BOILER SAFETY REPORT

P. A Knit Composite Limited

Factory ID: 10166

Address: Hobirbari, Jamirdia, Valuka, Mymensingh

GPS Coordinates: 24.289344, 90.391448

Factory List	:	P. A Knit Composite Limited (10166) P.A Knit Composite (Extension) (24202)
Number of Boilers	:	5
Boiler Registration Numbers	:	BB 4074, BB 8381, BB 8382, BB 10607, BB 10587

RSC RMG SUSTAINABILITY COUNCIL

EXECUTIVE SUMMARY

A comprehensive boiler safety inspection of the factory – **P. A Knit Composite Limited (10166)** was conducted by the RMG Sustainability Council, covering 5 boilers bearing the registration numbers – BB 4074, BB 8381, BB 8382, BB 10607 and BB 10587. 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.

The boiler safety inspection found that BB 4074, BB 8381, BB 8382, BB 10607 and BB 10587 are 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 4074	28-Jul-22	4-Nov-24	On 4-Nov-24, the hydro test was not satisfactory due to pressure part leakage. After the pressure part repair, another hydrotest was attempted on 18-Dec-24 and the inspection was satisfactory.	9-Feb-25	
		18-Dec-24			
BB 8381	28-Jul-22	21-Oct-24	Satisfactory	10-Nov-24	
BB 8382	28-Jul-22	16-Feb-25	Satisfactory	23-Feb-25	
BB 10607	28-Jul-22	12-Nov-24	Satisfactory	9-Feb-25	
BB 10587	21-Oct-24	2-Feb-25	Satisfactory	23-Feb-25	

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)
28-Jul-22	BB 4074, BB 8381, BB 8382, BB 10607	Md. Foysal Ahmed
21-Oct-24	BB 10587	Md. Almas Hossain Polash Ahmad Hossain Khokon

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:	ELECTRICAL WIRING SYSTEM
BOILER REGISTRATION NO:	BB 4074
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room and on the boiler control panel.	
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

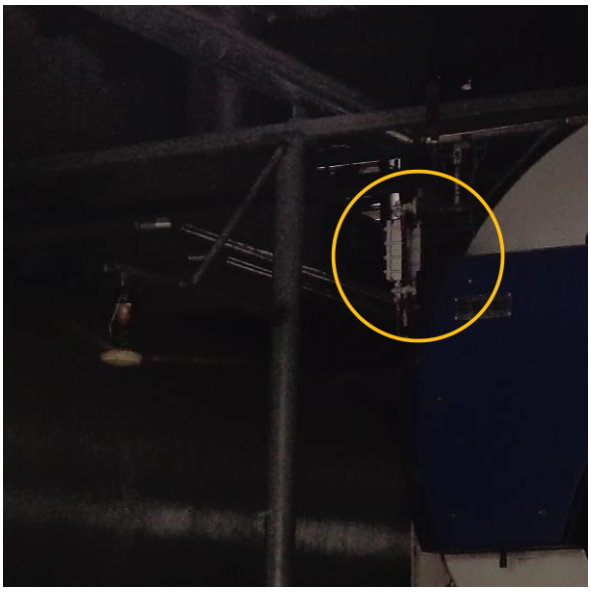
FINDING NO:	B-2
CATEGORY:	ELECTRICAL WIRING SYSTEM
BOILER REGISTRATION NO:	BB 8381
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room and on the boiler control panel.	
RECOMMENDATION: Emergency stop push switches must be installed on the boiler control panel and outside the boiler room near every entrance door.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-3	
CATEGORY:	ELECTRICAL WIRING SYSTEM	
BOILER REGISTRATION NO:	BB 8382	
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room and on the boiler control panel.		
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-4	
CATEGORY:	ELECTRICAL WIRING SYSTEM	
BOILER REGISTRATION NO:	BB 10607	
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room and on the boiler control panel.		
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	

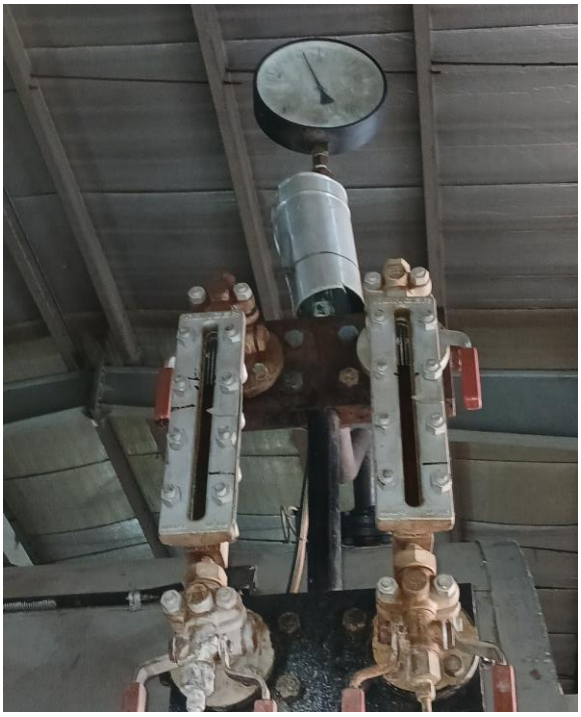
FINDING NO:	B-5
CATEGORY:	ELECTRICAL WIRING SYSTEM
BOILER REGISTRATION NO:	BB 10587
FINDING: No emergency stop push switch was available near the entrance outside of the boiler room.	
RECOMMENDATION: Emergency stop push switches must be installed on outside the boiler room near the entrance door.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-6
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 4074
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-7
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 8381
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-8
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 8382
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-9
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 10607
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-10
CATEGORY:	FUEL SYSTEM
BOILER REGISTRATION NO:	BB 4074
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-11	
CATEGORY:	FUEL SYSTEM	
BOILER REGISTRATION NO:	BB 8381	
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-12	
CATEGORY:	FUEL SYSTEM	
BOILER REGISTRATION NO:	BB 8382	
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-13
CATEGORY:	SUPPORT AND ACCESS
BOILER REGISTRATION NO:	BB 4074
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-14
CATEGORY:	SUPPORT AND ACCESS
BOILER REGISTRATION NO:	BB 8381
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-15
CATEGORY:	SUPPORT AND ACCESS
BOILER REGISTRATION NO:	BB 8382
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-16
CATEGORY:	SUPPORT AND ACCESS
BOILER REGISTRATION NO:	BB 10607
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-17	
CATEGORY:	DOCUMENTATION	
BOILER REGISTRATION NO:	BB 4074	
FINDING: Necessary technical documents 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 logbook, 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	

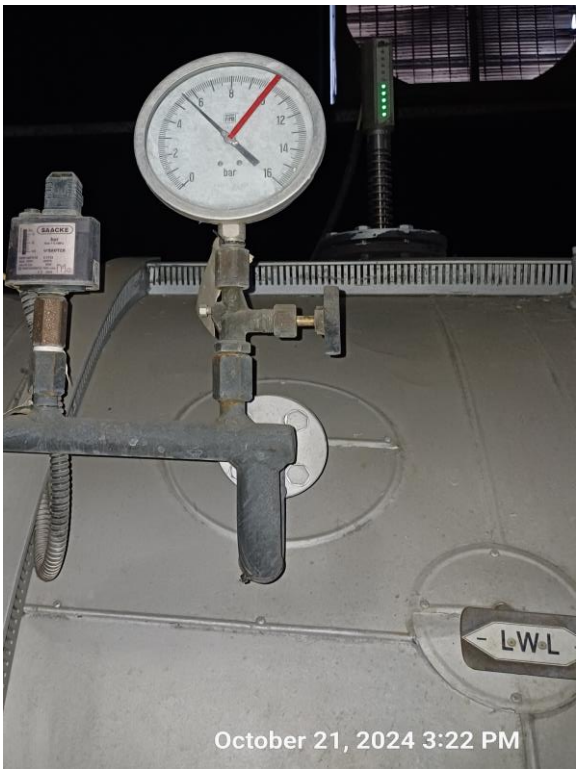
FINDING NO:	B-18	
CATEGORY:	DOCUMENTATION	
BOILER REGISTRATION NO:	BB 8381	
FINDING: Necessary technical documents were not available to verify boiler design and operation parameters.		
RECOMMENDATION: Documentation including manufacturing drawings and calculations, Piping and Instrumentation diagram, electrical wiring diagram, commissioning documents, data sheets of mountings, accessories and feed water pump, boiler operational and maintenance logbook, 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-19	
CATEGORY:	DOCUMENTATION	
BOILER REGISTRATION NO:	BB 8382	
FINDING: Necessary technical documents 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 logbook, 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	

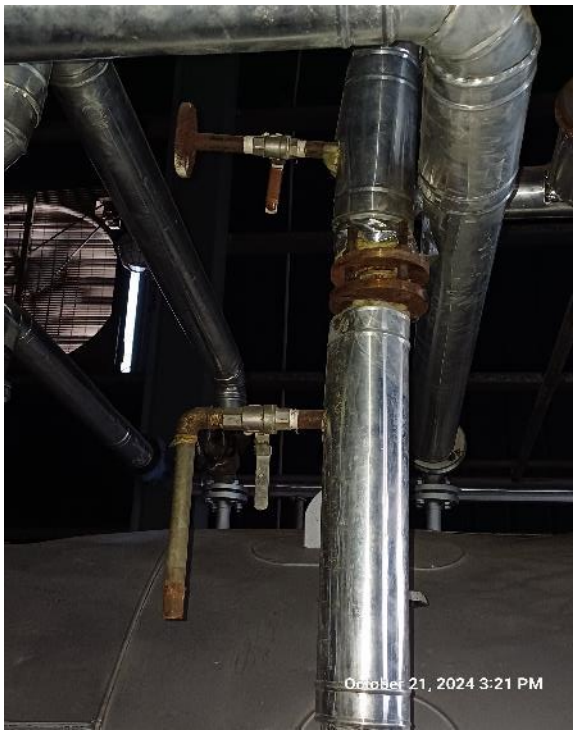
FINDING NO:	B-20	
CATEGORY:	DOCUMENTATION	
BOILER REGISTRATION NO:	BB 10607	
FINDING: Necessary technical documents were not available to verify boiler design and operation parameters.		
RECOMMENDATION: Documentation including manufacturing drawings and calculations, Piping and Instrumentation diagram, electrical wiring diagram, commissioning documents, data sheets of mountings, accessories and feed water pump, boiler operational and maintenance logbook, 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-21	
CATEGORY:	DOCUMENTATION	
BOILER REGISTRATION NO:	BB 10587	
FINDING: Necessary technical documents 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 logbook, 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-22
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 10587
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-23
CATEGORY:	STEAM DISTRIBUTION NETWORK
BOILER REGISTRATION NO:	BB 10587
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-24
CATEGORY:	DOCUMENTATION
BOILER REGISTRATION NO:	BB 8381
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-25
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 8382
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

2. INTERNAL INSPECTION & HYDROSTATIC PRESSURE TEST INSPECTION

Inspection Date	Boiler Registration Number	Author(s)
21-Oct-24	BB 8381	Md. Almas Hossain Polash Ahmad Hossain Khokon
4-Nov-24	BB 4074	Kazi Sefat-E-Nur Syed Rayhan Sajjid
18-Dec-24		Md Kamrul Hasan Chowdhury
12-Nov-24	BB 10607	Hossain Shah Arif Abdullah Bin Mostafa
2-Feb-25	BB 10587	Shapath Guha Ankur Md. Almas Hossain Polash
16-Feb-25	BB 8382	Abdullah Bin Mostafa Md. Humayun Kabir Tipu

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-26
CATEGORY:	SCALES AND DEPOSITS
BOILER REGISTRATION NO:	BB 10607
FINDING: Hard scale formation was observed on the waterside on bottom side fire tubes, bottom plates.	
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. It is recommended to do a thickness survey after chemical cleaning, to verify the thickness of pressure parts (shell, end plate, tube).	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-27
CATEGORY:	SCALES AND DEPOSITS
BOILER REGISTRATION NO:	BB 8382
FINDING: Salt and scale formation was observed on the waterside of the boiler.	
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)
10-Nov-24	BB 8381	Syed Salman Saeed Mohammed Rakibul Hasan
9-Feb-25	BB 4074, BB 10607	Md. Sohidul Islam
23-Feb-25	BB 8382, BB 10587	Md. Almas Hossain Polash

Reviewed by : Faisal Bin Faruk

Approved by : Md. Mehedi Hasan

FINDINGS AND RECOMMENDATIONS

The initial inspection of this part of the boiler(s) revealed no safety concerns.