



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION



DIVISION OF AIR QUALITY
AIR QUALITY, ENERGY, AND SUSTAINABILITY

BOILER DERATING IN AIR PERMITS

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REASONS FOR DERATING

- To avoid Regulatory Triggers/Rule Applicability
- To reduce PTE

BOILER DERATING

- Permanent physical change to reduce heat input capacity
- Change cannot be easily undone;
- Reversal of change cannot be done without a system shutdown;
- Change must be certified by the boiler manufacturer/derating vendor

EXAMPLES

- Replace the existing burner with a new lower-rated burner
- Replace the jets/nozzles to modify the natural gas fuel system to reduce capacity
- Replace the forced draft fans with smaller fans and motors.
- Each proposal is evaluated on a case by case basis.

WHAT IS NOT A DERATE?

- Changes made to fuel feed system, eg. restrict the fuel metering valve
- Computer Software to limit fuel flow,
- Mechanical change to limit combustion air flow
- Electronic systems designed to control air and fuel flows

AIR PERMIT REQUIREMENTS

- Continuous Fuel Flow Monitoring
- Flow Meter consistent with 40 CFR 75 Appendix D
- Manufacturer Certification for derating

THROTTLING A BOILER

- Firing capacity of the boiler is reduced below the manufacturer's boiler rated capacity.
- No permanent change is made to the boiler.
- Capacity reduction is Federally Enforceable.
- Monitoring and Recordkeeping similar to derate.

QUESTIONS

