

**SWAPAN K DUTTA PE**  
**CONSULTING ENGINEERS**

12-B, AMRITLAL BOSE STREET, KOLKATA-700005, INDIA.  
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SPECIALISATION : ENERGY AUDIT / EFFICIENCY STUDY & PROJECT, QUALITY SURVEY / AUDIT/ THIRD PARTY INSPECTION, PLANT MECHANISM & MODERNISATION, DESIGN AND ENGINEERING OF BULK MATERIALS HANDLING & MINERAL PROCESSING SYSTEM AND CHARTERED / PROFESSIONAL ENGINEERING SERVICES

To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 5<sup>th</sup> April 2005

Subject: Blow Down Test

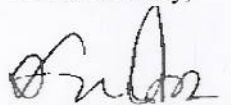
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 4<sup>th</sup> April 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	19545.2	19600.3	19603.4	19540.6	19565.4	19570.4
Feed Water Consumption	Water Flow Meter Inst No. 22569	20092	20139	20172	20080	20139	20134
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.028	1.027	1.029	1.028	1.029	1.029
Average Blow Down Factor		1.0283					
Average Blow Down (%)		2.83%					

Thank you,

Yours faithfully,

  
Swapan K Dutta PE

**SWAPAN K. DUTTA, PE.**  
12-B, AMRITLAL BOSE ST.,  
CALCUTTA-700005, INDIA

PRINCIPAL CONSULTANT : S.K. DUTTA, B.M.E. (HONS), M.M.E., M.I.E. (I), P. Eng. (I), C. Eng (I)

MEMBER  
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SENIOR MEMBER  
ACCREDITED ENERGY AUDITOR

- CONSULTING ENGINEERS ASSOCIATION OF INDIA  
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS  
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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 6<sup>th</sup> May 2005

Subject: Blow Down Test

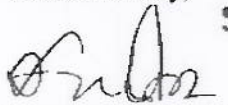
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 5<sup>th</sup> May 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	17002.2	16940.8	16978.4	16990.1	16955.6	16967.8
Feed Water Consumption	Water Flow Meter Inst No. 22569	17492	17420	17467	17483	17422	17448
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.029	1.028	1.029	1.029	1.028	1.028
Average Blow Down Factor		1.0285					
Average Blow Down (%)		2.85%					

Thank you,

Yours faithfully,

  
Swapan K Dutta PE

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12-B, AMRITLAL BOSE ST,  
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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 10<sup>th</sup> June 2005

Subject: Blow Down Test

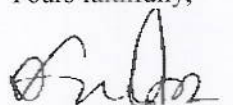
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 8<sup>th</sup> June 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	18210.5	18245.6	18270.1	18220.5	18230.1	18260.5
Feed Water Consumption	Water Flow Meter Inst No. 22569	18711	18773	18802	18732	18737	18775
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.027	1.029	1.029	1.028	1.028	1.028
Average Blow Down Factor		1.0282					
Average Blow Down (%)		2.82%					

**SWAPAN K. DUTTA, PE.**  
12-B, AMRITLAL BOSE ST,  
CALCUTTA-700005, INDIA

Thank you,  
Yours faithfully,

  
Swapan K Dutta PE

PRINCIPAL CONSULTANT : S.K. DUTTA, B.M.E. (HONS), M.M.E., M.I.E.(I), P. Eng.(I), C. Eng(I)

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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 2<sup>nd</sup> July 2005

Subject: Blow Down Test

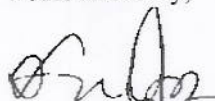
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 1<sup>st</sup> July 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	18630.4	18660.2	18593.4	18602.1	18629.4	18634.5
Feed Water Consumption	Water Flow Meter Inst No. 22569	19167	19179	19123	19143	19162	19180
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.029	1.028	1.028	1.029	1.029	1.029
Average Blow Down Factor		1.0287					
Average Blow Down (%)		2.87%					

Thank you,

Yours faithfully,



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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 11<sup>th</sup> August 2005

Subject: Blow Down Test


Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 8<sup>th</sup> August 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	17893.4	17907.8	17930.6	17945.3	17911.5	17902.7
Feed Water Consumption	Water Flow Meter Inst No. 22569	18387	18415	18452	18462	18415	18402
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.028	1.028	1.029	1.029	1.028	1.028
Average Blow Down Factor		1.0283					
Average Blow Down (%)		2.83%					

Thank you,

Yours faithfully,

  
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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 9<sup>th</sup> September 2005


Subject: Blow Down Test

Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 7<sup>th</sup> September 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	14978.4	14960.1	14920.7	14936.8	14959.5	14978.3
Feed Water Consumption	Water Flow Meter Inst No. 22569	15410	15397	15353	15362	15387	15399
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.029	1.029	1.029	1.028	1.029	1.028
Average Blow Down Factor		1.0287					
Average Blow Down (%)		2.87%					

Thank you,  
Yours faithfully,

  
Swapan K Dutta PE

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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 3<sup>rd</sup> October 2005

Subject: Blow Down Test

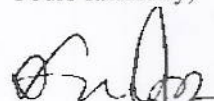
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 1<sup>st</sup> October 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	17297.8	17324.9	17356.7	17345.7	17348.9	17360.1
Feed Water Consumption	Water Flow Meter Inst No. 22569	17801	17820	17855	17847	17831	17846
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.029	1.029	1.029	1.029	1.028	1.028
Average Blow Down Factor		1.0287					
Average Blow Down (%)		2.87%					

Thank you,

Yours faithfully,



Swapan K Dutta PE

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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 13<sup>th</sup> November 2005

Subject: Blow Down Test

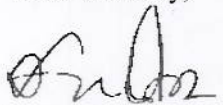
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 10<sup>th</sup> November 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	17102.7	17099.6	17020.3	17037.8	17031.4	17105.6
Feed Water Consumption	Water Flow Meter Inst No. 22569	17583	17590	17512	17520	17520	17602
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.028	1.029	1.029	1.028	1.029	1.029
Average Blow Down Factor		1.0287					
Average Blow Down (%)		2.87%					

Thank you,

Yours faithfully,

  
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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 16<sup>th</sup> December 2005

Subject: Blow Down Test

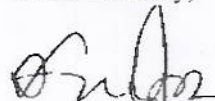
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We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 8<sup>th</sup> December 2005 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	15988.7	15978.5	16001.2	16020.6	15991.6	16008.5
Feed Water Consumption	Water Flow Meter Inst No. 22569	16448	16431	16462	16487	16455	16470
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.029	1.028	1.029	1.029	1.029	1.029
Average Blow Down Factor		1.0288					
Average Blow Down (%)		2.88%					

Thank you,

Yours faithfully,



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CALCUTTA-700005, INDIA

PRINCIPAL CONSULTANT : S.K. DUTTA, B.M.E. (HONS), M.M.E., M.I.E.(I), P. Eng.(I), C. Eng.(I)

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SPECIALISATION : ENERGY AUDIT / EFFICIENCY STUDY & PROJECT, QUALITY SURVEY / AUDIT/ THIRD PARTY INSPECTION, PLANT MECHANISM & MODERNISATION, DESIGN AND ENGINEERING OF BULK MATERIALS HANDLING & MINERAL PROCESSING SYSTEM AND CHARTERED / PROFESSIONAL ENGINEERING SERVICES

To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 20<sup>th</sup> January 2006

Subject: Blow Down Test

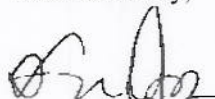
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 16<sup>th</sup> January 2006 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	18698.4	18695.7	18720.3	18740.4	18716.9	18725.8
Feed Water Consumption	Water Flow Meter Inst No. 22569	19228	19229	19265	19284	19258	19271
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.028	1.029	1.029	1.029	1.029	1.029
Average Blow Down Factor		1.0288					
Average Blow Down (%)		2.88%					

Thank you,

Yours faithfully,



Swapan K Dutta PE

**SWAPAN K. DUTTA, PE.**  
12-B, AMRITLAL BOSE ST,  
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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 8<sup>th</sup> February 2006

Subject: Blow Down Test

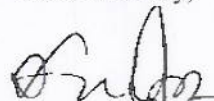
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 5<sup>th</sup> February 2006 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	15862.7	15845.3	15870.1	15821.9	15845.3	15820.8
Feed Water Consumption	Water Flow Meter Inst No. 22569	16316	16300	16327	16273	16292	16265
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.029	1.029	1.029	1.029	1.028	1.028
Average Blow Down Factor		1.0287					
Average Blow Down (%)		2.87%					

Thank you,

Yours faithfully,



Swapan K Dutta PE

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To  
Shri V.K. Goenka,  
Vice President,  
Jaya Shree Textiles,  
Indian Rayon & Industries Limited,  
Rishra, West Bengal

Date: 15<sup>th</sup> March 2006

Subject: Blow Down Test

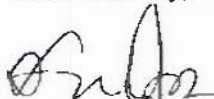
Sir,

We have conducted a Blow Down Test to determine the blow down factor for the boiler of Jaya Shree Textiles on 7<sup>th</sup> March 2006 in presence of Mr. Binod Kr Singh (DGM-Engineering) and Mr. Utpal Bose (Sr. Technical Officer-Engineering). The steam generation and feed water consumption data have been adopted as per the observed meter readings. The test result has been presented below for your reference:

Parameter	Meter Details	Value (kgs)					
		Shift-A		Shift-B		Shift-C	
		8AM-10AM	12PM-2PM	4PM-6PM	8PM-10PM	10PM-12 AM	4AM-6AM
Steam Generation	Steam Flow Meter Serial No. 010403	13456.9	13420.5	13437.4	13460.5	13427.8	13410.4
Feed Water Consumption	Water Flow Meter Inst No. 22569	13846	13812	13818	13850	13819	13794
Blow Down Factor	Feed Water Consumption/ Steam Generation	1.029	1.029	1.028	1.029	1.029	1.029
Average Blow Down Factor		1.0288					
Average Blow Down (%)		2.88%					

Thank you,

Yours faithfully,



Swapan K Dutta PE

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12-B, AMRITLAL BOSE ST.,  
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PRINCIPAL CONSULTANT : S.K. DUTTA, B.M.E. (HONS), M.M.E., M.I.E.(I), P. Eng.(I), C. Eng(I)

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