BOILER SAFETY REPORT

Green Life Knit Composite Ltd. (Extension)

Factory ID: 24630

Address: Tongabari, Ashulia Saver Dhaka, Bangladesh.
GPS Coordinates: 23.903065, 90.319678

Factory List	:	Green Life Knit Composite Ltd. (Extension) (24630) Green Life Knit Composite Ltd (11061)
Number of Boilers	:	2
Boiler Registration Numbers	:	BB 6126, BB 14420

RSC RMG SUSTAINABILITY COUNCIL

EXECUTIVE SUMMARY

A comprehensive boiler safety inspection of the factory – **Green Life Knit Composite Ltd. (Extension) (24630)** was conducted by the RMG Sustainability Council, covering 2 boilers bearing the registration numbers – BB 6126, and BB 14420. The inspection aimed for the safety checks of the boiler and provide recommendations for safe operation and maintenance.

The inspection process was divided into three distinct parts. Firstly, an external visual inspection was carried out to evaluate the overall condition of the boiler and provide guidance for the upcoming full-fledged boiler safety inspection. Next, an internal inspection and hydrostatic pressure test (commonly referred to as a hydrotest) inspection was conducted to assess the safety and structural integrity of the boiler. Sufficient time was allocated to allow the factory to prepare for the final inspection stage, which involved a functional test inspection. This stage required the boiler to be operational to enable the inspection team to verify the functionality of different safety circuits.

From the inspection observations -

BB 14420 is in operable condition, but a few issues - outlined in this report, are to be addressed in a timely manner.

Boiler Registration Number	**External visual inspection**	**Internal & Hydrotest inspection**		**Functional test inspection**	
	Date	Date	Remarks	Date	Remarks
BB 6126	20-Feb-22	The office of the Chief Inspector of Boilers has acknowledged the permanent shutdown application of this boiler as of 2-Aug-23.			
BB 14420	7-Mar-24	1-Jan-26	Satisfactory	5-Feb-26	Steam pressure limiter was not functional.

LIMITATIONS

The information in this boiler safety inspection report was obtained during a factory visit and discussion with local factory management. Services performed by the inspectors are conducted in a manner consistent with the level of care and skill generally exercised by members of the engineering and auditing profession. However, an effort has been made to discover all meaningful areas within the stipulated time.

In evaluating the subject site, the inspector relies on good faith in the information provided by factory management or employees. The inspector assumes that the information provided is factual, accurate and accepts no responsibility for any deficiency, misstatement or inaccuracies contained in this report as a result of omission or misrepresentation of any person interviewed or contacted.

The findings and recommendations in this report are not intended to imply, guarantee, ensure or warrant compliance with any government regulations. Additionally, the results do not imply in any way that compliance with the findings or recommendations, as stated in this report, will eliminate all risks or exposures not referred to in this report. Compliance with the findings and recommendations stated in this report does not relieve the factory from the obligation to comply with specific project requirements, industry standards, or the provisions of any local government regulations.

In case any critical safety concerns are found that require the RSC to recommend an immediate boiler shutdown, for applicable cases, the RSC will inform the Chief Inspector of Boilers (CIoB) office and collaborate with them on all subsequent steps to remediate the issue(s).

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1. EXTERNAL VISUAL INSPECTION

Inspection Date	Boiler Registration Number	Author(s)
20-Feb-22	BB 6126	S.M. Faysal Ahmed
7-Mar-24	BB 14420	Md. Mahfuzul Kabir

Reviewed by : Syed Rayhan Sajjid

Approved by : Md. Mehedi Hasan

FINDINGS AND RECOMMENDATIONS

The table below summarizes the identified boiler safety hazards during this inspection. Recommendations have been provided for each finding.

FINDING NO:	B-1
CATEGORY:	ELECTRICAL WIRING SYSTEM
BOILER REGISTRATION NO:	BB 6126
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room.	
RECOMMENDATION: An emergency stop push switch must be installed outside of the boiler room near the entrance door.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-2
CATEGORY:	ELECTRICAL WIRING SYSTEM
BOILER REGISTRATION NO:	BB 14420
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room.	
RECOMMENDATION: An emergency stop push switch must be installed outside of the boiler room near the entrance door.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-3
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 6126
FINDING: Low Low Water Level (LLWL) was not marked properly on water level gauge glass system.	
RECOMMENDATION: The Low Low Water Level (LLWL) should be marked beside the gauge glass on a separate arrangement so that the water level can be visualized and identified clearly.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-4
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 14420
FINDING: Low Low Water Level (LLWL) was not marked properly on water level gauge glass system.	
RECOMMENDATION: The Low Low Water Level (LLWL) should be marked beside the gauge glass on a separate arrangement so that the water level can be visualized and identified clearly.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-5
CATEGORY:	DOCUMENTATION
BOILER REGISTRATION NO:	BB 6126
FINDING: Necessary technical documents (Piping & Instrumentation diagram, commissioning documents, data sheets of mountings, accessories & feed water pump, boiler operational & maintenance logbook, water treatment design & calculation) are not available to verify boiler design and operation parameters.	
RECOMMENDATION: Documentation including manufacturing drawings & calculations, Piping & Instrumentation diagram, electrical wiring diagram, commissioning documents, data sheets of mountings, accessories & feed water pump, boiler operational & maintenance logbook, operation and maintenance manual, water treatment design & calculation, flue gas analysis report and water treatment report shall be available to verify the present condition of boiler.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-6
CATEGORY:	SAFETY VALVE
BOILER REGISTRATION NO:	BB 6126
FINDING: Boiler Safety Valve (Steam Header) outlet line is not directed outside of the boiler room.	
RECOMMENDATION: Boiler Safety Valve (Steam Header) outlet line should be directed outside of the boiler room with proper support & drainage system.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-7
CATEGORY:	SAFETY VALVE
BOILER REGISTRATION NO:	BB 6126
FINDING: Boiler safety valve outlet line was reduced.	
RECOMMENDATION: The piping connection between the boiler and the safety valve shall not be less than the inlet size of the safety valve, and the discharge pipe, if used, shall not be reduced between the safety valve and the point of discharge.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-8
CATEGORY:	DOCUMENTATION
BOILER REGISTRATION NO:	BB 6126
FINDING: Boiler registration certificate was not available during the inspection.	
RECOMMENDATION: Boiler registration certificate from the government shall be available during the inspection.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-9
CATEGORY:	THERMAL INSULATION
BOILER REGISTRATION NO:	BB 6126
FINDING: Boiler steam header and steam pipeline were found with improper insulation.	
RECOMMENDATION: Proper insulation to boiler steam header and steam pipelines shall be provided.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-10	
CATEGORY:	THERMAL INSULATION	
BOILER REGISTRATION NO:	BB 14420	
FINDING: Boiler steam header and steam pipeline were found with improper insulation.		
RECOMMENDATION: Proper insulation to boiler steam header and steam pipelines shall be provided.		
PRIORITY:	P2	
REMEDIATION TIME FRAME:	1 MONTH	

FINDING NO:	B-11	
CATEGORY:	MONITORING AND CONTROL SYSTEM	
BOILER REGISTRATION NO:	BB 6126	
FINDING: Inconsistent values were observed between steam pressure gauges.		
RECOMMENDATION: Appropriate pressure gauge(s) shall be provided according to Bangladesh Boiler Regulation (BBR)/manufacturing standard/any standard recognized by the CIoB with consistent functionality.		
PRIORITY:	P3	
REMEDIATION TIME FRAME:	2 MONTHS	

FINDING NO:	B-12
CATEGORY:	FUEL SYSTEM
BOILER REGISTRATION NO:	BB 6126
FINDING: Fuel line connection is not terminated properly.	
RECOMMENDATION: Any fuel line openings in boiler room shall be diverted outside of the boiler room or sealed off with a bond plug/blind flange to prevent fuel leakage.	
PRIORITY:	P1
REMEDIATION TIME FRAME:	2 WEEKS

FINDING NO:	B-13
CATEGORY:	IDENTIFICATION
BOILER REGISTRATION NO:	BB 6126
FINDING: Name plates for feed pump were illegible.	
RECOMMENDATION: Name plates shall permanently be fixed on the equipment and clearly readable. Manufacturer's technical documents regarding the equipment shall be provided.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-14	
CATEGORY:	BOILER ROOM	
BOILER REGISTRATION NO:	BB 6126	
FINDING: Water leakage was observed inside the boiler room.		
RECOMMENDATION: Boiler & its surrounding shall be free from storage, obstruction & free from slipping hazard for proper monitoring by boiler operator & other relevant maintenance technicians.		
PRIORITY:	P3	
REMEDIATION TIME FRAME:	2 MONTHS	

FINDING NO:	B-15	
CATEGORY:	FEED WATER SYSTEM	
BOILER REGISTRATION NO:	BB 6126	
FINDING: Direct groundwater was used as feed water for the boiler.		
RECOMMENDATION: Boiler feed water shall be treated. The feedwater and boiler water quality should meet the manufacturer's specifications. When unavailable, should meet manufacturer's standard or BS EN 12953-10.		
PRIORITY:	P2	
REMEDIATION TIME FRAME:	2 MONTHS	

FINDING NO:	B-16
CATEGORY:	SAFETY VALVE
BOILER REGISTRATION NO:	BB 14420
FINDING: Boiler Economiser Safety Valve outlet line was not directed outside of the boiler room.	
RECOMMENDATION: Boiler Safety Valve outlet line should be directed outside of the boiler room with proper support and drainage system.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-17
CATEGORY:	AIR VENT
BOILER REGISTRATION NO:	BB 14420
FINDING: The boiler air vent line was not directed to the outside of the boiler room.	
RECOMMENDATION: The boiler vent line should be directed outside of the boiler room with proper support.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-18
CATEGORY:	SUPPORT AND ACCESS
BOILER REGISTRATION NO:	BB 14420
FINDING: A boiler with a height of 8 feet or more was observed with an inadequate platform and handrail, making it inaccessible.	
RECOMMENDATION: An operation, maintenance, and inspection platform with a minimum width of 2.5 feet and a railing with a minimum height of 3.5 feet should be provided.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-19
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 14420
FINDING: The steam pressure gauge range was insufficient.	
RECOMMENDATION: The boiler pressure gauge range should be at least twice the boiler's maximum allowable working pressure mentioned in the boiler license or in accordance with any recognized international standard.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-20
CATEGORY:	SAFETY VALVE
BOILER REGISTRATION NO:	BB 14420
FINDING: Discharge of safety valve was not free from danger of scalding.	
RECOMMENDATION: Safety valve outlet line shall not affect emergency discharge path or discharge of safety valve shall be free from danger of scalding.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

2. INTERNAL INSPECTION & HYDROSTATIC PRESSURE TEST INSPECTION

Inspection Date	Boiler Registration Number	Author(s)
1-Jan-26	BB 14420	Mushfiq Ibne Kader Abdullah

Reviewed by : Syed Rayhan Sajjid

Approved by : Md. Mehedi Hasan

FINDINGS AND RECOMMENDATIONS

The table below summarizes the identified boiler safety hazards during this inspection. Recommendations have been provided for each finding.

FINDING NO:	B-21
CATEGORY:	SCALES AND DEPOSITS
BOILER REGISTRATION NO:	BB 14420
FINDING: Salt and thin scale (1~2mm) formation was observed on the waterside on furnace tube, middle to lower fire tubes.	
RECOMMENDATION: Cleaning is required. A water treatment station is to be used. Feed and boiler water quality and conditioning should be verified and monitored. The boiler operator should operate the boiler with proper blowdown.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

3. FUNCTIONAL TEST INSPECTION

Inspection Date	Boiler Registration Number	Author(s)
5-Feb-26	BB 14420	Abdullah Bin Mostafa

Reviewed by : Syed Rayhan Sajjid

Approved by : Md. Mehedi Hasan

FINDINGS AND RECOMMENDATIONS

The table below summarizes the identified boiler safety hazards during this inspection. Recommendations have been provided for each finding.

FINDING NO:	B-22	
CATEGORY:	MONITORING AND CONTROL SYSTEM	
BOILER REGISTRATION NO:	BB 14420	
FINDING: The Steam Pressure Limiter was not functional.		
RECOMMENDATION: Steam Pressure Limiter shall be kept functional.		
PRIORITY:	P1	
REMEDIATION TIME FRAME:	1 MONTH	