BOILER SAFETY REPORT

AZ Apparels

Factory ID: 24821

Address: 295/JA/4/A, Rayer bazar, Dhaka-1209, Bangladesh.

GPS Coordinates: 23.742104, 90.361640

Factory List	:	AZ Apparels (24821)
		Chancellor Garments Ltd. (relocated) (25554)
Number of Boilers	:	3
Boiler Registration Numbers	:	BB 7988, BB 14800, Non BBR-24821-1

RSC RMG SUSTAINABILITY COUNCIL

EXECUTIVE SUMMARY

A comprehensive boiler safety inspection of the factory – **AZ Apparels (24821)** was conducted by the RMG Sustainability Council, covering 3 boilers bearing the registration numbers – BB 7988, BB 14800, and Non BBR-24821-1. 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 7988, BB 14800, and Non BBR-24821-1 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 7988	31-Mar-24	28-May-25	Satisfactory	24-Aug-25	
BB 14800	28-May-25	28-May-25	Satisfactory	24-Aug-25	Steam Pressure Limiter was not functional
Non BBR-24821-1	31-Mar-24	28-May-25	This boiler was handed over to the supplier and the boiler was not available on the factory premises as of 11-May-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)
31-Mar-24	BB 7988, Non BBR-24821-1	Md Kamrul Hasan Chowdhury
28-May-25	BB 14800	Arif Ahamed Mithun

Reviewed by : Nawaze Mahmud

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 7988
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 the entrance door.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-2
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 7988
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-3	
CATEGORY:	DOCUMENTATION	
BOILER REGISTRATION NO:	BB 7988	
FINDING: Necessary technical documents (water treatment design & calculation and water treatment report) 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-4
CATEGORY:	FEED WATER SYSTEM
BOILER REGISTRATION NO:	BB 7988
FINDING: Direct groundwater is used as feed water for the boiler.	
RECOMMENDATION: Boiler feed water shall be treated. Water quality shall meet the parameter as per BS EN 12953-10. Boiler feed water quality shall be monitored & recorded regularly.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-5
CATEGORY:	FUEL SYSTEM
BOILER REGISTRATION NO:	BB 7988
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-6	
CATEGORY:	SAFETY VALVE	
BOILER REGISTRATION NO:	BB 7988	
FINDING: Boiler Safety Valve outlet line is not directed outside of the boiler room.		
RECOMMENDATION: Boiler Safety Valve 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:	THERMAL INSULATION	
BOILER REGISTRATION NO:	BB 7988	
FINDING: Boiler exhaust gas pipeline inside the boiler room was found with improper insulation.		
RECOMMENDATION: Proper insulation to boiler exhaust gas pipeline inside the boiler room causing heat exposure for personnel shall be provided.		
PRIORITY:	P2	
REMEDIATION TIME FRAME:	1 MONTH	

FINDING NO:	B-8	
CATEGORY:	ELECTRICAL WIRING SYSTEM	
BOILER REGISTRATION NO:	Non BBR-24821-1	
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 the entrance door.		
PRIORITY:	P3	
REMEDIATION TIME FRAME:	2 MONTHS	

FINDING NO:	B-9	
CATEGORY:	MONITORING AND CONTROL SYSTEM	
BOILER REGISTRATION NO:	Non BBR-24821-1	
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:	DOCUMENTATION	
BOILER REGISTRATION NO:	Non BBR-24821-1	
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-11	
CATEGORY:	FEED WATER SYSTEM	
BOILER REGISTRATION NO:	Non BBR-24821-1	
FINDING: Direct groundwater is used as feed water for the boiler.		
RECOMMENDATION: Boiler feed water shall be treated. Water quality shall meet the parameter as per BS EN 12953-10. Boiler feed water quality shall be monitored & recorded regularly.		
PRIORITY:	P2	
REMEDIATION TIME FRAME:	2 MONTHS	

FINDING NO:	B-12
CATEGORY:	IDENTIFICATION
BOILER REGISTRATION NO:	Non BBR-24821-1
FINDING: The boiler manufacturer's nameplate was not available on the boiler.	
RECOMMENDATION: The boiler manufacturer's nameplate shall be available on the boiler with accurate technical information and boiler manufacturer's name in standard language.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-13
CATEGORY:	SAFETY VALVE
BOILER REGISTRATION NO:	Non BBR-24821-1
FINDING: Boiler Safety Valve outlet line is not directed outside of the boiler room.	
RECOMMENDATION: Boiler Safety Valve 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-14
CATEGORY:	ELECTRICAL WIRING SYSTEM
BOILER REGISTRATION NO:	BB 14800
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 the entrance door.	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-15
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 14800
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-16
CATEGORY:	SAFETY VALVE
BOILER REGISTRATION NO:	BB 14800
FINDING: Boiler Steam Header Safety Valve outlet line is 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 & drainage system.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-17
CATEGORY:	THERMAL INSULATION
BOILER REGISTRATION NO:	BB 14800
FINDING: Boiler exhaust gas pipeline inside the boiler room was found with improper insulation.	
RECOMMENDATION: Proper insulation to boiler exhaust gas pipeline inside the boiler room causing heat exposure for personnel shall be provided.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-18
CATEGORY:	STEAM DISTRIBUTION NETWORK
BOILER REGISTRATION NO:	BB 14800
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-19
CATEGORY:	STEAM DISTRIBUTION NETWORK
BOILER REGISTRATION NO:	BB 7988
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-20
CATEGORY:	SAFETY VALVE
BOILER REGISTRATION NO:	BB 7988
FINDING: Boiler Steam Header Safety Valve outlet line is 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 & drainage system.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-21
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 7988
FINDING: There is no drainage available for water level gauge glass	
RECOMMENDATION: A suitable discharge pipe shall be fitted with each water gauge drain cock or valve	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-22
CATEGORY:	BOILER ROOM
BOILER REGISTRATION NO:	BB 7988
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

FINDING NO:	B-23
CATEGORY:	THERMAL INSULATION
BOILER REGISTRATION NO:	BB 7988
FINDING: Boiler steam header and steam pipeline were found with improper insulation.	
RECOMMENDATION: Proper insulation to exposed parts of the boiler body and steam distribution pipelines should be provided.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-24
CATEGORY:	LEAKAGE
BOILER REGISTRATION NO:	BB 7988
FINDING: Water leakage was observed in the boiler gauge glass	
RECOMMENDATION: The water leakage shall be repaired.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-25
CATEGORY:	SUPPORT AND ACCESS
BOILER REGISTRATION NO:	BB 14800
FINDING: Rotating equipment was found without mechanical guard in the boiler room.	
RECOMMENDATION: Mechanical guard must be provided to rotating shaft and driving system.	
PRIORITY:	P1
REMEDIATION TIME FRAME:	2 WEEKS

FINDING NO:	B-26
CATEGORY:	LEAKAGE
BOILER REGISTRATION NO:	BB 14800
FINDING: Steam leakage was observed in the boiler gauge glass	
RECOMMENDATION: The steam leakage shall be repaired to prevent burn hazard.	
PRIORITY:	1 MONTH
REMEDIATION TIME FRAME:	P2

FINDING NO:	B-27
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 14800
FINDING: There is no drainage available for water level gauge glass	
RECOMMENDATION: A suitable discharge pipe shall be fitted with each water gauge drain cock or valve	
PRIORITY:	P3
REMEDIATION TIME FRAME:	2 MONTHS

FINDING NO:	B-28
CATEGORY:	THERMAL INSULATION
BOILER REGISTRATION NO:	BB 14800
FINDING: Boiler body was found with improper insulation.	
RECOMMENDATION: Proper insulation to exposed parts of the boiler body and steam distribution pipelines should be provided.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH

FINDING NO:	B-29
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 14800
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

2. INTERNAL INSPECTION & HYDROSTATIC PRESSURE TEST INSPECTION

Inspection Date	Boiler Registration Number	Author(s)
28-May-25	BB 7988, BB 14800	Arif Ahamed Mithun

Reviewed by : Nawaze Mahmud

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-30
CATEGORY:	SCALES AND DEPOSITS
BOILER REGISTRATION NO:	BB 7988
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

FINDING NO:	B-31
CATEGORY:	SCALES AND DEPOSITS
BOILER REGISTRATION NO:	BB 14800
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)
24-Aug-25	BB 7988, BB 14800	Abdullah Bin Mostafa

Reviewed by : Nawaze Mahmud

Approved by : Md. Mehedi Hasan

Factory Representative(s) :

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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-32
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 14800
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-33
CATEGORY:	MONITORING AND CONTROL SYSTEM
BOILER REGISTRATION NO:	BB 7988
FINDING: The Air Pressure Limiter was not functional.	
RECOMMENDATION: Air Pressure Limiter shall be kept functional.	
PRIORITY:	P2
REMEDIATION TIME FRAME:	1 MONTH