

# Eastman Kodak Major Source Permit

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## History

- Eastman Kodak referred by Region 6 EPA as the only major source for the semiconductor MACT requirements



## Eastman Kodak



- Produces photographic films, chemicals, digital media and equipment
- Located in Rochester, NY
- Started in 1891
- Over 1,100 acre site with 22 miles of fenceline
- 125 manufacturing buildings, 30 miles of roads, two power plants, own sewer system and wastewater treatment facility
- Considers 13,000 households and 550 businesses to be plant neighbors
- Air emissions
  - 2004 SARA emissions - 2.9 million pounds
  - 2004 power plant emissions (SO<sub>2</sub>, CO, NO<sub>x</sub>, particulates, VOCs) – 58.9 million pounds
- [http://www.kodak.com/US/plugins/acrobat/en/corp/HSE/KPHSE\\_2005.pdf](http://www.kodak.com/US/plugins/acrobat/en/corp/HSE/KPHSE_2005.pdf)

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## Eastman Kodak Major Source Permit



- Permit available online  
[http://www.dec.ny.gov/dardata/boss/afs/issued\\_atv\\_h.html](http://www.dec.ny.gov/dardata/boss/afs/issued_atv_h.html)
- Two permits and two permit review reports – over 1400 pages
- Regulated by New York State Region 8
- Facility has ~55 emission units (EU) listed in permits
- Facility emissions summary has a potential to emit (PTE) list of chemicals
  - Appears to have entire federal HAPs list most w/  $\geq 10$  tpy
  - CO, NO<sub>x</sub>, SO<sub>2</sub>, Particulates, VOC each  $\geq 250$  tpy

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## Semiconductor Manufacturing at Eastman Kodak



- Listed as U00020 with 10 emissions points and 3 processes
- ~35,000 square feet of cleanroom space originally built in the 70's
- Subject to maximum achievable control technology (MACT)
  - No emissions control units, i.e. no thermal oxidizers, no scrubbers
  - Will meet MACT concentration limits of 20 ppmv for organics and 0.42 ppmv for inorganics
- No compliance testing
  - demonstrate compliance via engineering assessments, other monitoring and emissions calculations, semiannual reports
- Subject to NY State reasonable available control technology requirements (RACT) for cold cleaning degreasers which
  - Limits annual VOC emissions on a rolling 12 month basis
  - Requires specific emissions calculations
  - Requires semiannual reporting
  - Specifies operational requirements
- Had a best available control technology (BACT) requirement for HF that is no longer applicable

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## Requirements for Other Sources at Eastman Kodak



- Do have control equipment on other operations
  - RTO, scrubbers, absorbers, carbon adsorption systems, etc.
  - Mainly put in place to meet limits for state BACT and RACT requirements
- Generally there are no concentration limits at the stack
- Generally there are no short term limits for pollutants
  - NY State air toxic program that requires modeling and could trigger additional requirements
- Continuous emissions monitoring
  - For opacity on power plant and hazardous waste incinerator
  - To ensure removal efficiency on acetate film based manufacturing carbon adsorber system and the solvent recovery system
- Semiannual compliance report that summarizes compliance with all conditions in permit
- Excursion reporting
- Annual NY State Emissions survey
- Intermittent testing listed for some sources, i.e.
  - Once per year for mercury from a chemical waste incinerator
  - As requested for particulates from polyester film based manufacturing
  - For batch synthetic chemical manufacturing lists operational and maintenance items as intermittent testing
- Used to have a full staff to complete all testing but have outsourced more in the last few years – smaller footprint, cost savings

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