

Updated NORSOK standard D-010 webinar Question Report		Actual Start Time
Webinar ID: 899 1635 3854		28/09/2021 8:26
	# Question	32
Question Details		
#	Question	Answer(s)
1	The NORSOK D-010 standard is considered as a Standard (equivalent to being a statutory requirement in Norway and perhaps in the North Sea) while in the U.S. we have API Standards/Requirements that might not be considered as a statutory requirement but more as a Guidance Principle - leaving a lot of discretion to each operator to comply. What are your thoughts on this.	Answered online by Arild
2	Why is NORSOK D010 referred to as a Standard yet classified as a Guideline in the legislative heirarchy?	Answered online by Arild
3	The requirement from a design perspective that we have a minimum robust 2 barrier throughout the life cycle of a well may not be met in certain types of onshore wells (e.g. shale horizontal wells). How do we address this - from a regulatory perspective (unless we consider the cement as an independent competent barrier in all cases which may or may not be true in all cases). But we still do not want to impose a prescriptive	According to the principles on the Norwegian regulations the cement is the barrier, e.g. behind casing. The cement quality needs to be verified.
4	For deepwater wells (including deepwater HPHT) is there a discussion of requiring a minimum 3-barrier design - in the event one barrier fails so that we still have the minimum 2-barrier in place throughout the remaining life of the well.	Answered online by Arild
5	how do we know if the section/s in d-010 are being revised and section not being revised as the process are taking a bit of time.	Answered online by Arild
6	Are these comments raised during pre-revision and industry hearing available publicly? To understand if there were comments not included and to understand the reason on why those were discarded.	Answered online by Arild
7	What took this update so long (2013)?	Answered online by Arild
8	does Norwegian Regulations specifically mention requirements to use D010?	Thats correct this was mentioned by Arild during presentation
9	Hello, We are half way into the presentation. When will we get to the meat of the discussion - the areas that were updates, changed and deleted. We will also discuss the overall impacts to our existing potential operations.	thanks for reminding
10	Working in mature field, we have to deal with old wells which were constructed in 30-40 years ago. Such wells are not always in compliance to NORSOK D-010 requirement especially in terms of design. How such wells are handled in Norway or North sea? As far as not indicating the barrier failure, such old wells are simply accepted? Or case by case judgement based on the specific well condition and risks for each wells?	Answered online by Arild
11	You said it's volunteer work, so what is the credibility of the technical contents? I respectfully find several issues especially in casing design that should have been addressed in July 2013	It is volunteer work in the sense that the specialists competence persons participating in the work are allowed by their respective companies to participate, paid by the company.
12	How a cap rock becomes a barrier when drilling through it and no casing set and cemented?	Then it is not a barrier. Except if a cement plug is set in the formation.

13	Maybe this is getting too technical/ specific. But looking at the EAC Table 29 - Completion string component. It mentions in the design, construction and selection section point 4: valves in the completion string above the production packer shall be tested in accordance with the leak criteria in ISO 14310 - which is for packers and bridge plugs. Just wondering how this applies to valves when it points towards API 19G2 (Gas-lift valves) which has a different leak requirement for V0 vs the one given in 14310? DHSVs and ASV's also have their own EAC tables. So it was just maybe to clarify which Valves table 29 applies to?	This is a bit technical. But your comment will be brought forward to Standard Norway since you may have a valid comment to the content here.
14	There is a lot of emphasis on the testing, what about the minimum maintenance requirement for valve/s or evaluation of barrier condition (tubing/casing) during operational phase through logging will it be a section on this.	Maintenance of the well is covered under the general requirements in the Norwegian rules and regulations. Thus, this is not covered in D-010.
15	Any guideline for how old the cement log can be referred for evaluating barrier (e.g. rock to rock barrier)?	Answered online by Arild
16	Does the new revision includes a specific requirement for the minimum length of "good" cement for setting the production packer?	Yes.
17	How closely does ISO/TS 16530-2 Well Integrity standard align with NORSOK D-010 standard	Not at all. The ISO standard has a different scope
18	I hope that Arild will explain his comments about MPD more fully? What does he mean by RCD and non-kill MW as part of the barrier system??	RCD=Rotating control device. Non-kill MW; cannot find this in the document.
19	what are the minimum mechanical properties required for cement	Not described in D-010 as such. D-010 requires proof of sufficient strength.
20	How does NORSOK envision getting two barriers for an open water situation with SWF potential?	What is SWF? I cannot find this abbreviation in D-010
21	When you do Perforate/wash/cement, how can you define the cement behind the casing and the plug inside as primary and secondary barrier when it is the same cement slurry?	The premises are defined in the figures of same. A continuous cmt plug may be defined as two barriers.
22	Leaving the possibility open to 'risk assess' and drill a well with SWF potential with only one barrier seems to leave the problem of SWF unsolved.	Cannot find the abbreviation in D-010, what is SWF?
23	What are the requirements for 'formation' to serve as a barrier?	See EAC 52
24	Any comments on use of Bismuth/Thermite and Resins for use as Alternate Barrier Materials for P&A jobs.	These are considered. See EAC 55 Alternative barrier material
25	What did Arild mean when he said that cement will degrade over time? What is the time scale that he envisions?	I have no time scale. The degradation depends on many parameters. We regard eternity as 500 years, this is the maximum timespan that is evaluated.
26	are there any guideline on how to define maximum acceptable leak rate for valves at X mass or down hole barrier?	Yes, in the relevant EACs

27	For DHSV there are some acceptable leak rate in standard literatures	Yes, check relevant API and ISO standards.
28	1) How are digital records seen as compliant with documentation, any specific requirements to them? AND 2) Have the new update addressed Well Integrity Management software requirements?	Means of keeping records is not addressed in D-010, there is a requirement to maintain records. Applicable software is not addressed in D-010
29	Can we see the result from the last surveys?	Yes, by asking Standard Norway. They keep the records. Use mail address given in the presentation.
30	any changes on the leak rate acceptance criteria? is the same or it is now following the changes In iso I.e api 14b vs api 6av2 calculation.?	API 14B is a normative reference in D-010
31	Now that I have seen new add on, my submission in connection to previous question is that I raised several issues specific to casing design in 2014 and were discussed for months and subsequently agreed by thea tech group. However it did not make it to this revision hence my concern on credibility. I am an active member of API sub committee 5 and being based in Denmark available for short session to highlight the issues. Aside on positive note the well Barrier topic is covered robustly by D010.	Please forward to Standard Norway, such that this may be taken into account in the next issue of D-010. Casing design is addressed in clause 6.6
32	Para abandonar un pozo temporal, ¿cuántas barreras se colocan como minimo?	Minio dos