SITE survey. APP

SITE SURVEY REPORT

Commercial Boiler Log and Inspection Checklist

Prepared for	Westlake Regional Health
Date	14 Oct 2026
Site	Westlake Regional Hospital boiler plant
Prepared by	D. Kowalczyk

FORM

Commercial Boiler Log and Inspection Checklist

1. Log details

Project	Westlake Regional Hospital boiler plant: boiler log and inspection (completed example)
Site address	Westlake Regional Hospital, 2400 Alder Ridge Drive NE, Grand Rapids, MI 49505
Client or owner	Westlake Regional Health
Location (GPS)	42.9934, -85.6402
Log date	14 Oct 2026
Logged by	D. Kowalczyk, stationary engineer
Building or plant	Central energy plant, lower level
Where is the plant?	US
What does this record cover?	Log and periodic inspection
Shift	Day
Operating or maintenance contractor	Grand River Plant Services (in-house engineering support)

> This is an operator's log and inspection record. It is not a statutory boiler inspection, an examination under a written scheme or a certificate. Pressures, temperatures, set points, water treatment targets and combustion figures come from the maker, the boiler's certificate, the operating instructions or your contractors.

2. Plant rooms and boilers

Plant rooms 1: Main boiler room

Plant room	Main boiler room
Where is it?	42.9932, -85.6405

Photos of the plant room



Boiler room clear of storage and combustible materials	Acceptable
Combustion air openings and louvres clear	Acceptable
Emergency shut-off switch and fuel shut-off valve accessible and labelled	Acceptable
Operating instructions and emergency procedures available at the plant	Acceptable
Gas or carbon monoxide detection working, where fitted	Acceptable
Pipework, valves and insulation: no leaks, damage or missing lagging	Acceptable
Lighting, access and housekeeping	Acceptable
Inspection certificate or label displayed where the local rules require one	Acceptable

Boilers in this plant room 1: B-1

Boiler tag	B-1
Type of boiler	Steam boiler, low pressure
Fuel	Dual fuel (gas and oil)
Make and model	Firetube steam boiler, 300 hp
Serial number	EXAMPLE-FT-0301
Maximum allowable working pressure, as on the data plate or certificate	15 psi
Input or output rating	12,555,000 Btu/h input

Status today	In service
State or city inspection certificate number	CERT-EXAMPLE-0417
Certificate expiry	31 Mar 2027
Certificate in date?	Yes

Boilers in this plant room 2: B-2

Boiler tag	B-2
Type of boiler	Steam boiler, low pressure
Fuel	Dual fuel (gas and oil)
Make and model	Firetube steam boiler, 300 hp
Serial number	EXAMPLE-FT-0302
Maximum allowable working pressure, as on the data plate or certificate	15 psi
Input or output rating	12,555,000 Btu/h input
Status today	Out of service
State or city inspection certificate number	CERT-EXAMPLE-0418
Certificate expiry	31 Mar 2027
Certificate in date?	Yes

Photos: boiler, data plate and certificate



This plant room: boilers	2
Plant room checks needing action	0

Not checked	0
Certificates not in date	0
All plant rooms: boilers	2
All plant rooms: checks needing action	0
All plant rooms: certificates not in date	0

3. Shift log

Boiler logs 1: B-1

Boiler tag	B-1
Units used in this log	psi and °F
Pressure: lowest normal	8
Pressure: highest normal	12
Temperature: lowest normal	230
Temperature: highest normal	245
Stack temperature: highest normal	450
Where the limits come from	Plant operating instructions rev 6, burner tuning report May 2026

Readings 1: 06:00

Time	06:00
Operator initials	DK
Pressure	10
Water or steam temperature	239
Water level	Normal, visible in the gauge glass
Stack (flue gas) temperature	392
Fuel reading	Gas meter 418,226
Blowdown done?	Yes
Low water cutoff test	Tested: burner cut out and alarm sounded

Readings 2: 10:00

Time	10:00

Operator initials	DK
Pressure	11
Water or steam temperature	241
Water level	Normal, visible in the gauge glass
Stack (flue gas) temperature	405
Fuel reading	Gas meter 418,951
Blowdown done?	No
Low water cutoff test	Not tested this round
Notes or action taken	Carrying the full load with B-2 off line.

Readings 3: 14:00

Time	14:00
Operator initials	DK
Pressure	11
Water or steam temperature	240
Water level	Normal, visible in the gauge glass
Stack (flue gas) temperature	411
Fuel reading	Gas meter 419,702
Blowdown done?	Yes
Low water cutoff test	Not tested this round
Readings taken	3
Highest pressure	11
Lowest pressure	10
Highest temperature	241
Lowest temperature	239
Highest stack temperature	411
Limits exceeded	0
Water level not normal	0
Low water cutoff tests failed	0

This boiler	Readings within the limits entered

Boiler logs 2: B-2

Boiler tag	B-2
Units used in this log	psi and °F
Pressure: lowest normal	8
Pressure: highest normal	12
Temperature: lowest normal	230
Temperature: highest normal	245
Stack temperature: highest normal	450
Where the limits come from	Plant operating instructions rev 6, burner tuning report May 2026

Readings 1: 06:00

Time	06:00
Operator initials	DK
Pressure	10
Water or steam temperature	239
Water level	Normal, visible in the gauge glass
Stack (flue gas) temperature	388
Fuel reading	Gas meter 377,104
Blowdown done?	Yes
Low water cutoff test	Not tested this round

Readings 2: 09:30

Time	09:30
Operator initials	DK
Pressure	10
Water or steam temperature	239
Water level	Normal, visible in the gauge glass
Stack (flue gas) temperature	390

Fuel reading	Gas meter 377,512
Blowdown done?	Yes
Low water cutoff test	Tested: did not cut out
Notes or action taken	Lowered the level with the drain valve; burner kept firing below the cutoff mark. Shut the burner down by hand, isolated B-2 and told the plant manager. Contractor called.
Readings taken	2
Highest pressure	10
Lowest pressure	10
Highest temperature	239
Lowest temperature	239
Highest stack temperature	390
Limits exceeded	0
Water level not normal	0
Low water cutoff tests failed	1
This boiler	Action needed: see the readings

> A low water cutoff did not shut the burner down. Follow your site procedure for a failed safety device and record what was done.

All logs: readings taken	5
Limits exceeded	0
Water level not normal	0
Low water cutoff tests failed	1

4. Periodic inspection

Boilers inspected 1: B-1

Boiler tag	B-1
Inspected by	D. Kowalczyk
Burner and flame: burner clean, ignition reliable, flame as the maker describes	Acceptable
Flame safeguard: flame failure shutdown tested as the maker says	Acceptable

Operating and high limit controls work at the settings in the operating instructions	Acceptable
Safety or relief valves: no leaking, discharge pipe secure and clear, tested as the maker and your procedure say	Acceptable
Gauge glass and water column: clean, cocks work, level returns after blowdown	Acceptable
Low water cutoffs: tested as the maker says, burner shuts down and alarm sounds	Acceptable
Pressure and temperature gauges readable and working	Acceptable
Feedwater pumps, controls and condensate return working	Action needed
What needs doing, or why not checked	Feedwater pump 1 seal weeping into the drip tray, rust staining down the plinth. Pump 2 running as duty. Replace the seal.
Water treatment: chemical feed working, readings entered below	Acceptable
Combustion analysis done and results entered below	Acceptable
Refractory, casing and doors: no cracks, hot spots or damage	Acceptable
No water, steam, fuel or flue gas leaks	Acceptable
Flue, breeching and chimney: secure, no leaks or corrosion, draft control works	Acceptable
Blowdown valves and piping: operate, no leaks, discharge to a safe place	Acceptable
This boiler: checks needing action	1
Not checked	0

Photos of what needs action



All boilers: checks needing action	1
Not checked	0

Water treatment and combustion readings 1: B-1

Boiler tag	B-1
Type of reading	Boiler water treatment
Reading	Conductivity
Measured	2850
Units	µS/cm
Target lowest	2000
Target highest	3500
Where the targets come from	Lakeshore Water Treatment control sheet, Sept 2026
Against the targets	Within the targets

Water treatment and combustion readings 2: B-1

Boiler tag	B-1
Type of reading	Boiler water treatment
Reading	Sulfite
Measured	34
Units	ppm

Target lowest	20
Target highest	40
Where the targets come from	Lakeshore Water Treatment control sheet, Sept 2026
Against the targets	Within the targets

Water treatment and combustion readings 3: B-1

Boiler tag	B-1
Type of reading	Combustion analysis
Reading	O2 at high fire
Measured	3.9
Units	%
Target lowest	3
Target highest	5
Where the targets come from	Burner tuning report, May 2026
Against the targets	Within the targets

Water treatment and combustion readings 4: B-1

Boiler tag	B-1
Type of reading	Combustion analysis
Reading	CO at high fire
Measured	24
Units	ppm
Target highest	100
Where the targets come from	Burner tuning report, May 2026
Against the targets	Within the targets
Readings entered	4
Outside the targets	0

5. Statutory inspection

Inspecting authority or insurer	Insurer's boiler inspector (Lakeshore Mutual Insurance)

Last state or insurer inspection	18 Mar 2026
Open items from the last inspection or examination report?	No
Statutory items needing action	0

6. Result, actions and sign-off

Items needing action	2
Result	Action needed before the next shift

Actions 1: B-2 low water cutoff did not shut the burner down on test. Find the fault, repair, and retest in front of the plant manager before B-2 goes back on line.

Action	B-2 low water cutoff did not shut the burner down on test. Find the fault, repair, and retest in front of the plant manager before B-2 goes back on line.
Priority	Safety: now
Who will do it	Great Lakes Combustion Inc.
Due by	15 Oct 2026
Status	In progress

Actions 2: Replace the mechanical seal on feedwater pump 1 and clean the plinth.

Action	Replace the mechanical seal on feedwater pump 1 and clean the plinth.
Priority	Within a week
Who will do it	D. Kowalczyk
Due by	21 Oct 2026
Status	Open
Actions still open	2
Decision	Boiler taken out of service
Next check or re-inspection date	15 Oct 2026
Summary for the client	B-1 ran within all limits on the day shift and passed its periodic checks, apart from a weeping seal on feedwater pump 1 (pump 2 on duty). B-2 failed its low water cutoff test at 09:30: the burner kept firing below the cutoff mark. B-2 was shut down and isolated and stays out of service until the cutoff is repaired and retested. B-1 is carrying the load.
Operator or engineer name	D. Kowalczyk

Operator or engineer signature	
Site or plant manager name	R. Okafor, plant manager
Site or plant manager signature	