

Illinois Emergency Management Agency and Office of Homeland Security

Summary of Analytical Results Environmental Monitoring for Radionuclides in the Environs of Honeywell Metropolis Works

June 20, 2023

BLUF

The Illinois Emergency Management Agency and Office of Homeland Security's Office of Nuclear Safety (IEMA-OHS) did not observe measurable increases of radioactivity in the environment as a result of the incident at the Honeywell Metropolis Works facility on June 12, 2023.

Preface

IEMA-OHS routinely monitors for radioactivity in the environment surrounding the Honeywell Metropolis Works facility located in Metropolis, Illinois.

IEMA-OHS maintains five environmental monitoring stations in the greater-Metropolis area and routinely exchanges air particulate filters (APFs), on a weekly basis, as a component of its environmental monitoring program. IEMA-OHS was collecting week-long air samples in the form of APFs at the time of the incident at the Honeywell Metropolis Works facility on June 12, 2023.

APFs were exchanged at all five environmental monitoring locations and a background environmental monitoring station in Marion, Illinois on June 12, 2023. The samples cover the period from June 5, 2023, through June 12, 2023. These samples were collected per normal operations.

Results

APFs were analyzed for gross alpha and gross beta activity using a Gas Proportional Counter. Analytical results, in femtocuries per cubic meter (fCi/m³), are displayed in the table below.

**IEMA-OHS Gross Alpha and Gross Beta Results for Air Particulate Filters
Collected from June 5, 2023, through June 12, 2023**

Location	Nuclide	Result	Uncertainty*	Nuclide	Result	Uncertainty*
Airport	Alpha	1.7	0.8	Beta	24.8	1.8
Nearest Resident	Alpha	2.6	0.8	Beta	25.3	1.8
North Ave.	Alpha	2.2	0.8	Beta	25.3	1.8
Airport Rd.	Alpha	2.6	0.8	Beta	21.1	1.7
Dorothy Miller Park	Alpha	2.0	0.8	Beta	21.9	1.8
Marion	Alpha	3.0	0.9	Beta	24.1	1.8

*Expanded Uncertainty (k=1.96)

For comparison, average gross alpha and beta results for weekly samples collected at the same locations from the period beginning April 2022 through April 2023 are presented below.

**IEMA-OHS Average Gross Alpha and Gross Beta Results for Air Particulate Filters
Collected from April 2022, through April 2023**

Location	Nuclide	Average	Minimum	Maximum
Airport	Alpha	3.7	0.1	9.4
Nearest Resident	Alpha	4.1	1.5	10.6
North Ave.	Alpha	3.6	0.9	10.6
Airport Rd.	Alpha	4.0	0.3	9.7
Dorothy Miller Park	Alpha	3.8	0.9	11.1
Marion	Alpha	3.5	0.9	9.3

Location	Nuclide	Average	Minimum	Maximum
Airport	Beta	24.0	8.2	45.4
Nearest Resident	Beta	23.3	7.0	44.0
North Ave.	Beta	23.5	7.5	46.7
Airport Rd.	Beta	24.7	10.2	47.1
Dorothy Miller Park	Beta	23.7	12.3	46.1
Marion	Beta	24.0	9.8	45.8

Conclusion

Results for the samples collected for the time period from June 5, 2023, through June 12, 2023, were within the range of the results collected from April 2022 through April 2023. IEMA-OHS did not observe measurable increases of radioactivity in the environment as a result of the incident at the Honeywell Metropolis Works facility on June 12, 2023.