INTRODUCTION

"Time flies when you're having fun". Seven months have passed since the publication of our previous issue. During this period, a lot has happened. This issue looks back on a successful series of virtual meetings and workshop sessions, and sheds light on the next steps regarding our possible scope extension and our cooperation with API and IOGP. Your feedback on this Communiqué is valued. We would also appreciate if you forward this Communiqué to your business relations to engage more stakeholders in our activities.

NEW PUBLICATIONS IN Q3 AND Q4 OF 2020 AND Q1 OF 2021

ISO/TC 67 celebrated nine publications in past three quarters (excluding amendments):

- ISO 15156, Petroleum and natural gas industries — Materials for use in H₂S-containing environments in oil and gas production
  — Part 3: Cracking-resistant CRAs (corrosion-resistant alloys) and other alloys [4th edition]
- ISO 15663, Petroleum, petrochemical and natural gas industries — Life cycle costing [1st edition, merger of 3 parts]
- ISO 19901-10, Petroleum and natural gas industries — Specific requirements for offshore structures — Part 10: Marine geophysical investigations [1st edition]
- ISO 21857, Petroleum, petrochemical and natural gas industries — Prevention of corrosion on pipeline systems influenced by stray currents [1st edition]
- ISO 27509, Petroleum and natural gas industries — Compact flanged connections with IX seal ring [2nd edition]

Congratulations to the project leaders and subject-matter experts with the publication of these ISO deliverables. This nicely illustrates that ISO/TC 67 continues to deliver standards that respond to global developments, both by developing new documents and by revising existing ones.
Due to the COVID-19 pandemic, the planned face-to-face ISO/TC 67 plenary meeting in Beijing on 14 and 15 October 2020 was held virtually. The intended host of this plenary meeting, the China National Petroleum Corporation (CNPC), was warmly thanked for their kind offer and extension of the offer to host a future plenary meeting. This change of plans also affected the agenda of the meeting. Rather than running two full-day sessions with several interactive and networking moments, the virtual meeting was condensed to two half-day sessions focusing on issues that were essential for progressing the maintenance of the ISO/TC 67 standards portfolio and for which a formal resolution was required. To facilitate discussion on other topics and relevant developments, online workshop sessions were organised on 12 October 2020 (see "Successful IOGP-ISO/TC 67 workshops”).

Organising the ISO/TC 67 plenary meeting virtually offered the opportunity for stakeholders who normally do not attend face-to-face meetings, to participate in this meeting. This was also demonstrated by the high number of delegates that joined the meeting from all parts of the world. Mr Philip Smedley, chairperson of ISO/TC 67, expressed his strong appreciation for the flexibility shown by the ISO/TC 67 members in continuing their standardisation work in times where no physical meetings can take place and many offices are inaccessible. He applauded the smooth transition made to virtual standards development and recognised this is a big accomplishment.

Outcomes of the ISO/TC 67 plenary meeting include but are not limited to:

✓ The ad-hoc group on green manufacturing has delivered its report and ‘position paper’ about how ISO/TC 67 could reduce the industry’s environmental footprint by introducing concepts linked to the circular economy in its standards portfolio. It was agreed that the (subsequently established) chair’s advisory group will elaborate on aspects related to green manufacturing.

✓ The ad-hoc group on improved and enhanced oil recovery (IOR/EOR) has delivered their proposals for standards that might be needed in support of safe and (cost-)effective application of IOR/EOR. It was recommended that these standards should focus on EOR and are to be developed by either a new subcommittee or working group. Interested experts are invited to participate in these standardisation activities.

✓ The advisory group on digital implementation provided an update about their activities, divided in three tasks: 1) developing authoring guideline with best practices for smooth digital implementation of content, 2) developing sentence-centric tagging / mark-up scheme of content in standards, and 3) establishing data-centric, semantic web-based, open code digital implementation solution(s).

✓ The task force on communication provided as status update about the ongoing and planned activities to reach out to both stakeholders involved in ISO/TC 67 and stakeholders who could benefit from the standards developed by ISO/TC 67. It was agreed to transform this task force in an advisory group on communication. Ideas for communication tools and targeted audience are welcome.

With the publication of ISO 15663:2021, the oil and gas sector has an up-to-date document that specifies requirements for and gives guidance on the application of life cycle costing. Consequently, it creates value for the development activities and operations associated with drilling, exploitation, processing and transport of petroleum, petrochemical and natural gas resources. ISO 15663:2021, Figure 5 illustrates the life cycle costing methodology.
✓ Considering the ‘lower carbon standardisation agenda’ of the oil and gas sector and possible need for changing the title, scope and structure of ISO/TC 67 in that respect, it was agreed to establish a chairman advisory group that should deliver recommendations to ISO/TC 67 on these matters including green manufacturing as well as other topics that will be identified by its members.

✓ Following a short but constructive session about quality, conformance, reliability and cost aspects in ISO/TC 67 standards – mainly linked to the standards developed by ISO/TC 67/WG 2 ‘Operating integrity management’ and ISO/TC 67/WG 4 ‘Reliability engineering and technology’ – it was agreed to organise follow-up sessions.

The next ISO/TC 67 plenary meeting is scheduled for October 2021, which will be another virtual meeting due to the uncertainties surrounding the evolvement of COVID-19 pandemic and associated national and company travel restrictions.

TOKEN OF APPRECIATION FOR ALF REIDAR JOHANSEN

Alf Reidar Johansen, the (former) liaison officer on behalf of the International Association of Oil and Gas Producers (IOGP) in ISO/TC 67, retired at the end of last year. Given his long-lasting contribution to and outstanding support in developing international standards used locally worldwide for the oil and gas sector, ISO/TC 67 presented an appreciation award to Alf Reidar its plenary meeting on 14 October 2020, by co-incidence on the same day as World Standards Day. Unfortunately, this awarding took place virtually while Alf Reidar definitely deserved a farewell in the physical environment among his fellows. Hopefully, there will be an opportunity in future, as Alf Reidar offered to remain available for ISO/TC 67.

To quote Gordon Ballard, at that time IOGP’s Executive Director: "There are only very few people who can look back at a longer history with the Association than Alf Reidar and no-one shaped IOGP’s work on standards more than he did. The Norwegian, who graduated from the Gothenburg technical Institute, Sweden, as mechanical engineer and worked, among others, in shipbuilding, nuclear industry, inspection and certification of ships and site manager in the upstream industry, joined the Standards Committee 34 years ago representing today’s Equinor. He served as chair of the committee for 15 years, before becoming Standards Manager in 2008 and serving as the Standards Director the last 3 years. He significantly helped to re-establish ISO/TC 67 Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries back in 1989 and set up the Standards Summit meetings in 1995-96 that became the turning point for the oil and gas industry’s international standardisation. Alf Reidar also managed to establish the IOGP Interim and Standards Solution when the EU/US sanctions threatened to shut down the international standards work and finally but not the least worked hard to establish JIP33. I would like to take the opportunity to thank Alf Reidar for his outstanding efforts. His dedication and his sense of humour will always be valued and we are delighted that he will stay connected to IOGP as an Advisor and Ambassador for our Standards work."

COOPERATION WITH API AND IOGP

ISO/TC 67 has a long-lasting relationship with API (American Petroleum Institute) and IOGP (International Association of Oil & Gas Producers) to develop added-value creating standards for the oil and gas sector. Several sanction regulations that became effective about ten years ago challenged this relationship with initially a full dissociation between API and ISO. Important steps have been made to improve cooperation and coordination, also acknowledging that the sector needs to work together, especially considering the current economic climate.
API, IOGP and ISO/TC 67 regularly organise coordination calls to exchange the ongoing standardisation activities to avoid duplication of work. Coordination activities include agreement about which body will take the lead to revise a standard that was ‘co-branded’ in the past. The leadership of the committees responsible for managing their standards portfolio are also consulted in this process to obtain full commitment. To date, for most of these standards the way forward has been agreed:

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<td>37 (32%)</td>
<td>2 (2%)</td>
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<td>62 (53%)</td>
<td>83 (71%)</td>
<td>88 (76%)</td>
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Focus: 3 areas that will require dedicated sessions, in particular Subsea standards

WORK PROGRAMMES

The work programmes of ISO/TC 67 and API are available at the following websites:

ISO/TC 67 work programme – Standards developed under the IOGP umbrella are not shown in this work programme, until the draft standard has been transmitted from IOGP to ISO for ‘fast-tracking’.

I OGP standards solution projects – This overview is periodically updated based on newly approved project initiations by IOGP Standards Committee and publications of completed projects by ISO/TC 67.

API standards plan – This overview is periodically updated. API standards that are supplemented by ISO will be available as ‘read-only’ version during the development process via their IBR reading room.

MEETING CALENDAR

In the face of the COVID-19 pandemic and considering the instruction from the ISO Central Secretariat that all ISO technical meetings planned until 30 June 2021 must be held virtually or postponed until after that date [NB. This period can be extended depending on the evolution of the COVID-19 pandemic], the subcommittees of ISO/TC 67 have decided to meet virtually instead of postponing their meeting. The following meetings are scheduled:

✓ 28 and 29 April 2021: ISO/TC 67/SC 2 ‘Pipeline transportation systems’ (virtual)
✓ June 2021: ISO/TC 67/SC 6 ‘Processing equipment and systems’ (virtual, date to be confirmed)
✓ 28 and 29 September 2021: ISO/TC 67/SC 7 ‘Offshore structures’ (virtual)
✓ October 2021: ISO/TC 67 ‘Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries’ (virtual, date to be confirmed)
✓ November 2021: ISO/TC 67/SC 3 ‘Drilling and completion fluids, well cements and treatment fluids’ (date and venue to be confirmed)

Also working groups and project teams are entirely operating virtually to progress with their standards. For a few standards, solely working online seems to be impractical due to required interaction. Moreover, delay is caused by postponement of required testing to obtain validated data.
**TITLE AND SCOPE OF ISO/TC 67**

The world is changing and so does the oil and gas sector. With several oil and gas operators transforming to energy companies including adding renewables to their portfolio and announcing ambitious plans to significantly reduce their carbon footprint, it is also being discussed whether the current title and scope of ISO/TC 67 needs to be revisited to reflect this transformation. At the ISO/TC 67 plenary meeting in October 2020, it was agreed to establish a chair’s advisory group (CAG) that should deliver recommendations to ISO/TC 67 on the committee's title, scope and structure. Meanwhile, this CAG has been established with a good representation of the actors involved in ISO/TC 67. The CAG has organised several meetings to identify and prioritise relevant topics related to energy transition, and executed some mapping exercises to provide more insight in the interfaces and boundaries with other ISO and IEC technical committees, existing standards, and other relevant developments (e.g. demonstration and pilot projects). The CAG provided its first report at the extended ISO/TC 67 Management Committee meeting, showing seventeen topics of which some could be considered within the current scope of ISO/TC 67 while others will be discussed to be included in consultation with other technical committees to ensure good coordination and avoid duplication of scope (see slides below). The CAG intends to deliver its final recommendations in May 2021.

### SUCCESSFUL IOGP-ISO/TC 67 WORKSHOPS

With entering the virtual world and having condensed meeting agendas, IOGP and ISO/TC 67 took the opportunity to jointly organise separate workshops about relevant developments in the oil and gas sector which would otherwise have been discussed at their meetings. On 12 October 2020, two well-attended workshops were organised addressing 'lower carbon' and 'information and standards digitalisation'. A report of these workshops including the presentations is available at the ISO/TC 67 website.

IOGP Report 604 'Guidance on requirement development’ is a useful document for drafting technical content for digital application

Training modules ‘Requirements 101’ have been developed to support oil and gas sector in requirement writing

On 24 March 2021, the workshop 'requirement writing techniques for standards' was organised. Projects in the oil and gas sector are large and complex, and project execution can be negatively affected by unclear or ambiguous technical requirements. Greater precision in drafting requirements for use in the oil and gas sector will make projects easier to manage and reduce risk. This workshop provided the 90+ participants with tools on how to draft technical content as a boundary condition for effective digital application.

IOGP and ISO/TC 67 intend to organise more online workshops to engage the oil and gas community. Do you have ideas about topics to be addressed? Do you want to co-host / co-produce an online workshop? Don’t hesitate to contact the ISO/TC 67 Secretariat.
The ISO/TC 67 Management Committee organises bi-monthly a 1-hour virtual meeting with two timeslots allowing its members from both the East and the West to join at a convenient time. In addition, an annual 1-day face-to-face meeting is organised in the same week that the IOGP Standards Committee and CEN/TC 12 organise their meetings, normally in March. Due to the COVID-19 pandemic, the most recent annual meeting was also changed into a virtual half-day meeting, which took place on 25 March 2021. At this meeting, all subcommittees and working groups under ISO/TC 67 had their "4 minutes of fame" to present their highlights and barriers in progressing with their standards development activities. Also updates were provided about the chair's advisory group (see "Title and scope ISO/TC 67"), advisory group on communication, advisory group on digital implementation, and the developments related to establishing a new subcommittee or working group under ISO/TC 67 for developing standards in the field of IOR/EOR. By applying strict speaking slots, the meeting also had sufficient room for fruitful discussion.

In her status report about the ISO Central Secretariat, Kirsi Silander, the Technical Programme Manager for ISO/TC 67, encouraged ISO/TC 67 to identify to which UN sustainable development goals its standards contribute to illustrate the impact of standards in providing solutions for global challenges. This fits perfectly in the lower carbon standards agenda setting within the oil and gas sector.

CEN/TC 12 also 'celebrated' the publication of its first homegrown harmonised standard, i.e. EN 16808:2020, Petroleum, petrochemical and natural gas industries — Safety of machineries — Manual elevators.
IOGP Standards Committee Meeting

The members of the IOGP Standards Committee gathered online on 22 and 23 March 2021. IOGP is a valued liaison organisation of ISO/TC 67 by providing significant resources and offering their materials to enable ISO/TC 67 developing and maintaining the standards that respond to stakeholder’s needs and expectations (see also "Token of appreciation for Alf Reidar Johansen"). In this respect, the IOGP Standards Committee is an important contributor by identifying new topics, carrying out preparatory work, studies and research that can be used as input for standards, and sharing experiences and viewpoints also to coordinate activities.

Highlights of this IOGP Standards Committee meeting included, in addition to the report about the cooperation with API and ISO/TC 67 (see "Cooperation with API and IOGP") updates about:

- **JIP 33** 'Standardising Procurement Specifications'
- **JIP 35** 'Offshore Structures Specification Task Force'
- **JIP 36** 'CFIHOS – Capital Facilities Information Handover Specification'
- **DISC** 'Digitalisation & Information Standards Committee'

✓ Progressing a 'lower carbon agenda', focussing on flares and vents, electrification, carbon capture, utilisation and storage (CCUS), and energy efficiency after a prioritisation among the operators

Meanwhile the IOGP Standards Solution continues to deliver drafts for new and revised standards to support ISO/TC 67 in keeping its standards portfolio up to date while offering experts a safe environment for technical discussion on the content of these drafts

More Information

Contact the ISO/TC 67 Secretariat by e-mailing to energy@nen.nl or calling +31 15 2 690 326 for more information. Interested to take part? Contact your national standards body to get involved!