

COMPLIANCE SOLUTIONS

BOILERSENSE™ BOILER ROOM GAS DETECTION

PURPOSE BUILT TO COMPLY WITH BOILER ROOM STANDARDS

CET's BoilerSense™ gas detection solution complies with national and state standards for rooms with fuel fired appliances to be equipped with CO & CH₄ detectors 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
- **CGAS-D-CO:** Digital Carbon Monoxide Transmitter
- **CGAS-D-CCH4-100:** Digital Methane Transmitter
- **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 the complete solution



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EXPERTS.**

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BOILERSENSE: MEETING SPEC

- CO & CH₄ gas detectors are to be installed in accordance with the authority having jurisdiction.
- If gas levels exceed thresholds, alarms activate inside and outside the room and trigger the ventilation system.
- Requires a manual switch for shutdown of equipment.

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

cGas Detector Digital Transmitter (CH₄)

- 0-100 %LEL 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)



cGas Detector (CH₄)



Remote Switch (RSW-E)



RSH-24V-R



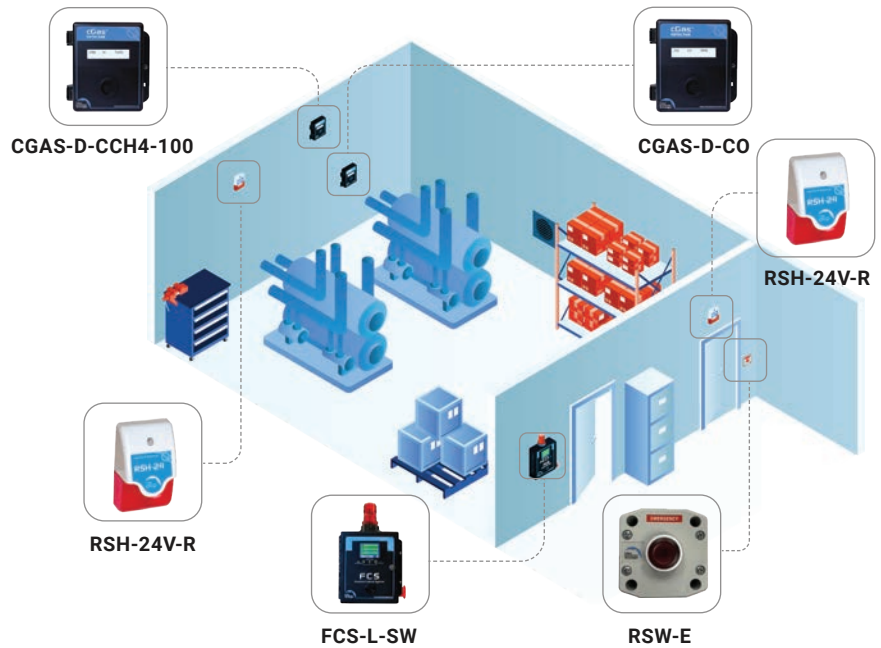
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COMPLETE SYSTEM INTEGRATION BUILT TO MEET SPEC

- **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



BOILER ROOM GAS DETECTION – GENERAL SUMMARY

Boiler rooms that contain fuel burning appliances are expected to use carbon monoxide (CO) detection systems installed in accordance with manufacturer instructions to ensure proper placement and reliable operation. These systems should provide audible and visible alarms both inside the boiler room and at or near its entrances to alert personnel when CO levels rise. As concentrations increase, the detection system is expected to activate mechanical ventilation, and at higher levels it initiate automatic equipment shutdown to prevent hazardous buildup.

Where methane or other combustible gases may be present, the gas detection system should be capable of sensing the appropriate fuel gas and alarming when concentrations reach a defined percentage of the lower

flammability limit. Distinct audible and visual alarms—clearly differentiated from CO or fire alarms—should be used to prevent confusion during an emergency. When combustible gas is detected, the system should automatically activate ventilation or shut down equipment to reduce the risk of an explosive atmosphere.

A manually operated emergency shutdown switch should be located outside the boiler room and at each entrance, allowing personnel to immediately cut fuel or energy to the boiler during unsafe conditions.

The gas detectors may be configured as standalone units or integrated into a building wide system, provided they deliver dependable performance and compatibility with other safety controls.

It is the user's responsibility to ensure compliance with applicable regulations. CETI is not liable for errors, omissions or misinterpretations. 02-26



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BOILER ROOM MULTI-STATE COMPLIANCE GUIDE

	STANDARDS	CARBON MONOXIDE REQUIREMENT	COMBUSTIBLE (METHANE) GAS REQUIREMENT	ALARM & VENTILATION ACTIVATION	EMERGENCY SHUTDOWN	RECORD KEEPING & MAINTENANCE
IOWA	IAC 481-391; NBIC; NFPA 54/70/85	CO detector required in rooms with fuel-fired appliances per manufacturer; CO alarms ~30 ppm recommended.	CH4 detection recommended; NFPA 54 requires CH4 indicators with numeric display.	Alarms inside & at entrances; ventilation triggers when thresholds exceeded.	Required outside each boiler room door; must cut fuel/energy supply.	Indicators listed/calibrated per NFPA 54; no fixed interval specified.
KANSAS	Kansas Boiler Safety Act; NFPA 54 & 85; IBC for state buildings	CO detectors required in state-owned buildings; UL 2075 & NFPA 720 compliance.	NFPA 54 required; set alarms at >25% LFL.	>=25% LFL alarm; continuous monitoring recommended.	Manual shutdown switch required outside each boiler room door.	Inspection/testing per IFC; UL 2075/NFPA 720 installation
MINNESOTA	MN Rules 1346.5311; MN Ch.1309/13093; NFPA 720; UL 2034/2075	CO alarms required in rooms w/ fuel-burning appliances; UL 2034/2075; hardwired unless exempt.	Recommended unless required by AHJ; alarms at 20% LEL.	Alarms inside/outside room; ventilation/system shutdown; trouble signal if sensor fails.	Manual switch outside room.	System maintenance per NFPA 720; failure requires ventilation.
MISSOURI	MO Building Code (IBC 915/916); IFC; UL 2075	CO detection required in new buildings; UL 2075; annual testing; specific IBC thresholds.	Required where CH4 possible; alarms at >25% LFL (IFC 916).	Ventilation/mechanical exhaust triggered as required by IFC sections.	Manual switch outside each boiler room door per CSD-1.	Annual CO detector testing required per IFC; maintenance per code.
NEBRASKA	NE Title 229 Ch.24; NBIC; NFPA 54; ASME BPVC	CO detector per manufacturer; CO alarms ~30 ppm recommended.	CH4 detection recommended; NFPA 54 numeric display requirements.	Alarms inside & at entrances; ventilation when thresholds exceeded.	Required outside each boiler room door.	Indicators listed/calibrated per NFPA 54.
NORTH DAKOTA	ND Admin Code 33.1-14-04-05; ASME CSD-1; ND State Building Code (IBC/IMC/IFGC)	CO detector/alarm required in rooms with fuel-fired boilers per AHJ.	IFGC/NFPA 54 references require combustible gas detection.	AHJ-directed placement; emergency shutdown outside boiler room per CSD-1.	Manual shutdown switch outside each boiler room door.	Indicators listed/calibrated per NFPA 54.
OKLAHOMA	OK Boiler Regulations; IBC; IFC; IFGC; NFPA 54/70/85	CO detection required in new buildings; UL 2075 compliance	CH4 detection required if methane present; alarms >25% LFL.	Ventilation or shutdown triggered per IFC 916.	Required outside each door per CSD-1.	Annual CO testing per IFC
TEXAS	16 TAC S65.206 Boiler Room; ACME Code Section VII recommended	CO detector with manual reset.	Not explicitly mandated.	>25 ppm ventilation; >50 ppm burner disable; alarms inside/outside room.	Manual reset inside room and shutdown outside room.	Calibration records required at/near boiler. Calibration per manufacturer or every 18 months.
WISCONSIN	WI SPS 340/341/364/365; ASME CSD-1; NBIC; NFPA 54/85	CO detection required per SPS; alarms ≥30 ppm recommended.	CH4 detection recommended; NFPA 54 listing & display requirements.	Ventilation required per SPS; alarms inside/outside room.	Required outside each door; allows placement just inside entrance if approved.	Maintenance per SPS; NFPA/OSHA-aligned thresholds.

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