2 References

2.1 Introduction

The following documents contain provisions which, through reference in this document, constitute provisions of this FITNET FFS Procedure. The referenced documents in this Section are useful for the development and application of this document. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this FFS document are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below, Section 2.2. It should be noted that the particular documents such as SINTAP, BS 7910, R6 and API 579 have been used for the development of this unified FFS procedure. For undated references, the latest edition of the normative document referred to applies. Where materials' properties are to be generated for use in an assessment, they should be done so in accordance with recognised standards. Preference should be given to ISO, EN or National Standards in order. Testing of materials is not covered by this procedure.

2.2 Bibliography

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[2.3] ‘SINTAP: Structural Integrity Assessment Procedures for European Industry’, Brite-Euram Project No. BE95-1426, Contract No. BRPR-CT95-0024, Final Report, September 1999.

[2.4] M. Bergman, B. Brickstad, L. Dahlberg, F. Nilsson and I. Sattari-Far: ‘A Procedure for Safety Assessment of Components with Cracks - Handbook’, SA/FoU Report, 91/01, AB Svensk Anläggningsprovning, Swedish Plant Inspection Ltd., December 1991.

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[2.8] Japanese Welding Engineering Society, Standard WES2805-1997, ‘Methods of Assessment for Defects in Fusion welded Joints with Respect to Brittle Fracture and Failure due to Fatigue Crack Growth’, 1997.

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[2.11] ‘Failure Assessment Concepts and Applications’, IIW Comm. X, Structural Performance of Welded Joints-Fracture Avoidance, Special Session at 50th Annual Assembly, San Francisco, July 1997, IIW. Doc.X-1407-97.

[2.12] ‘Space Engineering-Fracture Control’, ECSS-E-30-01A, 13 April 1999.

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[2.14] S. Webster (Guest Editor), “European Structural Integrity Assessment Procedure – SINTAP”, Special Issue of the Engineering Fracture Mechanics, 67 (2000) 479, pp. 481-668.

[2.15] IIW Recommendation for fatigue design of welded joints and components – Doc XIII-1539-96 / XV-845-96

[2.16] R5 - Issue 2, “An Assessment Procedure for the High Temperature Response of Structures”, British Energy Generation Ltd, 1998.

[2.17] British Standard BS7608, “Code of Practice for Fatigue Design and Assessment of Steel Structures”, British Standards Institution.

[2.18] IIW Structural Hot-Spot stress approach to fatigue analysis of welded components – Doc XIII-1819-00

[2.19] Bureau Veritas rules for steel ships classification – Fatigue check of structural details – Part B, Chapter 7, Section 4 – Edition May 2003

[2.20] Bureau Veritas guidance note Fatigue strength of welded ship structure - NI393 DSM R01 E – July 1998

[2.21] SR202 of Shipbuilding Research Association of Japan, *Fatigue Design and Quality Control for Offshore Structures*, 1991 (in Japanese), also published as International Institute of Welding (IIW) Document: IIW XIII-1414-91, 1991

[2.22] ISO 7539-1: 1987, Corrosion of metals and alloys - Stress corrosion testing - Part 1: General guidance on testing procedures

[2.23] ISO 7539-6: 1988, Corrosion of metals and alloys - Stress corrosion testing—Part 6: Preparation of pre-cracked specimens for tests under constant load or constant displacement.

[2.24] ISO 7539-8: 2000 Corrosion of metals and alloys - Stress corrosion testing—Part 8: Preparation and use of specimens to evaluate weldments

[2.25] ISO 7539-9: 2003 Corrosion of metals and alloys - Stress corrosion testing—Part 9: Preparation of pre-cracked specimens for tests under rising load or rising displacement.

Table 2.1 – List of Applicable Test Standards

Property Required		ISO	EN	Other
Tensile	Ambient Temp.	ISO 6892	EN 10002	BS EN 10002
	Elevated Temp	ISO 783		
Charpy	V - Notch	ISO 148	EN 10045	BS EN 10045
Fracture Toughness	K, J, CTOD	ISO/CD/12135	BSENISO 12737 (K_{IC} only)	BS7448: Part 1: 1991 ASTM E 1290-02 ASTM E 399-90 (1997)
	R-Curves	ISO/CD/12135	-	BS7448: Part 4 : 1997 ASTM E 561-98 AITM 1-0043
	Welds	ISO/CD/15653	(1)	BS7448 : Part 2 : 1997
	Dynamic Fracture Toughness K, J, CTOD	--	--	BS7448 : Part 3 : 2005
	KI_a			ASTM E 1221-96:2002
Fatigue Crack Growth Rates				ASTM E 647:2000 AITM 1-0042
Creep Crack Growth Rates in Metals				ASTM E 1457:2000
Creep Crack Growth	Elevated Temp			ASTM E 145
Creep, creep rupture	Elevated Temp			ASTM E 139
K_{ISCC}		ISO 7539		

(1) No recognised standard but IIW draft standard under preparation