NUSATEK

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103664/18-06

Report No: BFTT/RT-15/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/G/RT/BS EN Rev 1.0
		IQI type :	DIN FE 10-16
Project :	VH Boiler And Energy System Sdn Bhd . / PT.Austindo Nusantara Jaya 35,000 KG / HR Boiler.	Film Manufacturer/Type :	FUJI 100/class II
		Density :	2.0 - 4.0
		Sensitivity:	0.32mm(Wire No.11)
Job No:	BFTT 17-651	Source to Object Distance :	273.1mm
Material:	A106GR.B / A234 WPB	Source Side of Object to Film Distance:	(9.27+3)mm
Welding Process :	TIGW / MMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	BS 1435	No. of Film Each Cassette :	1 Film
Acceptance Code:	BS 1113:1999	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	08 May 2018	Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
SHC1 - 81020								
JT.3 (WN-090/311)	12.27	3	273.1	9.27	0 - 1	NRI	Accept	
					1 - 2	Por	Accept	
					2 - 0	LF	Reject	

End Of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*Uc : Undercut*	*Por : Porosity*	*WT : Weld Thickness*
SI : Slag Inclusion	*LP : Lack of Penetration*	*Con : Concavity*	*BT : Burn Through*	*RT : Reinforcement Thickness*
LF : Lack of Fusion	*EP : Excess Penetration*	*AR : Artifact*	*Sur : Surface*	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev.II

Date: 09 May 2018

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103664/18-06

Report No: BFTT/RT-14/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/G/RT/BS EN Rev 1.0
		IQI type :	DIN FE 10-16
Project :	VH Boiler And Energy System Sdn Bhd . / PT.Austindo Nusantara Jaya 35,000 KG / HR Boiler.	Film Manufacturer/Type :	FUJI 100/class II
		Density :	2.0 - 4.0
		Sensitivity:	0.32mm(Wire No.11)
Job No:	BFTT 17-651	Source to Object Distance :	273.1mm
Material:	A106GR.B / A234 WPB	Source Side of Object to Film Distance:	(9.27+3)mm
Welding Process :	TIGW / MMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	BS 1435	No. of Film Each Cassette :	1 Film
Acceptance Code:	BS 1113:1999	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	08 May 2018	Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
SHC1 - 81020								
JT.2 (WN-090/311)	12.27	3	273.1	9.27	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	Por	Accept	

End Of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	Uc : Undercut	Por : Porosity	WT : Weld Thickness
SI : Slag Inclusion	LP : Lack of Penetration	Con : Concavity	BT : Burn Through	RT : Reinforcement Thickness
LF : Lack of Fusion	EP : Excess Penetration	AR : Artifact	Sur : Surface	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev.II

Date: 09 May 2018

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D) NDT Division

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103664/18-06

Report No: BFTT/RT-13/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/G/RT/BS EN Rev 1.0
		IQI type :	DIN FE 10-16
Project :	VH Boiler And Energy System Sdn Bhd . / PT.Austindo Nusantara Jaya 35,000 KG / HR Boiler.	Film Manufacturer/Type :	FUJI 100/class II
		Density :	2.0 - 4.0
		Sensitivity:	0.32mm(Wire No.11)
Job No:	BFTT 17-651	Source to Object Distance :	273.1mm
Material:	A106GR.B / A234 WPB	Source Side of Object to Film Distance:	(9.27+3)mm
Welding Process :	TIGW / MMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	BS 1435	No. of Film Each Cassette :	1 Film
Acceptance Code:	BS 1113:1999	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	08 May 2018	Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
SHC2 - 81020								
JT.2 (WN-090/311)	12.27	3	273.1	9.27	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT.3 (WN-090/311)	12.27	3	273.1	9.27	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	EP	Accept	

End Of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*Uc : Undercut*	*Por : Porosity*	*WT : Weld Thickness*
SI : Slag Inclusion	*LP : Lack of Penetration*	*Con : Concavity*	*BT : Burn Through*	*RT : Reinforcement Thickness*
LF : Lack of Fusion	*EP : Excess Penetration*	*AR : Artifact*	*Sur : Surface*	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev.II

Date: 09 May 2018

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division (187753-D)

Client Representative:

Name:

Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103664/18-06

Report No: BFTT/RT-12/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/G/RT/BS EN Rev 1.0
		IQI type :	DIN FE 10-16
Project :	VH Boiler And Energy System Sdn Bhd . / PT.Austindo Nusantara Jaya 35,000 KG / HR Boiler.	Film Manufacturer/Type :	FUJI 100/class II
		Density :	2.0 - 4.0
		Sensitivity:	0.32mm(Wire No.11)
Job No:	BFTT 17-651	Source to Object Distance :	273.1mm
Material:	A106GR.B / A234 WPB	Source Side of Object to Film Distance:	(9.27+3)mm
Welding Process :	TIGW / MMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	BS 1435	No. of Film Each Cassette :	1 Film
Acceptance Code:	BS 1113:1999	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	08 May 2018	Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
SHC2 - 81020								
JT.4 (WN-090/311)	12.27	3	273.1	9.27	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT.5 (WN-090/311)	12.27	3	273.1	9.27	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	

End Of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*Uc : Undercut*	*Por : Porosity*	*WT : Weld Thickness*
SI : Slag Inclusion	*LP : Lack of Penetration*	*Con : Concavity*	*BT : Burn Through*	*RT : Reinforcement Thickness*
LF : Lack of Fusion	*EP : Excess Penetration*	*AR : Artifact*	*Sur : Surface*	

Personnel Particulars

Radiographer :	Emirsham - NDT Lev. II		Client Representative:
Interpreted & Evaluated By:	Amat Hamidi - NDT Lev.II		Name:
Date:	09 May 2018		Date:

NUSATEK

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103664/18-06

Report No: BFTT/RT-11/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/G/RT/BS EN Rev 1.0
		IQI type :	DIN FE 10-16
Project :	VH Boiler And Energy System Sdn Bhd . / PT.Austindo Nusantara Jaya 35,000 KG / HR Boiler.	Film Manufacturer/Type :	FUJI 100/class II
		Density :	2.0 - 4.0
		Sensitivity:	0.32mm(Wire No.11)
Job No:	BFTT 17-651	Source to Object Distance :	168.3mm
Material:	A106GR.B / A234 WPB	Source Side of Object to Film Distance:	(7.11+3)mm
Welding Process :	TIGW / MMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	BS 1435	No. of Film Each Cassette :	1 Film
Acceptance Code:	BS 1113:1999	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	08 May 2018	Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
SC2 - 81020								
JT.4 (WN-147)	10.11	3	168.3	7.11	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT.5 (WN-147)	10.11	3	168.3	7.11	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	

End Of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*Uc : Undercut*	*Por : Porosity*	*WT : Weld Thickness*
SI : Slag Inclusion	*LP : Lack of Penetration*	*Con : Concavity*	*BT : Burn Through*	*RT : Reinforcement Thickness*
LF : Lack of Fusion	*EP : Excess Penetration*	*AR : Artifact*	*Sur : Surface*	

Personnel Particulars

Radiographer :	Emirsham - NDT Lev. II		Client Representative:
Interpreted & Evaluated By:	Amat Hamidi - NDT Lev.II		Name:
Date:	09 May 2018		Date:

NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)
No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.
Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

Our Ref. : NT/103664/18-06

Report No: BFTT/RT-10/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/G/RT/BS EN Rev 1.0
		IQI type :	DIN FE 10-16
Project :	VH Boiler And Energy System Sdn Bhd . / PT.Austindo Nusantara Jaya 35,000 KG / HR Boiler.	Film Manufacturer/Type :	FUJI 100/class II
		Density :	2.0 - 4.0
		Sensitivity:	0.32mm(Wire No.11)
Job No:	BFTT 17-651	Source to Object Distance :	168.3mm
Material:	A106GR.B / A234 WPB	Source Side of Object to Film Distance:	(7.11+3)mm
Welding Process :	TIGW / MMAW	No of Radiograph(exposure) :	Single Exposure
Examination Code :	BS 1435	No. of Film Each Cassette :	1 Film
Acceptance Code:	BS 1113:1999	Radiographic Technique :	DWSI
		Film Viewing Technique :	Single Wall Viewing
Examination Date:	08 May 2018	Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
SC2 - 81020								
JT.2 (WN-147)	10.11	3	168.3	7.11	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	NRI	Accept	
JT.3 (WN-147)	10.11	3	168.3	7.11	0 - 1	NRI	Accept	
					1 - 2	NRI	Accept	
					2 - 0	Por	Accept	

End Of Report

Legend:

TI : Tungsten Inclusion	*NRI : No Relevant Indication*	*Uc : Undercut*	*Por : Porosity*	*WT : Weld Thickness*
SI : Slag Inclusion	*LP : Lack of Penetration*	*Con : Concavity*	*BT : Burn Through*	*RT : Reinforcement Thickness*
LF : Lack of Fusion	*EP : Excess Penetration*	*AR : Artifact*	*Sur : Surface*	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev.II

Date: 09 May 2018

NUSANTARA TECHNOLOGIES SDN. BHD. NDT Division

Client Representative:

Name:

Date: