BOILER SAFETY REPORT

KSS Knit Composite Ltd. (Extension buildings)

Factory ID: 24422

Address: Boherar Chala, Sreepur, Maowna

GPS Coordinates: 24.200909,90.40227

Factory List	:	KSS Knit Composite Ltd. (12444) KSS Knit Composite Ltd. (Extension buildings) (24422)
Number of Boilers	:	2
Boiler Registration Numbers	:	BB 10715, BB 14049

RSC RMG SUSTAINABILITY COUNCIL

EXECUTIVE SUMMARY

A comprehensive boiler safety inspection of the factory – **KSS Knit Composite Ltd. (Extension buildings) (24422)** was conducted by the RMG Sustainability Council, covering 2 boilers bearing the registration numbers – BB 10715 and BB 14049. 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 10715 and BB 14049 are in operable condition, but a few issues - outlined in this report, are to be addressed in a timely manner.

The RSC ID 12444 and 24422 use steam from both boilers through a common header.

Boiler Registration Number	External visual inspection	Internal & Hydrotest inspection		Functional test inspection	
	Date	Date	Remarks	Date	Remarks
BB 10715	11-Aug-22	17-Sep-25 10-Jun-26	On 17-Sep-25, the internal inspection was not satisfactory and hydrotest was not attempted due to heavy scales on waterside. Another inspection was attempted on 10-Jun-26 after the factory descaled the boiler and the inspection was satisfactory.	28-Jun-26	
BB 14049	17-Sep-25	19-Nov-25	Satisfactory	28-Jun-26	The steam pressure limiter was not functional and there was no interlock for the Low Low Water (LLWL) level trip of the boiler

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)
11-Aug-22	BB 10715	Md. Sohidul Islam
17-Sep-25	BB 14049	Ahmad Hossain Khokon Mohammed Rakibul Hasan

Reviewed by : Faisal Bin Faruk

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.

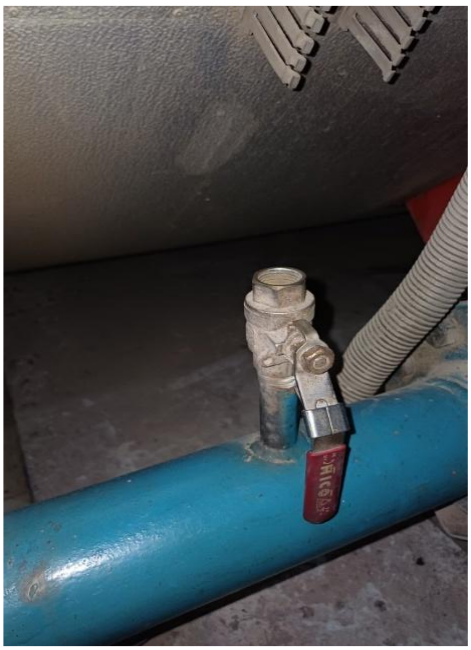
FINDING NO:	B-1
CATEGORY:	Documentation
BOILER REGISTRATION NO:	BB 10715
FINDING: Necessary technical documents (Piping & Instrumentation diagram) were not available to verify boiler design and operation parameters.	
RECOMMENDATION: Documentation including manufacturing drawings and calculations, Piping and Instrumentation diagram, electrical wiring diagram, commissioning documents, data sheets of mountings, accessories and feed water pump, boiler operational and maintenance log book, operation and maintenance manual, water treatment design and calculation, flue gas analysis report and water treatment report shall be available to verify the present condition of the boiler.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-2	
CATEGORY:	Electrical Wiring System	
BOILER REGISTRATION NO:	BB 10715	
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room.		
RECOMMENDATION: Emergency stop push switches must be installed on the boiler control panel and outside the boiler room near every entrance door.		
PRIORITY:	P3	
REMEDIATION TIME FRAME:	2 MONTHS	

FINDING NO:	B-3	
CATEGORY:	Monitoring and Control System	
BOILER REGISTRATION NO:	BB 10715	
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	

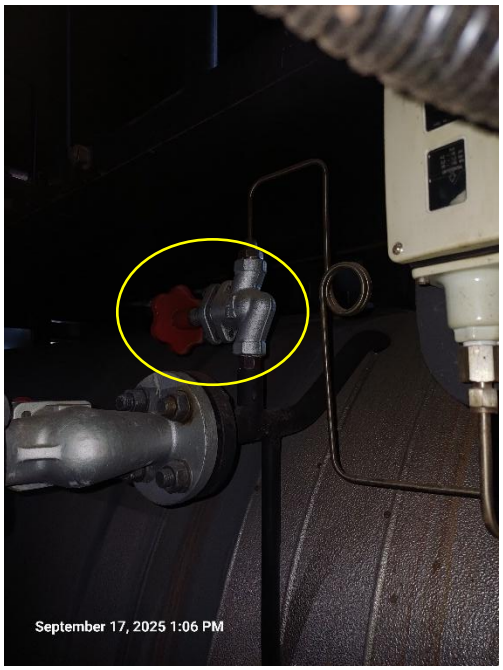
FINDING NO:	B-4
CATEGORY:	Safety Valve
BOILER REGISTRATION NO:	BB 10715
FINDING: Boiler Safety Valve outlet line was not directed outside of the boiler room.	
RECOMMENDATION: Boiler Safety Valve outlet line should be directed outside of the boiler room with proper support and drainage system.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-5
CATEGORY:	Fuel System
BOILER REGISTRATION NO:	BB 10715
FINDING: Fuel line connection was 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

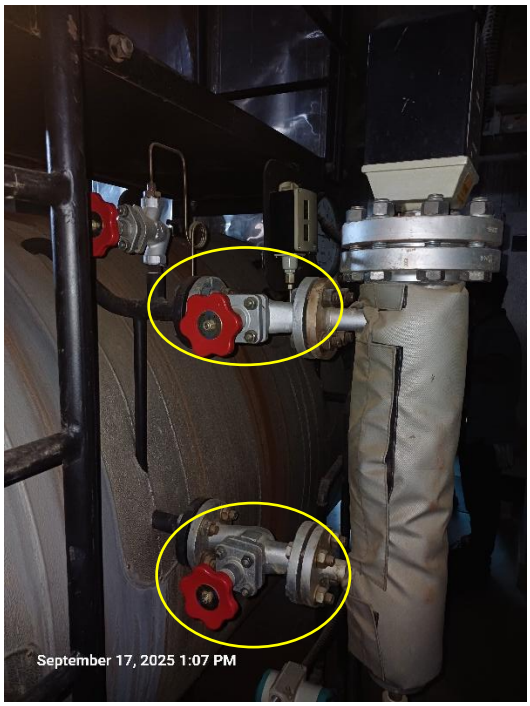


FINDING NO:	B-6
CATEGORY:	Documentation
BOILER REGISTRATION NO:	BB 10715
FINDING: Boiler's initial registration certificate was not available on-site during the inspection.	
RECOMMENDATION: Boiler registration certificate from the government authority which was provided after the installation shall be available on-site during the inspection.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

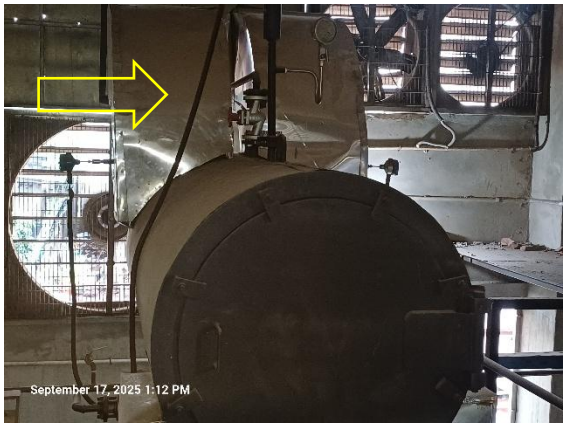
FINDING NO:	B-7
CATEGORY:	Monitoring and Control System
BOILER REGISTRATION NO:	BB 14049
FINDING: A manual shut-off valve was present before the pressure switch.	
RECOMMENDATION: The manual shut-off device must be removed to avoid any accident from a lack of pressure sensing.	
PRIORITY:	P1
REMEDIATION TIME FRAME:	1 WEEK



FINDING NO:	B-8
CATEGORY:	Monitoring and Control System
BOILER REGISTRATION NO:	BB 14049
FINDING: Valves were observed between the boiler and the water level limiter sensor.	
RECOMMENDATION: The measuring and sensing devices related to boiler safety shall be mounted directly with the boiler without any valves in between. Any modification shall be consulted with the manufacturer.	
PRIORITY:	P1
REMEDIATION TIME FRAME:	1 WEEK

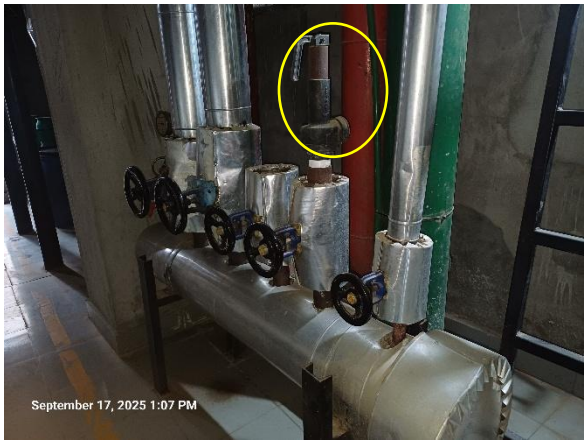


FINDING NO:	B-9
CATEGORY:	Boiler Pressure Parts
BOILER REGISTRATION NO:	BB 14049
FINDING: The economizer was not equipped with a safety valve.	
RECOMMENDATION: Economizers that can be isolated from a boiler allowing the economizer to become a fired pressure vessel, shall have a minimum of one pressure safety valve in a location recommended by the manufacturer or as close as practical to the economizer outlet.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

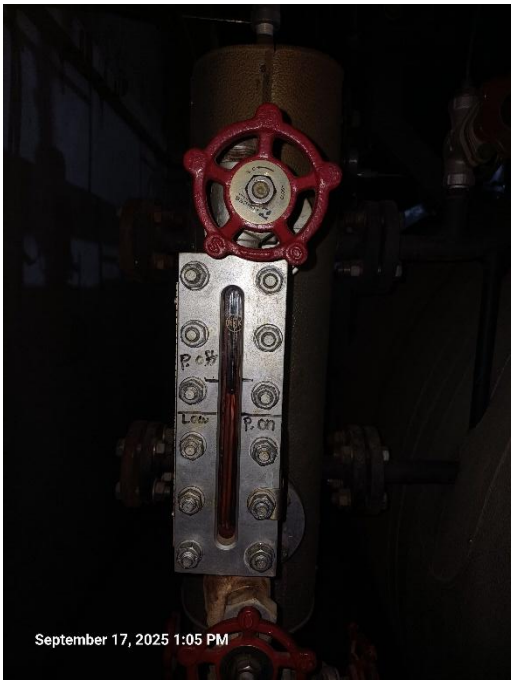


FINDING NO:	B-10
CATEGORY:	Safety Valve
BOILER REGISTRATION NO:	BB 14049
FINDING: A control valve was observed between the Steam Header and the Safety Valve.	
RECOMMENDATION: The steam header safety valve shall be mounted directly with the steam header without any valves in between.	
PRIORITY:	P1
REMEDIATION TIME FRAME:	2 WEEKS

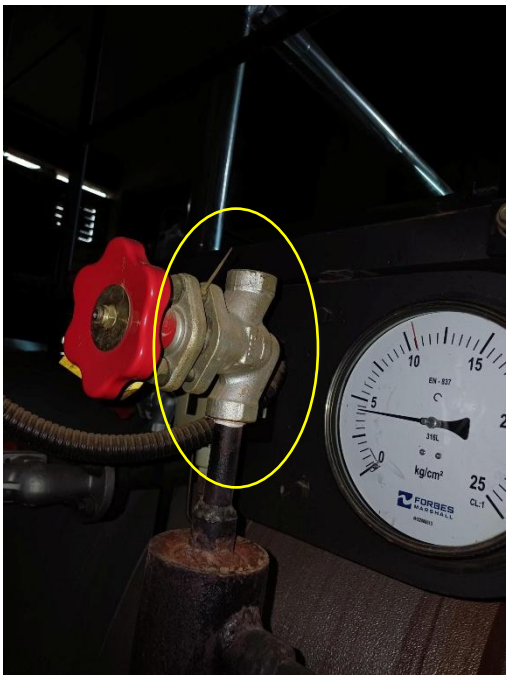
FINDING NO:	B-11
CATEGORY:	Safety Valve
BOILER REGISTRATION NO:	BB 14049
FINDING: Boiler (Steam Header) Safety Valve outlet line was not directed outside of the boiler room.	
RECOMMENDATION: Boiler (Steam Header) Safety Valve outlet line should be directed outside of the boiler room with proper support and drainage system.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH



FINDING NO:	B-12	
CATEGORY:	Electrical Wiring System	
BOILER REGISTRATION NO:	BB 14049	
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room.		
RECOMMENDATION: Emergency stop push switches must be installed on the boiler control panel and outside the boiler room near every entrance door.		
PRIORITY:	P3	
REMEDIATION TIME FRAME:	2 MONTHS	

FINDING NO:	B-13	
CATEGORY:	Monitoring and Control System	
BOILER REGISTRATION NO:	BB 14049	
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-14
CATEGORY:	Steam Distribution Network
BOILER REGISTRATION NO:	BB 14049
FINDING: Unused steam line connection was not terminated properly.	
RECOMMENDATION: Any unused & unprotective steam line shall be terminated in an appropriate manner that does not create any possibility of burn hazard for the operator(s).	
PRIORITY:	P1
REMEDIATION TIME FRAME:	2 WEEKS



FINDING NO:	B-15
CATEGORY:	Identification
BOILER REGISTRATION NO:	BB 14049
FINDING: Adequate technical information was not available on the feed pump nameplates	
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-16
CATEGORY:	Documentation
BOILER REGISTRATION NO:	BB 14049
FINDING: Necessary technical documents (Piping and Instrumentation diagram, commissioning documents, data sheets of mountings, accessories and feed water pump) were not available to verify boiler design and operation parameters.	
RECOMMENDATION: Documentation including manufacturing drawings and calculations, Piping and Instrumentation diagram, electrical wiring diagram, commissioning documents, data sheets of mountings, accessories and feed water pump, boiler operational and maintenance log book, operation and maintenance manual, water treatment design and calculation, flue gas analysis report and water treatment report shall be available to verify the present condition of the boiler.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-17
CATEGORY:	Monitoring and Control System
BOILER REGISTRATION NO:	BB 10715
FINDING: Valves were observed between the boiler and the pressure controller.	
RECOMMENDATION: The measuring and sensing devices related to boiler safety shall be mounted directly with the boiler without any valves in between.	
PRIORITY:	P1
REMEDIATION TIME FRAME:	2 WEEKS

FINDING NO:	B-18
CATEGORY:	Support and Access
BOILER REGISTRATION NO:	BB 10715
FINDING: A boiler with a height of 8 feet or more was observed with an inadequate platform, ladder, and handrail, making it inaccessible.	
RECOMMENDATION: An operation, maintenance, and inspection platform with a minimum width of 2.5 feet, a railing with a minimum height of 3.5 feet, and a ladder - that does not pose fall hazard - should be provided.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-19
CATEGORY:	Boiler Pressure Parts
BOILER REGISTRATION NO:	BB 10715
FINDING: The economizer was not equipped with a safety valve.	
RECOMMENDATION: Economizers that can be isolated from a boiler allowing the economizer to become a fired pressure vessel, shall have a minimum of one pressure safety valve in a location recommended by the manufacturer or as close as practical to the economizer outlet.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-20
CATEGORY:	Safety Valve
BOILER REGISTRATION NO:	BB 10715
FINDING: Economizer Safety Valve outlet line was not directed outside of the boiler room.	
RECOMMENDATION: Boiler Economizer 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-21	
CATEGORY:	Boiler Room	
BOILER REGISTRATION NO:	BB 10715	
FINDING: Boiler room was not properly illuminated.		
RECOMMENDATION: Proper illumination shall be provided in the boiler room. Illumination shall be not less than 150 lux on the floor level.		
PRIORITY:	P3	
REMEDIATION TIME FRAME:	2 MONTHS	

2. INTERNAL INSPECTION & HYDROSTATIC PRESSURE TEST INSPECTION

Inspection Date	Boiler Registration Number	Author(s)
17-Sep-25	BB 10715	Ahmad Hossain Khokon Mohammed Rakibul Hasan
19-Nov-25	BB 14049	Nazmul Hasan
10-Jun-26	BB 10715	Md. Mahfuzul Kabir AL-Hasan Istiak Islam

Reviewed by : Faisal Bin Faruk

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:	Scales and Deposits
BOILER REGISTRATION NO:	BB 10715
FINDING: Salt and scale formation was observed on the waterside on fire drum.	
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)
28-Jun-26	BB 14049, BB 10715	Asif Tahmid

Reviewed by : Faisal Bin Faruk

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-23	
CATEGORY:	Monitoring and Control System	
BOILER REGISTRATION NO:	BB 14049	
FINDING: The Steam Pressure Limiter was not functional.		
RECOMMENDATION: Steam Pressure Limiter shall be kept functional.		
PRIORITY:	P1	
REMEDIATION TIME FRAME:	1 MONTH	

FINDING NO:	B-24	
CATEGORY:	Monitoring and Control System	
BOILER REGISTRATION NO:	BB 14049	
FINDING: There was no interlock for the Low Low Water (LLWL) level trip of the boiler		
RECOMMENDATION: The Low Low Water (LLW) level tripping mechanism should be functional.		
PRIORITY:	P1	
REMEDIATION TIME FRAME:	1 WEEK	