHROM CR,TOT UG/L	COPPER CU,TOT UG/L	NICKEL NI,TOT UG/L	SILV AG/T UG
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
00400	00530	00550	00610	00620	00951	01034	01042	01067	010

AL REMARKS (ALL REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
NO WATER OVERFLOWED FROM THE STORMWATER RETENTION BASIN.

91

31

RIBUTION
- AGENCY
Y - AGENCY
- REPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

EPA 4500 (7-90)

002 M 9501 900212

4500

1153

REPORT FORM
BUSINESS CITY, COUNTY, ZIP

STATE CODE

REPORTED
DAY MONTH YEAR

PAGE TRANSACTION DATE AND DATA

U.S. DEPARTMENT OF ENERGY 1100000400 2 DEC 1990 2 02 03 90 080003

SAMPLING STATION DESCRIPTION

Feed Materials Prod. Center
P.O. Box 398705 002 SPILLWAY FROM STORMWATER RETENTION BASIN
Fernald 45239 Hamilton

NOTE: THIS FORM MUST BE TYP

ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
ENTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

2	2								
4	4								
CHROMI	CONDUI								
HEX-DS	FLOW								
UG/L	MGD								
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
01220	50050								

ADDITIONAL REMARKS (ALL REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
NO WATER OVERFLOWED FROM THE STORMWATER RETENTION BASIN.

1/10/91

32

DISTRIBUTION
WHITE - AGENCY
GREEN - AGENCY
PINK - REPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED | SIGNATURE OF REPORTER | TITLE OF REPORTER

9005 9009 900212

4500

Y REPORT FORM

...ESS CITY, COUNTY, ZIP	STATION CODE	REPORTED DATE (MONTH, YEAR)	PAGE	PRINTING DATE	APPROVA
U.S. DEPARTMENT OF ENERGY	11000004601	DEC 1990	1 of 2	03/24/90	CHG 1153

Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

SAMPLING STATION DESCRIPTION
601 SEWAGE TREATMENT PLANT EFFLUENT

NOTE: THIS FORM MUST BE T

ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
ENTER EFFICIENCY OF SAMPLING

REPORTING LAB

ANALYST

1	2	2	2	2	2	2	2	1	1
999	998	998	998	998	998	998	998	999	99
CONDUI FLOW MGD	BOD 5 DAY MG/L	RESIDU T. NFL MG/L	AMMONI NH3-N MG/L	FLUORI F,TOT MG/L	CHROM CR,TOT UG/L	COPPER CU,TOT UG/L	NICKEL NI,TOT UG/L	pH (MAX) S.U.	(M S.
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORT
50050	00310	00530	00610	00951	01034	01042	01067	00401	004
0.077								7.8	7
0.050								7.6	7
0.202								7.7	7
0.157		3	0.75	0.4	6.0	AA	AA	7.8	7
0.153	5.44							7.7	7
0.236								7.7	7
0.148								7.6	7
0.138								7.6	7
0.072								7.7	7
0.079								7.7	7
0.191		AA	0.99	0.3	AA	AA	AA	7.7	7
0.148	17.43							7.5	7
0.155								7.5	7
0.171								7.4	7
0.103								7.3	7
0.055								7.4	7
0.167		AA	1.40	0.3	AA	AA	AA	7.5	7
0.243								7.7	7
0.192	5.19	5						7.7	7
0.209								7.5	7
0.220								7.7	7
0.132								8.2	7
0.152								8.0	7
0.128								8.1	7
0.165								8.1	7
0.245	1.97	AA	AA	0.3	AA	AA	AA	8.0	7
0.185								7.5	7
0.156								7.7	7
0.126								7.7	7
0.231								7.8	7
0.243								7.9	7
4.961	30.03	14	3.24	1.3	24.0	AA	AA	N/A	N/
0.160	6.58	3	0.74	0.3	6.0	AA	AA	N/A	N/
0.245	17.43	5	1.40	0.4	6.0	AA	AA	8.2	7.
0.050	1.97	AA	AA	0.3	AA	AA	AA	7.3	7.

AL REMARKS (ALL REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 00530 - 2.0 mg/l; 00610 - 0.10 mg/l; 01034 - 6.0 ug/l; 01042 - 14.0 uc
AA: 01067 - 9.0 ug/l.

33

RIBUTION
- AGENCY
Y - AGENCY
- REPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE I AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

EPA 4500 (7-90)

602 M 9501 900212 4500

REPORT FORM

CITY, COUNTY, ZIP	STATE CODE	FISCAL YEAR	PAGE	REPORTING DATE
U.S. DEPARTMENT OF ENERGY	1100000 4602	DOC 1990	1 OF 1	03/24/90

SAMPLING STATION DESCRIPTION

Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

602 GENERAL SUMP EFFLUENT TO MANHOLE 175

1153

NOTE: THIS FORM MUST BE TYPED

NUMBER FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE OTHER FREQUENCY OF SAMPLING	REPORTING LAB	ANALYST

1	3	2	2	2	2				
999	1	1	1	1	1				
CONDUI FLOW MGD	pH S.U.	CHROM CR,TOT UG/L	COPPER CU,TOT UG/L	NICKEL NI,TOT UG/L	CHROMI HEX-DS UG/L				
REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
50050	00400	01034	01042	01067	01220				
0.040									
0.000									
0.120									
0.040	7.3	AA	AA	AA	AA				
0.080									
0.100									
0.040									
0.040									
0.080									
0.040									
0.040	7.7	AA	AA	AA	AA				
0.040									
0.080									
0.040									
0.080									
0.040									
0.040	8.2	AA	AA	14.8	AE				
0.120									
0.120									
0.040									
0.120									
0.080									
0.080									
0.080									
0.040									
0.080	7.9	AA	AA	AA	AA				
0.080									
0.040									
0.120									
0.080									
0.080									
2.160	N/A	AA	AA	41.6	AA				
0.070	N/A	AA	AA	10.2	AA				
0.160	8.2	AA	AA	14.8	AA				
0.000	7.3	AA	AA	AA	AA				

FINAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 01034 - 6.0 ug/l; 01042 - 14.0 ug/l; 01067 - 9.0 ug/l; 01220 - 6.0 ug/

34

DISTRIBUTION
WHITE - AGENCY
GREEN - AGENCY
PINK - REPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF those individuals immediately responsible for obtaining the information I believe the submitted information is true, accurate and complete I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

9501 900212 4500

NT FORM | CNY, COUNTY, ZIP | STATION CODE | PERMIT DATE (MO. DAY YEAR) | EXP. DATE | REVIEW DATE | APPLICATION

. DEPARTMENT OF ENERGY | 11000004604 | DEC 1990 | 03/24/90 | OH0009511153

SAMPLING STATION DESCRIPTION

l Materials Prod. Center
. Box 398705 | 004 STORM SEWER LIFT STATION EFFLUENT TO MH 1
ald 45239 Hamilton

NOTE: THIS FORM MUST BE TYPED

OR CONTINUOUS 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE | REPORTING LAB | ANALYST
QUENCY OF SAMPLING

	1	1	2	3	2	2			
9	999	999	998	1	998	993			
H X) U.	pH (MIN) S.U.	CONDUI FLOW MGD	RESIDU T. NFL MG/L	O&G TOTAL MG/L	NITRAT NO3-N MG/L	FLUORI F,TOT MG/L			
NG CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
01	00402	50050	00530	00550	00620	00951			
8.1	7.6	0.005							
8.0	7.5	0.049							
7.8	7.4	0.052							
8.2	7.9	0.050	AA	AA	2.8	1.0			
8.3	8.0	0.050							
8.1	8.0	0.033							
8.0	7.9	0.069							
8.1	8.0	0.123							
8.1	7.8	0.107							
8.1	7.2	0.073							
8.0	7.7	0.060	AA	AA	1.9	1.8			
8.1	8.0	0.092							
8.1	7.2	0.033							
8.0	7.6	0.087							
8.0	7.4	0.145							
8.0	7.9	0.116							
8.2	7.9	0.289	4	AA	2.1	0.7			
8.2	7.9	0.150							
8.1	8.0	0.245							
8.2	7.9	0.175							
8.0	7.8	0.225							
8.0	7.9	0.270							
8.0	7.9	0.321							
8.3	7.9	0.200							
8.1	8.0	0.193							
8.2	7.9	0.144	AA	AA	3.0	0.9			
8.0	7.8	0.145							
8.0	7.8	0.259							
8.2	8.1	0.282							
8.2	8.1	0.222							
8.3	8.1	0.277							
N/A	N/A	4.541	10	AA	9.8	4.4			
N/A	N/A	0.146	3	AA	2.4	0.9			
8.3	8.1	0.321	4	AA	3.0	1.8			
8.8	7.2	0.005	AA	AA	1.9	0.7			

ARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
: 00530 - 2.0 mg/1; 00550 - 5.0 mg/1.

35

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER

900212 0501 900212 4500

REPORT FROM
ADDRESS CITY, STATE, ZIP
U.S. DEPARTMENT OF ENERGY

STATION CODE: 1C00000605
RECORDED DATE (MONTH, YEAR): DEC 1990
PAGE: 1 PRINTING DATE: 03/24/90 APPROVAL: 08:00

1153

SAMPLING STATION DESCRIPTION

Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

605 BIODENITRIFICATION EFFLUENT TO MANHOLE

NOTE: THIS FORM MUST BE T

ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
ENTER FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

1 999	1 999	1 999	2 998	2 998	2 998	2 998	2 998	2 998	2 99
pH (MAX) S.U. REPORTING CODE 00401	pH (MIN) S.U. REPORTING CODE 00402	CONDUI FLOW MGD REPORTING CODE 50050	BOD 5 DAY MG/L REPORTING CODE 00310	RESIDU T. NFL MG/L REPORTING CODE 00530	AMMONI NH3-N MG/L REPORTING CODE 00610	NITRAT NO3-N MG/L REPORTING CODE 00620	FLUORI F,TOT MG/L REPORTING CODE 00951	CHROM CR,TOT UG/L REPORTING CODE 01034	CCP CU, UG REPORT 010
8.1	8.0	0.084							
8.0	7.8	0.084							
8.0	7.7	0.080							
8.1	7.8	0.076	3.43	AA	0.10	1.2	3.7	AA	7
8.0	7.6	0.088							
8.0	7.7	0.021							
8.4	7.6	0.027							
8.4	7.7	0.081							
8.3	7.0	0.081							
8.1	7.0	0.081							
7.8	7.0	0.095	14.73	5	AA	1.0	3.2	7.5	7
7.7	7.0	0.103							
7.7	7.0	0.096							
7.7	7.0	0.100							
7.8	6.9	0.098							
7.7	7.1	0.097							
7.7	7.1	0.100		2	AA	0.9	3.4	AA	7
7.7	7.0	0.086							
7.7	7.0	0.087	3.58						
7.7	6.6	0.105							
7.9	7.0	0.122							
8.0	7.0	0.124							
8.0	7.0	0.126							
7.8	7.1	0.129							
8.0	7.0	0.121							
7.8	7.0	0.125	1.43	8	AA	0.8	3.7	11.4	
7.8	7.0	0.124							
7.8	7.2	0.088							
8.0	7.2	0.126							
7.6	7.2	0.127							
7.5	7.2	0.148							
N/A	N/A	3.030	23.17	17	0.40	3.9	14.0	30.9	7
N/A	N/A	0.098	5.61	5	0.10	1.0	3.5	8.1	7
8.4	8.0	0.148	14.73	8	0.10	1.2	3.7	11.4	7
7.5	6.6	0.021	1.43	AA	AA	0.6	3.2	AA	7

ONAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 00530 - 2.0 mg/l; 00610 - 0.10 mg/l; 01034 - 6.0 ug/l; 01042 - 14.0 ug

36

10/91

DISTRIBUTION
WHITE - AGENCY
CANARY - AGENCY
GREEN - REPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Man

02 11 9501 900212

4500

PORT FORM

SS CITY, COUNTY, ZIP	STATION CODE	REPORTED DATE (MONTH YEAR)	PAGE	PRINTING DATE	APPLICATIO
S. DEPARTMENT OF ENERGY	11000004605	DEC 1990	2 OF 2	03/24/90	OH0009

SAMPLING STATION DESCRIPTION

ed Materials Prod. Center
O. Box 398705
rnald 45239 Hamilton

605 BIODENITRIFICATION EFFLUENT TO MANHOLE 1

1153

NOTE: THIS FORM MUST BE TY

1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
FREQUENCY OF SAMPLING

REPORTING LAB

ANALYST

2	2								
998	998								
ICKEL, TOT UG/L	CHROMI HEX-DS UG/L								
ORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING
1067	01220								
28.0	AA								
34.5	AA								
26.1	AE								
19.9	9.6								
108.5	21.6								
26.5	7.5								
34.5	9.6								
19.9	AA								

REMARKS (All REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 01067 - 9.0 ug/l; 01220 - 6.0 ug/l.

37

JTION
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I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED | SIGNATURE OF REPORTER | TITLE OF REPORTER

9002[illegible] 9101 900212 4500

REPORT FORM — CITY, COUNTY, ZIP: U.S. DEPARTMENT OF ENERGY

SITE CODE: 110000004606 — REPORTED DATE (MONTH YEAR): DEC 1990 — PAGE — PRINTED DATE: 03/24/90 — ATTACH: 1153

Feed Materials Prod. Center
P.O. Box 398705
Fernald 45239 Hamilton

SAMPLING STATION DESCRIPTION: 606 STORMWATER RETENTION BASIN EFFLUENT TO MH

NOTE: THIS FORM MUST BE TY

ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE — REPORTING LAB — ANALYST

ENTER FREQUENCY OF SAMPLING

1	1	1	2	3					
999	999	999	998	1					
pH (MAX) S.U.	pH (MIN) S.U.	CONDUI FLOW MGD	RESIDU T, NFL MG/L	O&G TOTAL MG/L	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
REPORTING CODE 00401	REPORTING CODE 00402	REPORTING CODE 50050	REPORTING CODE 00530	REPORTING CODE 00550					
8.6	8.0	0.333	4	AA					
8.2	7.6	0.157	6	AA					
8.2	7.4	0.737	12	AA					
8.2	8.1	0.900	24	AA					
8.2	8.1	0.621	11	AA					
8.1	8.0	0.671	20	AA					
8.0	7.6	0.223	16	AA					
AC	AC	AC	AC	AC					
AC	AC	AC	AC	AC					
AC	AC	AC	AC	AC					
AC	AC	AC	AC	AC					
AC	AC	AC	AC	AC					
8.4	7.5	0.237	AA	AA					
8.1	7.0	0.294	3	AA					
8.0	7.3	0.013	AA	AA					
AC	AC	AC	AC	AC					
8.2	7.2	0.294	9	AA					
8.1	8.0	0.714	17	AA					
8.1	8.0	0.731	6	AA					
8.2	8.1	0.798	6	AA					
8.2	8.0	0.733	12	AA					
8.0	7.9	0.780	15	AA					
8.0	7.9	0.700	9	AA					
8.0	7.9	0.811	10	AA					
8.1	8.0	0.834	6	AA					
8.2	8.0	0.703	10	AA					
8.2	8.1	0.767	7	AA					
8.2	7.4	0.723	4	AA					
7.8	7.5	0.733	3	AA					
7.0	7.3	0.723	6	AA					
8.2	7.3	0.702	6	AA					
N/A	N/A	15.167	226.0	AA					
N/A	N/A	0.607	10	AA					
8.6	8.1	0.900	24	AA					
7.6	7.0	0.013	AA	AA					

ADDITIONAL REMARKS (ALL REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AA: 00530 - 2.0 mg/l; 00550 - 5.0 mg/l.

91

38

DISTRIBUTION
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REPORTER - REPORTER

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY OF those INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

DATE REPORT COMPLETED	SIGNATURE OF REPORTER	TITLE OF REPORTER
		DOE FMPC Site Manag

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004001
001 Total Discharge
Manhole 175 (Effluent to Great Miami River)

DATE: OCTOBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.468	320	198	0.50	0.89	169
2	0.425	495	509	1.22	1.96	412
3	0.364	405	261	0.96	1.32	324
4	0.433	550	1486	1.04	1.70	351
5	0.776	468	261	0.72	2.11	243
6	0.666	559	1104	1.08	2.72	365
7	0.609	468	950	0.84	1.94	284
8	0.426	428	509	0.90	1.45	304
9	0.526	365	171	0.52	1.03	176
10	0.878	257	284	0.52	1.73	176
11	1.341	360	167	0.66	3.35	223
12	1.263	383	275	0.58	2.77	196
13	1.293	405	135	0.74	3.62	250
14	1.134	473	203	0.84	3.60	284
15	1.045	356	288	0.64	2.53	216
16	1.168	392	266	0.76	3.36	257
17	0.831	297	194	0.64	2.01	216
18	0.321	405	473	0.56	0.68	189
19	1.413	365	320	0.58	3.10	196
20	1.226	311	311	0.68	3.15	230
21	1.098	450	140	0.82	3.41	277
22	1.095	306	207	0.78	3.23	264
23	1.282	428	270	0.98	4.75	331
24	1.094	410	216	0.86	3.56	291
25	1.224	554	194	1.24	5.74	419
26	1.268	572	477	1.26	6.04	426
27	1.248	658	419	1.00	4.72	338
28	1.119	486	266	0.96	4.06	324
29	1.110	423	243	0.80	3.36	270
30	1.140	266	329	0.62	2.67	209
31	0.287	586	266	0.64	0.69	216
Total	28.571				87.28	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 001 Total Discharge

DATE: OCTOBER 1990

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.922	421	322	0.81	2.82	273
Max.	1.413	658	1486	1.26	6.04	426
Min.	0.287	257	135	0.50	0.68	169

The average uranium concentration for the previous twelve months was 0.82 mg/l. This is 92.1 percent of the Derived Concentration Guide(DOE Order 5400.5) for ingested water.

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004002
002 Discharge (Overflow) to Storm Sewer Outfall Ditch
Stormwater Retention Basin Spillway (Effluent to Paddy's Run)

DATE: OCTOBER 1990

There was no discharge to Paddy's Run from the Stormwater Retention Basin.

Based on 6.74 inches of rainfall for the month, the uranium discharge to Paddy's Run from uncontrolled areas of the FMPC is estimated to be 30.33 kgs.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9004 900212

LOCATION: 1I000004601
601 Sanitary Treatment Plant
Ultraviolet Unit/Contact Tank (Effluent to Manhole 175)

DATE: OCTOBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.022	0.02	0.00	7
2	0.095	0.05	0.02	17
3	0.100	0.02	0.01	7
4	0.156	0.02	0.01	7
5	0.157	0.02	0.01	7
6	0.119	0.04	0.02	14
7	0.102	0.03	0.01	10
8	0.042	0.03	0.00	10
9	0.120	0.07	0.03	24
10	0.288	0.11	0.12	37
11	0.193	0.18	0.13	61
12	0.144	0.17	0.09	57
13	0.210	0.10	0.08	34
14	0.116	0.11	0.05	37
15	0.049	0.17	0.03	57
16	0.126	0.14	0.07	47
17	0.148	0.09	0.05	30
18	0.220	0.06	0.05	20
19	0.202	0.11	0.08	37
20	0.163	0.12	0.07	41
21	0.055	0.11	0.02	37
22	0.051	0.11	0.02	37
23	0.121	0.13	0.06	44
24	0.186	0.16	0.11	54
25	0.117	0.08	0.04	27
26	0.109	0.09	0.04	30
27	0.166	0.06	0.04	20
28	0.092	0.07	0.02	24
29	0.090	0.20	0.07	68
30	0.125	0.12	0.06	41
31	0.123	0.05	0.02	17
Total	4.007		1.44	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 601 Sanitary Treatment Plant

DATE: OCTOBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.129	0.10	0.05	32
Max.	0.288	0.20	0.13	68
Min.	0.022	0.02	0.00	7

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004603
603 Clearwell
Clearwell (Effluent to Manhole 175)

DATE: OCTOBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.000	0	0	0.00	0.00	0
2	0.000	0	0	0.00	0.00	0
3	0.000	0	0	0.00	0.00	0
4	0.000	0	0	0.00	0.00	0
5	0.000	0	0	0.00	0.00	0
6	0.000	0	0	0.00	0.00	0
7	0.000	0	0	0.00	0.00	0
8	0.000	0	0	0.00	0.00	0
9	0.000	0	0	0.00	0.00	0
10	0.000	0	0	0.00	0.00	0
11	0.000	0	0	0.00	0.00	0
12	0.000	0	0	0.00	0.00	0
13	0.000	0	0	0.00	0.00	0
14	0.000	0	0	0.00	0.00	0
15	0.000	0	0	0.00	0.00	0
16	0.000	0	0	0.00	0.00	0
17	0.000	0	0	0.00	0.00	0
18	0.000	0	0	0.00	0.00	0
19	0.000	0	0	0.00	0.00	0
20	0.000	0	0	0.00	0.00	0
21	0.000	0	0	0.00	0.00	0
22	0.000	0	0	0.00	0.00	0
23	0.000	0	0	0.00	0.00	0
24	0.000	0	0	0.00	0.00	0
25	0.000	0	0	0.00	0.00	0
26	0.000	0	0	0.00	0.00	0
27	0.000	0	0	0.00	0.00	0
28	0.000	0	0	0.00	0.00	0
29	0.000	0	0	0.00	0.00	0
30	0.000	0	0	0.00	0.00	0
Total	0.000				0.00	

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004604
604 Storm Sewer Lift Station
Manhole 34 (Stormwater to Manhole 175)

DATE: OCTOBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.080	1.08	0.33	365
2	0.088	1.02	0.34	345
3	0.066	1.66	0.41	561
4	0.050	1.32	0.25	446
5	0.182	1.16	0.80	392
6	0.119	1.78	0.80	601
7	0.070	1.60	0.42	541
8	0.064	1.50	0.36	507
9	0.059	1.34	0.30	453
10	0.184	0.74	0.52	250
11	0.232	1.46	1.28	493
12	0.176	1.44	0.96	486
13	0.107	1.54	0.62	520
14	0.094	1.96	0.70	662
15	0.074	1.86	0.52	628
16	0.071	1.60	0.43	541
17	0.069	1.64	0.43	554
18	0.000	0.00	0.00	0
19	0.206	1.16	0.90	392
20	0.206	2.24	1.75	757
21	0.090	2.06	0.70	696
22	0.079	1.52	0.45	514
23	0.206	1.52	1.18	514
24	0.057	1.32	0.28	446
25	0.088	2.20	0.73	743
26	0.083	2.08	0.65	703
27	0.071	2.16	0.58	730
28	0.063	1.48	0.35	500
29	0.055	1.92	0.40	649
30	0.066	1.28	0.32	432
31	0.070	1.38	0.37	466
Total	3.125		18.15	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 604 Storm Sewer Lift Station

DATE: OCTOBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.104	1.54	0.60	519
Max.	0.232	2.24	1.75	757
Min.	0.050	0.74	0.25	250

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004605
605 Bioreactor
Bioreactor (Effluent to Manhole 175)

DATE: OCTOBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.044					
2	0.111	1351	2383	2.80	1.18	946
3	0.119					
4	0.147					
5	0.105					
6	0.124	1266	1477	2.30	1.08	777
7	0.117	991	1581	2.00	0.89	676
8	0.108	1140	3324	2.20	0.90	743
9	0.123	739	1135	1.60	0.74	541
10	0.098	649	1306	1.50	0.56	507
11	0.110					
12	0.123					
13	0.100					
14	0.074					
15	0.000	0	0	0.00	0.00	0
16	0.061					
17	0.050					
18	0.035	1527	2914	2.80	0.37	946
19	0.052	1045	3077	2.30	0.45	777
20	0.116	1095	1338	1.90	0.83	642
21	0.122	1095	1973	2.00	0.92	676
22	0.119	1108	865	2.10	0.95	709
23	0.103	1198	973	2.20	0.86	743
24	0.124	1072	865	2.10	0.99	709
25	0.147					
26	0.146	2207	1342	4.20	2.32	1419
27	0.151					
28	0.149					
29	0.137	1198	869	2.20	1.14	743
30	0.104	1027	955	1.80	0.71	608
31	0.054	946	680	1.90	0.39	642
Total	3.173				15.26	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 605 Bioreactor

DATE: OCTOBER 1990

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.106	662	844	1.27	0.90	430
Max.	0.151	2207	3324	4.20	2.32	1419
Min.	0.035	649	680	1.50	0.37	507

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004606
606 Stormwater Retention Basin
Stormwater Retention Basin (Effluent to Manhole 175)

DATE: OCTOBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.282	0.34	0.36	115
2	0.094	0.36	0.13	122
3	0.000	0.00	0.00	0
4	0.000	0.00	0.00	0
5	0.251	0.62	0.59	209
6	0.224	0.76	0.64	257
7	0.280	0.76	0.81	257
8	0.172	0.70	0.46	236
9	0.104	0.36	0.14	122
10	0.189	0.32	0.23	108
11	0.726	0.36	0.99	122
12	0.741	0.36	1.01	122
13	0.756	0.34	0.97	115
14	0.770	0.34	0.99	115
15	0.842	0.36	1.15	122
16	0.830	0.42	1.32	142
17	0.524	0.38	0.75	128
18	0.066	0.36	0.09	122
19	0.792	0.30	0.90	101
20	0.700	0.42	1.11	142
21	0.792	0.32	0.96	108
22	0.806	0.34	1.04	115
23	0.784	0.42	1.25	142
24	0.647	0.50	1.22	169
25	0.792	0.52	1.56	176
26	0.850	0.44	1.41	149
27	0.860	0.42	1.37	142
28	0.776	0.46	1.35	155
29	0.789	0.32	0.96	108
30	0.764	0.30	0.87	101
31	0.000	0.00	0.00	0
Total	16.203		24.61	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 606 Stormwater Retention Basin

DATE: OCTOBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.579	0.40	0.88	136
Max.	0.860	0.76	1.56	257
Min.	0.066	0.30	0.09	101

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004001
001 Total Discharge
Manhole 175 (Effluent to Great Miami River)

DATE: NOVEMBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	1.208	491	329	0.48	2.19	162
2	1.205	234	72	0.42	1.91	142
3	1.102	225	135	0.40	1.67	135
4	0.876	248	108	0.50	1.66	169
5	0.168	410	135	0.68	0.43	230
6	0.791	342	225	0.48	1.44	162
7	0.290	171	135	0.52	0.57	176
8	0.295	500	347	0.96	1.07	324
9	0.295	541	266	1.12	1.25	378
10	0.351	842	284	1.66	2.20	561
11	0.356	797	261	1.40	1.89	473
12	0.260	721	329	1.56	1.53	527
13	0.250	838	541	2.08	1.97	703
14	0.441	383	198	0.84	1.40	284
15	0.374	536	234	1.32	1.87	446
16	0.314	622	297	1.18	1.40	399
17	0.922	374	135	0.90	3.14	304
18	1.046	374	153	0.80	3.17	270
19	0.310	374	203	0.96	1.13	324
20	0.434	306	140	0.70	1.15	236
21	0.373	315	171	0.68	0.96	230
22	0.398	369	162	0.66	0.99	223
23	0.301	486	315	1.06	1.21	358
24	0.290	640	455	1.40	1.54	473
25	0.353	437	194	0.86	1.15	291
26	0.352	275	122	0.64	0.85	216
27	0.444	284	315	0.64	1.07	216
28	0.391	563	135	1.04	1.54	351
29	0.812	284	135	0.64	1.97	216
30	1.567	320	158	0.60	3.56	203
Total	16.569				47.87	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 001 Total Discharge

DATE: NOVEMBER 1990

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.552	392	196	0.76	1.60	258
Max.	1.567	842	541	2.08	3.56	703
Min.	0.168	171	72	0.40	0.43	135

The average uranium concentration for the previous twelve months was 0.82 mg/l. This is 92.1 percent of the Derived Concentration Guide(DOE Order 5400.5) for ingested water.

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004002
002 Discharge (Overflow) to Storm Sewer Outfall Ditch
Stormwater Retention Basin Spillway (Effluent to Paddy's Run)

DATE: NOVEMBER 1990

There was no discharge to Paddy's Run from the Stormwater Retention Basin.

Based on 2.03 inches of rainfall for the month, the uranium discharge to Paddy's Run from uncontrolled areas of the FMPC is estimated to be 9.14 kgs.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9004 900212

LOCATION: 1I000004601
601 Sanitary Treatment Plant
Ultraviolet Unit/Contact Tank (Effluent to Manhole 175)

DATE: NOVEMBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.128	0.05	0.02	17
2	0.092	0.06	0.02	20
3	0.165	0.06	0.04	20
4	0.076	0.05	0.01	17
5	0.029	0.03	0.00	10
6	0.062	0.06	0.01	20
7	0.107	0.07	0.03	24
8	0.122	0.03	0.01	10
9	0.129	0.03	0.01	10
10	0.137	0.02	0.01	7
11	0.081	0.04	0.01	14
12	0.061	0.05	0.01	17
13	0.106	0.06	0.02	20
14	0.182	0.04	0.03	14
15	0.133	0.03	0.02	10
16	0.122	0.04	0.02	14
17	0.130	0.06	0.03	20
18	0.020	0.03	0.00	10
19	0.047	0.04	0.01	14
20	0.130	0.04	0.02	14
21	0.122	0.04	0.02	14
22	0.108	0.03	0.01	10
23	0.074	0.04	0.01	14
24	0.037	0.04	0.01	14
25	0.123	0.11	0.05	37
26	0.035	0.11	0.01	37
27	0.113	0.17	0.07	57
28	0.129	0.05	0.02	17
29	0.148	0.07	0.04	24
30	0.239	0.08	0.07	27
Total	3.187		0.67	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 601 Sanitary Treatment Plant

DATE: NOVEMBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.106	0.06	0.02	19
Max.	0.239	0.17	0.07	57
Min.	0.020	0.02	0.00	7

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004603
603 Clearwell
Clearwell (Effluent to Manhole 175)

DATE: NOVEMBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.000	0	0	0.00	0.00	0
2	0.000	0	0	0.00	0.00	0
3	0.000	0	0	0.00	0.00	0
4	0.000	0	0	0.00	0.00	0
5	0.000	0	0	0.00	0.00	0
6	0.000	0	0	0.00	0.00	0
7	0.000	0	0	0.00	0.00	0
8	0.000	0	0	0.00	0.00	0
9	0.000	0	0	0.00	0.00	0
10	0.000	0	0	0.00	0.00	0
11	0.000	0	0	0.00	0.00	0
12	0.000	0	0	0.00	0.00	0
13	0.000	0	0	0.00	0.00	0
14	0.000	0	0	0.00	0.00	0
15	0.000	0	0	0.00	0.00	0
16	0.000	0	0	0.00	0.00	0
17	0.000	0	0	0.00	0.00	0
18	0.000	0	0	0.00	0.00	0
19	0.000	0	0	0.00	0.00	0
20	0.000	0	0	0.00	0.00	0
21	0.000	0	0	0.00	0.00	0
22	0.000	0	0	0.00	0.00	0
23	0.000	0	0	0.00	0.00	0
24	0.000	0	0	0.00	0.00	0
25	0.000	0	0	0.00	0.00	0
26	0.000	0	0	0.00	0.00	0
27	0.000	0	0	0.00	0.00	0
28	0.000	0	0	0.00	0.00	0
29	0.000	0	0	0.00	0.00	0
30	0.000	0	0	0.00	0.00	0
Total	0.000				0.00	

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004604
604 Storm Sewer Lift Station
Manhole 34 (Stormwater to Manhole 175)

DATE: NOVEMBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.056	1.32	0.28	446
2	0.042	1.02	0.16	345
3	0.056	1.24	0.26	419
4	0.060	1.94	0.44	655
5	0.073	1.76	0.49	595
6	0.048	1.16	0.21	392
7	0.084	1.64	0.52	554
8	0.072	1.76	0.48	595
9	0.073	1.82	0.50	615
10	0.106	3.18	1.28	1074
11	0.131	3.32	1.65	1122
12	0.101	1.96	0.75	662
13	0.085	1.94	0.62	655
14	0.082	1.82	0.56	615
15	0.095	1.66	0.60	561
16	0.096	1.66	0.60	561
17	0.123	1.86	0.87	628
18	0.083	1.64	0.51	554
19	0.087	1.86	0.61	628
20	0.094	1.82	0.65	615
21	0.088	1.80	0.60	608
22	0.116	1.44	0.63	486
23	0.115	1.74	0.76	588
24	0.144	1.92	1.05	649
25	0.120	1.70	0.77	574
26	0.106	1.76	0.71	595
27	0.140	1.42	0.75	480
28	0.152	1.48	0.85	500
29	0.100	1.92	0.73	649
30	0.219	1.30	1.08	439
Total	2.947		19.96	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 604 Storm Sewer Lift Station

DATE: NOVEMBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.147	1.79	1.00	605
Max.	0.219	3.32	1.65	1122
Min.	0.042	1.02	0.16	345

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004605
605 Bioreactor
Bioreactor (Effluent to Manhole 175)

DATE: NOVEMBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.060	820	820	1.40	0.32	473
2	0.051	730	509	1.70	0.33	574
3	0.049	829	473	1.50	0.28	507
4	0.046	707	491	1.00	0.17	338
5	0.065	505	374	0.86	0.21	291
6	0.050	432	383	0.70	0.13	236
7	0.059	293	428	0.59	0.13	199
8	0.061	374	284	0.57	0.13	193
9	0.058	1050	545	2.40	0.53	811
10	0.068	1658	631	3.30	0.85	1115
11	0.064	1793	968	3.20	0.77	1081
12	0.058	1779	973	3.40	0.75	1149
13	0.059	1680	577	3.20	0.71	1081
14	0.057	1667	748	3.40	0.73	1149
15	0.067	1748	550	3.30	0.84	1115
16	0.056	1198	680	2.40	0.51	811
17	0.082	689	550	1.60	0.50	541
18	0.079	617	568	1.20	0.36	405
19	0.085	545	455	0.94	0.30	318
20	0.081	396	324	0.78	0.24	264
21	0.083	284	518	0.69	0.22	233
22	0.094	338	369	0.76	0.27	257
23	0.112	387	878	0.82	0.35	277
24	0.109	284	649	0.59	0.24	199
25	0.109	248	640	0.46	0.19	155
26	0.092	189	820	0.39	0.14	132
27	0.111					
28	0.030					
29	0.000	0	0	0.00	0.00	0
30	0.069					
Total	2.064				10.19	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 605 Bioreactor

DATE: NOVEMBER 1990

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.071	669	532	1.31	0.35	441
Max.	0.112	1793	973	3.40	0.85	1149
Min.	0.030	189	284	0.39	0.13	132

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004606
606 Stormwater Retention Basin
Stormwater Retention Basin (Effluent to Manhole 175)

DATE: NOVEMBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.924	0.26	0.91	88
2	0.981	0.44	1.63	149
3	0.792	0.40	1.20	135
4	0.693	0.42	1.10	142
5	0.000	0.00	0.00	0
6	0.551	0.64	1.33	216
7	0.000	0.00	0.00	0
8	0.000	0.00	0.00	0
9	0.000	0.00	0.00	0
10	0.000	0.00	0.00	0
11	0.000	0.00	0.00	0
12	0.000	0.00	0.00	0
13	0.000	0.00	0.00	0
14	0.000	0.00	0.00	0
15	0.000	0.00	0.00	0
16	0.000	0.00	0.00	0
17	0.546	0.66	1.36	223
18	0.823	0.68	2.12	230
19	0.092	0.68	0.24	230
20	0.000	0.00	0.00	0
21	0.000	0.00	0.00	0
22	0.000	0.00	0.00	0
23	0.000	0.00	0.00	0
24	0.000	0.00	0.00	0
25	0.000	0.00	0.00	0
26	0.000	0.00	0.00	0
27	0.000	0.00	0.00	0
28	0.000	0.00	0.00	0
29	0.444	0.64	1.07	216
30	1.001	0.64	2.42	216
Total	6.847		13.39	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 606 Stormwater Retention Basin

DATE: NOVEMBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.685	0.52	1.34	175
Max.	1.001	0.68	2.42	230
Min.	0.092	0.26	0.24	88

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004001
001 Total Discharge
Manhole 175 (Effluent to Great Miami River)

DATE: DECEMBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.540	279	140	0.56	1.14	189
2	0.339	342	189	0.52	0.67	176
3	1.191	302	135	0.50	2.25	169
4	1.223	396	162	0.50	2.31	169
5	1.222	248	113	0.36	1.66	122
6	1.123	405	216	0.50	2.12	169
7	0.507	387	135	0.56	1.07	189
8	0.382	266	234	0.56	0.81	189
9	0.340	234	189	0.46	0.59	155
10	0.273	189	180	0.48	0.50	162
11	0.346	135	153	0.22	0.29	74
12	0.383	270	153	0.62	0.90	209
13	0.600	279	297	0.70	1.59	236
14	0.691	306	108	0.38	0.99	128
15	0.439	338	117	0.62	1.03	209
16	0.308	581	230	0.86	1.00	291
17	0.889	369	198	0.46	1.55	155
18	1.312	207	131	0.32	1.59	108
19	1.374	401	104	0.62	3.22	209
20	1.327	369	77	0.70	3.51	236
21	1.421	356	225	0.62	3.33	209
22	1.386	500	122	0.84	4.40	284
23	1.379	405	122	0.90	4.70	304
24	1.347	383	135	0.86	4.38	291
25	1.352	473	275	0.74	3.78	250
26	1.362	450	126	0.60	3.09	203
27	1.301	288	140	0.60	2.95	203
28	1.266	311	207	0.76	3.64	257
29	1.357	505	248	0.92	4.72	311
30	1.383	396	320	0.88	4.60	297
31	1.450	405	216	0.96	5.27	324
Total	29.813				73.68	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 001 Total Discharge

DATE: DECEMBER 1990

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.962	366	173	0.65	2.38	221
Max.	1.450	581	320	0.96	5.27	324
Min.	0.273	135	77	0.22	0.29	74

The average uranium concentration for the previous twelve months was 0.80 mg/l. This is 90.1 percent of the Derived Concentration Guide(DOE Order 5400.5) for ingested water.

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004002
002 Discharge (Overflow) to Storm Sewer Outfall Ditch
Stormwater Retention Basin Spillway (Effluent to Paddy's Run)

DATE: DECEMBER 1990

There was no discharge to Paddy's Run from the Stormwater Retention Basin.

Based on 7.01 inches of rainfall for the month, the uranium discharge to Paddy's Run from uncontrolled areas of the FMPC is estimated to be 31.54 kgs.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9004 900212

LOCATION: 1I000004601
601 Sanitary Treatment Plant
Ultraviolet Unit/Contact Tank (Effluent to Manhole 175)

DATE: DECEMBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.077	0.04	0.01	14
2	0.050	0.03	0.01	10
3	0.202	0.07	0.05	24
4	0.157	0.16	0.10	54
5	0.183	0.11	0.08	37
6	0.238	0.04	0.04	14
7	0.148	0.04	0.02	14
8	0.138	0.04	0.02	14
9	0.072	0.09	0.02	30
10	0.079	0.10	0.03	34
11	0.191	0.04	0.03	14
12	0.148	0.04	0.02	14
13	0.155	0.02	0.01	7
14	0.171	0.03	0.02	10
15	0.103	0.03	0.01	10
16	0.055	0.04	0.01	14
17	0.167	0.06	0.04	20
18	0.243	0.17	0.16	57
19	0.192	0.17	0.12	57
20	0.209	0.09	0.07	30
21	0.220	0.05	0.04	17
22	0.132	0.06	0.03	20
23	0.152	0.33	0.19	111
24	0.128	0.47	0.23	159
25	0.165	0.34	0.21	115
26	0.245	0.23	0.21	78
27	0.185	0.03	0.02	10
28	0.156	0.03	0.02	10
29	0.126	0.04	0.02	14
30	0.231	0.21	0.18	71
31	0.243	0.12	0.11	41
Total	4.961		2.13	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 601 Sanitary Treatment Plant

DATE: DECEMBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.160	0.11	0.07	38
Max.	0.245	0.47	0.23	159
Min.	0.050	0.02	0.01	7

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004603
603 Clearwell
Clearwell (Effluent to Manhole 175)

DATE: DECEMBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.000	0	0	0.00	0.00	0
2	0.000	0	0	0.00	0.00	0
3	0.000	0	0	0.00	0.00	0
4	0.000	0	0	0.00	0.00	0
5	0.000	0	0	0.00	0.00	0
6	0.000	0	0	0.00	0.00	0
7	0.000	0	0	0.00	0.00	0
8	0.000	0	0	0.00	0.00	0
9	0.000	0	0	0.00	0.00	0
10	0.000	0	0	0.00	0.00	0
11	0.000	0	0	0.00	0.00	0
12	0.000	0	0	0.00	0.00	0
13	0.000	0	0	0.00	0.00	0
14	0.000	0	0	0.00	0.00	0
15	0.000	0	0	0.00	0.00	0
16	0.000	0	0	0.00	0.00	0
17	0.000	0	0	0.00	0.00	0
18	0.000	0	0	0.00	0.00	0
19	0.000	0	0	0.00	0.00	0
20	0.000	0	0	0.00	0.00	0
21	0.000	0	0	0.00	0.00	0
22	0.000	0	0	0.00	0.00	0
23	0.000	0	0	0.00	0.00	0
24	0.000	0	0	0.00	0.00	0
25	0.000	0	0	0.00	0.00	0
26	0.000	0	0	0.00	0.00	0
27	0.000	0	0	0.00	0.00	0
28	0.000	0	0	0.00	0.00	0
29	0.000	0	0	0.00	0.00	0
30	0.000	0	0	0.00	0.00	0
Total	0.000				0.00	

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004604
604 Storm Sewer Lift Station
Manhole 34 (Stormwater to Manhole 175)

DATE: DECEMBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.005	1.36	0.03	459
2	0.049	1.34	0.25	453
3	0.052	1.98	0.39	669
4	0.050	1.58	0.30	534
5	0.050	1.50	0.28	507
6	0.033	1.32	0.16	446
7	0.069	1.58	0.41	534
8	0.123	1.32	0.61	446
9	0.107	1.24	0.50	419
10	0.073	0.56	0.15	189
11	0.060	1.10	0.25	372
12	0.092	1.48	0.52	500
13	0.033	0.78	0.10	264
14	0.087	1.18	0.39	399
15	0.145	1.60	0.88	541
16	0.116	1.82	0.80	615
17	0.289	1.16	1.27	392
18	0.150	0.88	0.50	297
19	0.245	2.20	2.04	743
20	0.175	1.98	1.31	669
21	0.225	1.58	1.34	534
22	0.270	1.68	1.72	568
23	0.321	1.66	2.02	561
24	0.200	1.46	1.10	493
25	0.193	1.28	0.93	432
26	0.144	1.40	0.76	473
27	0.145	1.38	0.76	466
28	0.259	0.84	0.82	284
29	0.282	1.00	1.07	338
30	0.222	1.36	1.14	459
31	0.277	1.76	1.84	595
Total	4.541		24.65	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 604 Storm Sewer Lift Station

DATE: DECEMBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.146	1.43	0.80	485
Max.	0.321	2.20	2.04	743
Min.	0.005	0.56	0.03	189

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004605
605 Bioreactor
Bioreactor (Effluent to Manhole 175)

DATE: DECEMBER 1990

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.084	243	878	0.32	0.10	108
2	0.084	99	622	0.36	0.11	122
3	0.080	171	595	0.30	0.09	101
4	0.076	113	590	0.26	0.07	88
5	0.088	131	275	0.21	0.07	71
6	0.021	81	261	0.17	0.01	57
7	0.027					
8	0.081	59	369	0.16	0.05	54
9	0.081	189	505	0.25	0.08	84
10	0.081	239	410	0.36	0.11	122
11	0.095	243	464	0.37	0.13	125
12	0.103	279	414	0.46	0.18	155
13	0.096	270	360	0.33	0.12	111
14	0.100	230	437	0.33	0.12	111
15	0.098	108	329	0.30	0.11	101
16	0.097	198	392	0.31	0.11	105
17	0.100	176	392	0.31	0.12	105
18	0.086	95	351	0.25	0.08	84
19	0.087	131	401	0.35	0.12	118
20	0.105	1315	802	2.20	0.87	743
21	0.122	977	694	1.82	0.84	615
22	0.124	1167	676	2.00	0.94	676
23	0.126	1203	550	2.14	1.02	723
24	0.129	995	730	2.15	1.05	726
25	0.121	986	662	1.99	0.91	672
26	0.125	1041	401	1.85	0.87	625
27	0.124	1059	536	1.93	0.91	652
28	0.088	1216	595	2.40	0.80	811
29	0.126	1838	1086	3.83	1.83	1294
30	0.127	2311	1095	3.23	1.55	1091
31	0.148	1365	901	2.85	1.60	963
Total	3.030				14.98	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 605 Bioreactor

DATE: DECEMBER 1990

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.098	716	583	1.31	0.50	442
Max.	0.148	2311	1095	3.83	1.83	1294
Min.	0.021	59	261	0.16	0.01	54

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
U.S. Department of Energy
7400 Willey Road, P.O.Box 398704
Cincinnati, Ohio 45239 Hamilton
9002 M 9501 900212

LOCATION: 1I000004606
606 Stormwater Retention Basin
Stormwater Retention Basin (Effluent to Manhole 175)

DATE: DECEMBER 1990

Day	Flow (MGD)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.333	0.58	0.73	196
2	0.157	0.52	0.31	176
3	0.737	0.38	1.06	128
4	0.900	0.42	1.43	142
5	0.821	0.34	1.06	115
6	0.671	0.42	1.07	142
7	0.223	0.38	0.32	128
8	0.000	0.00	0.00	0
9	0.000	0.00	0.00	0
10	0.000	0.00	0.00	0
11	0.000	0.00	0.00	0
12	0.000	0.00	0.00	0
13	0.237	0.82	0.74	277
14	0.294	0.50	0.56	169
15	0.013	0.44	0.02	149
16	0.000	0.00	0.00	0
17	0.294	0.52	0.58	176
18	0.714	0.52	1.40	176
19	0.731	0.48	1.33	162
20	0.798	0.46	1.39	155
21	0.733	0.42	1.16	142
22	0.780	0.50	1.48	169
23	0.700	0.50	1.32	169
24	0.811	0.64	1.96	216
25	0.834	0.66	2.08	223
26	0.768	0.46	1.34	155
27	0.767	0.46	1.33	155
28	0.723	0.46	1.26	155
29	0.703	0.42	1.12	142
30	0.723	0.36	0.98	122
31	0.702	0.44	1.17	149
Total	15.167		27.19	

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 606 Stormwater Retention Basin

DATE: DECEMBER 1990

	Flow (MGD)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.607	0.47	1.09	160
Max.	0.900	0.82	2.08	277
Min.	0.013	0.34	0.02	115

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/kg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.