

Adipic Acid Monitoring Checklist



Final Rule: Mandatory Reporting of Greenhouse Gases

What Must Be Monitored for Each Adipic Acid Production Line ?

Measure these parameters...

- | | |
|---|---|
| <input type="checkbox"/> Annual production rate (can be determined through sales records or by direct measurement using flow meters or weigh scales) (tons) | <input type="checkbox"/> Annual adipic acid production during which N ₂ O abatement technology is operating (tons) |
| <input type="checkbox"/> Number of operating hours in the year (hours) | <input type="checkbox"/> Annual amount of process N ₂ O emissions from adipic acid production sold or transferred off site (metric tons) |

Annual Emission Factor Determination:

Facilities must conduct a performance test to calculate the process-specific emission factor either annually or whenever the adipic acid production process is changed by altering the ratio of cyclohexanone to cyclohexanol or by installing abatement equipment. The general procedure is as follows:

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|---|--|
| <input type="checkbox"/> Measure N ₂ O emissions from the waste gas streams of each adipic acid oxidation process using test methods specified in the rule | <input type="checkbox"/> Calculate a process-specific emission factor for each adipic acid production line as defined in subpart E of the rule |
| <input type="checkbox"/> Measure the production rate during the test, and calculate the production rate for the test period in metric tons per hour. | |

During the performance test the following must also be monitored:

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|---|--|
| <input type="checkbox"/> N ₂ O concentration per test run (parts per million N ₂ O) | <input type="checkbox"/> Volumetric flow rate of effluent gas (dry standard cubic feet/hr) |
| <input type="checkbox"/> Production rate per test run (tons adipic acid produced/hour) | |

If an N₂O abatement technology is used, measure the following parameters:

- | | |
|---|---|
| <input type="checkbox"/> Annual adipic acid production during which N ₂ O abatement was used | <input type="checkbox"/> Destruction efficiency of N ₂ O abatement technology (abatement device destruction efficiency, percent of N ₂ O removed from air stream) |
| <input type="checkbox"/> Total annual adipic acid production (tons acid produced) | |

See also the information sheet for Adipic Acid Production (EPA-430-F-09-038R) at:
<http://www.epa.gov/climatechange/emissions/downloads/infosheets/adipicacidproduction.pdf>

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