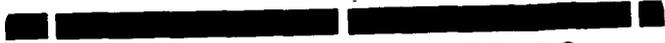


1944


G-000-709.29

**QUARTERLY REPORT LIQUID RADIATION
DISCHARGES OCTOBER THROUGH
DECEMBER 1989**

XX/XX/XX

**64
ENCLOSURE**

1944

ENCLOSURE 2

QUARTERLY REPORT
LIQUID RADIATION DISCHARGES
OCTOBER THROUGH DECEMBER 1989

QUARTERLY REPORT
LIQUID RADIATION DISCHARGES
OCTOBER THROUGH DECEMBER 1989

1944

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

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

**LIQUID DISCHARGE MONITORING DATA IN RESPONSE TO ITEM A1
OF THE RADIATION DISCHARGE INFORMATION SECTION
FEDERAL FACILITIES COMPLIANCE AGREEMENT**

Introduction

This report is submitted in response to Item A1 of the Radiation Discharge Information Section of the Federal Facilities 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 001B) for Discharges 001, 001A through 001E, and 002 for the period October through December 1989. Some radionuclide data for composite samples collected during the third and fourth quarters of 1989 is not available at this time; it 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 analyzed daily for pH, alpha and beta radiation, and uranium. The alpha, beta, and uranium data are tabulated, converted to activity units and reported to the 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 seven (7) days, this discharge is also analyzed for oil and grease, dissolved and total suspended solids, chlorides, fluorides, nitrates, residual chlorine, ammonia, dissolved oxygen, and temperature. The pH, total suspended solids, oil and grease, flow, residual chlorine, ammonia, and nitrate 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 001A - Sanitary Treatment Plant

This discharge consists of combined sanitary and industrial wastewater. The industrial wastewater is denitrified Bionitrification (BDN) effluent. The sanitary sewage is generated by 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 001A is continuously monitored for flow and analyzed daily for pH and uranium. The uranium data has been tabulated, converted to activity units and included in this submittal. In addition, at a frequency of once every seven (7) days, this discharge is also analyzed for total, dissolved, suspended, and settleable solids; BOD; dissolved oxygen; volatile acids; and fecal coliform bacteria. The flow, pH, total suspended solids, BOD and fecal coliform bacteria 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 001B - General Sump

The General Sump receives three (3) types of industrial wastewaters. First is 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 is 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 is the potable water production and powerhouse waste streams. These are combined and decanted. The sludge is pumped to storage lagoons. The supernate, Discharge 001B, is grab sampled and discharged on a batch basis to Manhole 175. At an average frequency of once every seven (7) days, this discharge is analyzed for total suspended solids, hexavalent and total chromium, copper, iron, 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. Discharge 001B is considered to be uncontaminated; accordingly, radionuclides are not analyzed.

Discharge 001C - 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. The option to pump to Manhole 175 is still available, if needed.

Discharge 001C is continuously monitored for flow and analyzed daily for pH, alpha and beta radiation, and uranium (when it is pumped). The alpha, beta, and uranium data have been tabulated, converted to activity units and included in this submittal. In addition, this discharge is also analyzed, when pumped, for total suspended solids, hexavalent and total chromium, copper, iron, and nickel (at an average frequency of once every seven (7) days). 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 001D - 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 001D is continuously monitored for flow and analyzed daily for uranium. The uranium data is tabulated, converted to activity units, and included in this submittal. In addition, at an average frequency of once every seven (7) days, this discharge is also analyzed for pH, total suspended solids, alpha and beta radiation, oil and grease, chlorides, fluorides, and nitrates. The flow, total suspended solids and oil and grease 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 001E - Bioreactor

This discharge consists of denitrified industrial wastewaters. These wastewaters originate primarily from the refinery and metals plants. The denitrified BDN effluent is returned to the General Sump for pretreatment and then discharged to the Sanitary Treatment Plant.

The Bioreactor effluent is analyzed weekly, or more frequently, for ammonia, total suspended solids, nitrate, pH, uranium, and alpha and beta radiation. The alpha, beta and uranium data are tabulated, converted to activity units and are included in this submittal. The estimated flow, pH, ammonia, and nitrate 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 002 - Discharge Prior to Ditch to Paddy's Run

This discharge consists of the overflow to Paddy's Run via a spillway from the Stormwater Retention Basin.

Discharge 002 is monitored during overflows for the flow, and each overflow is analyzed for pH, alpha and beta radiation, uranium, oil and grease, total suspended solids and residual chlorine. The alpha, beta, and uranium data has been tabulated converted to activity units and included in this submittal. The pH, oil and grease, and total suspended solids 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.

Location : 001 Total Discharge
Manhole 175

1944

Date: Fourth Quarter 1989

October			November		
Day	Flow (MGD)	Th-234 pCi/l	Day	Flow (MGD)	Th-234 pCi/l
5	0.328	<0.45	2	0.215	110
12	0.221	125	9	0.849	200
19	0.435	<0.42	16	0.840	120
26	<u>0.899</u>	<u>47</u>	23	0.637	88
TOTAL	1.883	172.87	30	<u>0.708</u>	<u>110</u>
AVE.	0.471	43.22	TOTAL	3.249	628.00
MAX.	0.899	125	AVE.	0.650	125.60
MIN.	0.221	<0.42	MAX.	0.849	200
			MIN.	0.215	88

December		
Day	Flow (MGD)	Th-234 pCi/l
7	0.567	<0.63
14	0.516	<0.59
21	0.293	130
28	<u>0.333</u>	<u>100</u>
TOTAL	1.709	231.22
AVE.	0.427	57.80
MAX.	0.567	130
MIN.	0.293	<0.59

Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O. Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

1944

11000004001
 001 Total Discharge
 Manhole 175 (Effluent to Great Miami River)
 1989

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)	AVG. (pci/l)	S.D. (pci/l)	Coeff. Variation	DOE DCG	Analysis Schedule
Cesium-137	N/R	N/R	< 2.96	N/R	N/R	< 9.41	N/R	N/R	AH	N/R	N/R	AH	< 6.19	< 3.22	0.52	3000	qtrly
γ-237	0.04	0.044	0.037	0.061	0.019	0.017	0.012	AH	AH	AH	AH	AH	0.03	0.02	0.50	30	Monthly
Pu-238	< 0.01	< 0.01	0.02	0.01	< 0.01	0.782	0.427	AH	AH	AH	AH	AH	< 0.18	< 0.28	1.57	40	Monthly
Pu-239/240	0.016	0.014	0.019	0.013	0.074	4.12	0.07	AH	AH	AH	AH	AH	0.62	1.43	2.31	30	Monthly
Ru-106	N/R	N/R	< 30.4	N/R	N/R	< 80.8	N/R	N/R	AH	N/R	N/R	AH	< 55.60	< 25.20	0.45	6000	qtrly
Strontium-90	N/R	N/R	0.933	N/R	N/R	0.705	N/R	N/R	AH	N/R	N/R	AH	0.82	0.11	0.14	1000	qtrly
Technetium-99	3220	2800	< 3900	1600	< 6000	< 5000	< 5000	< 4000	< 5300	AH	AH	AH	4091.11	1309.52	0.32	100000	Monthly
K-40	< 100	< 128	< 628	59.2	< 166	181	< 132	AH	AH	AH	AH	AH	< 199.17	< 179.02	0.90	7000	Monthly
Ac-227	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	AH	AH	AH	AH	AH	< 1.00	< 0.00	0.00	10	Monthly
Lead-210	< 3.0	< 3.0	< 3.0	< 3.0	7.0	11.3	< 3.0	AH	AH	AH	AH	AH	< 4.76	< 3.01	0.63	30	Monthly
Thorium-228	0.132	0.19	0.172	0.173	0.225	0.49	1.25	AH	AH	AH	AH	AH	0.38	0.37	0.99	400	Monthly
Thorium-230	0.101	0.086	0.187	0.197	0.08	0.109	0.109	AH	AH	AH	AH	AH	0.12	0.04	0.36	300	Monthly
Thorium-232	0.693	1.64	1.47	1.59	0.325	0.514	0.374	AH	AH	AH	AH	AH	0.94	0.55	0.59	50	Monthly
Uranium-233	< 98.5	< 109.3	< 109.3	< 143.7	< 122.1	< 55.2	< 62.3	< 48.9	< 50.8	< 57.0	< 70.4	< 81.1	< 84.05	< 30.34	0.36	500	Monthly
Uranium-234	255.2	283.0	283.0	372.1	316.2	178.9	201.7	126.8	131.7	184.4	182.3	315.1	235.87	75.72	0.32	500	Monthly
Uranium-235	13.0	13.9	14.7	17.1	15.3	8.2	9.2	7.3	7.6	0.9	1.0	1.3	9.13	5.56	0.61	600	Monthly
Uranium-236	9.3	10.3	10.3	11.6	10.6	6.3	6.3	4.9	5.5	5.7	6.6	13.6	8.41	2.74	0.33	500	Monthly
Uranium-238	341.2	378.4	378.2	497.8	422.8	191.1	215.6	169.3	175.9	197.0	243.6	280.4	290.96	105.21	0.36	600	Monthly
Radium-226	< 2.5	< 2.2	< 2.0	< 3.0	< 2.4	< 1.3	AH	AH	AH	AH	AH	AH	< 2.23	< 0.52	0.23	100	Monthly
Radium-228	< 4.0	< 2.9	< 3.0	< 4.0	18.0	14.0	AH	AH	AH	AH	AH	AH	< 7.65	< 6.03	0.79	100	Monthly

AH - Sample collected, but not yet analyzed N/R - Not Required

7



NAME ADDRESS CITY, COUNTY, ZIP

STATION CODE

DATE (M YEAR)

PAGE PRINTING DATE APPLIC

U.S. DEPARTMENT OF ENERGY
 FEED MATERIALS PROD. CENTER
 WILLEY RD, P O BOX 39158
 FERNALD 45239
 HAMILTON

11000004001

OCT 1989

1 1

OH00
 05/31/86

SAMPLING STATION DESCRIPTION

001 TOTAL DISCHARGE

1944
 NOTE THIS FORM MUST

IN(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE

REPORTING LAB

ANALYST

IN(2) ENTER FREQUENCY OF SAMPLING

DAY	3	2	3	1	3	2	2			
	1	998	1	999	1	998	998			
	PH	RESIDU	O&G	CONDUI	CHLORI	AMMONI	NITRAT			
	S.U.	T NFL	TOTAL	FLOW	TOT RE	NH3-N	NO3-N			
	REPORTING CODE									
	00400	00530	00550	50050	50060	00610	00620			
01	7.9			.346						
02	8.0	4	AA	.340	.03	.10	5.6			
03	7.9			.352						
04	7.9			.370						
05	7.8			.328						
06	7.8			.394						
07	7.8			.427						
08	8.0			.380						
09	8.0			.303						
10	8.0	3	AA	.407	.05	.17	6.5			
11	7.9			.429						
12	8.0			.221						
13	7.9			.278						
14	7.9			.216						
15	7.9			.196						
16	8.1			.198						
17	8.0			.573						
18	8.1	5	AA	.292	.02	.14	4.8			
19	8.0			.435						
20	7.9			.852						
21	7.9			.753						
22	7.9			.642						
23	8.0			.538						
24	7.8			.851						
25	8.0			.871						
26	8.0	5	AA	.899	.05	.14	3.6			
27	8.1			.783						
28	7.8			.624						
29	8.1			.353						
30	8.0			.455						
31	8.1			.469						

TOTAL	246.5	17	AA	14.575	.15	.55	20.5			
AVG	8.0	4	AA	.470	.04	.14	5.1			
MAX	8.1	5	AA	.899	.05	.17	6.5			
MIN	7.8	3	AA	.196	.02	.10	3.6			

ADDITIONAL REMARKS (4H REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

JRM

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM NO EPA 4500 2-86
 FORMERLY EPA 503

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 09 NOV 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
--------------------------------------	-----------------------	--

05/31/86
1944

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239 HAMILTON
601 (001A) SANITARY T.P.

IN-1: ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE
IN-2: ENTER FREQUENCY OF SAMPLING
REPORTING LAB ANALYST NOTE: THIS FORM MUST

DAY	BOD 5 DAY MG/L		PH S.U.		RESIDU T. NFL MG/L		FEC CO MF-FCB #/100M		CONDUIT FLOW MGD	
	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE				
01	00310	00400		8.0			31616		50050	
02				8.0					.160	
03				7.9					.138	
04	2			7.9	3				.148	
05				7.9			100		.127	
06				7.9					.142	
07				8.1					.203	
08				8.1					.223	
09				8.1					.188	
10				8.1					.140	
11	2			8.2	3				.225	
12				8.1			1000		.214	
13				7.9					.201	
14				7.9					.210	
15				8.0					.164	
16				8.0					.180	
17				8.0					.133	
18	2			8.0	2				.238	
19				7.9			300		.144	
20				8.0					.178	
21				7.9					.254	
22				8.0					.224	
23				8.1					.123	
24				8.0					.145	
25	1			8.0	1				.173	
26				8.1			300		.197	
27				7.8					.189	
28				7.7					.182	
29				8.0					.129	
30				8.0					.115	
31				8.0					.133	
TOTAL	7	247.6			9	1700	5.414			
AVG	2	8.0			2	308	.175			
MAX	2	8.2			3	1000	.254			
MIN.	1	7.7			1	100	.115			

ADDITIONAL REMARKS (A - REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

DISTRIBUTION
WHITE - AGENCY
YELLOW - AGENCY
GREEN - REPORTER
FORM NO. EPA 4500-8-86
FORMERLY EPA 500-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY KNOWLEDGE AND BELIEF, 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: 09 NOV 1989
SIGNATURE OF REPORTER: _____
TITLE OF REPORTER: DOE FMPC SITE MANAGER

MONTHLY REPORT FORM

REPORTED



NAME ADDRESS CITY COUNTY ZIP

STATION CODE

DATE (M / YR)

PAGE PRINTING DATE APPL

11000004602

OCT 1989

OF 1 1

OH0

05/31/86

U.S. DEPARTMENT OF ENERGY
 FEED MATERIALS PROD. CENTER
 WILLEY RD , P O BOX 39158
 FERNALD 45239
 HAMILTON

SAMPLING STATION DESCRIPTION

602 (001B) GENERAL SUMP

1944

NOTE THIS FORM MUST

(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE		REPORTING LAB						ANALYST							
(2) ENTER FREQUENCY OF SAMPLING		RESIDU T MG/L		CHROME CR HEX UG/L		CHROME CR TOT UG/L		COPPER CU TOT UG/L		IRON FE TOT UG/L		NICKEL NI TOT UG/L		CONDUIT FLOW MGD	
DAY		REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REP
01															
02	AA		AA	AA	5	67.00		AA							
03															
04															
05															
06															
07															
08															
09															
10	3		AA	AA	7	189.00		AA							
11															
12															
13															
14															
15															
16															
17															
18	2		AA	AA	6	392.00		12							
19															
20															
21															
22															
23															
24															
25															
26	7		AA	AA	1	25.00		AA							
27															
28															
29															
30															
31															

TOTAL	14	AA	AA	19	673.00	22	1.310		
AVG	4	AA	AA	5	168.25	5	.045		
MAX	7	AA	AA	7	392.00	12	.088		
MIN	AA	AA	AA	1	25.00	AA	.023		

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

12M?D

10

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM NO EPA 450/3-B
 FORMERLY EPA 503-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY KNOWLEDGE AND BELIEF, THE 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 09 NOV 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
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MONTHLY REPORT FORM



REPORTED

NAME ADDRESS CITY COUNTY ZIP

STATION CODE

DATE (MO YEAR)

PAGE PRINTING DATE APPLIC.

1000004603

OCT 1989

1 OF 1

05/31/86 OH00

U.S. DEPARTMENT OF ENERGY
 FEED MATERIALS PROD. CENTER
 WILLEY RD, P O BOX 39158
 FERNALD 45239
 HAMILTON

SAMPLING STATION DESCRIPTION
 603 (001C) CLEARWELL

1944

NOTE THIS FORM MUST BE

		REPORTING LAB						ANALYST			
(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE											
(2) ENTER FREQUENCY OF SAMPLING											
UNIT ANALYZED, ELEMENT AND CODE NO. AT RIGHT		2	2	2	2	2	2	1			
		998	998	998	998	998	998	999			
		RESIDU	CHROME	CHROME	COPPER	IRON	NICKEL	CONDUI			
		T. NFL	CR HEX	CR TOT	CU TOT	FE TOT	NI TOT	FLOW			
		MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MGD			
		REPORTING CODE									
DAY		00530	01032	01034	01042	01045	01067	50050			
								AH-1			
01											
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27											
28											
29											
30											
31											
TOTAL											
AVG											
MAX.											
MIN											

ADDITIONAL REMARKS (A-- REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
 AH-1 NO WATER PUMPED FROM CLEARWELL

ARMELD

11

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM NO EPA 4500 2-84
 FORMERLY EPA 816-P

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 09 NOV 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
--------------------------------------	-----------------------	--



MONTHLY REPORT FORM

REPORTED

NAME, ADDRESS, CITY, COUNTY, ZIP

STATION CODE
11000004604

DATE (M. YEAR)
OCT 1989

PAGE PRINTING DATE APPLIC
OF 1 OH00

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION
604 (001D) STORM SEWER LIFT STATION

1944

05/31/86

NOTE THIS FORM MUST

(IN-1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE	REPORTING LAB	ANALYST
(IN-2) ENTER FREQUENCY OF SAMPLING		

DAY	INITIAL ANALYSES PERFORMED AND CODE NO. AT RIGHT			REPORTING CODE	REPC					
	RESIDU T. NFL MG/L	O&G TOTAL MG/L	CONDUI FLOW MGD							
01	1	1	999	00530	00550	50050				
02	2	AA	.150							
03			.164							
04			.126							
05			.166							
06			.146							
07			.154							
08			.165							
09			.175							
10	31	AA	.125							
11			.155							
12			.160							
13			.120							
14			.110							
15			.100							
16			.100							
17			.100							
18	AA	AA	.270							
19			.110							
20			.219							
21			.415							
22			.306							
23			.125							
24			.134							
25			.155							
26	AA	AA	.173							
27			.249							
28			.147							
29			.130							
30			.125							
31			.284							
			.248							

TOTAL	37	AA	5.306							
AVG	9	AA	.171							
MAX	31	AA	.415							
MIN	AA	AA	.100							

ADDITIONAL REMARKS -- REPORTING CODES MUST BE EXPLAINED IN THIS SECTION

12/10/89

12

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM NO. EPA 450/3-B
 FORMERLY EPA 503-B

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY KNOWLEDGE AND BELIEVE THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. 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 09 NOV 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
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MONTHLY REPORT FORM

REPORTED



NAME ADDRESS CITY COUNTY ZIP

STATION CODE
11000004605

DATE (M YEAR)
OCT 1989

PAGE PRINTING DATE APPLIC
1 OF 1
05/31/86
OH00

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION
605 (001E) BICREACTOR

1944

NOTE THIS FORM MUST

(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE REPORTING-LAB ANALYST
(2) ENTER FREQUENCY OF SAMPLING

DAY	AMMONI NH3-N MG/L	NITRAT NO3-N MG/L	CONDUI FLOW MGD	REPORTING CODE						
01			.101	00610	00620	50050				
02	.83	.2	.101							
03			.044							
04			.034							
05			.057							
06			.073							
07			.101							
08			.101							
09			.101							
10	.65	.2	.101							
11			.101							
12			.101							
13			.101							
14			.101							
15			.101							
16			.101							
17			.101							
18	.80	.2	.071							
19			.067							
20			.095							
21			.088							
22			.072							
23			.072							
24			.035							
25			.072							
26	.83	.2	.072							
27			.072							
28			.039							
29			.054							
30			.072							
31			.072							

TOTAL	3.11	.8	2.474							
AVG	.78	.2	.080							
MAX	.83	.2	.101							
MIN	.65	.2	.034							

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

JRM

DISTRIBUTION
WHITE - AGENCY
YELLOW - AGENCY
GREEN - REPORTER
FORM NO. EPA 4500-B-88
FORMERLY EPA 500-1

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY KNOWLEDGE AND BELIEF, THE 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 09 NOV 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
--------------------------------------	-----------------------	--

NAME ADDRESS CITY COUNTY ZIP

STATION CODE

DATE (MO) YEAR

PAGE PRINTING DATE APPLIC.

11000004002

OCT 1989

1 1

OH00

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION

1944 05/31/86

002 DISCHARGE PRIOR TO DITCH TO PADDY

NOTE THIS FORM MUST

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

REPORTING LAB

ANALYST

DAY	REPORTING CODE	REPORT									
01	00400	00530	00550	50050	AH-2						
02											
03											
04											
05											
06											
07											
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
TOTAL											
AVG											
MAX											
MIN											

ADDITIONAL REMARKS (REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AH-2 NO WATER OVERFLOWED FROM STORMWATER RETENTION BASIN

327792

DISTRIBUTION
WHITE - AGENCY
YELLOW - AGENCY
GREEN - REPORTER
FORM NO. EPA 450/C-336
PREVIOUS EDITIONS

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INQUIRY INTO 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 09 NOV 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
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MONTHLY REPORT FORM

NAME AND ADDRESS OF COUNTY/STATE

U.S. DEPARTMENT OF AGRICULTURE
 FEED MATERIALS PRODUCTION CENTER
 WILLEY RD P.O. BOX 39158
 PERNALD 45239
 HAMILTON

STATE OF OHIO
 COUNTY OF HAMILTON

NOTE THIS FORM MUST BE

IN (1) - ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
 IN (2) - ENTER FREQUENCY OF SAMPLES

(1) DAY	(2) AND CODE NO. AT RIGHT	3	2	3	1	3	2	2		
		PH 8.U. REPORTING CODE 00400	RESIDU T. NFL MG/L REPORTING CODE 00530	O&G TOTAL MG/L REPORTING CODE 00550	CONDUI FLOW MGD REPORTING CODE 50050	CHLORI TOT RE MG/L REPORTING CODE 50060	AMMONI NH3-N MG/L REPORTING CODE 00610	NITRAT NO3-N MG/L REPORTING CODE 00620	1944	
01		7.9			.351					
02		7.9			.215					
03		7.9	6	AA	.215	.03	.16	6.7		
04		8.1			.233					
05		7.7			.235					
06		8.1	52	AA	.413	.05	.17	4.1		
07		7.9			.341					
08		8.2			.345					
09		8.0			.849					
10		8.3			.458					
11		8.3			.517					
12		8.4			.461					
13		8.1			.248					
14		7.9	2	AA	.201	.09	.13	4.5		
15		8.0			.600					
16		7.8			.840					
17		8.1			.713					
18		8.3			.641					
19		8.3			.844					
20		8.4			.624					
21		8.3			.670					
22		8.2	19	AA	.666	.05	.10	3.2		
23		8.1			.637					
24		8.2			.562					
25		8.3			.632					
26		8.2			.678					
27		8.1			.632					
28		7.9			.670					
29		8.2			.636					
30		8.3	15	AA	.708	.04	.19	3.3		
31										

TOTAL	243.4	94	AA	15.835	.26	.75	21.8		
AVG.	8.1	19	AA	.528	.05	.15	4.4		
MAX.	8.4	52	AA	.849	.09	.19	6.7		
MIN.	7.7	2	AA	.201	.03	.10	3.2		

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

J.M.D.

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - 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 INFO 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
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NAME ADDRESS CITY COUNTY STATE STATION NO. DATE COLLECTED
 U.S. DEPARTMENT OF ENERGY
 FERTILIZER MATERIALS PRODUCTION CONTROL BOARD
 WILLEY RD, P.O. BOX 39188, 601 (DOLE) HAMILTON, TN
 PERNALD 45210 HAMILTON

IN(1) ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE		REPORTING LAB					ANALYST						
IN(2) ENTER FREQUENCY OF SAMPLING													
DAY	IN(1)	IN(2)	BOD 5 DAY MG/L	PH S.U.	RESIDU T. NFL MG/L	FEC CO MP-PCB #/100M	CONDUIT FLOW MGD	REPORTING CODE					
	3	3			2	1							
	1	1			6	999							
	00310	00400			00530	31616	50050						
01	2	7.9					.198						
02		7.9				310	.186						
03		7.9					.201						
04		8.0					.185						
05		8.1					.148						
06		8.1					.134						
07		8.0					.200						
08	2	8.0		2			.209						
09		8.1			270		.206						
10		8.1					.206						
11		8.1					.144						
12		8.2					.179						
13		8.0					.122						
14		8.0					.191						
15	3	8.1		2			.285						
16		8.0			370		.285						
17		8.2					.229						
18		8.3					.240						
19		8.3					.176						
20		8.3					.178						
21		8.2					.253						
22	3	8.1		2			.237						
23		8.1			870		.242						
24		8.2					.163						
25		8.2					.172						
26		8.3					.199						
27		8.1					.185						
28		8.0					.214						
29	3	8.0		6			.221						
30		8.1			280		.230						
31													
TOTAL	13	242.9		16	2100		6.020						
AVG.	3	8.1		3	376		.201						
MAX.	3	8.3		6	870		.285						
MIN.	2	7.9		2	270		.122						

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

JRM

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM NO EPA-450C-88E

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INFO. 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 12 DEC 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
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IN(1) - ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE
 IN(2) - ENTER FREQUENCY OF SAMPLING
 REPORTING LAB ANALYST

DAY	REPORTING CODE							REPORTING CODE	REPORTING CODE	REPORT
	RESIDU T. NFL MG/L	CHROME CR HEX UG/L	CHROME CR TOT UG/L	COPPER CU TOT UG/L	IRON FE TOT UG/L	NICKEL NI TOT UG/L	CONDUIT FLOW MGD			
01	00530	01032	01034	01042	01045	01067	50050		1944	
02							.000			
03	3	AA	AA	1	83.00	AA	.026			
04							.038			
05							.064			
06	7	AA	AA	3	63.00	6	.026			
07							.066			
08							.026			
09							.106			
10							.000			
11							.064			
12							.000			
13							.064			
14	AA	AA	AA	6	89.00	4	.040			
15							.028			
16							.038			
17							.066			
18							.068			
19							.026			
20							.066			
21							.092			
22	2	AA	AA	4	243.00	10	.068			
23							.066			
24							.000			
25							.063			
26							.104			
27							.078			
28							.026			
29							.066			
30	3	AA	AA	5	124.00	AA	.065			
31										

TOTAL	17	AA	AA	19	602.00	28	1.473			
AVG	3	AA	AA	4	120.40	6	.057			
MAX	7	AA	AA	6	243.00	10	.106			
MIN	AA	AA	AA	1	63.00	AA	.026			

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

ARM

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM NO. EPA-823-R-86

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY INFO. 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 12 DEC 1986	SIGNATURE OF REPORTER	TITLE OF REPORTER
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11000004601 NOV 05/31/86 OH000:

U.S. DEPARTMENT OF ENERGY
 FERTILIZER MATERIALS PROD. CENTER
 WILLEY RD, P O BOX 39158 603 (001C) CLEARWELL
 FERNALD 45239
 HAMILTON

1944

NOTE: THIS FORM MUST BE

IN(1) - ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE REPORTING LAB ANALYST
 IN(2) - ENTER FREQUENCY OF SAMPLING

(1) DAY	2		2		2		1			
	998	998	998	998	998	998	999			
AND CODE NO. AT RIGHT	RESIDU T. NFL MG/L	CHROME CR HEX UG/L	CHROME CR TOT UG/L	COPPER CU TOT UG/L	IRON FE TOT UG/L	NICKEL NI TOT UG/L	CONDUIT FLOW MGD			
	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
	00530	01032	01034	01042	01045	01067	50050			
01							AH-1			
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										

TOTAL										
AVG.										
MAX.										
MIN.										

ADDITIONAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
 AH-1 NO WATER PUMPED FROM CLEARWELL

JRMS

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM NO. EPA 4500 (8-86)
 PREPARED BY EPA 619

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED AND BASED ON MY KNOWLEDGE AND 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 12 DEC 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
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11000001004

NOV 89

P 1

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U.S. DEPARTMENT OF ENERGY
FEDERAL MATERIALS PRODUCTION CENTER
WILLEY RD, P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION
604 (001D) STORM SEWER LIFT STATION

1944 05/31/86

NOTE: THIS FORM MUST BE

IN(1) ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE REPORTING LAB ANALYST
IN(2) ENTER FREQUENCY OF SAMPLING

DAY	AND CODE NO. AT RIGHT	(1)	(2)	RESIDU T. NFL MG/L	O&G TOTAL MG/L	CONDUI FLOW MGD	REPORTING CODE															
		3	3	1	1	999	00530	00550	50050													
01						.119																
02						.100																
03		4		AA		.100																
04						.100																
05						.100																
06		16		AA		.133																
07						.147																
08						.111																
09						.176																
10						.200																
11						.105																
12						.187																
13						.550																
14		AA		AA		.025																
15						.182																
16						.247																
17						.179																
18						.000																
19						.400																
20						.180																
21						.160																
22		2		AA		.175																
23						.164																
24						.189																
25						.187																
26						.165																
27						.169																
28						.221																
29						.139																
30		AA		AA		.203																
31																						
TOTAL		26		AA		5.113																
AVG		5		AA		.176																
MAX		16		AA		.550																
MIN		AA		AA		.025																

ADDITIONAL REMARKS (AM REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

AR M&D

DISTRIBUTION
WHITE - AGENCY
YELLOW - AGENCY
GREEN - REPORTER
FORM 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 INFO. 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 12 DEC 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGE
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NAME ADDRESS CITY COUNTY ZIP STATION CODE DATE MONTH YEAR SAMPLING DATE
 1000001605 NOV 89 05/31/86
 U.S. DEPARTMENT OF ENERGY
 FERTILIZER MATERIALS PROD. CENTER - SAMPLING STATION
 WILLEY RD , P O BOX 39158 605 (001E) BICREACTOR 1944
 FERNALD 45239 HAMILTON
 NOTE: THIS FORM MUST BE

IN(1) - ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE			REPORTING LAB				ANALYST				
IN(2) - ENTER FREQUENCY OF SAMPLING											
DAY	(1)	(2)	AMMONI NH3-N MG/L	NITRAT NO3-N MG/L	CONDUIT FLOW MGD	REPORTING CODE	REPORT				
		2	2			1					
	1	1			999						
			00610	00620	50050						
01					.072						
02					.072						
03	.75			.3	.072						
04					.072						
05					.072						
06	.84			.1	.072						
07					.072						
08					.072						
09					.072						
10					.072						
11					.072						
12					.072						
13					.072						
14	.39			.1	.072						
15					.101						
16					.101						
17					.101						
18					.101						
19					.101						
20					.101						
21					.101						
22	.38			.2	.101						
23					.101						
24					.101						
25					.101						
26					.101						
27					.101						
28					.101						
29					.101						
30	.33			.3	.101						
31											
TOTAL	2.69		1.0		2.624						
AVG.	.54		.2		.087						
MAX.	.84		.3		.101						
MIN.	.33		.1		.072						

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

JR MED

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - AGENCY
 GREEN - REPORTER
 FORM 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 INFOSE THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETELY AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT

DATE REPORT COMPLETED 12 DEC 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE FMPC SITE MANAGER
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MONTHLY REPORT FORM

NAME, ADDRESS, CITY, COUNTY, ZIP

STATION CODE

DATE MONTH YEAR

PAGE

PRINTING DATE

APPLICATI

11000004002

NOV 89

P 1 OH000

1944 - 05/31/86

U.S. DEPARTMENT OF ENERGY
 FRED MATERIALS PROD. CENTER
 WILLEY RD , P O BOX 39158
 FERNALD 45239
 HAMILTON

SAMPLING STATION DESCRIPTION
 002 DISCHARGE PRIOR TO DITCH TO PADDY

NOTE: THIS FORM MUST BE

IN(1) - ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE

REPORTING LAB

ANALYST

IN(2) - ENTER FREQUENCY OF SAMPLING

DAY	AND CODE NO. AT RIGHT	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		PH S.U.	RESIDU T. NFL MG/L	O&G TOTAL MG/L	CONDUIT FLOW MGD	REPORTING CODE						
		2	2	2	2							
		24	24	24	24							
		00400	00530	00550	50050							
01					AH-2							
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
TOTAL												
AVG.												
MAX.												
MIN.												

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

AH-2 NO WATER OVERFLOWED FROM STORMWATER RETENTION BASIN

JRM

21

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - 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 KNOWLEDGE AND BELIEF, 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 12 DEC 1989	SIGNATURE OF REPORTER	TITLE OF REPORTER DOE EMDC STATE MANAGER
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U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER SAMPLING STATION DESCRIPTION
WILLEY RD , P O BOX 39158 001 TOTAL DISCHARGE
FERNALD 45239
HAMILTON

1944

NOTE: THIS FORM MUST BE

(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE REPORTING LAB ANALYST
(2) ENTER FREQUENCY OF SAMPLING

DAY	(1)	(2)	PH	RESIDU	O&G	CONDUI	CHLORI	AMMONI	NITRAT	REPORTING CODE	REPORTING CODE	REPORTING CODE
			S.U.	T. NFL	TOTAL	FLOW	TOT RE	NH3-N	NO3-N			
			MG/L	MG/L	MG/L	MGD	MG/L	MG/L	MG/L			
			REPORTING CODE									
	3	2	3	1	3	2	2					
	1	998	1	999	1	998	998					
	00400	00530	00550	50050	50060	00610	00620					
01	8.1			.688								
02	8.1			.514								
03	8.1			.337								
04	8.2			.376								
05	8.0			.318								
06	8.0			.555								
07	8.2			.567								
08	8.2	4	AA	.375	.05	.13	5.2					
09	8.5			.721								
10	8.3			.479								
11	8.1	8	AA	.503	.02	.09	4.5					
12	8.1			.636								
13	8.3			.496								
14	9.0			.516								
15	7.9			.496								
16	8.5			.487								
17	8.0			.471								
18	7.9			.444								
19	7.8	3	AA	.403	.05	.63	12.9					
20	7.8			.324								
21	7.9			.293								
22	7.9			.340								
23	8.1			.282								
24	8.2			.270								
25	8.1			.199								
26	8.2			.222								
27	8.4	4	AA	.288	.02	.30	3.4					
28	8.1			.333								
29	8.3			.277								
30	8.1			.670								
31	8.0			.847								
TOTAL	252.4	19	AA	13.727	.14	1.15	26.0					
AVG.	8.1	5	AA	.443	.03	.29	6.5					
MAX.	9.0	8	AA	.847	.05	.63	12.9					
MIN.	7.8	3	AA	.199	.02	.09	3.4					

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

RWZ

22

DISTRIBUTION
WHITE - AGENCY
YELLOW - AGENCY
GREEN - REPORTER
FORM NO. EPA 450/1-86

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

DATE REPORT COMPLETED 12 JAN 1990 SIGNATURE OF REPORTER TITLE OF REPORTER

U.S. DEPARTMENT OF ENERGY
 FRED MATERIALS PROD. CENTER SAMPLING STATION DESCRIPTION
 WILLEY RD , P O BOX 39158 601 (001A) SANITARY T.P.
 FERNALD 45239
 HAMILTON

1944

NOTE: THIS FORM MUST BE

IN(1) - ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE REPORTING LAB ANALYST
 IN(2) - ENTER FREQUENCY OF SAMPLING

DAY	AND CODE NO. AT RIGHT	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		BOD 5 DAY MG/L REPORTING CODE 00310	PH S.U. REPORTING CODE 00400	RESIDU T. NFL MG/L REPORTING CODE 00530	PEC CO MF-FCB #/100M REPORTING CODE 31616	CONDUI FLOW MGD REPORTING CODE 50050	REPORTING CODE	REPORT				
01			8.1			.243						
02			8.1			.261						
03			8.0			.236						
04			8.1			.215						
05			7.9			.230						
06		2	7.9	4		.214						
07			8.0		50	.227						
08			8.2			.228						
09			8.1			.225						
10			8.3			.193						
11			8.1			.192						
12			8.1			.205						
13		1	8.0	2		.217						
14			7.9		10	.218						
15			7.9			.217						
16			8.1			.197						
17			8.1			.109						
18			8.1			.194						
19			8.1			.269						
20		6	7.6	5		.232						
21			8.1		280	.237						
22			8.0			.230						
23			8.2			.199						
24			8.2			.228						
25			8.1			.197						
26			8.2			.190						
27		*12	8.1	1		.224						
28			8.1		280	.231						
29			8.4			.201						
30			7.9			.229						
31			7.9			.242						
TOTAL		21	249.9	12	620	6.730						
AVG.		5	8.1	3	79	.217						
MAX.		12	8.4	5	280	.269						
MIN.		1	7.6	1	10	.109						

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

RTD Actual measured value 11.7 mg/l

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - 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 KNOWLEDGE AND BELIEF THAT THE 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

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION
602 (001B) GENERAL SUMP

1944

NOTE: THIS FORM MUST BE

IN(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE REPORTING LAB ANALYST
IN(2) ENTER FREQUENCY OF SAMPLING

DAY	REPORTING CODE							REPORTING CODE		
	RESIDU T. NFL MG/L	CHROME CR HEX UG/L	CHROME CR TOT UG/L	COPPER CU TOT UG/L	IRON FE TOT UG/L	NICKEL NI TOT UG/L	CONDUIT FLOW MGD			
	00530	01032	01034	01042	01045	01067	50050			
01							.065			
02							.054			
03							.000			
04							.066			
05							.066			
06							.108			
07							.028			
08	22	2	3	10	301.00	4	.040			
09							.105			
10							.038			
11	3	3	AA	9	79.00	11	.026			
12							.066			
13							.068			
14							.080			
15							.068			
16							.064			
17							.026			
18							.040			
19	6	22	66	9	482.00	55	.040			
20							.037			
21							.033			
22							.076			
23							.040			
24							.024			
25							.000			
26							.000			
27	AA	AA	AA	1	17.00	AA	.038			
28							.066			
29							.056			
30							.106			
31										
TOTAL	33	29	73	29	879.00	74	1.524			
AVG.	8	7	18	7	219.75	18	.056			
MAX.	22	22	66	10	482.00	55	.108			
MIN.	3	2	3	1	17.00	4	.024			

ADDITIONAL REMARKS (AM REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

12M2D

24

DISTRIBUTION
WHITE - AGENCY
YELLOW - 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 KNOWLEDGE AND BELIEF THAT THE 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

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION
603 (001C) CLEARWELL

1944

NOTE: THIS FORM MUST BE

(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE REPORTING LAB ANALYST
(2) ENTER FREQUENCY OF SAMPLING

DAY	RESIDU T. NFL MG/L		CHROME CR HEX UG/L		CHROME CR TOT UG/L		COPPER CU TOT UG/L		IRON FE TOT UG/L		NICKEL NI TOT UG/L		CONDUI FLOW MGD	
	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE						
01	00530	01032	01034	01042	01045	01067	50050							
02														
03														
04														
05														
06														
07														
08														
09														
10														
11														
12														
13														
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15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
TOTAL														
AVG.														
MAX.														
MIN.														

ADDITIONAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
AH-1 NO WATER PUMPED FROM CLEARWELL

25

DISTRIBUTION
WHITE - AGENCY
YELLOW - AGENCY
GREEN - REPORTER
FORM 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 KNOWLEDGE AND BELIEF THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. 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: 12 JAN 1990
SIGNATURE OF REPORTER: [Signature]
TITLE OF REPORTER: DOE EMPC STATE MANAGER

1000004604

DEC - 89 1944

1 OF 1

05/31/86 OH000

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION
604 (001D) STORM SEWER LIFT STATION

NOTE: THIS FORM MUST BE

IN(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE REPORTING LAB ANALYST
IN(2) ENTER FREQUENCY OF SAMPLING

DAY	RESIDU T. NFL MG/L REPORTING CODE	O&G TOTAL MG/L REPORTING CODE	CONDUIT FLOW MGD REPORTING CODE	REPORTING CODE							REPORT
				REPORTING CODE							
	3	3	1								
	1	1	999								
01	00530	00550	50050								
02			.122								
03			.120								
04			.102								
05			.096								
06			.022								
07			.100								
08	2	AA	.100								
09			.057								
10			.257								
11	56	AA	.192								
12			.284								
13			.365								
14			.212								
15			.200								
16			.211								
17			.337								
18			.210								
19	2	AA	.094								
20			.056								
21			* .023								
22			* .034								
23			* .043								
24			* .018								
25			* .002								
26			* .032								
27	AA	AA	* .026								
28			* .036								
29			* .020								
30			.334								
31			.605								
			.226								

TOTAL	62		4.536								
AVG.	16		.146								
MAX.	56		.605								
MIN.	2		.002								

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

RWZP * Estimated, Flow Meter out of service

DISTRIBUTION
WHITE - AGENCY
YELLOW - AGENCY
GREEN - REPORTER
FORM NO. EPA 4500-18-86

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

DATE REPORT COMPLETED 12 JAN 1990	SIGNATURE OF REPORTER	TITLE OF REPORTER
--------------------------------------	-----------------------	-------------------

MONTHLY REPORT FORM

REPORTED



NAME, ADDRESS, CITY, COUNTY, ZIP

STATION CODE

DATE (MONTH/ YEAR)

PAGE PRINTING DATE APPLICATION

11000004605

DEC 1989

1 1

OH0009

05/31/86

U.S. DEPARTMENT OF ENERGY
 FEED MATERIALS PROD. CENTER
 WILLEY RD , P O BOX 39158
 FERNALD 45239
 HAMILTON

SAMPLING STATION DESCRIPTION

605 (001E) BICREACTOR 1944

NOTE: THIS FORM MUST BE

IN(1) ENTER 1 FOR CONTINUOUS 2 FOR COMPOSITE 3 FOR GRAB SAMPLE

REPORTING LAB

ANALYST

IN(2) ENTER FREQUENCY OF SAMPLING

AND CODE NO. AT RIGHT	AMMONI NH3-N MG/L		NITRAT NO3-N MG/L		CONDUI FLOW MGD		REPORTING CODE											
	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE	REPORTING CODE
(11)	2	2	1															
(12)	1	1	999															
DAY	00610	00620	50050															
01			.120															
02			.101															
03			.101															
04			.101															
05			.101															
06			.101															
07			.101															
08	.24	.8	.101															
09			.101															
10			.101															
11	.35	.2	.101															
12			.101															
13			.101															
14			.101															
15			.101															
16			.101															
17			.101															
18			.101															
19	.23	31.0	.101															
20			.101															
21			.101															
22			.101															
23			.096															
24			.101															
25			.101															
26			.101															
27	.41	.2	.101															
28			.094															
29			.094															
30			.094															
31			.094															

TOTAL	1.23	32.2	3.117															
AVG.	.31	8.0	.101															
MAX.	.41	31.0	.120															
MIN.	.23	.2	.094															

ADDITIONAL REMARKS (IF REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)

ARM

27

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - 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 KNOWLEDGE AND BELIEF THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETELY
 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

MONTHLY REPORT FORM

REPORTED



NAME, ADDRESS, CITY, COUNTY, ZIP

STATION CODE
11000004002

DATE (MON YEAR)
DEC 1, 89

PAGE PRINTING DATE APPLICA
OF 1 05/31/86 OH000

U.S. DEPARTMENT OF ENERGY
FEED MATERIALS PROD. CENTER
WILLEY RD , P O BOX 39158
FERNALD 45239
HAMILTON

SAMPLING STATION DESCRIPTION

002 DISCHARGE PRIOR TO DITCH TO PADDY

1944

05/31/86

NOTE: THIS FORM MUST BE

(1) ENTER 1 FOR CONTINUOUS, 2 FOR COMPOSITE, 3 FOR GRAB SAMPLE REPORTING-LAB ANALYST

(2) ENTER FREQUENCY OF SAMPLING

DAY	PH S.U. REPORTING CODE 00400	RESIDU T. NFL MG/L REPORTING CODE 00530	O&G TOTAL MG/L REPORTING CODE 00550	CONDUIT FLOW MGD REPORTING CODE 50050	REPORTING CODE					
					REPORTING CODE					
01				AH-2						
02										
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28										
29										
30										
31										
TOTAL										
AVG.										
MAX.										
MIN.										

ADDITIONAL REMARKS (AH REPORTING CODES MUST BE EXPLAINED IN THIS SECTION)
 AH-2 NO WATER OVERFLOWED FROM STORMWATER RETENTION BASIN

AKM/S

DISTRIBUTION
 WHITE - AGENCY
 YELLOW - 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 KNOWLEDGE AND BELIEF, 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

EFFLUENT RADIATION REPORT

FACILITY: Feed-Materials-Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

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

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.346	401	279	0.72	243
2	0.340	527	333	1.04	351
3	0.352	347	486	0.56	189
4	0.370	302	104	0.36	122
5	0.328	113	90	0.18	61
6	0.394	459	374	0.30	101
7	0.427	275	185	0.40	135
8	0.380	270	153	0.38	128
9	0.303	387	176	0.44	149
10	0.407	604	333	0.56	189
11	0.429	477	347	0.60	203
12	0.221	428	293	0.44	149
13	0.278	311	284	0.34	115
14	0.216	252	117	0.42	142
15	0.196	275	284	0.44	149
16	0.198	333	135	0.50	169
17	0.573	527	257	0.84	284
18	0.292	604	239	0.78	264
19	0.435	383	153	0.52	176
20	0.852	707	450	0.98	331
21	0.753	604	221	0.88	297
22	0.642	477	239	0.82	277
23	0.538	428	189	0.80	270
24	0.851	518	257	0.78	264
25	0.871	396	441	0.48	162
26	0.899	392	243	0.48	162
27	0.783	275	140	0.48	162
28	0.624	365	203	0.46	155
29	0.353	257	230	0.36	122
30	0.455	266	554	0.40	135
31	0.469	730	707	0.46	155
Total	14.575	12689	8495	17.20	5811

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 001 Total Discharge

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.470	431	284	0.59	199.40
Max.	0.899	730	707	1.04	351
Min.	0.196	113	90	0.18	61

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004601
 601 (001A) Sanitary Treatment Plant
 Ultraviolet Unit/Contact Tank (Effluent to Manhole 175)

DATE: OCTOBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.160	1.56	527
2	0.138	1.48	500
3	0.148	1.46	493
4	0.127	1.40	473
5	0.142	0.08	27
6	0.203	0.08	27
7	0.223	0.14	47
8	0.188	0.28	95
9	0.140	0.56	189
10	0.225	0.56	189
11	0.214	0.32	108
12	0.201	0.20	68
13	0.210	0.24	81
14	0.164	0.22	74
15	0.180	0.30	101
16	0.133	0.26	88
17	0.238	0.36	122
18	0.144	0.16	54
19	0.178	0.30	101
20	0.254	0.18	61
21	0.224	0.26	88
22	0.123	0.26	88
23	0.145	0.26	88
24	0.173	0.24	81
25	0.197	0.30	101
26	0.189	0.28	95
27	0.182	0.28	95
28	0.129	0.22	74
29	0.115	0.22	74
30	0.133	0.26	88
31	0.194	0.22	74
Total	5.414	12.94	4372

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center
 LOCATION: 601 (001A) Sanitary Treatment Plant
 DATE: OCTOBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
----	-----	-----	-----
Avg.	0.175	0.39	132
Max.	0.254	1.56	527
Min.	0.115	0.08	27

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.

EFFLUENT RADIATION REPORT

1944

FACILITY: ~~Feed Materials Production Center~~
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004603
 603 (001C) Clearwell
 Clearwell (Effluent to Manhole 175)

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.000	0	0	0.00	0
2	0.000	0	0	0.00	0
3	0.000	0	0	0.00	0
4	0.000	0	0	0.00	0
5	0.000	0	0	0.00	0
6	0.000	0	0	0.00	0
7	0.000	0	0	0.00	0
8	0.000	0	0	0.00	0
9	0.000	0	0	0.00	0
10	0.000	0	0	0.00	0
11	0.000	0	0	0.00	0
12	0.000	0	0	0.00	0
13	0.000	0	0	0.00	0
14	0.000	0	0	0.00	0
15	0.000	0	0	0.00	0
16	0.000	0	0	0.00	0
17	0.000	0	0	0.00	0
18	0.000	0	0	0.00	0
19	0.000	0	0	0.00	0
20	0.000	0	0	0.00	0
21	0.000	0	0	0.00	0
22	0.000	0	0	0.00	0
23	0.000	0	0	0.00	0
24	0.000	0	0	0.00	0
25	0.000	0	0	0.00	0
26	0.000	0	0	0.00	0
27	0.000	0	0	0.00	0
28	0.000	0	0	0.00	0
29	0.000	0	0	0.00	0
30	0.000	0	0	0.00	0
31	0.000	0	0	0.00	0
Total	0.000	0	0	0	0

-----EFFLUENT RADIATION REPORT (cont.)-----

FACILITY: Feed Materials Production Center

LOCATION: 603 (001C) Clearwell

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.000	0	0	0.00	0
Max.	0.000	0	0	0.00	0
Min.	0.000	0	0	0.00	0

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.

EFFLUENT RADIATION REPORT

1944

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004604
 604 (001D) Storm Sewer Lift Station
 Manhole 34 (Stormwater to Manhole 175)

DATE: OCTOBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.150	1.08	365
2	0.164	1.10	372
3	0.126	1.14	385
4	0.166	1.00	338
5	0.146	0.56	189
6	0.154	0.42	142
7	0.165	0.38	128
8	0.175	0.66	223
9	0.125	0.44	149
10	0.155	0.86	291
11	0.160	1.32	446
12	0.120	0.70	236
13	0.110	0.82	277
14	0.100	0.92	311
15	0.100	0.90	304
16	0.100	1.00	338
17	0.270	0.98	331
18	0.110	1.52	514
19	0.219	0.90	304
20	0.415	1.48	500
21	0.306	1.44	486
22	0.125	1.44	486
23	0.134	1.46	493
24	0.155	1.28	432
25	0.173	1.14	385
26	0.249	1.28	432
27	0.147	1.00	338
28	0.130	1.00	338
29	0.125	1.04	351
30	0.284	0.98	331
31	0.248	1.06	358
Total	5.306	31.30	10574

EFFLUENT RADIATION REPORT (cont.)

1944

FACILITY: Feed Materials Production Center
 LOCATION: 604 (001D) Storm Sewer Lift Station
 DATE: OCTOBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.171	1.05	354
Max.	0.415	1.52	514
Min.	0.100	0.38	128

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.

EFFLUENT RADIATION REPORT

1944

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 11000004605
 605 (001E) Bioreactor
 Tank 8/General Sump (Effluent to Sewage Treatment Plant)

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (I)
1	0.101	234	536	0.23	78
2	0.101	126	270	0.10	34
3	0.044	122	464	0.09	30
4	0.034	180	284	0.22	74
5	0.057	279	441	0.29	98
6	0.073	225	396	0.21	71
7	0.101	113	369	0.21	71
8	0.101	162	423	0.18	61
9	0.101	234	225	0.18	61
10	0.101	302	329	0.18	61
11	0.101	180	315	0.19	64
12	0.101	185	419	0.24	81
13	0.101	302	248	0.24	81
14	0.101	113	261	0.16	54
15	0.101	131	266	0.23	78
16	0.101	207	284	0.30	101
17	0.101	270	306	0.32	108
18	0.071	95	581	0.23	78
19	0.067	1005	563	1.70	574
20	0.095	797	640	1.20	405
21	0.088	365	338	0.19	64
22	0.072	248	324	0.11	37
23	0.072	234	401	0.10	34
24	0.035	158	1090	0.08	27
25	0.072	81	545	0.11	37
26	0.072	252	441	0.10	34
27	0.072	167	446	0.14	47
28	0.039	162	410	0.14	47
29	0.054	428	649	0.58	196
30	0.072	302	779	0.56	189
31	0.072	405	1185	0.50	169
Total	2.474	8063	14230	9.31	3145

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 605 (001E) Bioreactor

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.080	259	432	0.30	100.95
Max.	0.101	1005	1185	1.70	574
Min.	0.034	81	225	0.08	27

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center

U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004002

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

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.000	0	0	0.00	0
2	0.000	0	0	0.00	0
3	0.000	0	0	0.00	0
4	0.000	0	0	0.00	0
5	0.000	0	0	0.00	0
6	0.000	0	0	0.00	0
7	0.000	0	0	0.00	0
8	0.000	0	0	0.00	0
9	0.000	0	0	0.00	0
10	0.000	0	0	0.00	0
11	0.000	0	0	0.00	0
12	0.000	0	0	0.00	0
13	0.000	0	0	0.00	0
14	0.000	0	0	0.00	0
15	0.000	0	0	0.00	0
16	0.000	0	0	0.00	0
17	0.000	0	0	0.00	0
18	0.000	0	0	0.00	0
19	0.000	0	0	0.00	0
20	0.000	0	0	0.00	0
21	0.000	0	0	0.00	0
22	0.000	0	0	0.00	0
23	0.000	0	0	0.00	0
24	0.000	0	0	0.00	0
25	0.000	0	0	0.00	0
26	0.000	0	0	0.00	0
27	0.000	0	0	0.00	0
28	0.000	0	0	0.00	0
29	0.000	0	0	0.00	0
30	0.000	0	0	0.00	0
31	0.000	0	0	0.00	0
Total	0.000	0	0	0.00	0

EFFLUENT RADIATION REPORT (cont.)

FACILITY: ~~Feed Materials Production Center~~

LOCATION: 002 Discharge (Overflow) to Storm Sewer Outfall Ditch

DATE: OCTOBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.000	0	0	0.00	0
Max.	0.000	0	0	0.00	0
Min.	0.000	0	0	0.00	0

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.

EFFLUENT RADIATION REPORT

1944

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

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

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.351	635	374	0.80	270
2	0.215	423	257	0.46	155
3	0.215	230	176	0.44	149
4	0.233	401	189	0.46	155
5	0.235	306	117	0.40	135
6	0.413	468	104	0.66	223
7	0.341	446	225	0.60	203
8	0.345	590	613	0.72	243
9	0.849	721	198	1.22	412
10	0.458	423	176	0.82	277
11	0.517	378	185	0.72	243
12	0.461	446	72	0.44	149
13	0.248	441	167	0.66	223
14	0.201	392	189	0.48	162
15	0.600	608	230	0.62	209
16	0.840	820	414	0.90	304
17	0.713	788	333	1.44	486
18	0.641	486	99	0.88	297
19	0.844	459	104	0.68	230
20	0.624	347	117	0.58	196
21	0.670	378	189	0.62	209
22	0.666	446	99	0.84	284
23	0.637	378	77	0.70	236
24	0.562	419	311	0.86	291
25	0.632	387	207	0.78	264
26	0.678	329	230	0.52	176
27	0.632	360	315	0.54	182
28	0.670	275	144	0.66	223
29	0.636	347	351	0.66	223
30	0.708	293	99	0.42	142
Total	15.835	13423	6360	20.58	6953

EFFLUENT RADIATION REPORT (cont.)

1944

FACILITY: Feed Materials Production Center

LOCATION: 001 Total Discharge

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.528	463	210	0.73	246.47
Max.	0.849	820	613	1.44	486
Min.	0.201	230	72	0.40	135

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004601
 601 (001A) Sanitary Treatment Plant
 Ultraviolet Unit/Contact Tank (Effluent to Manhole 175)

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.198	0.30	101
2	0.186	0.34	115
3	0.203	0.32	108
4	0.185	0.40	135
5	0.148	0.42	142
6	0.134	0.36	122
7	0.200	0.42	142
8	0.209	0.52	176
9	0.206	0.22	74
10	0.206	0.24	81
11	0.144	0.38	128
12	0.179	0.46	155
13	0.122	0.38	128
14	0.191	0.40	135
15	0.285	0.26	88
16	0.285	0.28	95
17	0.229	2.04	689
18	0.240	1.22	412
19	0.176	1.28	432
20	0.178	1.32	446
21	0.253	0.92	311
22	0.237	1.76	595
23	0.242	1.62	547
24	0.163	1.78	601
25	0.172	1.80	608
26	0.199	1.64	554
27	0.185	1.92	649
28	0.214	1.76	595
29	0.221	1.66	561
30	0.230	1.46	493
Total	6.020	27.88	9419

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center
LOCATION: 601 (001A) Sanitary Treatment Plant
DATE: NOVEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
-----	-----	-----	-----
Avg.	0.201	0.95	320
Max.	0.285	2.04	689
Min.	0.122	0.22	74

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.

EFFLUENT RADIATION REPORT

1944

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004603
 603 (001C) Clearwell
 Clearwell (Effluent to Manhole 175)

DATE: NOVEMBER 1989

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

 EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 603 (001C) Clearwell

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.000	0	0	0.00	ERR
Max.	0.000	0	0	0.00	0
Min.	0.000	0	0	0.00	0

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.

EFFLUENT RADIATION REPORT

1944

FACILITY: ~~Feed Materials Production Center~~
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 11000004604
 604 (001D) Storm Sewer Lift Station
 Manhole 34 (Stormwater to Manhole 175)

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.119	0.46	155
2	0.100	0.48	162
3	0.100	0.98	331
4	0.100	1.06	358
5	0.100	0.96	324
6	0.133	0.98	331
7	0.147	1.02	345
8	0.111	1.06	358
9	0.176	1.32	446
10	0.200	1.88	635
11	0.105	1.72	581
12	0.187	1.74	588
13	0.550	1.68	568
14	0.025	1.04	351
15	0.182	1.10	372
16	0.247	0.96	324
17	0.179	1.84	622
18	0.000	1.62	547
19	0.400	0.88	297
20	0.180	0.92	311
21	0.160	0.82	277
22	0.175	1.28	432
23	0.164	1.40	473
24	0.189	1.24	419
25	0.187	1.26	426
26	0.165	1.26	426
27	0.169	1.64	554
28	0.221	1.36	459
29	0.139	1.38	466
30	0.203	1.26	426
Total	5.113	36.60	12365

----- EFFLUENT RADIATION REPORT (cont.) -----

FACILITY: Feed Materials Production Center
LOCATION: 604 (001D) Storm Sewer Lift Station
DATE: NOVEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
-----	-----	-----	-----
Avg.	0.170	1.26	425
Max.	0.550	1.88	635
Min.	0.000	0.46	155

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004605
 605 (001E) Bioreactor
 Tank 8/General Sump (Effluent to Sewage Treatment Plant)

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.072	550	622	0.55	186
2	0.072	432	617	0.70	236
3	0.072	383	662	0.91	307
4	0.072	432	923	0.56	189
5	0.072	234	644	0.35	118
6	0.072	176	676	0.36	122
7	0.072	234	770	0.30	101
8	0.072	198	167	0.31	105
9	0.072	820	392	1.20	405
10	0.072	1045	491	1.80	608
11	0.072	3135	788	3.30	1115
12	0.072	788	577	1.40	473
13	0.072	617	392	1.00	338
14	0.072	5270	1473	9.10	3074
15	0.101	4374	1698	7.60	2568
16	0.101	2126	1176	3.70	1250
17	0.101	1991	1374	4.00	1351
18	0.101	1365	995	2.60	878
19	0.101	1450	1068	2.40	811
20	0.101	1198	919	2.10	709
21	0.101	986	946	1.90	642
22	0.101	937	1162	1.40	473
23	0.101	752	1464	1.50	507
24	0.101	1194	1135	1.70	574
25	0.101	1176	1797	1.50	507
26	0.101	946	1473	1.40	473
27	0.101	806	919	1.60	541
28	0.101	806	640	1.30	439
29	0.101	824	932	1.70	574
30	0.101	973	698	1.80	608
Total	2.624	36221	27590	60.04	20284

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 605 (001E) Bioreactor

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.087	1236	960	2.07	699.20
Max.	0.101	5270	1797	9.10	3074
Min.	0.072	176	167	0.30	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.

1944

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials- Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

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

DATE: NOVEMBER 1989

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

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 002 Discharge (Overflow) to Storm Sewer Outfall Ditch

DATE: NOVEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.000	0	0	0.00	0.00
Max.	0.000	0	0	0.00	0
Min.	0.000	0	0	0.00	0

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

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

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.688	279	171	0.38	128
2	0.514	324	428	0.46	155
3	0.337	473	383	0.68	230
4	0.376	275	387	0.42	142
5	0.318	405	405	0.48	162
6	0.555	365	365	0.46	155
7	0.567	347	248	0.60	203
8	0.375	432	86	0.64	216
9	0.721	333	149	0.66	223
10	0.479	694	302	0.80	270
11	0.503	725	414	1.04	351
12	0.636	527	275	0.56	189
13	0.496	527	378	0.88	297
14	0.516	545	617	0.52	176
15	0.496	541	779	0.64	216
16	0.487	455	491	0.78	264
17	0.471	815	586	1.30	439
18	0.444	883	685	1.36	459
19	0.403	820	788	1.30	439
20	0.324	644	464	1.06	358
21	0.293	793	473	1.40	473
22	0.340	838	712	1.36	459
23	0.282	802	626	1.30	439
24	0.270	883	459	1.40	473
25	0.199	599	315	1.36	459
26	0.222	811	333	1.34	453
27	0.288	644	577	1.00	338
28	0.333	703	401	0.88	297
29	0.277	986	432	0.96	324
30	0.670	617	171	0.94	318
31	0.847	986	126	0.92	311
Total	13.727	19072	13027	27.88	9419

EFFLUENT RADIATION REPORT (cont.)

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FACILITY: Feed Materials Production Center

LOCATION: 001 Total Discharge

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.443	594	393	0.84	283.97
Max.	0.847	986	788	1.40	473
Min.	0.199	275	86	0.38	128

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004601
 601 (001A) Sanitary Treatment Plant
 Ultraviolet Unit/Contact Tank (Effluent to Manhole 175)

DATE: DECEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.243	0.50	169
2	0.261	0.62	209
3	0.236	0.68	230
4	0.215	0.64	216
5	0.230	0.68	230
6	0.214	0.62	209
7	0.227	0.66	223
8	0.228	0.62	209
9	0.225	0.70	236
10	0.193	0.68	230
11	0.192	0.72	243
12	0.205	1.42	480
13	0.217	1.42	480
14	0.218	0.72	243
15	0.217	1.12	378
16	0.197	1.44	486
17	0.109	2.38	804
18	0.194	2.18	736
19	0.269	1.18	399
20	0.232	0.92	311
21	0.237	1.08	365
22	0.230	1.04	351
23	0.199	1.06	358
24	0.228	1.10	372
25	0.197	0.94	318
26	0.190	0.88	297
27	0.224	0.46	155
28	0.231	0.48	162
29	0.201	0.48	162
30	0.229	0.46	155
31	0.242	0.42	142
Total	6.730	28.30	9561

----- EFFLUENT RADIATION REPORT (cont.) -----

FACILITY: Feed Materials Production Center
 LOCATION: 601 (001A) Sanitary Treatment Plant
 DATE: DECEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
-----	-----	-----	-----
Avg.	0.217	0.88	297
Max.	0.269	2.38	804
Min.	0.109	0.42	142

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.

EFFLUENT RADIATION REPORT

FACILITY: ~~Feed Materials Production Center~~
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004603
 603 (001C) Clearwell
 Clearwell (Effluent to Manhole 175)

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.000	0	0	0.00	0
2	0.000	0	0	0.00	0
3	0.000	0	0	0.00	0
4	0.000	0	0	0.00	0
5	0.000	0	0	0.00	0
6	0.000	0	0	0.00	0
7	0.000	0	0	0.00	0
8	0.000	0	0	0.00	0
9	0.000	0	0	0.00	0
10	0.000	0	0	0.00	0
11	0.000	0	0	0.00	0
12	0.000	0	0	0.00	0
13	0.000	0	0	0.00	0
14	0.000	0	0	0.00	0
15	0.000	0	0	0.00	0
16	0.000	0	0	0.00	0
17	0.000	0	0	0.00	0
18	0.000	0	0	0.00	0
19	0.000	0	0	0.00	0
20	0.000	0	0	0.00	0
21	0.000	0	0	0.00	0
22	0.000	0	0	0.00	0
23	0.000	0	0	0.00	0
24	0.000	0	0	0.00	0
25	0.000	0	0	0.00	0
26	0.000	0	0	0.00	0
27	0.000	0	0	0.00	0
28	0.000	0	0	0.00	0
29	0.000	0	0	0.00	0
30	0.000	0	0	0.00	0
31	0.000	0	0	0.00	0
Total	0.000	0	0	0	0

 EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 603 (001C) Clearwell

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.000	ERR	ERR	ERR	ERR
Max.	0.000	0	0	0.00	0
Min.	0.000	0	0	0.00	0

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004604
 604 (001D) Storm Sewer Lift Station
 Manhole 34 (Stormwater to Manhole 175)

DATE: DECEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
---	-----	-----	-----
1	0.122	0.36	122
2	0.120	0.52	176
3	0.102	0.58	196
4	0.096	0.40	135
5	0.022	0.38	128
6	0.100	0.38	128
7	0.100	0.76	257
8	0.057	0.70	236
9	0.257	0.76	257
10	0.192	0.72	243
11	0.284	0.76	257
12	0.365	0.42	142
13	0.212	0.52	176
14	0.200	0.52	176
15	0.211	0.68	230
16	0.226	0.56	189
17	0.337	1.06	358
18	0.210	1.06	358
19	0.094	1.54	520
20	0.056	1.82	615
21	0.023	1.54	520
22	0.034	1.54	520
23	0.043	1.56	527
24	0.018	1.60	541
25	0.002	1.52	514
26	0.032	1.50	507
27	0.026	2.06	696
28	0.036	2.16	730
29	0.020	1.84	622
30	0.334	1.96	662
31	0.605	1.90	642
Total	4.536	33.68	11378

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center
 LOCATION: 604 (001D) Storm Sewer Lift Station
 DATE: DECEMBER 1989

Day	Flow (mgd)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
----	-----	-----	-----
Avg.	0.146	1.01	342
Max.	0.605	2.16	730
Min.	0.002	0.36	122

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

LOCATION: 1I000004605
 605 (001E) Bioreactor
 Tank 8/General Sump (Effluent to Sewage Treatment Plant)

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.120	887	712	1.70	574
2	0.101	631	950	0.89	301
3	0.101	486	937	0.85	287
4	0.101	797	1122	1.40	473
5	0.101	1176	995	1.80	608
6	0.101	1144	1126	2.20	743
7	0.101	1144	950	2.10	709
8	0.101	955	608	1.50	507
9	0.101	1347	959	2.10	709
10	0.101	1095	968	1.70	574
11	0.101	1351	1694	2.20	743
12	0.101	1455	1775	2.30	777
13	0.101	923	1608	1.40	473
14	0.101	1288	1748	2.10	709
15	0.101	1622	2045	2.50	845
16	0.101	1712	1833	2.80	946
17	0.101	1378	2050	2.50	845
18	0.101	1383	1721	2.20	743
19	0.101	1239	2324	2.20	743
20	0.101	1644	1739	2.90	980
21	0.101	1023	1802	1.70	574
22	0.101	752	1477	0.94	318
23	0.096	721	1059	0.52	176
24	0.101	550	860	0.68	230
25	0.101	721	626	0.62	209
26	0.101	369	721	0.47	159
27	0.101	423	649	0.59	199
28	0.094	662	811	0.47	159
29	0.094	468	541	0.61	206
30	0.094	752	505	1.00	338
31	0.094	270	671	0.31	105
Total	3.117	30369	37586	47.25	15963

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 605 (001E) Bioreactor

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.101	983	1215	1.54	518.65
Max.	0.120	1712	2324	2.90	980
Min.	0.094	270	505	0.31	105

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.

EFFLUENT RADIATION REPORT

FACILITY: Feed Materials Production Center
 U.S. Department of Energy
 7400 Willey Road, P.O.Box 398704
 Cincinnati, Ohio 45239 Hamilton
 8502 M 8612 801002

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

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
1	0.000	0	0	0.00	0
2	0.000	0	0	0.00	0
3	0.000	0	0	0.00	0
4	0.000	0	0	0.00	0
5	0.000	0	0	0.00	0
6	0.000	0	0	0.00	0
7	0.000	0	0	0.00	0
8	0.000	0	0	0.00	0
9	0.000	0	0	0.00	0
10	0.000	0	0	0.00	0
11	0.000	0	0	0.00	0
12	0.000	0	0	0.00	0
13	0.000	0	0	0.00	0
14	0.000	0	0	0.00	0
15	0.000	0	0	0.00	0
16	0.000	0	0	0.00	0
17	0.000	0	0	0.00	0
18	0.000	0	0	0.00	0
19	0.000	0	0	0.00	0
20	0.000	0	0	0.00	0
21	0.000	0	0	0.00	0
22	0.000	0	0	0.00	0
23	0.000	0	0	0.00	0
24	0.000	0	0	0.00	0
25	0.000	0	0	0.00	0
26	0.000	0	0	0.00	0
27	0.000	0	0	0.00	0
28	0.000	0	0	0.00	0
29	0.000	0	0	0.00	0
30	0.000	0	0	0.00	0
31	0.000	0	0	0.00	0
Total	0.000	0	0	0.00	0

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Feed Materials Production Center

LOCATION: 002 Discharge (Overflow) to Storm Sewer Outfall Ditch

DATE: DECEMBER 1989

Day	Flow (mgd)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Calculated Total U-238 (pCi/l) (1)
Avg.	0.000	ERR	ERR	ERR	ERR
Max.	0.000	0	0	0.00	0
Min.	0.000	0	0	0.00	0

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.