European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 1-001_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
1-001-2013	23/09/2013	23/10/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
1			EN 13480-1:2012, Clause 1

Question

Under interpretation '(2009) 1-01 EN 13445 (Unfired Pressure Vessels) MHD' it states that 'items specifically designed for nuclear use' can be designed to this standard 'provided that account is taken of additional and/or alternative requirements resulting from the hazard analysis'. This interpretation has been implemented in the latest version of the code.

Is this interpretation equally applicable to piping designed to EN 13480:2012?

Answer proposed by the author of the question

Yes or no.

Answer of the maintenance group

Yes

Note:

For nuclear parts as well as for conventional parts in nuclear power plants, additional requirements from nuclear environment shall be taken into account.

Also a special categorization of piping may be described in this specification which is different from EN 13480.

It may be used unless the national nuclear codes have special requirements which have higher priority.

If no national nuclear code is available, account shall be taken of additional and/or alternative requirements resulting from the hazard analysis

Question from: Mike HEALEY

Name

Company EDF Energy ***Country*** UK

Date 2013-09-23

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 2-001_2013_ACP

Type of question: **Correction**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
2-001-2013	22/04/2013	22/05/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
2			EN 13480-2:2012, Clause B.2.1

Question

Subject: Incorrect references

Question/comment: When forming a subclause (B.2.1) out of the first two paragraphs of B.2 it seems as if the references in that text were not updated as would have been required by the renumbering caused by this new subclause

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

In B.2.1, make the following changes B.2.1 → B.2.2, B.2.2 → B.2.3, and B.2.3 → B.2.4

Answer of the maintenance group

Corrected page 19 for the 1st and 2nd sentence of B.2.1 needs to be edited.

Question from: Ulf MALMSTRÖM

Name

Company UcoTek AB ***Country*** SWEDEN

Date 2013-04-22

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 2-002_2013_ACP

Type of question: **Correction**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
2-002-2013	22/04/2013	22/05/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
2			EN 13480-2:2012, Clause B.2.1

Question

Subject: Incorrect references

Question/comment:

This subclause refers to non-existant table B.5-1.

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

In B.2.1, make the following change B.5-1 → B.4-1.

Answer of the maintenance group

Correction made for the Publication of EN 13480-2:2012 (Issue 2 – 2013-08).

Question from: Ulf MALMSTRÖM

Name

Company UcoTek AB ***Country*** SWEDEN

Date 2013-04-22

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 2-003_2013_ACP

Type of question: **Correction**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
2-003-2013	22/04/2013	22/05/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
2			EN 13480-2:2012, Clause B.2.1

Question

Subject: Incorrect references

Question/comment:

Inserting the new header for B.2.1 required renumbering, which is not consistent everywhere.

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

In Note below Table B.2-1 replace 'B.2.2' with 'B.2.3'. In the last paragraph of sub-clause B.2.4.1, replace 'B.2.3.2 to B.2.3.5' with 'B.2.4.2 to B.2.4.5'.

Answer of the maintenance group

Correction made for the Publication of EN 13480-2:2012 (Issue 2 – 2013-08) for the Note below Table B.2-1.
Corrected page 41 for the last paragraph of B.2.4.1 needs to be edited.

Question from:

Name Ulf MALMSTRÖM

Company UcoTek AB ***Country*** SWEDEN

Date 2013-04-22

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 2-004_2013_ACP

Type of question: **Technical**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
2-004-2013	06/05/2013	06/06/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
2			EN 13480-2:2012, Table B.2-11

Question

Subject: Table B.2-11 – grade 1.4307

Question/comment:
I have a comment on Annex B, and in particular Table
B.2-11, wherein the grade 1.4307 is considered valid for a temperature of -196 ° C only.
We manufacture cryogenic equipment for Liquid Helium, and the grade 1.4307 is much easier to find on the market as the grade 1.4306 that is given to -273 ° C. Therefore, we often use 1.4307 in LHe up to 1.8 ° K without any problems.
We did validate a PMA for our equipment, justified by our experience (see attached files).
In the files of the PMA, you will find examples of equipment with 1.4307 operating at lower temperatures than -196 ° C (for example, 27 kilometers with LHe in the site of CERN are made with 1.4307).
From our point of view, 1.4307 can be used at temperatures up to -273 ° C without problems.

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

I think the classification of the grade 1.4307 should be reviewed.
Similarly, we have equipment with the grade 1.4404 which I could provide examples of applications at temperatures up to -273 ° C and for which our experience has shown there is no risk at these temperatures.
This is the case for expansion joints with Liquid Helium and all THE components of our hydrogen liquefier at -253 ° C, which are made with this grade.

Answer of the maintenance group

Technical question to be transferred to working group CEN/TC 267/WG 2 "Materials".

Question from: Arnaud FAUCHON
Name
Company Air Liquide
Country FRANCE
Date 2013-05-06

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-001_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-001-2013	19/04/2013	03/05/2013	03/06/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3:2002, Clause 4.6

Question

We intervene in the assessment of piping design of the machinery room, for which the reference is the standard EN 13480-3 Edition 2002. Concerning the design of piping components, it is written in §4.6: *"The stress limits of components in accordance with European Standards with P/T ratings, e.g. flanges **and** components with wall thickness related to standard pipes, e.g. fittings, need not be recalculated."*

Question 1: What is a standard pipe/tube ? Is it a pipe/tube designed following EN 13480-3?

Question 2: Shall one understand that this sentence should be read in two times :

- It is not needed to recalculate the stress limit of the component being the object of european standard specifying the maximum values permitted by the P/T rating, such as flanges,
- It is not needed to recalculate the stress limit of the component such as components with wall thickness related to standard pipes, e.g. fittings (without the notion of P/T rating…)

Thus, if an elbow is welded to a pipe/tube for which the thickness has been justified following standard EN 13480-3 (and supplied following a european standard), it is not needed to justify the thickness of the intrado and extrado of this elbow following the rules of EN 13480-3…?

Answer proposed by the author of the question

Question 1: Yes

Question 2: No, the part of the sentence « *The stress limits of components in accordance with European Standards with P/T ratings»* applies as much for the flanges as for the fittings. Therefore, if an elbow is supplied following a harmonized European standard which not specified the permitted values for the P/T rating, these fittings shall be justified following the rules of paragraph 6 of EN 13480-3.

Answer of the maintenance group

Question 1: Yes

Question 2: If an elbow is supplied following a harmonized European standard which does not specify the permitted values for the P/T rating, these fittings shall be justified according to standard (i.e EN 10253-2, A.4 or A.5) or Clause 6 of EN 13480-3.

If a fitting is provided with EN 10253-x, the manufacturer has to justify the dimensioning following the rules of Clause 6 of EN 13480-3. But it is a simplified verification, and type B shall be as strong as the attached pipe. This should be verified by the vendor of the bend and attached to the manufacturer of the piping system. For further clarification, when talking about fittings – in the sense of EN 10253-x – also elbows are covered. Thus an elbow supplied according to this harmonized European standard does not require additional strength calculation. The permissible pressure for those elbows, as well as for Tees, reducers, and caps is defined by a percentage (<100%) of the permissible pressure of the adjacent pipe for type A, or the same pressure as for the adjacent pipe for type B.

Question from:

Name BOUCHER Juliette

Company EDF - CEIDRE ***Country*** FRANCE

Date 24/01/2013

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-002_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-002-2013	2013-07-05	2013-08-05	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3:2012, Clause 4.3

Question

Issue regarding the consistency between EN 10253-2 (Butt-welding pipe fittings) and EN 13480-3 (Metallic industrial piping - Design and calculation). We currently have several thermal power projects subject to EN 13480 and having problems with the supply of elbows. These elbows are specified as Type B to be sure they hold the pressure. At the reception site, we find out that the thickness is much greater than the nominal thickness. For example, for an elbow DN500 x 25, we measure 40mm to the neutral fiber. For an elbow DN350 x 5.6, we measure 12mm. The supplier informs us that the elbow is in line with EN 10253-2 because this standard does not specify maximum thickness tolerance (this is an option to take when ordering (option 11)). We are aware that the method of manufacture of this EN leads to an allowance on the pipe. This allowance is more important because we have chosen Type B, but the measured values seem to be excessive. This leads us to ask questions on flexibility calculations. EN 13480-3, clause 4.3 indicates that c_2 thinning allowance for possible thinning of elbows during bending is not included in the nominal thickness. Calculations are carried out with the nominal thickness, so they are not affected by the value of the tolerance c_2. But when receiving an elbow that is, in comparison, twice as thick as the specified elbow, this is no longer related to the tolerance, and therefore calculations should be carried out again in order to take into account this elbow which is less flexible and much heavier.

Answer proposed by the author of the question

We look for acceptable tolerance for c_2 which would avoid restarting flexibility calculations.

Answer of the maintenance group

No value for c_2 can be provided in EN 13480-3.

It shall be a case by case analysis. It strongly depends on the routing of the system.

Question from:

Name LEVET Nicolas

Company ALSTOM POWER ***Country*** FRANCE

Date 2013-06-21

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-003_2013_ACP

Type of question: **Technical**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-003-2013	2013-09-27	2013-10-23	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3:2012, Clause 8.6.3

Question

Subject: Triform reinforcement equation clarification

Question/comment :

Regarding equations 8.6.3-1, 8.6.3-2 and 8.6.3-3, in 8.6.3-1 $R_{p0,2}$ can be cancelled out on either side of the equation suggesting that the with varying strengths, the ratio of load/strength of the reinforcements will not change. To me this does not make sense, since supposedly the strength of material does not make a difference in the design of reinforcement. Is this correct and if so what concept is this clause based on?

Answer proposed by the author of the question

Proposed answer(s)/correction(s):
Possibly supporting text/equations should be included to clarify this clause and increase the user's understanding.

Answer of the maintenance group

Technical question to be transferred to working group CEN/TC 267/WG 3 "*Design and Calculation*".

Question from:

Name Murray Hay

Company GILKES ***Country*** UK

Date 2013-09-27

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-004_2013_ACP

Type of question: **Correction/Technical**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-004-2013	2013-04-22	2013-05-22	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3:2012, 12.2.10.1

Question

Subject: Flexibility Analysis

Question/comment:

Page 140, inequality 12.2.10-1 need the factor Y which is called "*the resultant of movement to be absorbed by piping*".

The unit in which this factor shall be used is not indicated, and since this is an empirical formula, it is not possible to find it by writing the dimensional equation.

Would you indicate me the unit of factor *Y*? It is indispensable for the understanding of the standard

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

This formula comes from ASME B31.1.

The unit of the factor *Y* shall be millimetre (mm).

Answer of the maintenance group

The unit of the factor *Y* shall be millimetre (mm).

EN 13480-3:2012, 12.2.10.1 to be corrected as follows:

"*Y* is the resultant of movements to be absorbed by piping **(mm)**;"

But for further investigation, technical question to be transferred to working group CEN/TC 267/WG 3 "*Design and Calculation*"

Question from:

Name Paul DUCRETET

Company CNIM ***Country*** FRANCE

Date 2013-04-22

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-005_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-005-2013	2013-04-22	2013-05-22	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3:2012, clause D.4.4

Question

Subject: Requirements for the welding of slip-on flanges

Question/comment: Query relates to the welding of slip-on flanges in compliance with EN 13480-3.
Clause D.4.2 in EN 13480-3 states that provided the conditions are met then flanges designed to an EN standard do not require a calculation, hence we can use slip-on flanges. However, if using the flange standard EN 1759-1, there does not appear to be a weld detail shown for the two fillet welds required for a slip-on flange.
Is there a minimum weld size for the internal and external fillet welds to comply with EN 13480-3?
There are further references to the fillet welds in EN 13480-3.

1. In Clause D.4.4 there is reference to a welding example F3 (should be F4) in Table A.7 for fillet welds. However this table is not in this standard but EN 13445-3. In this table it references $g_1 + g_2 >= 1.4 \times e$ but I cannot find the definition for g_1 and g_2 except in clause 21.3 (for ribs on end plates).
2. Also Annex A in EN 13445-3 references the welding standard EN 1708-1 and in Table 5 (5.1.4) of this standard the fillet weld sizes are given.

Will the use of these fillet welds comply with EN 13480-3?

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

1 – g_1 and g_2 are the dimensions of each of the fillet weld throat (internal and external). The conditions should be read as follows : $g_1 >= 0{,}7e$ and $g_2 >= 0{,}7e$, e is the thickness of the nozzle.

Answer of the maintenance group

The values for the fillet welds "a values" shall be calculated.

Question from:

Name TURNER Mike

Company ENERGY ATKINS ***Country*** UK

Date 2013-04-22

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-006_2013_ACP

Type of question: **Technical**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-006-2013	2013-04-22	2013-05-22	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3:2012, 13.3.3.9

Question

Subject: Design of the secondary steelwork (Edition 2002 of EN 13480-3)

Question/comment: We intervene in the assessment of the design of the machinery room piping, for which the normative reference is the standard EN 13480-3 Edition 2002. Concerning the design of the secondary steelwork, it is written in the version V1 of EN 13480-3 (2002) in paragraph 13.3.3.9 : *"Intermediate or secondary steelwork supplied for supporting the pipe shall be designed in accordance with ENV 1993. ».* We understand that the person in charge of the design of the secondary steelwork shall necessarily justify the design of secondary steelwork following ENV 1993.

Questions 1 to 4 from EDF – see Annex 1 of the Report of the 6th Meeting of CEN/TC 267/WG 8/MHD (Maintenance Help Desk of EN 13480 series) held on 23rd October 2013 (AFNOR – Paris)

Answer proposed by the author of the question

Concerning the design of the secondary steelwork for which the reference is EN 13480:2002, we think that the 2006 modifications are corrections (that it was an error in the version V1) and therefore there is no problem to use rules of paragraph 13 and the ones of Appendix L to justify the design.

Answer of the maintenance group

Concerning the design of the secondary steelwork, there is no problem to use rules of clause 13 and the ones of Appendix L to justify the design.

Technical question to be transferred to the working group CEN/TC 267/WG 3 "*Design and calculation*" for further study.
Proposal for modification of the sentence through the current revision of EN 13480-3:2012:
*"**Alternatively,** intermediate or secondary steelwork supplied for supporting the pipe shall be designed in accordance with ENV 1993. Secondary steel work shall fulfill the requirements of 13.3.7.1"*

Question from:

Name BOUCHER Juliette

Company EDF ***Country*** FRANCE

Date 2013-04-22

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-007_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-007-2013	2013-04-22	2013-05-22	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3, 12.3.3-1/12.3.4-1

Question

Subject: Seismic loads and thermal expansion

Question/comment:

I have to do an analysis where I have:
- seismic loads,
- normal thermal expansion
- exceptional thermal expansion.

Seismic conditions are considered in equation 12.3.3-1.
Normal thermal expansion is considered in equation 12.3.4-1.
How is it considering exceptional thermal expansion?
As is it exceptional should I considered it in equation 12.3.3-1 or should I consider it in equation 12.3.4-1 with a different value of fa? Moreover if thermal expansion is considered in equation 12.3.3-1, should I combine it with seismic loads?

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

Indeed, this load case is not planned in EN 13480.

Answer of the maintenance group

The exceptional thermal expansion loads are not defined and not covered in EN 13480-3:2012.

Question from:

Name BONNEMAIRE Emilie

Company ECEGELEC CEM ***Country*** FRANCE

Date 2013-04-22

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-008_2013_ACP

Type of question: **Correction**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-008-2013	2013-05-15	2013-06-15	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3, clause C.2.3

Question

Subject: EN 13480-3 - C.2.3 « *Maximum spacing for defined conditions* »

Question/comment:

For a pipe PN10 (but this remark is applicable for all PN of the abacus), the formula for the spacing of the supports is

LG = LG = 0.324 x DN ^{0,71}
With LG a length in mm and DN, dimensionless number (but comparable to mm).
For a DN 200 PN10: LG = 13.9 mm.

Answer proposed by the author of the question

Proposed answer(s)/correction(s):

I think it is actually:
- to express in meters LG, LG = 13.9 meters
- to replace 0.324 by 324 in which case we get LG = 13 940 mm.

Answer of the maintenance group

LG is expressed in m, DN is dimensionless.

Question from:

Name COUSINEAU Alban

Company ANVIS INDUSTRY SAS ***Country*** FRANCE

Date 2013-05-15

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-009_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-009-2013	2013-06-06	2013-07-06	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3, clauses 6.6 /D.4.3

Question

Subject: Stud bolt length for use with EN 1092-1 flanges
Question/comment: The use of EN 1092-1 flanges has become more and more common. As this standard does not seem to address (minimum) stud bolt length like ASME B16.5 does, or makes any other recommendation of thread engagement for bolts behind the nut, it is uncertain if full thread engagement behind then it is required, or if only a portion of the nut has to see thread engagement. Second, it may be expected that any code of construction (EN 13480) that uses a harmonized component standard (like EN 1092-1) would give more information on this subject. EN 13480-3 does not seem to do this for EN 1092-1 flanges. As an example, ASME B31.3 and ASME Section VIII Division 1 both make statements on the subject of thread engagement, apart from the fact that the component standard they reference too (ASME B16.5) also has a listed stud bolt length. Furthermore, other standards referenced in EN 1092-1, like EN 1515-1 and -2 do not cover the subject of minimum stud bolt length or minimum thread engagement behind the nut. Therefore, the question is; what is the minimum required length for use of stud bolts in EN 1092-1 flanges, when applied in an EN 13480 piping system?

Answer proposed by the author of the question

Proposed answer(s)/correction(s): A proposed answer could be that the minimum bolt length shall be determined by calculation, which is based on a minimum of 2 threads engaged behind the nut, and add such a phrase to EN 13480. Another possibility is to make up a standard that foresees in this, or revise EN 1092-1 with the same goal, i.e. adding minimum bolt lengths.

Answer of the maintenance group

The minimum bolt length shall be determined by calculation, which is based on a minimum of 2 threads protruding behind each nut.

Question from:

Name Hubert Velten

Company ZETON BV ***Country*** THE NETHERLANDS

Date 2013-06-06

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 3-010_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
3-010-2013	2013-08-30	2013-09-30	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
3			EN 13480-3, clause 5.2.2.1

Question

Subject: Which elongation should be used to decide the nominal design stress for austenitic steels?

Question/comment:

There is a statement for the calculation of nominal design stress for austenitic steels as per different elongation in clause 5.2.2.1 in EN 13480-3:2002, but in Table 6 in
EN 10216-5 2004, there are elongations both in longitudinal and transverse direction, and these two elongations are different.

So which elongation should be used to decide the nominal design stress?

Answer proposed by the author of the question

—

Answer of the maintenance group

The lowest elongation shall be used to decide the nominal design stress.

Question from:

Name Huo Zhixin

Company Alstom Thermal Power ***Country*** CHINA

Date 2013-08-30

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 4-001_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
4-001-2013	2013-07-08	2013-08-05	2013-10-23

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
4			EN 13480-4:2012, Clauses 3 + 9.14

Question

In EN 10253-2 and -4, there is no definition of cold and hot formed?

Is the definition of hot and cold formed fittings in EN 10253 the same as the definition in EN 13480-4?

Quote from EN 13480-4:2012:
"*3.3 cold forming*

3.3.1 cold forming for ferritic steels forming at temperatures 20 °C to 30 °C below the maximum permissible temperature for post-weld heat treatment in accordance with Table 9.14.1-1

3.3.2 cold forming for austenitic steels forming at temperatures below 300 °C

3.4 hot forming for ferritic steels, forming at temperatures at or above the maximum permissible temperature for post-weld heat treatment in accordance with Table 9.14.1-1"

Answer proposed by the author of the question

—

Answer of the maintenance group

Terms and the corresponding definition of cold- and hot forming may also be used for production of butt-welding pipe fittings according to EN 10253-2 and -4 as defined in EN 13480-4:2012/A1:2013, see below.
The terms cold- and hot forming are especially used for an "active" bending-process of straight pipe to "elbows" or better to bending. Cold- and hot forming in the wording of EN 10253 may also include procedure for elbows according to the Hamburger-Verfahren or forming of plates into half shells for elbow for later longitudinal welds.
It is recommended to ECISS/TC 29 to add under clause "*Terms and definition*" these expressions in the same way as in EN 13480-4:2012/A1:2013 (Publication August 2013).
Definitions from EN 13480-4:2012/A1:2013: **cold forming** "*forming at ambient temperature, but not below + 5 °C*" - **hot forming** "*for ferritic steels, forming at temperatures at or above the maximum permissible temperature for post-weld heat treatment; for austenitic and austenitic-ferritic steels at temperatures above 300 °C*".

Question from:

Name FRANSSEN Kelly

Company TEBODIN Netherlands B.V. ***Country*** Netherlands

Date 2013-07-08

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 5-001_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
5-001-2013	30/09/2013	23/10/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
5			EN 13480-5:2012, Table 8.4-3

Question

EN 13480-5:2012 (Issue 1 - 2012-06)
Subject : Acceptance criteria for slag inclusion, flux inclusion and oxide inclusion

EN 13480-5 : 1**) w = 0.3 t, maximum 3mm** and **depending of the application: 1 < t ≤ 25mm**,
w= maximum size of cavity (see foot note table 8.4-3)

1) All defects with width or lenght over 0,3t or max **3** mm are not acceptable for thickness up to **25** mm.
a) Example : pipe th **7,11** mm max acceptable width or lenght is **2,13** mm ;

2) For thickness over **25** mm
a) Example : pipe th **55,88** mm max acceptable width is **3** mm and lenght according to **EN 12517 lev. 2** is **50** mm.

Answer proposed by the author of the question

Proposed answer(s)/correction(s):
A. **w = 0.3 t, maximum 3mm, and t ≤25mm:**
w is width otherwise is non correct the requirements for gas cavity (**2015** & **2016**)
a) For thickness up to **25** mm : all defects with width over 0,3t or max **3** mm are not acceptable;
Example : pipe th **7,11** mm max acceptable width **2,13** mm and lenght according to **EN 12517 lev.2** is **7,11** (l≤t max 50 mm);
b) For thickness over **25** mm
Example: pipe th **55,88** mm max acceptable width **3** mm and lenght according to **EN 12517 lev. 2** is max **50** mm (l≤t max 50 mm).
B. **w = 0.3 t, maximum 3mm, and l (lenght) ≤ t ≤ 25mm** :
a) All defects with width **0,3 t** or max **3** mm and lenght **l≤t** or max **25** mm are acceptable;
Example : pipe th **7,11** mm max acceptable width **2,13** mm and lenght max **7,11** mm;
Example : pipe th **55,88** mm max acceptable width **3** mm and lenght **25** mm.

Answer of the maintenance group

Table 8.4-3 "*Additional requirements for acceptance criteria for internal imperfections detected by RT*" has been deleted by the recent Publication of the new Amendment EN 13480-5:2012/A1:2013 in August 2013. This modification has been also integrated into the Issue 2 of EN 13480-5:2012
(Issue 2 – 2013-08) recently published by CEN on 2013-08-28.

We reference EN ISO 5817 only and the acceptance level depends on the service of the piping.

Question from:
Name Francesco ROMANO
Company IREM SpA ***Country*** Italy
Date 2013-09-30

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 5-002_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
5-002-2013	16/10/2013	23/10/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
5			EN 13480-5:2012, Table 8.2-1

Question

Subject : Table 8.2-1 of EN 13480-5:2012/A1:2013

Question/comment :

The 2013 amendment no longer shows Material Group 11 (CEN ISO/TR 15608) in Table 8.2.1 (Extent of Testing).

How to group materials which were in Group 11 before (example : ASTM A333 Gr.6) ?

Answer proposed by the author of the question

—

Answer of the maintenance group

Material Group 11 has been deleted from Annex A of EN 13480-2:2012.

At the moment, PMA shall be performed considering the requirements from EN 13480-2:2012 for materials not included in Table A.1. This shall include restrictions given in Table 4.1-1.

Materials with carbon content of max. 0,25% are grouped in group 1 of Table A.1.

Question from:
Name Udo PÜTZFELD
Company TGE GAS-Engineering GmbH ***Country*** Germany
Date 2013-10-16

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 5-003_2013_ACP

Type of question: **Interpretation**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
5-003-2013	24/05/2013	24/06/2013	23/10/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
5			EN 13480-5:2012, clause 9.3.1

Question

Subject: Question on 9.3.1 and its implementation.

Question/comment:

The first sentence says "*All piping constructed in accordance with this European Standard shall be subjected to a proof test ...*" The last sentence says, "*The proof test shall be made when required*'. Is this not a contradiction?

Answer proposed by the author of the question

Proposed answer(s)/correction(s): Personally, I interpret these two sentences as follows:
- The first sentence refers to pipelines of KAT I and higher.
- The last sentence refers to the pipes of KAT 0 and lower.

Is this interpretation correct? I wonder if you can agree to this interpretation.

Answer of the maintenance group

The whole sub-clause 9.3.1 has been revised in the new issue of EN 13480-5:2012 (Issue 2 – 2013-08).

Question from:
Name Matthias LOCKEMANN

Company MAN Diesel and Turbo SE ***Country*** Germany

Date 2013-05-24

European Committee for Standardization
Comité Européen de Normalisation
Europaïsches Komitee für Normung

EN 13480 MHD
form 5-004_2013_ACP

Type of question: **Technical**

Registration number	*Date of submission*	*Target date for answer*	*Date of acceptance*
5-004-2013	23/10/2013	23/11/2013	19/11/2013

Part number	*Page number*	*Subclause number*	*Reference of the standard used*
5			EN 13480-5:2012, clause 7.3.1

Question

Subject: Question on 7.3.1 – EN 13480-5:2012
Question/comment:
Qualification of a WPQR for piping to be applied under EN 13480 plus PED.
On EN 13480-5 clause 7.3.1 refers that WPS shall be approved as per EN 13480-4, clause 9.3 which refers to EN ISO 1561x series.
At particular case is EN ISO 15614-1, that mentions on clause 7.4.5 – «*The absorbed energy shall be in accordance with the appropriate parent material standard unless modified by the application standard* ».
On this particular case, the acceptance criteria for impact testing is the required by PED (27J@service test i.e. -196ºC) or other (if so which one)?
(Base material: 1.4301)

Answer proposed by the author of the question

—

Answer of the maintenance group

This issue/question has been identified.

Technical question transferred to European working groups CEN/TC 267/WG 5 "*Inspection and Testing*" and CEN/TC 267/WG 4 "*Manufacturing and installation*" in charge of the development of EN 13480-5:2012 "*Metallic industrial piping - Part 5: Inspection and testing*" and EN 13480-4:2012 "*Metallic industrial piping - Part 4: Fabrication and installation*".

Corresponding Amendments will be drafted in 2014 to modify EN 13480-5:2012 and EN 13480-4:2012 accordingly.

Question from:

Name Nuno RAMALHETE

Company SMM S.A ***Country*** Portugal

Date 2013-10-23