

**FMPC ENVIRONMENTAL MONITORING
QUARTERLY REPORT JAN-FEB-MAR 1960**

05/01/60

**NLO/AEC
4
REPORT**

FMPC ENVIRONMENTAL MONITORING

QUARTERLY REPORT

**JAN-FEB-MAR
1960**

May 1, 1960

By

Health and Safety Division
NATIONAL LEAD COMPANY OF OHIO
Feed Materials Production Center
P. O. Box 158
Cincinnati 39, Ohio

Contract No. AT(30-1)-1156

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REFERENCE MATERIAL**

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11

Figures released by the Atomic Energy Commission for the first quarter of 1960 indicate that their Feed Materials Production Center is continuing to control their environmental levels of radioactivity well within the maximum permissible concentrations as established by the National Committee on Radiation Protection and the State of Ohio.

Table I lists the results of samples taken to determine the effect of the site's liquid wastes upon the Great Miami River into which its liquid effluents are released. The details of the sampling procedures and locations are included in the Annual Report for 1959. Inasmuch as these two reports are being released simultaneously these details are not being included here.

At no time during this period did the quantity of any contaminant in the Great Miami River exceed its maximum permissible concentration.

Due to construction work being carried out at the FMPC, it was not possible to conduct the routine air sampling program during this period. Gumpaper fallout tray results however, indicate no significant changes in the levels over those found in 1959 or other previous years, at which time the levels were always found to be well within the maximum permissible concentrations. The perimeter air sampling will be resumed during April, 1960 and the results will again be included in the report for the second quarter of 1960.

2

TABLE I

Locations (Shown on Map A)	No. of Samples	Uranium (X10 ⁻¹² µc/cc)			Activity (X10 ⁻⁶ µc/cc)								
		High	Low	Ave	%MPC	High	Low	Ave	%MPC				
B (FMPC Outfall)	91	.002	.00003	.0004	.002	.009	.0005	.002	.067				
A (Upstream)	12	.021	.002	.0067	.034	.068	.009	.031	1.03				
C (Downstream)	12	.05	.001	.0090	.045	.114	.005	.038	1.27				
C-A	NA*	NA	NA	.0023	.012	NA	NA	.007	.24				
MPC		2 X 10 ⁻⁵ µc/cc			3 X 10 ⁻⁶ µc/cc								
		NO ₃ - (ppm)			Chloride (ppm)			Fluoride (ppm)					
		High	Low	Ave	%MPC	High	Low	Ave	%MPC	High	Low	Ave	%MPC
B	2.42	.07	.88	2.0	2.0	2.4	.1	1.0	.40	.07	.002	.037	3.1
A	12.0	5.0	7.33	16.7	41	12	22.7	9.08	.5	ND**	.23	17.5	
C	12.0	6.0	8.20	18.7	41	13	24.0	9.60	.5	ND	.16	13.3	
C-A	NA	NA	.87	2.0	NA	NA	1.3	.52	NA	NA	***	***	
MPC		44 ppm			250 ppm			1.2 ppm					

* NA - Not Applicable
 ** ND - Non-Detectable
 *** - Upstream average higher than downstream average.
 µc/cc - Microcuries per cubic centimeter
 ppm - Parts per million

FERNALD FMPC AND SURROUNDINGS
MAP A

