

CEN/TC 267/WG 8/MHD « *Maintenance of EN 13480 series* »

Answers to MHD Questions of 2019

Series EN 13480-1-2-3-4-5-6 and -8:2017

MHD Question N°	Subjects	MHD answers doc. N°	Subsequent actions	MHD answers to questioners
2-001-2019	Table B.2-8	N 106	Technical clarification	2019-04-25
2-002-2019	Table B.2-1	N 106	Editorial corrections	2019-05-09
2-003-2019	Table B.4-1	N 106	Technical comment	2019-12-02
3-001-2019	Annex H	N 106	Technical clarification	2018-11-28
3-002-2019	Table 13.3.6-1	N 106	Technical clarification	2019-04-12
3-003-2019	8.3.11	N 106	Technical clarification	2019-04-24
3-004-2019	Annex H	N 106	Editorial correction	2019-12-02
3-005-2019	Annex H	N 106	Technical clarification	2019-12-02
3-006-2019	Annex Q	N 106	Technical comment	2019-12-02
3-007-2019	8.3.1	N 106	Technical clarification	2019-12-02
3-008-2019	8.4.3	N 106	Technical clarification	2019-12-02
3-009-2019	8.4.3	N 106	Technical clarification	2019-12-02
3-010-2019	8.4.3	N 106	Technical clarification	2019-12-02
3-011-2019	8.4.3	N 106	Technical clarification	2019-12-02
3-012-2019	Clause 13	N 106	Technical clarification	2019-12-02
3-013-2019	A.2.1.2	N 106	Technical comment	2019-12-02
3-014-2019	13.11.4.2	N 106	Technical clarification	2019-12-02
3-015-2019	6.6.3 / D.4.2	N 106	Technical comment	2019-12-02
5-001-2019	9.3.3	N 106	Technical clarification	2019-04-15
5-002-2019	Table 8.2-1	N 106	Editorial correction	2019-12-02
5-003-2019	9.3.4	N 106	Technical clarification	2019-12-02
6-001-2019	Scope	N 106	Editorial correction	2019-12-02



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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 2-001-2019				Date: 2019-03-07	
Please fulfil the following					
Part: EN 13480-2	Issue: 2017	Page Table B.2-8	Subclause Annex B	National Standard Reference EN 13480-2:2017	
Subject: Understanding of Table B.2-8 of Annex B of EN 13480-2:2017					
Type of request:		☒ Technical clarification		☐ Editorial correction	
		☐ Technical comment		☐ Translation correction	
From : Company : Czech Standardization Agency Name : Petr Svoboda Postal address : Standards Department			e-mail : svoboda@agentura-cas.cz phone : +420 221 802 198		
☐ Manufacturer	☐ User	☒ Other (please specify): Standardization Agency			
Question/comment: We have received the standard user request concerning EN 13480-2/A1. They do not understand note^a in table B.2-8 General requirements for prevention of brittle fracture with reference thickness for nuts and bolts for $TM \geq -10\text{ °C}$ ^aStarting material shall comply with EN 10269:2013. Bolting according to EN ISO 898-1 and/or EN ISO 898-2 is suitable only for temperatures up to 50 °C (see 4.2.2.1). Proposed answer(s): * In their opinion, no such limitation appears in Article 4.2.2.1. According to EN 1515-4, the use of this fastener is permitted for temperatures up to 300 °C.					
Answer from the MHD (to be filled by MHD): prEN 1515-4 has been revised and is currently under voting (CEN Enquiry) at European level from 2019-11-21 to 2020-02-13. Values need to be revised.					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

* Please note that question with proposed answers will be dealt with as priority.



EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 2-002-2019				Date: 2019-05-08	
Please fulfil the following					
Part: EN 13480-2	Issue: 2017	Page Table B.2-1	Subclause -	National Standard Reference EN 13480-2:2017	
Subject: Table B.2-1					
Type of request: ☐ Technical clarification ☒ Editorial correction ☐ Technical comment ☐ Translation correction					
From : Company :SNV, Swiss Association for Standardization Name Helena Meister Postal address :			e-mail: helena.meister@snv.ch phone: +41 52 224 54 17		
☐ Manufacturer	☐ User	☒ Other (please specify): Association for Standardization			
Question/comment: In table B.2.1 the last column there are subclauses referenced (B2.1.2, B2.1.3, B2.1.4 and B2.1.5 that don't seem to exist in the document). Proposed answer(s): * Is this an error that has to be corrected?					
Answer from the MHD (to be filled by MHD): Your remarks are correct. These are editorial mistakes in EN 13480-2:2017, which need to be updated in the 3 official versions: German, English and French. In Table B.2-1, in the last column, the numbering of sub-clauses shall be changed to B.2.2.2, B.2.2.3, B.2.2.4 and B.2.2.5 . This will be fixed in the next corrected pages to be published as Issue 2 (Ausgabe 2) of EN 13480 series (publication normally planned by CEN in June 2019).					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 2-003-2019				Date: 2019-10-18	
Please fulfil the following					
Part: EN 13480-2	Issue: 2017	Page 46 ÷ 52	Subclause Annex B	National Standard Reference --	
Subject: Determination of the reference thickness e_r according to Table B.4-1					
Type of request: ☐ Technical clarification ☒ Technical comment ☐ Editorial correction ☐ Translation correction					
From : Company: Bulgarian Organisation of Welding Coordinators (BOWC) Name: Pavel Popgeorgiev Postal address: Yabalkova gradina 40, 1415 Sofia, Bulgaria			e-mail: bowc@weld.bg phone: +359887330396		
☐ Manufacturer	☐ User	☒ Other (please specify): Non-Profit Organisation			
Question/comment: The reference thicknesses e_r in the table B.4-1 for the construction details No. 11, 13, 17, 18 and 19 can be defined according to nomograms B.2-2, B.2-4, B.2-6 and B.2-8 which are dealing with as-welded condition of the steels. We think that the reference thickness e_r for the above-mentioned construction details, should be defined from nomograms dealing with PWHT condition of the material (Tables B.2-1, B.2-3, B.2-5 and B.2-7) because PWHT condition is structurally and mechanically closer to the non-welded steel. 100% from the cases the reference thickness e_r is in a non-welded condition. This approach is already accepted for the construction detail No. 10. Proposed answer(s): * Correct the mentioned nomograms for the construction details No. 11, 13, 17, 18 and 19 in the table B.4-1 with these for PWHT, namely tables B.2-1, B.2-3, B.2-5 and B.2-7. (See attached pdf file)					
Answer from the MHD (to be filled by MHD): Technical question transferred to the joint european working group CEN/TC 54/WG 52-CEN/TC 267/WG 2 "Materials".					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-001-2019				Date: 2018-11-27	
Please fulfil the following					
Part: EN 13480-3		Issue: 2017		Page 257-266	
		Subclause Annex H		National Standard Reference NEN-EN 13480-3 (augustus 2017)	
Subject:					
Type of request:					
☒ Technical clarification					
☐ Editorial correction					
☐ Technical comment					
☐ Translation correction					
From :					
Company: -				e-mail: chatzis1980@hotmail.com	
Name: Stavros CHATZIS				phone: +31681871267	
Postal address: Netherlands					
☐ Manufacturer		☒ User		☐ Other (please specify):	
Question/comment:					
Regarding Annex H as part of EN 13480-3, may the latest ASME code B31J-2017 replace the SIF (i) and flexibility (k) factors given in Tables H.1 to H.3 when the applicable Piping code is EN 13480?					
Proposed answer(s): *					
Answer from the MHD (to be filled by MHD):					
Sub-clause 12.2.7.4 indicates:					
<i>"In the absence of more directly applicable data, the flexibility factors and stress intensification factors shown in Annex H, shall be used in flexibility calculations.</i>					
<i>Note: The stress intensification factors in Annex H have been developed from fatigue tests of representative piping components and assemblies manufactured from ductile ferrous materials. The allowable displacement stress range is based on tests of carbon and austenitic stainless steels.</i>					
<i>For piping components or attachments (such as valves, strainers, anchor, rings or bands) not covered in Annex H, suitable stress intensification factors may be assumed by comparison of their significant geometry with that of the component shown."</i>					
So this means that other flexibility factors or stress intensification data as those given in Annex H are acceptable if:					
- they are shown to be "more directly applicable" meaning that they must be shown to give results closer to the geometry under investigation; or					
- there are no factors given in annex H and a suitable stress intensification factor is available for the geometry.					
To be sent to EN 13480 Maintenance Group secretariat:				EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr	

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-002-2019				Date: 2019-04-11	
Please fulfil the following					
Part: EN 13480-3	Issue: 2012	Page -	Subclause Table 13.3.6-1	National Standard Reference EN 13480-3 (2012)	
Subject: Interpretation of Table 13.3.6-1 Allowable stress for pipe supports					
Type of request:		☒ Technical clarification		☐ Editorial correction	
		☐ Technical comment		☐ Translation correction	
From : Company: L.T.Calcoli Srl Name: Mirko Albino Postal address: Via Bergamo, 60 23807 Merate (LC), Italy			e-mail: mirko.albino@ltcalcoli.it phone: +39 039 9285005		
☐ Manufacturer	☒ User		☐ Other (please specify):		
Question/comment: I am using the EN 13480 -3 :2012 and I would like to have some clarification on Table 13.3.6-1 about the allowable stress that shall be verified in the case of "pipe supports analysed with plate and shell theory". Are the limits reported in the note : - Normal Operating conditions $\sigma_b \leq 1,5 f$ & $\sigma_e \leq 1,5f$ - Occasional operating conditions $\sigma_b \leq 1,8 f$ & $\sigma_e \leq 1,8f$ the only ones to be verified for "pipe supports analysed with plate and shell theory" or they shall be checked along with the following limits (extracted from the table)? - Normal Operating Conditions $\sigma_a \leq 1,0 f$ & $\tau \leq 0.6f$ - Occasional operating conditions $\sigma_a \leq 1,2 f$ & $\tau \leq 0.7f$ Proposed answer(s): *					



Answer from the MHD (to be filled by MHD):

Normally the MHD working group does not answer question to old (historical) standards – the actual standard is EN 13480-3:2017. For pipe supports analysed with plate and shell theory - ONLY

Read as: "NOTE 1 The allowable **bending and equivalent** stress for pipe supports not operating in the creep range are:"

The allowable stress are as follow:

	axial stress	bending stress	shear stress	equivalent stress
normal operating condition	$\sigma_a \leq 1,0 f$	$\sigma_b \leq 1,5 f$	$\tau \leq 0,6 f$	$\sigma_e \leq 1,5 f$
occasional operating condition	$\sigma_a \leq 1,2 f$	$\sigma_b \leq 1,8 f$	$\tau \leq 0,7 f$	$\sigma_e \leq 1,8 f$
faulted condition	$\sigma_a \leq 1,5 f$	$\sigma_b \leq 2,25 f$	$\tau \leq 0,9 f$	$\sigma_e \leq 2,25 f$

To be sent to EN 13480 Maintenance Group secretariat:

EN 13480 Maintenance Group secretariat c/o UNM
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F 92038 Paris La Défense Cedex – France
e-mail: en13480@unm.fr

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-003-2019				Date: 2019-04-23	
Please fulfil the following					
Part: EN 13480-3		Issue: 2017		Page 83	
		Subclause §8.3.11		National Standard Reference --	
Subject: Use of screwed-in branches					
Type of request: ☒ Technical clarification ☐ Technical comment ☐ Editorial correction ☐ Translation correction					
From : Company: ENGIE Fabricom Belgium..... Name: Jan Van den Troost – Senior Engineer Postal address: Industrieweg 16 – 1850 GRIMBERGEN BE				e-mail: jan.vandentroost@engie.com phone:.....	
☒ Manufacturer		☐ User		☐ Other (please specify):	
Question/comment: Are the limitations of EN13480-3 : 2017 §8.3.11 concerning Screwed-in branches, also applicable if a NPT welding boss/couplet is used (ex : according to ASME B16.11) for a thermowell connection? Proposed answer(s): No, the limitations of §8.3.11 are only applicable for screwed-in branches directly into the shell of the header pipe.					
Answer from the MHD (to be filled by MHD): Agree with the proposed answer. The distinction between screwed and welded joint is clear. On the other hand, if these limitations are also applicable to welded joints, it must be written explicitly in the text. The limitations of clause 8.3.11 are only applicable for branches directly screwed in the head pipe. It's not applicable for welding bosses (B16.11).					
To be sent to EN 13480 Maintenance Group secretariat:				EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr	

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-004-2019				Date: 2019-07-23	
Please fulfil the following					
Part: EN 13480-		Issue: 2017		Page 259&266	
		Subclause Annex H		National Standard Reference RtoD sheet D1101 Annex 1	
Subject:					
Type of request:					
☐ Technical clarification					
☒ Editorial correction					
☐ Technical comment					
☐ Translation correction					
From :					
Company: Sitech Services BV				e-mail: kelly.franssen@sitech.nl	
Name: Kelly Franssen				phone: +31 6 13614302	
Postal address: Postbus 27, 6160 MB Geleen					
☐ Manufacturer		☐ User		☒ Other (please specify):	
				Sr. Design Assessment Officer, Sitech Inspections (IVG)	
Question/comment:					
Table H.1 note c and Table H.3 note b:					
•flange at one extremity, i_o and i_i are multiplied by $h^{1/6}$ •flange at each extremities, i_o and i_i are multiplied by $h^{1/3}$					
With respect to bends without flanges at the extremities, a factor $h^{2/3}$ is used.					
One flange makes the bend stiffer, 2 flanges make it extra stiff. However due to the factor $h^{1/6}$, with one flange at the end, it will be even weaker than no flanges at all. It should be between both other factors. With regard to the Dutch Rules for Pressure Vessels (RtoD), the term should be $h^{3/6}$ or $h^{1/2}$.					
Proposed answer(s): *					
flange at one extremity, i_o and i_i are multiplied by $h^{1/2}$					
Answer from the MHD (to be filled by MHD):					
The proposed answer is not correct. The current standard EN 13480-3:2017 shall be applied.					
To be sent to EN 13480 Maintenance Group secretariat:				EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr	

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-005-2019				Date: 2019-07-26	
Please fulfil the following					
Part: EN 13480-3		Issue: 2017		Page 260	
		Subclause Annex H		National Standard Reference --	
Subject:					
Type of request:					
☒ Technical clarification					
☐ Editorial correction					
☐ Technical comment					
☐ Translation correction					
From :					
Company: Babcock & Wilcox Vølund				e-mail: mb@volund.dk.....	
Name: Martin Bratbo.....				phone: +45 43265751	
Postal address: Odinsvej 19, DK-2600 Glostrup, Denmark					
☒ Manufacturer		☒ User		☐ Other (please specify):	
Question/comment:					
Can "Tee with special shape conditions" Be used for a connection made by welding					
Proposed answer(s): *					
Yes there is no mention of method of manufacture, thus no limitations as long as the geometry fulfils the requirements from the shape conditions.					
Answer from the MHD (to be filled by MHD):					
Yes, a "Tee with special shape conditions" (see Table H.2 of EN 13480-3:2017) with a connection made by welding can be used if the requirements of design and fabrication of all parts of EN 13480:2017 are met.					
To be sent to EN 13480 Maintenance Group secretariat:				EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr	

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-006-2019				Date: 2019-08-08	
Please fulfil the following					
Part: EN 13480-3	Issue: 2017	Page 343 & 347	Subclause Table Q.2 & Q.6.1.2	National Standard Reference --	
Subject:					
Type of request: ☐ Technical clarification ☒ Editorial correction ☒ Technical comment ☐ Translation correction					
From : Company: Bilfinger Tebodin Name: Quintin Petzer Postal address: Business Park Stein 108, 6181 MA Elsloo			e-mail: quintin.petzer@bilfinger.com phone: +31 615633360		
☐ Manufacturer	☒ User	☐ Other (please specify):			
Question/comment: 1. Table Q.2 stress concentration factors i references Annex F and not H. 2. Subclause Q.6.1.2 & Q.6.1.3 specifies the stress concentration factors (i) formulas used for compiling table Q.1, however it does not specify that $i \geq 1$ for L_3 , L_4 & L_6 . A stress concentration factors $i < 1$ will provide results with longer spans than those calculated for L_2 & L_5 . This is clear when calculating the values for L_3 in row DN 25 with $s = 4$ mm if allowing $i < 1$. i will equal to 0.804 and provide a L_3 of 5.9m for empty pipe. The table Q.1 does default to the spans of L_2 for this example and thus the table does not require corrections. Proposed answer(s): * 1. Correct all Table Q.2 i reference from Annex F to H 2. Included that stress concentration factors cannot be smaller than 1 ($i \geq 1$)					
Answer from the MHD (to be filled by MHD): 1- Yes, this typing mistake is known and will be corrected in EN 13480-3:2017/FprA1 in progress. 2- Annex Q is dedicated to be revised in a future amendment (EN 13480-3:2017/prA7).					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-007-2019					Date: 12/08/19					
Please fulfil the following										
Part: EN 13480-3		Issue: 2017		Page 76		Subclause 8.3.1		National Standard Reference --		
Subject:										
Type of request:							☒ Technical clarification		☐ Editorial correction	
							☐ Technical comment		☐ Translation correction	
From : Company: TechnipFMC Name: Mathieu Henriet Postal address: 5-9 avenue Bataillon Carmagnole Liberté, 69120 Vaulx-en-Velin					e-mail: Mathieu.henriet@technipfmc.com phone: + 33 4 2620 2568					
☐ Manufacturer		☒ User		☐ Other (please specify):						
Question/comment: - When we increase the pipe wall thickness according to subsection 8.4.3, do we have to check the conditions defined in subsection 8.3.1 (interior diameter ratio " $d_i/D_i < 0.8$ " and the ones displayed on figures 8.3.1-1 and 8.3.1-2) afterwards? Proposed answer(s): * - Yes we have to check them.										
Answer from the MHD (to be filled by MHD): Yes, proposed answer is correct.										
To be sent to EN 13480 Maintenance Group secretariat:					EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr					

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-008-2019				Date: 12/08/19	
Please fulfil the following					
Part: EN 13480-3	Issue: 2017	Page 88	Subclause 8.4.3	National Standard Reference --	
Subject:					
Type of request: ☒ Technical clarification ☐ Technical comment ☐ Editorial correction ☐ Translation correction					
From : Company: TechnipFMC Name: Mathieu Henriet Postal address: 5-9 avenue Bataillon Carmagnole Liberté, 69120 Vaulx-en-Velin			e-mail: Mathieu.henriet@technipfmc.com phone: + 33 4 2620 2568		
☐ Manufacturer	☒ User	☐ Other (please specify):			
Question/comment: - When we increase the pipe wall thickness according to subsection 8.4.3, do we increase it inward or outward (as presented in figure 8.4.3-1) ? In other words, is it the outside diameter which is fixed or is it the inside diameter ? Proposed answer(s): * - We always had cases where we increased the thickness inward.					
Answer from the MHD (to be filled by MHD): It is up to the user to put a reinforcement to the inner or outer surface.					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-009-2019					Date: 12/08/19
Please fulfil the following					
Part: EN 13480-3	Issue: 2017	Page 88	Subclause 8.4.3	National Standard Reference --	
Subject:					
Type of request:		☒ Technical clarification		☐ Editorial correction	
		☐ Technical comment		☐ Translation correction	
From : Company: TechnipFMC Name: Mathieu Henriet Postal address: 5-9 avenue Bataillon Carmagnole Liberté, 69120 Vaulx-en-Velin			e-mail: Mathieu.henriet@technipfmc.com phone: + 33 4 2620 2568		
☐ Manufacturer	☒ User	☐ Other (please specify):			
Question/comment: - In equations 8.4.3-3, 8.4.3-6 and 8.4.3-7 the norm refers to critical pressure "pc". Do we consider the one of the header or the one of the branch ? Proposed answer(s): * - We use the maximal pressure between the two, to test the most constraining condition.					
Answer from the MHD (to be filled by MHD): pc is the "calculation pressure", see Table 3.2-1 in EN 13480-3:2017.					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-010-2019 Date: 12/08/19				
Please fulfil the following				
Part: EN 13480-3	Issue: 2017	Page 88	Subclause 8.4.3-c)	National Standard Reference --
Subject:				
Type of request: ☒ Technical clarification ☐ Editorial correction ☐ Technical comment ☐ Translation correction				
From : Company: TechnipFMC Name: Mathieu Henriet Postal address: 5-9 avenue Bataillon Carmagnole Liberté, 69120 Vaulx-en-Velin			e-mail: Mathieu.henriet@technipfmc.com phone: + 33 4 2620 2568	
☐ Manufacturer	☒ User	☐ Other (please specify):		
Question/comment: - In oblique branch connections in cylindrical and conical shells, is the computation of the area "Ap" substituting diameter "di" by " $di/\cos(\theta)$ " the only modification that has to be made with respect to 90° branch connection? Proposed answer(s): * - Do we have to compute for instance areas "Afb I", "Afb II" etc as displayed in figure 8.4.3-3?				
Answer from the MHD (to be filled by MHD): There are no explicit equations given for the calculation of areas. The user has to evaluate them by himself, following the figures 8.4.3-3, 8.4.3-4, or 8.4.3-5 respectively.				
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr	

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-011-2019					Date: 12/08/19					
Please fulfil the following										
Part: EN 13480-3		Issue: 2017		Page 88		Subclause 8.4.3		National Standard Reference --		
Subject: Reinforcement of branch connections										
Type of request:			☒ Technical clarification			☐ Editorial correction				
			☐ Technical comment			☐ Translation correction				
From : Company: TechnipFMC Name: Mathieu Henriet Postal address: 5-9 avenue Bataillon Carmagnole Liberté, 69120 Vaulx-en-Velin					e-mail: Mathieu.henriet@technipfmc.com phone: + 33 4 2620 2568					
☐ Manufacturer		☒ User		☐ Other (please specify):						
Question/comment: - When we are the case where the pipe has to be reinforced, how do we have to proceed ? Proposed answer(s): * - First we test the use of the reinforcing pad and the increase of the wall thickness. If it is not enough we can continue to increase the wall thickness or we can use both solutions combined : wall thickness increased and reinforcing pad of this new thickness. - Could it be possible to approve a reinforcement with the alternative method described in appendix "O", when the branch connection is not fulfilling the conditions of section 8.4.3 ? If we have to use this alternative method, is there a software dedicated which would be available ? - Would it be possible to have some examples of computation for this sort of case of branch connection?										
Answer from the MHD (to be filled by MHD): it is up to the user to reinforce the run and / or the branch and to use or not a reinforcing pad. Annex O - is a completely different calculation method, the purpose of which is to check a given design also under consideration of loads from the piping system.										
To be sent to EN 13480 Maintenance Group secretariat:					EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr					

* Please note that question with proposed answers will be dealt with as priority.



EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-012-2019		Date: 2019-08-26	
Please fulfil the following			
Part: EN 13480-	Issue: 2017	Page	Subclause 13
		National Standard Reference --	
Subject: CE Marking of pipe supports			
Type of request:		☒ Technical clarification ☐ Technical comment	
		☐ Editorial correction ☐ Translation correction	
From : Company: LISEGA INC Name: Jon STINSON Postal address: 139 Bean Hill Road, Belmont, NH 03220 USA.....		e-mail: Jon.Stinson@us.lisega.com phone: + 603-630-8341	
☒ Manufacturer	☐ User	☐ Other (please specify):	
Question/comment: Do pipe supports like variable spring hangers / supports or constant hangers / supports that comply with EN 13480 need a CE certification or CE Marking? Proposed answer(s): * No – see: 13.9 Documentation of supports The support manufacturer shall provide the purchaser of supports with a certificate confirming that the supports comply with the requirements of Clause 13 and Annex N.			
Answer from the MHD (to be filled by MHD): The proposed answer is correct.			
To be sent to EN 13480 Maintenance Group secretariat:		EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr	

* Please note that question with proposed answers will be dealt with as priority.



EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-013-2019				Date: 2019-08-27	
Please fulfil the following					
Part: EN 13480-3	Issue: 2017	Page 181	Subclause A.2.1.2	National Standard Reference --	
Subject: Simplified static equivalent analysis for seism – maximum acceleration to consider & combination method					
Type of request:		☐ Technical clarification		☒ Editorial correction	
		☒ Technical comment		☐ Translation correction	
From : Company: Bureau Veritas Exploitation..... Name: Clément MARIE Postal address: 400 rue Barthélémy Thimonnier 69530 Brignais France			e-mail: clement.marie@bureauveritas.com..... phone: +33472308171		
☐ Manufacturer		☐ User		☒ Other (please specify): Notified Body for DESP2014/68/UE	
Question/comment: Firstly in EN13480-3 Appendix A §A.2.1.2 – simplified static equivalent analysis for seismic events, it is stated that “the acceleration is based upon the maximum value arising from the earthquake”. a_i is then defined as being “the maximum acceleration defined for the level in direction i”. However it is also stated that if “no building related accelerations are available, the designer should use the peak ground acceleration as the maximum acceleration a_i ”. In our opinion, in almost every case, maximum acceleration at a level above ground is higher than peak ground acceleration, which means that these two subclauses are in contradiction with each other. Secondly, this subclause does not specify if accelerations defined for each principal direction shall be combined with accelerations from orthogonal principal directions and which combination method should be used in this case. Proposed answer(s): * - Delete subclause “where no building related accelerations are available, the designer should use the peak ground acceleration as the maximum acceleration a_i” - Make a reference to next subclause (as A.2.1.4) to choose a proper combination methodology					
Answer from the MHD (to be filled by MHD): The peak acceleration at a higher level will often be higher than the peak ground acceleration. This is the case at the resonance frequency of the building. It can only be transmitted to the piping, if there is coincidence between piping frequencies and building frequencies. For this case the factor 1.5 is included in A.2.1.2. The choice of superposition method is not specified in this standard, but in the new EN 13480-3:2017/FprA3 typical application criteria are given. The final decision is to be taken by the designer in the context of the risk assessment.					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-014-2019				Date: 2019-09-19	
Please fulfil the following					
Part: EN 13480-3		Issue: 2017		Page 173	
		Subclause 13.11.4.2		National Standard Reference BS EN 13480-3:2017	
Subject Maximum permissible stress for Austenitic Steel					
Type of request:					
☒ Technical clarification					
☐ Editorial correction					
☐ Technical comment					
☐ Translation correction					
From :					
Company: Empresarios Agrupados International (Spain)			e-mail: acanete@empre.es		
.....			phone: ++(34) 91 309 80 00		
Name: Antonio Cañete Ruiz					
Postal address: Magallanes, 3. 28015 Madrid, Spain					
☐ Manufacturer		☒ User		☐ Other (please specify):	

Question/comment:

Dear all

It is applicable the formula 13.11.4.2-2 for the calculation of the permissible stress ("f") in an Austenitic Steel?

— The maximum permissible stress is:

$$f = \min \left(\frac{R_{eHt}}{1,5} \text{ or } \frac{R_{p0,2t}}{1,5}; \frac{R_m}{2,4}; f_{cr} \right) \quad (13.11.4.2-2)$$

Due to a project requirement, it is mandatory to design a pipe support using austenitic steel. I am wondering if there should be a specific permissible stress formula for Austenitic Steel, such as piping design.

If we draw a parallel between piping and piping support, the formula 13.11.4.2-2 seems to be exactly the same as the 5.2.1.1 which is applicable only for steels other than austenitic steels.

$$f = \min \left\{ \frac{R_{eHt}}{1,5} \text{ or } \frac{R_{p0,2t}}{1,5}; \frac{R_m}{2,4} \right\} \quad (5.2.1-1)$$

However, Chapter 13 "Support" does not have the equivalent formulas 5.2.2-1 and 5.2.2-2 for Austenitic steels.

The design stress shall be in accordance with the following:

— for $A \geq 35 \%$

$$f = \frac{R_{p1,0t}}{1,5} \quad (5.2.2-1)$$

$$\text{or } f = \min \left(\frac{R_{mt}}{3}; \frac{R_{p1,0t}}{1,2} \right) \text{ if } R_{mt} \text{ is available}$$

— for $35 \% > A \geq 30 \%$

$$f = \min \left(\frac{R_{p1,0t}}{1,5}; \frac{R_m}{2,4} \right) \quad (5.2.2-2)$$

— for $A < 30 \%$, see 5.2.1.1.

Proposed answer(s):

Option a) Formula 13.11.4.2-2 is also applicable for Austenitic Steel supports

Option b) It is not usual to design support in Austenitic Steel supports. For that reason, the permissible stress ("f") in an Austenitic Steel has not been included in the EN13480-3 yet. It will be included in the next revision. In the meantime, you can use 5.2.2-1 and 5.2.2-2 for Austenitic steels.

Best Regards



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Answer from the MHD (to be filled by MHD):

The definition will be added within the next revision in progress in amendment EN 13480-3:2017/prA5.

The time-independent nominal design stress is defined in equation (5.2.2-1), (5.2.2-2) or (5.2.1-1) depending on the A value.

To be sent to EN 13480 Maintenance Group secretariat:

EN 13480 Maintenance Group secretariat c/o UNM
Standardization Office on behalf of AFNOR
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e-mail: en13480@unm.fr

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 3-015-2019				Date: 2019-11-13	
Please fulfil the following					
Part: EN 13480-3	Issue: 2017	Page 47 & 212	Subclause 6.6.3 & D.4.2	National Standard Reference --	
Subject:					
Type of request:		☒ Technical clarification		☐ Editorial correction	
		☒ Technical comment		☐ Translation correction	
From : Company: Bilfinger Tebodin Name: Quintin Petzer Postal address: Business Park Stein 108, 6181 MA Elsloo			e-mail: quintin.petzer@bilfinger.com phone: +31 615633360		
☐ Manufacturer	☒ User	☐ Other (please specify):			
Question/comment: There are differences evident in Subclause 6.6.3 & D.4.2, for instance: - Subclause D.4.2 clarifies type of flanges "conform to European Standards for pipework flanges" these are EN 1092-1 & EN 1759-1 (All though EN 1759-1 is not listed in the harmonized list of the Official Journal of the European Union 2018/C 326/03) - Subclause 6.6.3 (b) which is the equivalent design pressure P_{eq} verification is not required for D.4.2 - Subclause D.4.2.(b) discusses requirements for testing conditions whereas 6.6.3 (b) does not - Subclause 6.6.3 does not refer to class rated flange components whereas D.4.2 does - If Compliance of D.4.2 can be obtained as it does not require an equivalent design pressure P_{eq} verification (Let's say it failed Subclause 6.6.3(b) requirement), does that mean my flange design is acceptable under Annex D? - EN 1759-1 is not referenced in EN 13480 but the listed class rated standards EN 12560 & EN 1515-3 are. Both these standards are specifically for EN 1759-1.					
Proposed answer(s): * - Committee to review Subclause 6.6.3 & D.4.2 - To avoid confusion to the use of EN 1759-1 as a standard flange in EN 13480-3 it should be included in the Normative references.					
Answer from the MHD (to be filled by MHD): Technical questions transmitted to the relevant European working group CEN/TC 267/WG 3 "Design and calculation – EN 13480-3".					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 5-001-2019				Date: 2019-04-12	
Please fulfil the following					
Part: EN 13480-5	Issue: 2012	Page -	Subclause §9.3.3	National Standard Reference	
Subject: Application of sub clause 9.3.3					
Type of request:		☒ Technical clarification		☐ Editorial correction	
		☐ Technical comment		☐ Translation correction	
From : Company: - Name: Marek Ballaun Postal address: Poland			e-mail: balmarek@interia.pl..... phone: -.....		
☐ Manufacturer	☒ User		☐ Other (please specify):		
Question/comment: I am writing in order to confirm one issue, which I learned while reading your comment/decision dated 2016-06-13. I would be grateful for your input and/or comments, because this issue is crucial to my university thesis concerning PED. The case is as following and concerns EN 13480-5:2012: When looking at the History of this norm - Annex Y to the 5th issue (2016-07) point j. states that: "in 9.3.3 an alternative method for pneumatic pressure testing has been added" Below, point Y.2 states, that the 2nd issue (2013-08) corrected page number 30, which I believe is the page that contains art. 9.3.3. f). From you comment/decision I learned the 2nd issue includes corrections and amendments EN 13480-5:2012/A1:2013. I just wanted to confirm, whether the art. 9.3.3. f), which concerns "alternative test pressures with index of 1.1." was added in an amendment EN 13480-5:2012/A1:2013. If the answer to the above question is positive, I would also like to learn the exact date of the 2nd issue and of an amendment EN 13480-5:2012/A1:2013. I would also be grateful if you could let me know where to buy/download the 2nd issue of EN 13480-5:2012 and EN 13480-5:2012/A1:2013. I am asking because the first norm that can be found in Poland is the 3rd issue of EN 13480-5:2012 (which is dated 2014) and in the meantime I learned that the art. 9.3.3. f) was amended in the previous issues. Many thanks in advance for your clarification and answer. <u>Proposed answer(s):</u>					



Answer from the MHD (to be filled by MHD):

Please be informed that EN 13480-5:2012 has been withdrawn and replaced by the new Edition EN 13480-5:2017

To obtain this new complete version, you need to get in contact with your National Standardization Office (PKN - Polish Committee for Standardization)

We are not able to give you the feedback of these changes. This is part of the technical discussions/contributions within the relevant working group, for which experts are nominated by the National Members of CEN/TC 267.

Working papers of European working groups are available via your National Committee for Standardization. Documents should be circulated to your National Mirror Group by PKN.

If you wish to participate to standardization work and get involved in the future work on EN 13480-5, please get in contact with the Polish Committee for Standardization to appoint you as Polish expert to the European working group CEN/TC 267/WG 5 "Industrial piping and pipelines - Inspection and testing".

To be sent to EN 13480 Maintenance Group secretariat:

EN 13480 Maintenance Group secretariat c/o UNM
Standardization Office on behalf of AFNOR
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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 5-002-2019				Date: 2019-05-31												
Please fulfil the following																
Part: EN 13480-5	Issue: 2017	Page 16	Subclause Table 8.2-1	National Standard Reference --												
Subject:																
Type of request:		☐ Technical clarification ☒ Editorial correction ☐ Technical comment ☐ Translation correction														
From :																
Company: Inspecta Tarkastus Oy			e-mail: juha.purje@kiwa.com													
Name: Juha Purje			phone: +358 50 52 51 180													
Postal address: PO Box 1000, FI-00581 Helsinki, Finland																
☐ Manufacturer	☐ User	☒ Other (please specify): Notified Body no 0424														
Question/comment:																
Table 8.2-1 specifies volumetric testing (25^d)^{f,g} for category III piping with wall thickness $e_n \leq 30$ mm and material belongs to groups 1.3, 1.4, 1.5, 2.1, 2.2, 4.1, 4.2, 5.1, 5.2, 8.2, 8.3, 9.1, 9.2, 9.3, 10.1 or 10.2. Note d), Additional testing for transverse defects from weld surface (see EN ISO 17640:2010, testing level C) means in effect that the surface of weld should be dressed which increases testing costs and UT is not reliable if wall thickness is not sufficient for testing. For other creep-resisting steels there is no requirement for d) when wall thickness $e_n \leq 30$ mm.																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2">5.1, 5.2, 8.2, 8.3, 9.1, 9.2, 9.3, 10.1, 10.2</td> <td rowspan="2">III</td> <td rowspan="2">100</td> <td>≤ 30</td> <td>5</td> <td>(25^d)_{f,g}</td> <td>Why d ?</td> </tr> <tr> <td>> 30</td> <td>10</td> <td>(25^d)_{f,g}</td> <td>OK</td> </tr> </table>						5.1, 5.2, 8.2, 8.3, 9.1, 9.2, 9.3, 10.1, 10.2	III	100	≤ 30	5	(25 ^d) _{f,g}	Why d ?	> 30	10	(25 ^d) _{f,g}	OK
5.1, 5.2, 8.2, 8.3, 9.1, 9.2, 9.3, 10.1, 10.2	III	100	≤ 30	5	(25 ^d) _{f,g}				Why d ?							
			> 30	10	(25 ^d) _{f,g}	OK										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2">6.3, 6.4, 7.1, 7.2</td> <td rowspan="2">III</td> <td rowspan="2">100</td> <td>≤ 30</td> <td>100</td> <td>(100)_{f,g}</td> <td>Why no d ?</td> </tr> <tr> <td>> 30</td> <td>100</td> <td>(100^d)_{f,g}</td> <td>OK</td> </tr> </table>						6.3, 6.4, 7.1, 7.2	III	100	≤ 30	100	(100) _{f,g}	Why no d ?	> 30	100	(100 ^d) _{f,g}	OK
6.3, 6.4, 7.1, 7.2	III	100	≤ 30	100	(100) _{f,g}				Why no d ?							
			> 30	100	(100 ^d) _{f,g}	OK										
In all earlier versions of EN 13480-5 the note d) was applicable only when wall thickness e_n exceeds 30 mm. Table 8.2-1 is not consistent with paragraph 8.2.3 of EN 13480-5:2017 that specifies testing for transverse defects from weld surface only when wall thickness is above 30 mm and pipe material belongs to groups 5.3, 5.4 or 6.																
Proposed answer(s): *																
Delete the note d) for wall thickness $e_n \leq 30$ mm.																



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Answer from the MHD (to be filled by MHD):

Proposed answer is correct.

Table 8.2-1 will be revised with the deletion of footnote d) for wall thickness $e_n \leq 30$ mm. Item carried out in the amendment under progress EN 13480-5:2017/prA2.

To be sent to EN 13480 Maintenance Group secretariat:

EN 13480 Maintenance Group secretariat c/o UNM
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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 5-003-2019				Date: 2019-09-19	
Please fulfil the following					
Part: EN 13480-5	Issue: 2017	Page -	Subclause 9.3.4	National Standard Reference BS EN 13480-5:2017	
Subject:					
Type of request:		☒ Technical clarification		☐ Editorial correction	
		☐ Technical comment		☐ Translation correction	
From : Company: INOX India Pvt. Limited Name: Sanjaykumar Gajera Postal address: India			e-mail: sanjay.gajera@inoxcva.com phone:		
☒ Manufacturer		☐ User		☐ Other (please specify):	
Question/comment: We at INOX India Pvt. Limited, India a Manufacturer of PED certified pressure equipment from last 15 years and holding ISO 3834-2 certification. I require following interpretation with respect to BS EN 13480-5:2017, clause No. 9.3.4. 9.3.4 Other tests In cases where a hydrostatic or pneumatic pressure test of individual welds (connection welds) would be detrimental or impracticable they shall be substituted by an appropriate non-destructive test (100 % RT or UT and 100 % PT or MT). Proposed answer(s): * When hydrostatic or pneumatic pressure test of individual welds (connection welds) would be detrimental or impracticable means we need to carry out NDT of weld joints appropriate non-destructive test (100 % RT or UT and 100 % PT or MT) satisfactorily. Where, fitting/component's base metal (except weld NDT compliance) not necessary to be tested under either hydrostatic or pneumatic pressure test individual piece/item before taking connection of welds to each other. Pls. clarify.					
Answer from the MHD (to be filled by MHD): The general requirement of EN 13480 includes a requirement for pressure testing. Where detrimental to the piping system or impractical the possibility of not pressure testing under certain conditions is given in clause 9.3.4 (e.g. closure welds). An example for closure welds is the connection of an already pressure tested piping to an already pressure tested equipment where this connection weld can not be pressure tested. It is assumed that the piping components have been manufactured, tested and certified as required by the appropriate harmonized Standard (e.g. EN 10216, EN 10253). The intent of this Standard is not to ignore the required testing methods for base material by choosing clause 9.3.4.					



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**To be sent to EN 13480 Maintenance Group
secretariat:**

EN 13480 Maintenance Group secretariat c/o UNM
Standardization Office on behalf of AFNOR
F 92038 Paris La Défense Cedex – France
e-mail: en13480@unm.fr

** Please note that question with proposed answers will be dealt with as priority.*



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EN 13480 "Industrial piping and pipelines" Maintenance Group Question form

Request reference number (to be filled by MHD): 6-001-2019				Date: 2019-09-20	
Please fulfil the following					
Part: EN 13480-6	Issue: 2017	Page -	Subclause Scope	National Standard Reference -	
Subject: Application of sub clause 9.3.3					
Type of request:		☐ Technical clarification		☒ Editorial correction	
		☐ Technical comment		☐ Translation correction	
From : Company: SIS Name: Lisa Almkvist - Secretary of SIS/TK 300 Prefabricated district heating pipe systems Postal address: Sweden			e-mail: Lisa.Almkvist@sis.se phone: -.....		
☐ Manufacturer		☐ User		☒ Other (please specify): Swedish Institute for Standards	
Question/comment: Dear managers of EN 13480-6:2017, I am the secretary of the Swedish mirror committee to CEN/TC 107. We have noticed un-updated information in your standard. In your scope you have a note stating; “ NOTE For higher temperatures reference should be made to EN 13941+A1:2010, but it should be kept in mind, that CEN/TC 107 only deals with pre-insulated piping with temperatures up to 140 C and diameters up to 800 mm, which is state of the art for these products.” Firstly the standard you are referring to has been withdrawn, now we have EN 13941-1 and -2:2019. Furthermore, we are not restricted to diameters of only up to 800 mm, in fact we are covering 1 200 mm as well. If you need more information regarding the standard at hand, I have put the TC secretary Henryk Stawicki in cc, to whom you can ask for more detailed information, should you need it. Proposed answer(s): -					
Answer from the MHD (to be filled by MHD): Thank you for the feedback, this will be updated in a future amendment. At the moment, these references are cited in a Note and in Bibliography (informative sections of the standard) in EN 13480-6:2017.					
To be sent to EN 13480 Maintenance Group secretariat:			EN 13480 Maintenance Group secretariat c/o UNM Standardization Office on behalf of AFNOR F 92038 Paris La Défense Cedex – France e-mail: en13480@unm.fr		

* Please note that question with proposed answers will be dealt with as priority.