

December Perimeter Air Monitoring and Manganese Sampling

LOCATION: Former McLouth Steel Facility – County Property

DATE: February 1, 2020

Monitoring Duration: December 1, 2019 – December 31, 2019

Perimeter Monitoring (Refer to Attachment A for additional details)

- The site experienced no exceedances of PM-2.5 particulate concentrations above the NAAQS standard of 0.035 mg/m³ for Air Quality, or a downwind station exceeding particulate concentrations of the average of all upwind stations by over 15% over a 24-hour period during the month of December 2019.
- On December 11, 2019, monitoring Stations 1 and 4 shut down early due to dead batteries.
 - Station 1 – Run time 10Hrs, 52Mins; Down time total 13Hrs, 8Mins; Down time during work hours 3Hrs, 35Mins
 - The station did not exceed the established standard while operational
 - Station 4 - Run time 18Hrs, 44Mins; Down time total 5Hrs, 16Mins; Down time during work hours 0Hrs, 44Mins
 - The station did not exceed the established standard while operational
- On December 17, 2019, monitoring Station 3 did not start properly, upon investigation, an inlet tube blockage was discovered. The blockage was cleared and the monitor was put in operation at 15:10Hrs and ran for the rest of the interval. Monitoring Station 4 shut down early due to a dead battery.
 - Station 3 – Run time 17Hrs, 27Mins; Down time total 6Hrs, 33Mins; Down time during work hours 6Hrs, 33 mins
 - The station did not exceed the established standard while operational
 - Station 4 – Run time 18Hrs, 41Mins; Down time total 5Hrs, 19Mins; Down time during work hours 0Hrs, 0Mins
 - The station did not exceed the established standard while operational

Perimeter Sampling

- The site had no exceedances of the ATSDR MRL standard for PM₁₀ Manganese for the month of December 2019. The ATSDR MRL standard is 0.03 ug/m³ over 24 hours.

Real-time Dust Monitoring

- The site experienced no exceedances for TPM or PM-10 sized particulate in any work area during the month of December 2019.

Conclusion

- **Perimeter Monitoring/Sampling:** During the month of December 2019 the concentrations of PM-2.5 particulate matter were not in exceedance of the NAAQS of 0.035 mg/m³ for Air Quality, or the concentration was 15% or less when comparing the average of all upwind stations to the downwind station per the Dust Control Work Plan.
 - Given the lack of data for Dec. 11 and Dec. 17 monitoring events to determine exceedance, we will institute proactive corrections and run 1 week of continuous work-day monitoring beginning Feb. 3, 2019
- **Real-time Monitoring:** The site experienced no exceedances for TPM or PM-10 sized particulate in any work area during the month of December 2019.

Attachment A December Perimeter Air Monitoring, Manganese Sampling, and Weather Charts and Data

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DATE: February 1, 2020

Perimeter Air Monitoring Charts and Data

Former McLouth Steel County Property Site Preparation Project
Perimeter PM2.5 Air Monitoring Results - 24 hour average (mg/m3)

	Station 1	Station 2	Station 3	Station 4	24-hr Avg. All Stations		
Date	24-hr Avg.	24-hr Avg.	24-hr Avg.	24-hr Avg.	Downwind station max value	Upwind stations average value	Diff.
12/4/19	0.025	0.023	0.023	0.022	0.023	0.024	NA
12/11/2019*	0.027	0.018	0.029	0.021	0.029	0.020	NA
12/17/2019**	0.028	0.022	0.026	0.019	0.026	0.027	NA
12/24/19	0.051	0.030	0.042	0.037	0.042	0.044	NA

	Downwind Location
	Exceeds the NAAQS standard, or the particulate concentrations of the average of all upwind stations by over 15%
BOLD	Max Value for Daily Average for all Stations
NA	Not Applicable
*	Station 1 run time 10Hrs, 52Mins; Station 4 run time 18Hrs, 44Mins (TWAs calculated based upon run time)
**	Station 3 run time 17Hrs, 27Mins; Station 4 run time 18Hrs, 41Mins (TWAs calculated based upon run time)

Manganese Sampling Chart

Former McClouth Steel Facility Air Sampling Analytical Results						
Analytical results for PM-10 Manganese(Mn) (results are in ug/m3 average over 24 hrs)						
Start Date	Start time (approx)	Time Interval (hrs)	Site 1	Site 2	Site 3	Screening Level 0.3ug/m3
12/4/2019	8:00	24	0.01	0.01	ND	0.3
12/11/2019	8:00	24	0.03	0.02	0.06	0.3
12/17/2019	8:00	24	0.01	ND	0.01	0.3
12/24/2019	8:00	24	ND	ND	ND	0.3

ND: Non Detect

Weather Data

Former McClouth Steel Facility-County Property				
Perimeter Monitoring and Sampling Wind Data				
Instrumentation: Davis Vantage Pro 2 Weather Station				
Weather Station Site: Southwest corner of property-approx 100' due south of job trailer set up on top of light pole.				
	24 Hour			
Date:	Start time:	Avg. wind speed:	Predominate wind direction:	Notes:
12/4/2019	7:00	8.2	WNW	
12/11/2019	7:00	6.8	WSW	
12/17/2019	7:00	6.8	WNW	
12/24/2019	7:00	2.5	S	

Wind Roses

