

Output Based New Source Performance Standards (NSPS)



EPA's Clean DG Policy and CHP Webinar Series

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Recent EPA Actions that Used Output Based Standards

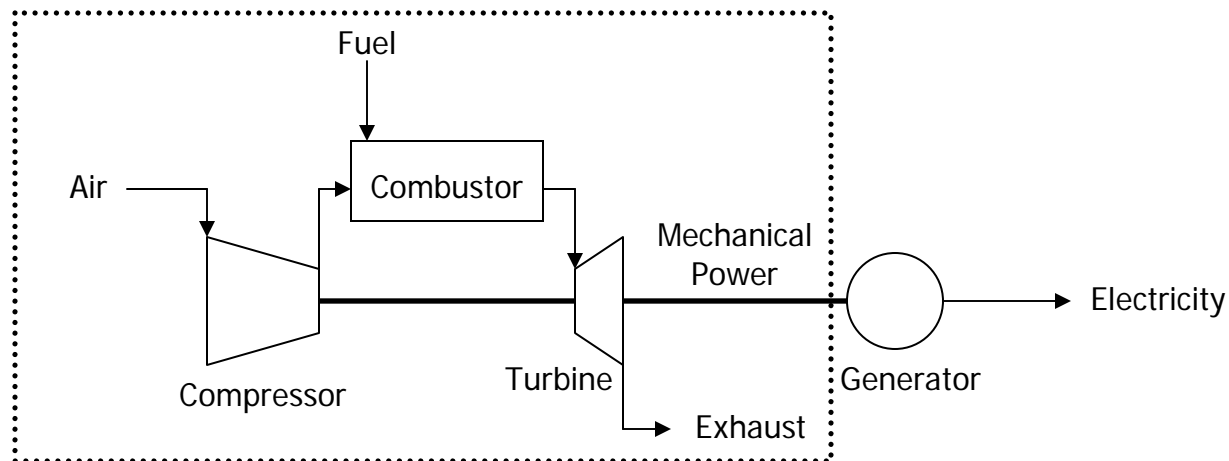
- The utility and industrial boiler NSPS
 - September 16, 1998
 - February 27, 2006
- The stationary combustion turbine NSPS
 - July 6, 2006
- Reciprocating internal combustion engine NSPS
 - July 11, 2006 (compression ignition)
 - January 18, 2008 (spark ignited)

Utility and Industrial Boiler NSPS

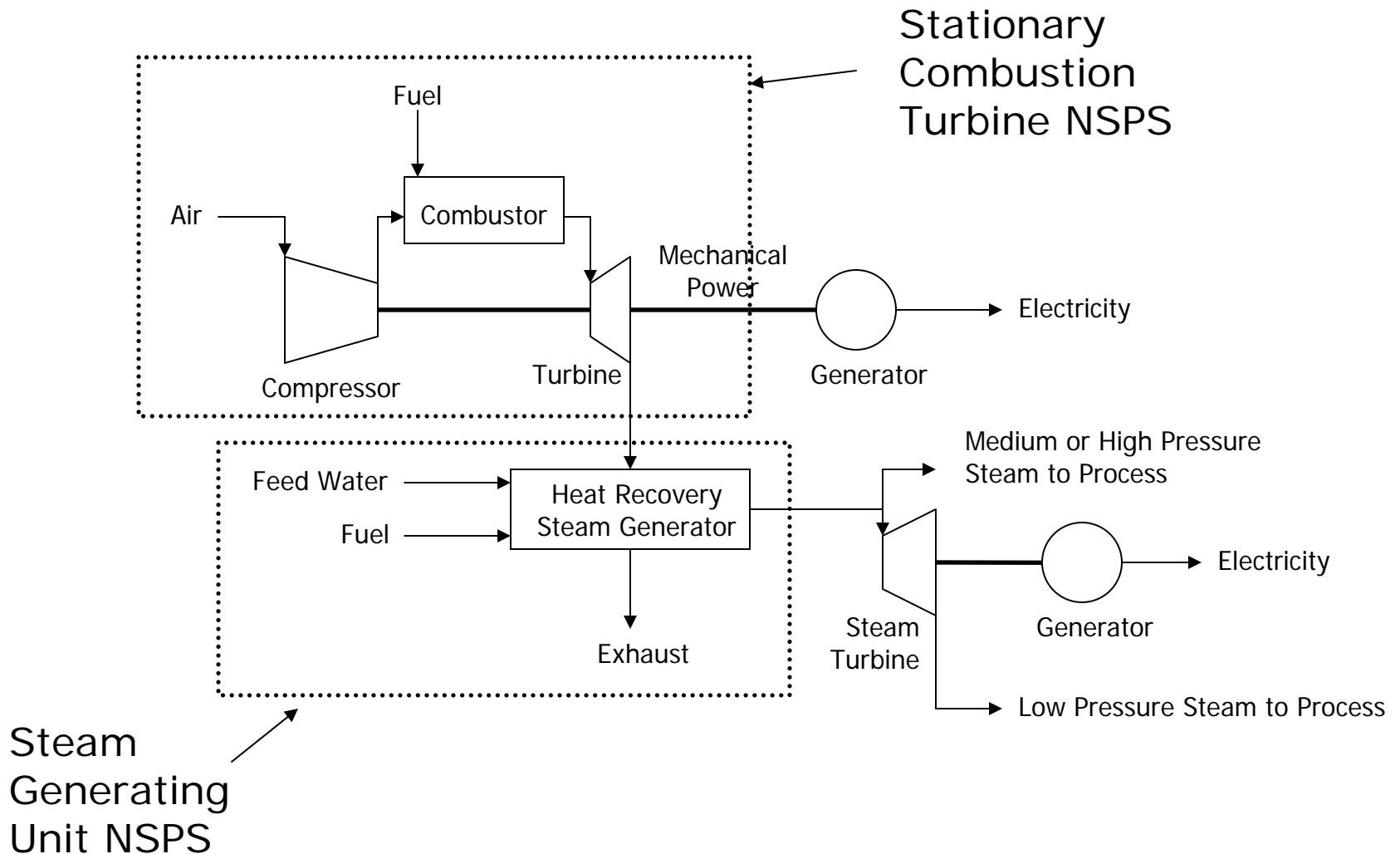
- ❑ Original standards required either a input based limit or percent reduction requirement
- ❑ 1998 Amendments
 - Included an output based NO_x limit for utility units
 - 50% credit for recovered useful thermal output
- ❑ 2006 Amendments
 - Included optional output based SO₂ and PM limit for utility units
 - Included an optional output based NO_x limit for industrial units
 - 75% credit for recovered useful thermal output

Stationary Combustion Turbine NSPS

- ❑ Original standard based NO_x ppm limit on manufacturers efficiency at standard conditions
 - More efficient turbines allowed a higher ppm emissions rate

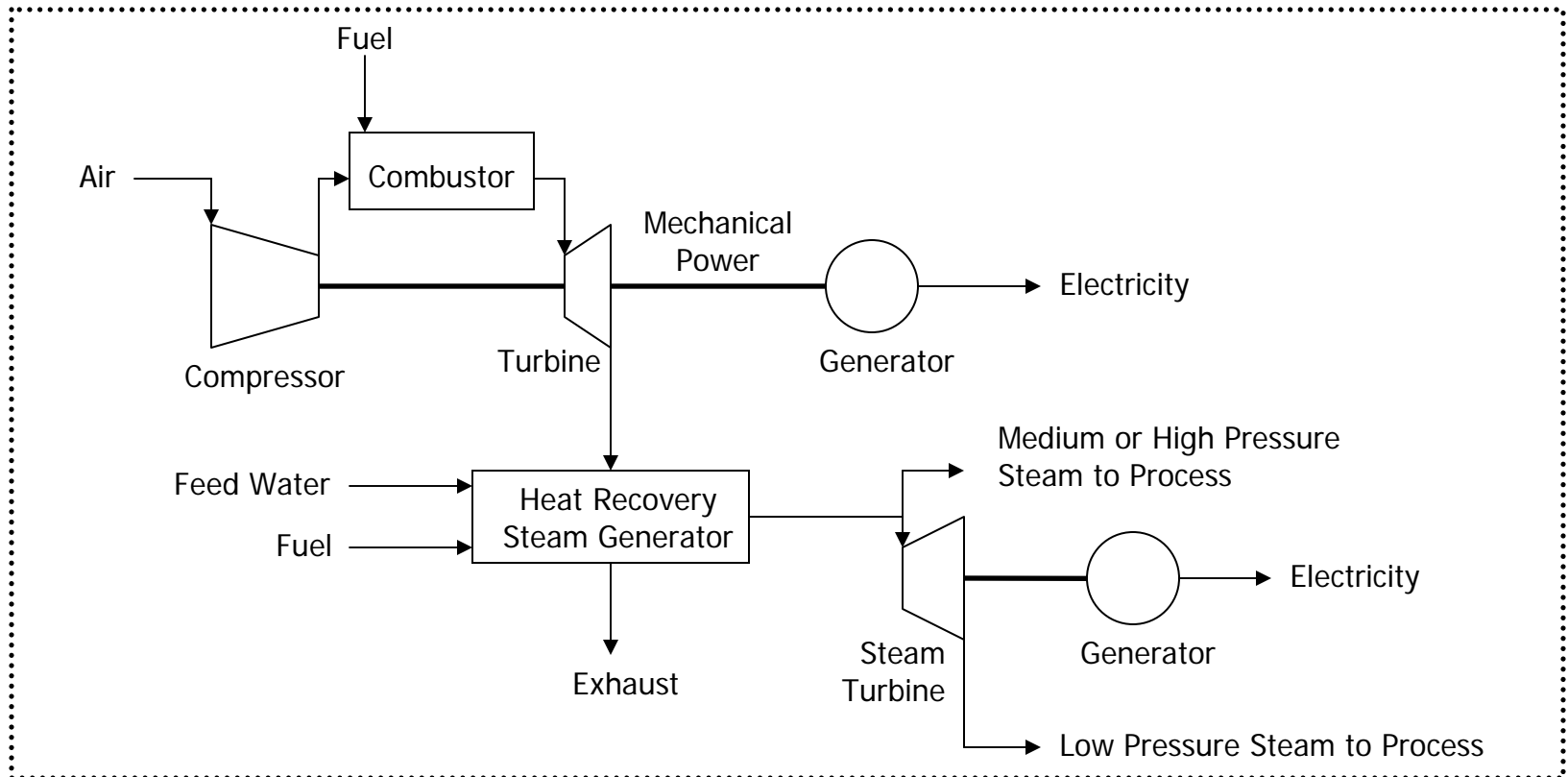


Original NSPS Approach

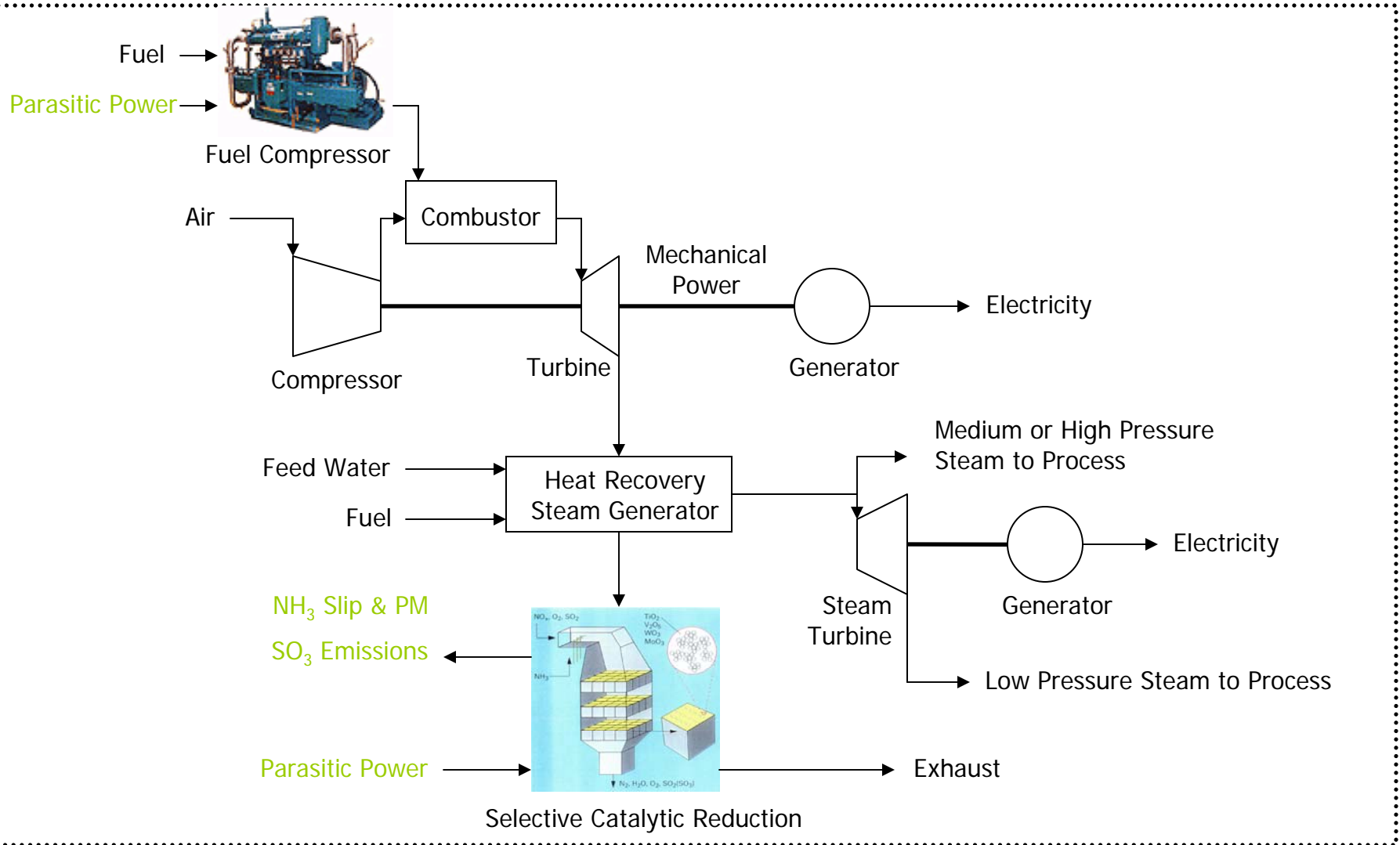


Subpart KKKK Approach

- Optional output based limits
 - 100% credit for recovered useful thermal output



Stationary Combustion Turbine, Net Output Approach



Reciprocating internal combustion engine NSPS

- ❑ Primarily based on mobile source regulations
- ❑ Both output and optional ppm limits
- ❑ No credit for useful recovered thermal output