JANSEN
Combustion & Boiler Technologies, Inc.

Destruction of Dilute and Concentrated Non-condensable Gases in Power and Recovery Boilers

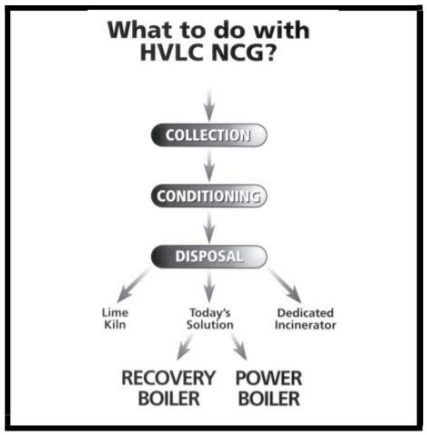
Because of the 1998 “Cluster Rule” legislation, most kraft mills in North America collect and incinerate dilute non-condensable gas (DNCG). DNCGs are collected from sources such as washers, deckers, chip bins, liquor tanks, sewers, and many others. They contain small amounts of Total Reduced Sulfur (TRS) and volatile organics, with moist air making up over 95% of the DNCG.

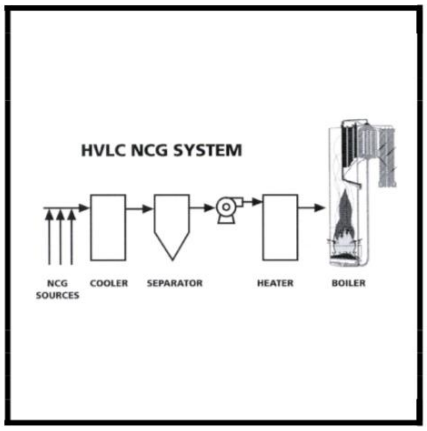
As a less expensive alternative to purchasing a dedicated incinerator, this stream can be readily combined with the boiler’s combustion air at the level of overfire air or in a recovery boiler at the secondary/tertiary air levels. And many mills are also destroying concentrated non-condensable gas (CNCG) via direct injection into boilers.

Jansen’s experience in these areas assists in the development of informed decisions on where and how to inject an NCG stream safely into an existing boiler in a manner that will not detrimentally affect normal boiler operation.

Scope of Services

- Evaluate impact of NCG injection on boiler efficiency, normal fuel burning capacity, air emissions, corrosion factors, safety, and potential odor problems.
- Determine which boiler(s)—power or recovery—is best suited for disposal of the DNCG and/or CNCG stream(s).
- Determine the best location and method of injection of the NCG stream into the furnace to assure rapid and complete thermal oxidation.
- Define NCG injection conditions consistent with BLRBAC Recommended Good Practices.
- Define potential secondary (pay-back) benefits of DNCG injection (i.e. combustion air
- delivery upgrade).
- Develop budgetary estimate to design, supply, and install boiler modifications for the injection of the NCG stream.





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