

Hudson Regional Health Commission
Meadowview Complex
595 County Avenue, Building 1, Secaucus, New Jersey 07094

Investigation

HRHC Facility ID: NA **HRHC Log:** 2023-12647
DEP Site ID: NA **DEP Log:**
Location Name: 12th St. between Monmouth and Coles Ave
Address: 12th St. between Monmouth and Coles Ave **City:** Jersey City
Contact Person: **Tel:**
Type of Complaint: Air
Nature of incident: Air Quality concerns in the area of 12th St. between Monmouth and Coles Ave. Want to test for PM2.5, RSPM/PM10, SO2 and NO2
Complainant Name: Kristel Mejia-Asqui **Tel:** (201) 547-5283
Complainant Affiliation: Jersey City City Council
Complainant Address: 280 Grove St. **City:** Jersey City
Receipt Date: 9/6/2023 **Time:** 3:56 AM **Received From:** Other
Investigation Date: 9/11/2023 **Time at Site:** 1:00

Other Agencies:

Findings:

We received a complaint from the City Council of Jersey City about air quality in the area of 12th St. between Monmouth St. and Coles Avenue. They requested that we test for particulates, sulfur dioxide (SO2) and nitrogen dioxide (NO2). We do not have the capability to test for NO2 but we scheduled a three hour air quality check for the other parameters on 9/11/23 from 1 pm to 4 pm.

Inspector Juan Nunez of Hudson Regional Health Commission and I took readings from 1 to 4 pm in the designated area with a DustTrak Meter and ToxiRAE. The DustTrak measures PM1, PM2.5, Resp., PM10, and Mass Concentration total for particulate matter in milligrams per cubic meter (mg/m3). The ToxiRAE measures SO2 in parts per million (ppm). All data is attached to this report.

Readings were taken in three locations in the defined area every 15 minutes. Location A was near the corner of Monmouth St. and 12th St., location B was in the middle of Monmouth St. and Coles Ave. on 12th St, and location C was at the corner of 12th St and Coles Ave. It should be noted that there was construction on the roadway occurring near location C.

National Ambient Air Quality Standards (NAAQS) are set by the Environmental Protection Agency (EPA). In these standards, the EPA lists criteria air pollutants which can be harmful to public health

and the environment (*See attached NAAQS table). The readings of PM2.5 were found to be above the EPA's NAAQS for particulate pollution. There were two readings in PM10 that exceeded these standards as well. Note: DustTrak readings which are recorded in mg/m³ must be multiplied by 1000 to convert to µg/m³ for comparison with NAAQS values.

Hudson Regional Health Commission only has a ToxiRAE that measures SO2 in ppm not ppb, so the SO2 readings cannot be evaluated against EPA's standards.

No abnormal odors were detected nor was any dust observed visually.

No further action required by HRHC at this time

- Joren Madsen, EHS

Follow up:

Investigator Signature:

Joren Madsen
Joren Madsen

Program Coordinator Review:

Carlos Rodriguez
Carlos Rodriguez

Date:

9/27/23

Readings taken on 12th Street Between Monmouth St. and Coles St.

9/11/2023

TIME	LOCATION	CONCENTRATION TOTAL (mg/m3)	PM1	PM2.5	Resp	PM10	S02 (ppm)
1:15	A	0.05	0.024	0.02	0.028	0.033	0
1:20	B	0.076	0.034	0.032	0.037	0.045	0
1:22	C	0.08	0.037	0.034	0.033	0.036	0
1:30	A	0.059	0.031	0.032	0.033	0.037	0
1:32	B	0.106	0.038	0.038	0.039	0.052	0
1:33	C	0.082	0.043	0.046	0.05	0.071	0
1:45	A	0.056	0.023	0.024	0.027	0.042	0
1:47	B	0.09	0.036	0.036	0.037	0.046	0
1:48	C	0.175	0.045	0.048	0.052	0.077	0
2:00	A	0.119	0.04	0.041	0.047	0.055	0
2:02	B	0.045	0.033	0.032	0.032	0.035	0
2:04	C	0.499	0.082	0.084	0.092	0.158	0
2:15	A	0.051	0.03	0.03	0.032	0.04	0
2:18	B	0.057	0.035	0.035	0.036	0.04	0
2:19	C	0.05	0.037	0.037	0.038	0.041	0
2:30	A	0.048	0.019	0.02	0.023	0.027	0
2:32	B	0.083	0.039	0.039	0.041	0.05	0
2:33	C	0.066	0.041	0.041	0.043	0.05	0
2:45	A	0.092	0.045	0.046	0.05	0.06	0
2:47	B	0.078	0.058	0.058	0.06	0.062	0
2:49	C	0.678	0.125	0.125	0.141	0.263	0
3:00	A	0.086	0.05	0.05	0.055	0.073	0
3:02	B	0.05	0.036	0.037	0.037	0.042	0
3:03	C	0.07	0.042	0.042	0.043	0.049	0
3:15	A	0.084	0.063	0.043	0.049	0.076	0
3:17	B	0.052	0.035	0.035	0.034	0.039	0
3:19	C	0.124	0.051	0.052	0.056	0.073	0
3:30	A	0.057	0.023	0.03	0.031	0.039	0
3:34	B	0.249	0.032	0.033	0.035	0.083	0
3:36	C	0.294	0.066	0.066	0.069	0.105	0
3:45	A	0.118	0.036	0.037	0.04	0.07	0
3:47	B	0.081	0.033	0.034	0.035	0.045	0
3:48	C	0.108	0.042	0.043	0.044	0.055	0
4:00	A	0.055	0.027	0.027	0.028	0.031	0
4:02	B	0.059	0.027	0.027	0.028	0.033	0
4:04	C	0.097	0.036	0.036	0.038	0.048	0

from: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>

U.S. Environmental Protection Agency

NAAQS Table

The [Clean Air Act](#), which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (40 CFR part 50) for six principal pollutants ("[criteria](#)" [air pollutants](#)) which can be harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. *Primary standards* provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. *Secondary standards* provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Periodically, the standards are reviewed and sometimes may be revised, establishing new standards. The most recently established standards are listed below. In some areas of the U.S., certain regulatory requirements may also remain for [implementation of previously established standards](#).

Units of measure for the standards are parts per million (ppm) by volume, parts per billion (ppb) by volume, and micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$).

Pollutant [links to historical tables of NAAQS reviews]	Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)	primary	8 hours	9 ppm	Not to be exceeded more than once per year
		1 hour	35 ppm	
Lead (Pb)	primary and secondary	Rolling 3 month average	0.15 $\mu\text{g}/\text{m}^3$ ⁽¹⁾	Not to be exceeded
Nitrogen Dioxide (NO₂)	primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	primary and secondary	1 year	53 ppb ⁽²⁾	Annual Mean
Ozone (O₃)	primary and secondary	8 hours	0.070 ppm ⁽³⁾	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years

Pollutant [links to historical tables of NAAQS reviews]	Primary/ Secondary	Averaging Time	Level	Form	
Particle Pollution (PM)	PM _{2.5}	primary	1 year	12.0 µg/m ³	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m ³	annual mean, averaged over 3 years
	primary and secondary	24 hours	35 µg/m ³	98th percentile, averaged over 3 years	
	PM ₁₀	primary and secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO₂)	primary	1 hour	75 ppb ⁽⁴⁾	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year	

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m³ as a calendar quarter average) also remain in effect.

(2) The level of the annual NO₂ standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O₃ standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O₃ standards.

(4) The previous SO₂ standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO₂ standards or is not meeting the requirements of a SIP call under the previous SO₂ standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.