NEBRASKA

DEPT. OF ENVIRONMENT AND ENERGY

22-004 January 2022

Guidance for Industrial Storm Water NER920000 – Additional Implementation Measures (AIM)

All facilities covered under the NDEE Industrial Storm Water General Permit NER920000 with benchmark monitoring requirements are subject to Additional Implementation Measures (AIM) as described in Part 3.2 of the permit. AIM outlines the corrective actions and steps required for **benchmark exceedances**. AIM is a three-level response that provides a follow-up process. AIM Levels are sequential and cannot be skipped. The AIM requirements apply on a pollutant parameter-specific, per discharge point basis. See the steps, processes, and exceptions below.

BASELINE STATUS

- All facilities with benchmark monitoring requirements start at baseline status once their authorization is received.
- Quarterly benchmark monitoring for applicable sectors begins in the first year of coverage. See Part 6.2 and 6.2.2 of the permit. Also see applicable sector(s) in Part 8.
- If the annual average for a pollutant parameter doesn't exceed the benchmark, you can stop monitoring for the parameter until the 4th year of permit coverage (starting again in quarter 13 of permit coverage). See part 6.2.2.2 of the permit.
- If the annual average (or average for four quarters) for a parameter exceeds the benchmark, move to AIM Level 1.
- Or if a single sample, or the sum of any quarterly sample results within the year is four times the pollutant parameter benchmark, move to AIM Level 1. This indicates that the annual average exceedance is mathematically certain and corrective action is needed.

AIM LEVEL 1

- Once in AIM Level 1 you must:
  - Immediately review your Storm Water Pollution Prevention Plan (SWPPP) and your storm water control measures. Determine if modifications are necessary to meet the parameter benchmark.
  - Implement additional measures that would reasonably be expected to bring your exceedances below the parameter's benchmark threshold.
  - Implement modifications or control measures **within 14 days** of receipt of sampling results.
  - If it is infeasible to implement modifications or control measures within 14 days, document why and implement modification(s) within 45 days.
  - Or if you determine nothing further needs to be done with your storm water control measures, document your reasoning.

- After completing the responses above, you must continue quarterly benchmark monitoring for the next 4 quarters. Sampling is only required for the pollutant parameter(s) that caused a benchmark exceedance.
- If the average of the 4 additional quarters do not exceed the benchmark, you return to Baseline Status and can discontinue sampling until the 4th year of permit coverage (starting again in quarter 13 of permit coverage). See part 6.2.2.2 of the permit.
- If the average of the 4 additional quarters continues to exceed the benchmark for the parameter, move to AIM Level 2.
- Or if a single sample or the sum of any additional quarterly sample results is over the benchmark by more than four times for a parameter, move to AIM Level 2. This indicates that the annual average exceedance is mathematically certain and corrective action is needed.

AIM LEVEL 2

- Once in AIM Level 2 you must:
  - Immediately review your SWPPP and your storm water control measures.
  - Implement additional pollution prevention/good housekeeping storm water controls beyond what you did in your AIM Level 1 response. Consider good engineering practices and measures that would reasonably be expected to bring your exceedances below the parameter's benchmark.
  - Implement additional pollution prevention/good housekeeping storm water control measures **within 14 days** of receipt of sampling results.
  - If it is infeasible to implement modifications or control measures within 14 days, document why and implement modifications or control measures within 45 days. NDEE may grant and extension beyond 45 days if necessary.
- After completing the responses above, you must continue quarterly benchmark monitoring for the next 4 quarters. Sampling is only required for the pollutant parameter(s) that caused a benchmark exceedance.
- If the average of the 4 additional quarters do not exceed the benchmark, you return to Baseline Status and can discontinue sampling until the 4th year of permit coverage (starting again in quarter 13 of permit coverage). See part 6.2.2.2 of the permit.
- If the average of the 4 additional quarters continues to exceed the benchmark for the parameter, move to AIM Level 3.
- Or if a single sample, or the sum of any additional quarterly sample results is over the benchmark by more than four times for a parameter, move to AIM Level 3. This indicates that the annual average exceedance is mathematically certain and corrective action is needed.

AIM LEVEL 3

- Once in AIM Level 3 you must:
  - Install structural source controls and/or treatment controls.
  - The controls or treatment technologies should be appropriate for the pollutant that is causing the benchmark exceedances. They should be more rigorous than the modifications you previously tried.
  - Identify the control measures and installation schedule **within 14 days** of receipt of sampling results.
  - Install the selected control measures **within 60 days**.
  - If it is infeasible to implement modifications or control measures within 60 days, document why and implement modifications or control measures within 90 days. NDEE may grant and extension beyond 90 days if necessary.

- After completing the responses above, you must continue quarterly benchmark monitoring for the next 4 quarters. Sampling is only required for the parameter(s) that caused a benchmark exceedance.
- If the average of the 4 additional quarters do not exceed the benchmark, you return to Baseline Status and can discontinue sampling until the 4th year of permit coverage (starting again in quarter 13 of permit coverage). See part 6.2.2.2 of the permit.
- If the average of the 4 additional quarters continues to exceed the benchmark for the parameter, you remain at AIM Level 3 and NDEE may require you to apply for an individual permit.
- Or if a single sample, or the sum of any additional quarterly sample results is over the benchmark by more than four times for a parameter, you remain at AIM Level 3 and NDEE may require you to apply for an individual permit.

EXCEPTIONS

- You may qualify for an exception if you demonstrate that the benchmark exceedance is due to:
  - Natural background pollutant levels.
  - Run-on from a neighboring source.
  - Caused by an abnormal event.
- You may also qualify for an exception if you demonstrate that the benchmark exceedance does not result in any exceedance of water quality standards.
- See Part 3.2.6 of the permit for additional information on exceptions.

TIPS and REMINDERS

- Submit any corrective action documentation to NDEE within **30 days**. See Part 3.3 of the permit.
- Follow the reporting requirements if necessary, as described in Part 7.3 of the permit
- Follow the recordkeeping requirements of Parts 5.4 and 7.4 of the permit.
- It is possible to be at different AIM Levels for each benchmark parameter required for your sector.
- AIM responses must be implemented at substantially identical outfalls, unless you demonstrate that benchmark thresholds aren't being exceeded at those discharge points.
- EPA's AIM Calculator can help you track your status for each parameter and can be useful documentation. See link below.
- EPA's Fact Sheet series provides suggested best management practices and storm water controls per sector. See link below.
- See additional guidance sources in Part 2.1.2.5 of the permit.

https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-fact-sheets-and-guidance *

*This document contains link to non-NDEE websites.

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*Produced by: Nebraska Department of Environment and Energy, P.O. Box 98922, Lincoln, NE 68509-8922; phone (402) 471-2186. To view this, and other information related to our agency, visit our web site at **http://dee.ne.gov**.*

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BASELINE STATUS	• All facilities start in baseline status • Begin year-1 quarterly benchmark monitoring, if applicable

AIM LEVEL	BENCHMARK MONITORING TRIGGER	RESPONSES	DEADLINES	RESET TO BASELINE
AIM Level 1	In baseline and annual average is exceeded (or fewer than 4 samples but exceedance is certain)	• Review SWPPP / storm water control measures • Implement additional storm water control measures, if necessary • Continue monitoring	14 days; if infeasible, 45 days	• AIM responses have been met • Continued quarterly benchmark monitoring does not indicate an exceedance
AIM Level 2	In Level 1 and annual average is exceeded (or fewer than 4 samples but exceedance is certain)	• Implement pollution prevention / good housekeeping measures • Continue monitoring	14 days; if infeasible, 45 days	
AIM Level 3	In Level 2 and annual average is exceeded (or fewer than 4 samples but exceedance is certain)	• Install permanent controls • Continue monitoring	Identify schedule in 14 days; install in 60 days, up to 90 days	

Exceptions	• Natural background sources • Run-on sources • One-time abnormal event • Discharge does not result in water quality exceedance

Introduction to AIM

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Additional Implementation Measures (AIM) for the 2022 Industrial Storm Water General Permit NER920000

Additional Implementation Measures, or AIM is a new set of requirements introduced in the 2022 Industrial Storm Water permit. It allows NDEE to require incremental and increasingly stringent responses to exceedances of **benchmark thresholds**.

Key Concepts

Benchmark Monitoring
Part 6.2.2

This permit requires some facilities to perform **quarterly benchmark monitoring** for various parameters depending on the facility's permitted sectors/subsectors.

Baseline Status
Part 3.2.1

All parameters begin in baseline status and Quarterly benchmark monitoring is required in **years one and four** for parameters in baseline status.

AIM Triggering Event
Part 3.2.2

An AIM triggering event occurs if a parameter's annual average is greater than the benchmark threshold for a given parameter.

AIM Levels
Parts 3.2.3 - 3.2.5

AIM consists of **three levels** which require sequential and increasingly robust responses when an AIM Triggering Event occurs.

AIM Exceptions
Part 3.2.6

You can avoid AIM requirements and continued benchmark monitoring if you claim and qualify for one of the **exceptions.**

Baseline Monitoring Schedule
Part 6.2.2.2

All applicable benchmark parameters will follow this schedule unless an AIM triggering event occurs.

Year 1

Q1 Q2 Q3 Q4

You must conduct quarterly benchmark monitoring for all applicable parameters listed in your sector in Part 8.

Year 2

Q5 Q6 Q7 Q8

Year 3

Q9 Q10 Q11 Q12

If the annual average for the parameter does not exceed the benchmark threshold, you can discontinue benchmark monitoring for that parameter for the next two years.

Year 4

Q13 Q14 Q15 Q16

You must conduct quarterly benchmark monitoring during your 4th year of permit coverage.

Year 5

Q17 Q18 Q19 Q20

If the parameter does not exceed, you can discontinue monitoring for that parameter.

Permit Expiration Date
March 31, 2027

AIM Triggering Event Examples

In these examples, we're triggering AIM for at **Total Suspended Solids (TSS)** by exceeding the benchmark threshold of **100 mg/l** during the first year of permit coverage.

Example 1:
Four-Quarter Annual Average Exceedance
Part 3.2.2.1

Q1	Q2	Q3	Q4	
96	108	112	98	mg/l

Q5	Q6	Q7	Q8	
				mg/l

AIM LEVEL 1

$$\text{Avg.} = \frac{96+108+112+98}{4} =$$

103.5 mg/l > 100 mg/l
The four-quarter average exceeds the benchmark threshold of 100 mg/l.

Example 2:
Mathematically Certain Exceedance
Part 3.2.2.2

Q1	Q2	Q3	Q4	
178	244			mg/l

Q5	Q6	Q7	Q8	
				mg/l

AIM LEVEL 1

$$\text{Avg.} = \frac{178+244+0+0}{4} =$$

105.5 mg/l > 100 mg/l
Even if 0 is reported for the remaining quarters, an exceedance is mathematically certain.

Any additional monitoring and responses are dependent on AIM level 1 quarterly benchmark monitoring results.

See reverse side for examples on how benchmark monitoring will work with AIM.

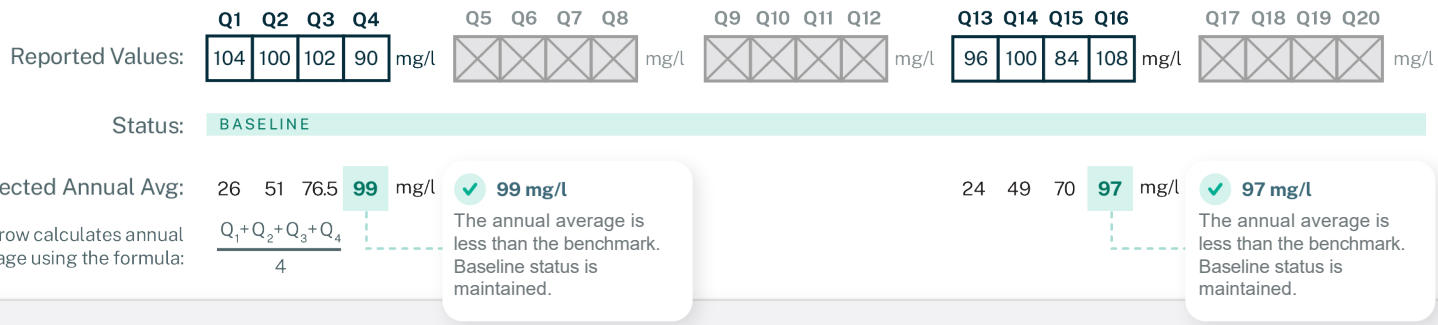
AIM Examples

In these examples, we're looking at **Total Suspended Solids (TSS)** monitoring since its benchmark threshold of **100 mg/l** makes it easy to visualize average calculation.

Example 1

Parameter remains at baseline for the full permit cycle.

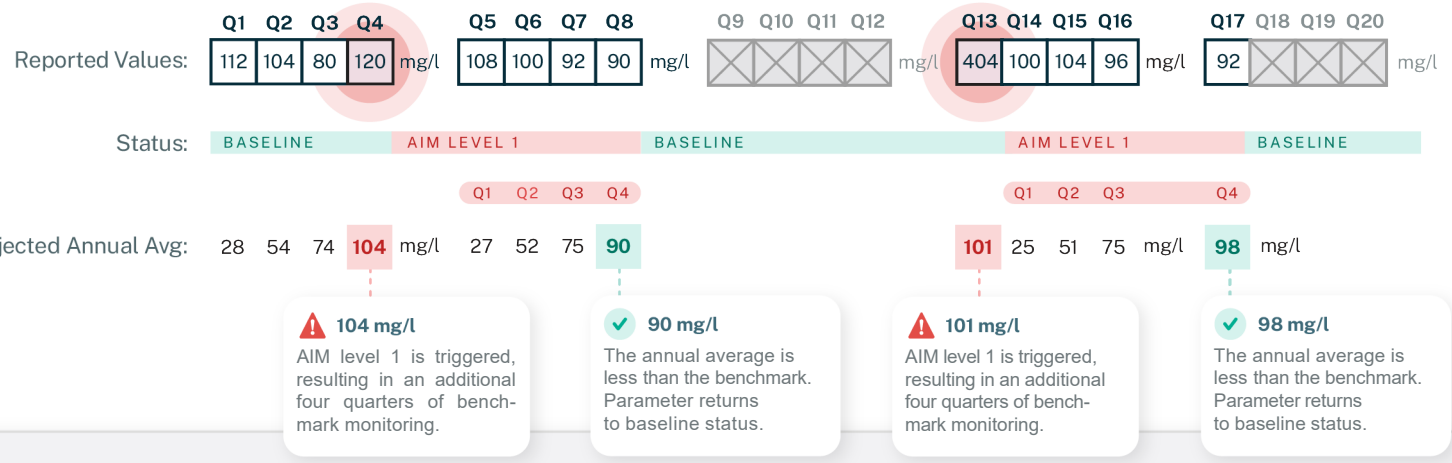
Benchmark Threshold: 100 mg/l



Example 2

AIM Level is triggered during monitoring in years one and four and returns to baseline following a return to compliance.

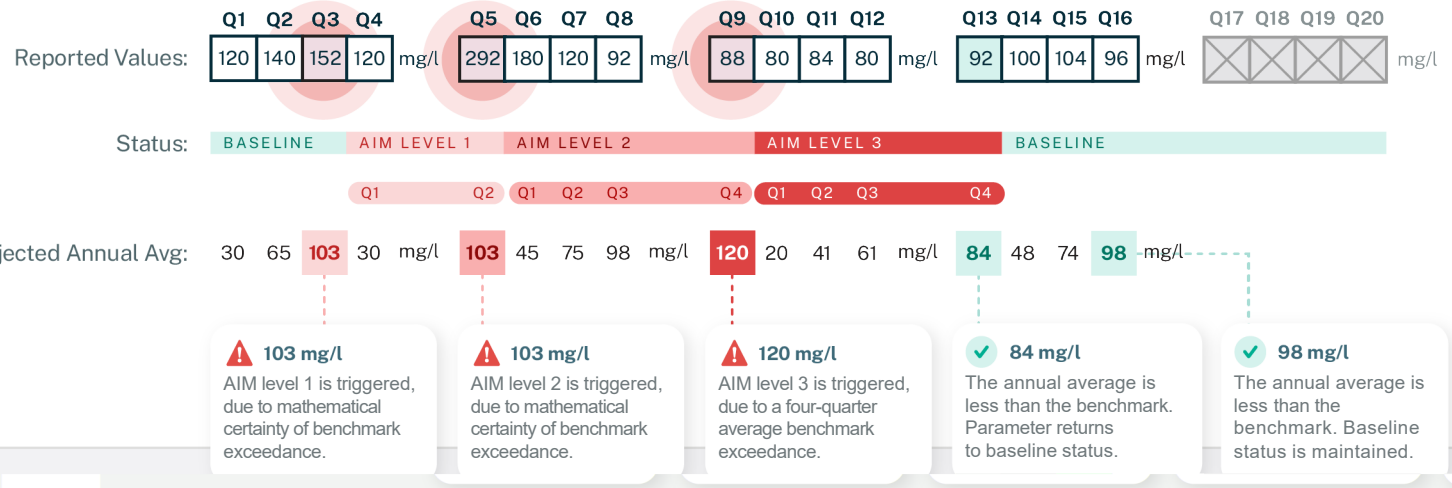
Benchmark Threshold: 100 mg/l



Example 3

AIM Level 3 triggered, returning to baseline in Year 4 following a return to compliance.

Benchmark Threshold: 100 mg/l



In this scenario, Q13 counts both as Q4 of AIM Level 3 and Q1 of year 4 baseline monitoring.