

COMPLIANCE SOLUTIONS

BOILERSENSE-ND™ BOILER ROOM GAS DETECTION

PURPOSE BUILT FOR THE NORTH DAKOTA BOILER RULES

CET's BoilerSense-ND™ gas detection solution complies with the North Dakota Administrative Code for rooms with fuel fired appliances be equipped with a CO detector and proper ventilation and equipment operation protocols.

Stay compliant, reduce risk, and safeguard boiler rooms. Trust the gas detection experts to keep your critical environment safe and secure.

COMPLIANT, COMPLETE, SAFE

- **FCS-L-SW:** Multi Channel Controller with Modbus® or BACnet® WAN output to BAS
- **RSW-E:** Remote Switch with red push button
- **RSH-24V-R:** Remote Strobe/Horn Combo

Talk to one of our gas detection experts today to learn about compliant gas detection solutions.



BoilerSense-ND, the complete solution



**THE
GAS DETECTION
EXPERTS.**

WWW.CETCI.COM
(877) 940 8741
SALES@CETCI.COM



BOILERSENSE-ND: MEETING SPEC

- CO gas detectors are to be installed in accordance with the authority having jurisdiction.
- A manually operated emergency shutoff switch must be located just outside the most commonly used boiler room door and marked for easy identification.
- The ND State Building Code adopts national standards that mandate combustible gas detectors.

FCS Multi Channel System Controller

- Four 5A relays, audible alarm, touch LCD display with menu, zoning, logic control, and data logging
- Factory installed strobe and manual switch
- Modbus® RS-485 or BACnet® MS/TP output for BAS integration
- 90–240V AC power supply

cGas Detector Digital Transmitter (CO)

- 0-200 ppm sensor range
- Modbus® RS-485 or BACnet® MS/TP output, 4-wire VAC/VDC
- Options: Relay, Low Temp Operation, Splash Guard

Remote Switch

- Manual push button control for mechanical/electrical shutdowns and activating horn/strobes

Remote Strobe / Horn Combo

- Multiple alarm features in one device
- Independent settings for horn, strobe or horn and strobe together
- Three lens colours to choose from

CRITICAL ENVIRONMENT TECHNOLOGIES



Flexible Control System (FCS)



cGas Detector (CO)



Remote Switch (RSW-E)



RSH-24V-R



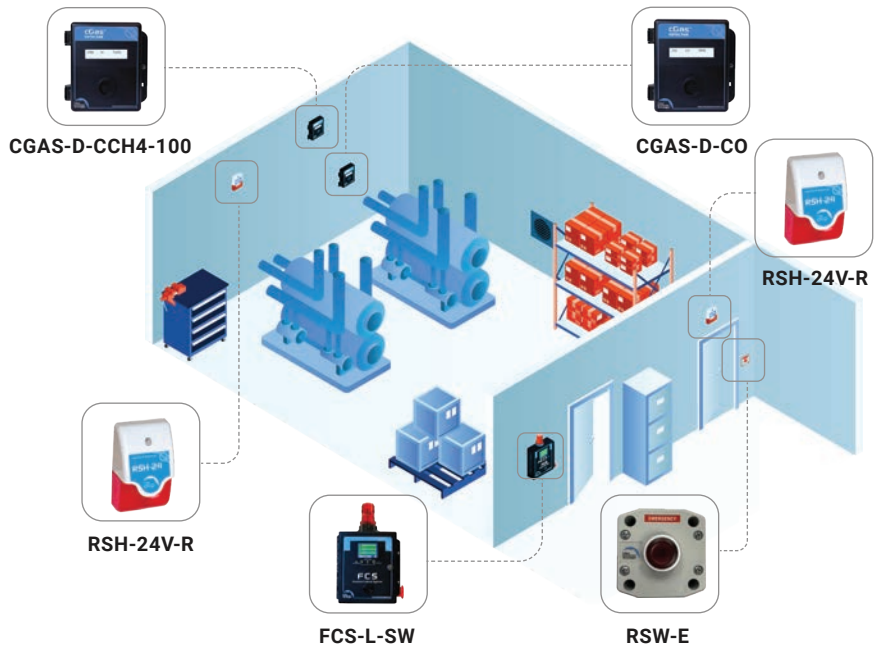
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COMPLETE SYSTEM INTEGRATION BUILT TO MEET SPEC

- **FCS-L-SW** Controller w/strobe & manual shutoff switch
- **CGAS-D-CO** Detector Digital Transmitter
- **CGAS-CCH4-100** Detector Digital Transmitter (recommended)
- **RSW-E** Remote Switch
- **RSH-24V-R** Remote Strobe & Horn



NORTH DAKOTA BOILER RULES (ND ADMIN CODE 33.1-14-04-05)

The state of North Dakota uses the following standards to govern gas detection in boiler rooms - the North Dakota Boiler Rules Article 33.1-14 with specific mention of carbon monoxide gas detection requirements as per the North Dakota Administrative Code 33.1-14-04-05, the ND Boiler Inspection Program, the ASME Boiler & Pressure Vessel Code (CSD-1) and the North Dakota State Building Code.

The ND Admin Code states a carbon monoxide detector or alarm must be installed in equipment rooms where fuel fired boilers or fuel fired pressure vessels, or both are located in accordance with the authority having jurisdiction.

ASME CSD 1 requires a clearly marked, manually operated emergency shutdown switch or circuit breaker outside each boiler room door. Activating the switch must immediately cut off the boiler's fuel or energy supply. For rooms with multiple entrances, a switch is needed at every door. The ND Boiler Inspection Program allows the emergency shutoff switch to be located outside the most used boiler room door and if the most used boiler room door is on the building exterior,

the switch must be located just inside the door.

There is no explicit requirement in any of the above standards for combustible gas detection in boiler rooms. However, the North Dakota State Building Code consists of the International Building Code (IBC), International Mechanical Code (IMC) and the International Fuel Gas Code (IFGC), which reference the National Fuel Gas Codes (NFPA 54, 70 and 85) which mandate gas detection for leaks in boiler rooms, including combustible gases.

The National Fuel Gas Code NFPA 54 Section 8.3.1.4 to 8.3.2.2.2 outlines the following requirements for combustible gas sensors in boiler rooms.

- Combustible gas indicators shall be listed and calibrated in accordance with the manufacturer's instructions.
- Gas indicators shall numerically display a volume scale from 0 percent to 100 percent in 1 percent or smaller increments.
- Combustible gas detectors shall be capable of indicating the presence of fuel gas.

It is the user's responsibility to ensure compliance with applicable regulations. CET is not liable for errors, omissions or misinterpretations. 10-25



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