Committee plan 2019

NC 310 008 0050 'Arctic operations'

NEN: sets the standard

COMMITTEE PLAN 2019

STANDARDISATION COMMITTEE
NC 310 008 0050 'Arctic operations'

DATE
2018-12-28

Key driver is developing broadly supported and consensus-based international standards that are needed as part of the license to operate

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1 General details

1.1 Committee

The standardisation committee is entitled "Arctic operations" and has the administrative number 310 008 0050. This committee is linked to the standardisation committee "Gas and oil exploration and production" (NC 310 008). The standardisation committee falls under the responsibility of the policy committee "Energy resources, distribution and fuels".

1.2 Area of expertise

This standardisation committee is responsible for standardisation of operations associated with exploration, production and processing of hydrocarbons in onshore and offshore arctic regions, and other locations characterised by low ambient temperatures and the presence of ice, snow and/or permafrost.

1.3 Interest

1.3.1 Objective

The main objective of the standardisation activities is creating value-added standards for the oil and gas industries, preferably at global level and otherwise at European level. More specifically, the goals of the oil and gas industries are to:

- prepare standards required by the industry;
- prepare standards that are adopted worldwide;
- prepare standards that are recognised by regulators;
- publish standards that enable companies to minimise their specifications;
- deliver standards to the target dates on the agreed work programme.

More specifically, this standardisation committee aims to contribute to international standards that take into the account the specific environmental conditions and help define acceptable levels of safety and security for all facilities and processes associated with Arctic operations exploration.

1.3.2 Motivation

In view of business opportunities, oil and gas companies also show interest in Arctic regions in the light of promising oil and natural gas fields. However, severe weather conditions and lack of practical experience in cold climates result in great challenges for companies to provide safe and cost effective operations in these regions.

Over the last decades the oil and gas industry has accumulated very valuable practical experience and knowledge in onshore projects in cold climates on one hand and offshore projects in more

temperate conditions on the other. The vision is to build on and extend existing practical experience and solutions and to create a new set of international standards that take into the account the specific environmental conditions and help define acceptable levels of safety and security for all facilities and processes associated with Arctic operations exploration.

The Netherlands have a strong position, good expertise and a well-known reputation in the offshore industry (e.g. dredging, ship building, and marine operations). Several companies and institutes are active all over the world to serve the oil and gas industry. Their knowledge and experiences in different aspects of cold-climate and offshore exploration are welcome to develop internationals standards for the Arctic and other cold-climate regions together with other stakeholders from other countries.

1.3.3 Policy and regulation

The European Commission (EC) published its Joint Communication to the European parliament and the Council on an integrated European Union policy for the Arctic in April (**JOIN/2016/021 final**). This Joint Communication sets out the case for an EU policy that focuses on advancing international cooperation in responding to the impacts of climate change on the Arctic's fragile environment, and on promoting and contributing to sustainable development, particularly in the European part of the Arctic. Figure 1 summarises these three key points and the funding allocated.

Climate change
Climate change in the region is progressing more rapidly and more comprehensively than ever. As warming continues, ice-free summers in the Arctic may occur even as soon as in the next 20 to 40 years. The Arctic region itself also contributes to climate change, due to the gradual release of methane gases as the area warms up. To help the Arctic population to develop an ambitious climate adaptation policy, the EU is ready to work together with Arctic countries, their local populations and indigenous communities to:

- define international measures to limit black carbon and methane emissions;
- support international access to research facilities in the Arctic region (with research stations, scientific vessels, satellite observations with the Copernicus programme);
- create a network of marine protected areas and an international agreement to prevent unregulated fisheries in the central Arctic Ocean.

Sustainable development
The EU can contribute to the Arctic's need for improved socio-economic resilience*, with science, research and innovation projects.
As the Arctic region is suffering from underinvestment, the EU strategy will:

- redirect EU funding instruments to support innovation and infrastructure development to improve transport links and businesses;
- readdress the Copernicus programme and target research towards maritime safety through the surveillance and monitoring of vessel traffic.

International cooperation
The EU will continue to take part in international forums relevant to the Arctic, such as the Arctic Council, the Barents Euro-Arctic Council and the Northern Dimension. It will also:

- cooperate with other countries such as China, India and Japan on science and research;
- consult with Arctic indigenous peoples and local communities to ensure that their rights are respected and their views are reflected in the implementation of EU policies.

EU funding
The EU is one of the largest contributors to Arctic research: € 200 million have been committed from the EU budget since 2002. Over the period from 2014 to 2020, over € 1 billion from the European Structural and Investment Funds are being invested in the area in strategic fields such as research and innovation, support to small businesses and clean energy.

Figure 1 – Key points EU policy for the Arctic

In addition, the EC published its Directive on safety of offshore oil and gas operations in the European Union (**Directive 2013/30/EU**) in 2013. This European Directive has been transposed to national legislation and regulations in the field of mining and occupational health. Transposition should have been completed within two years after publication according to this Directive, meaning that the Directive has been enforced from 19 July 2016 for new installations, or after that date from the moment that transposition will be completed. The date of enforcement for existing installations is 19 July 2018 at the latest. The EC is also considering the possibility for applying product safety regulations to mobile offshore installations. Consideration (64) of Directive 2013/30/EU states that *"At Union level, it is important that technical standards are complemented by a corresponding legal framework of product safety legislation and that such standards apply to all offshore installations in offshore waters of Member States, and not just non-mobile production installations. The Commission should therefore undertake further analysis of the product safety standards applicable to offshore oil and gas operations."*

The Netherlands have published the "**Dutch polar strategy 2016-2020: Together for sustainable**" [in Dutch]. The Dutch polar policy is based on three key concepts: sustainability, international cooperation and scientific research. For both polar regions, the Dutch focus is on sustainability, conservation and management of the environment and continuously enhancing safety and sustainability criteria. It is recognised that Dutch companies can play a positive role in developing technologies for safe and sustainable operations in extreme conditions onshore, in coastal areas and offshore, and can contribute to sustainable economic development of the Arctic from that position. The Netherlands will promote the technological and regulatory cooperation with priority Arctic partners (companies, research institutions and relevant authorities). This may involve intergovernmental cooperation (e.g. cooperation between regulators) or non-governmental cooperation such as the ISO framework for developing private standards.

Another relevant issue concerns sanction regulations related to oil and gas activities imposed by the EU and USA against some countries that are also key players in the field of standardisation for Arctic operations (i.e. the Russian Federation). Participation in standardisation activities and publication of standards are not explicitly excluded from these sanction regulations. As long as this uncertainty has not been cleared, several stakeholders are very reserved in providing experts and sharing their expertise within the ISO framework. This has a major impact on the execution of the work programme. Various actions have been undertaken to get clarity from the European and US regulator in the past period; however, this appeared to become a long-lasting process. Meanwhile IOGP, the International Association of Oil and Gas Producers, provides the so-called **IOGP standards solution** to host the standardisation activities under its umbrella. Through this solution, standards have been published or are under development that otherwise would have been stuck in the system.

2 Structure and relations of committee

2.1 National structure

Committee	Name
NC 310 008 0050	Arctic operations

The standardisation committee is considered an expert group under the main standardisation committee **NC 310 008** 'Gas and oil exploration and production'. Figure 2 shows the organisational structure of this main standadisation committee as introduced late 2017, illustrating the position of Arctic operations (expert group 5) in the overall structure.

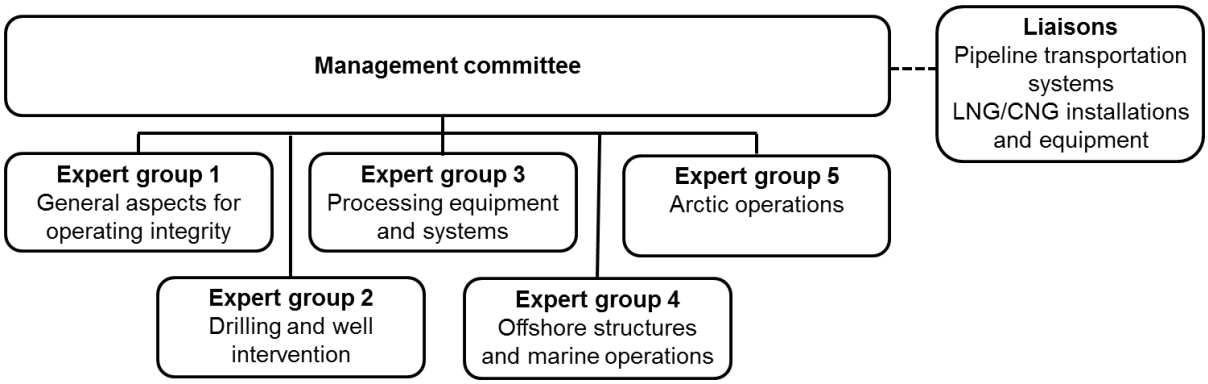

Figure 2 – Organisational structure of NC 310 008

2.2 International relations

Committee	Name	Membership [a]
ISO/TC 67/SC 7	Offshore structures [b]	P-member (via NC 310 008)
ISO/TC 67/SC 8	Arctic operations	P-member
CEN/TC 12	Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries	*Secretariat*

[a] CEN committees: the national committee is allowed to give advise and to vote on European developments mentioned. ISO committees: P-members (participants) are actively involved in the development of standards and are obliged to vote; O-members (observers) have access to the documents and are allowed to comment, but are not obliged to vote.

[b] It only concerns work items with a strong link to Arctic operations (i.e. ISO 19901-6 on marine operations and ISO 19906 on arctic offshore structures including manmade island and artificially land extension.

CEN/TC 12 is the European mirror committee for most of the standards developed by **ISO/TC 67** 'Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries' including the international standards within the scope of this standardisation committee. All **CEN members**, including the Netherlands, have the obligation to adopt European standards (i.e. EN publications) as national standards (i.e. NEN-EN publications for the Netherlands) and withdraw conflicting national standards. All European standards developed and published by CEN/TC 12 within the scope of this standardisation committee are or will be identical adoptions of international standards (i.e. EN-ISO publications, that automatically will become national standards like NEN-EN-ISO publications) through the so-called **Vienna Agreement**. In this way, CEN/TC 12 contributes to the vision of the oil and gas industry: 'International standards used locally worldwide'.

2.3 Other related activities

The Dutch Arctic Circle (**DAC network**) is a networking platform bringing together interested parties from the Dutch industry, knowledge and research institutions, (environmental) non-governmental organisations, and government to share their knowhow, skills and experience. This is achieved by sharing information, organising network meeting to get to know each other, and aligning activities, plans and projects where appropriate. The DAC network builds upon the internationally strong position and track record of the Netherlands in the field of Arctic knowhow and maritime entrepreneurship. International standardisation is considered one of the key items to work on (see also 6.1).

3 Committee composition and stakeholders categories

3.1 Composition of committee (as per 2019-01-01)

Member	Employer	Role [a]	Stakeholder category [b]
Koen Broker	Shell	Expert	1a
Mathijs Campman	Allseas Engineering	Expert	4a
Hein Daanen	Vrije Universiteit	Member	7
Jarno Dakhorst	NEN	Chairperson / secretary	-
Regina Haddorp	Allseas Engineering	Member	4a
Bin Hu	Allseas Engineering	Expert	4a
Wim Jolles	Canatec / Jolmar	Member	3a
Liz ter Kuile	Ministry of Foreign Affairs	Member	9
Frank Lange	Shell Global Solutions International	Member	1a
Roel Martens	Ministry of Foreign Affairs	Observer	9
Ian Reed	Shell International Exploration & Production	Expert	1a
Octavio Sequeiros	Shell International Exploration & Production	Expert	1a
Paul Verlaan	Shell	Expert	1a
Carey Walters	TNO	Member	7
Alain Wassink	GustoMSC	Member	4a
Gerard van der Weijde	TNO	Expert	7

[a] In the case an organisation is represented by more than one person, one person is considered member (normally the person who is present at national meetings) while the other persons are considered experts in one of more international working groups.

[b] See Appendix A for explanation of the stakeholders categories.

3.2 Missing categories stakeholders

Stakeholder category [a]	Reason of absence

[a] See Appendix A for explanation of the stakeholders categories.

NB. This section needs to be completed.

3.3 Review stakeholders

The standardisation committee ‘Arctic operations’ was established in 2012. Interested parties were identified, informed and invited to participate in the committee. Since then, stakeholders have been informed by press releases, articles in magazines, events and other means about ongoing developments and possibilities to take part. The next systematic review of stakeholders depends on the future activities of this standardisation committee (see also 6.1).

4 Publications

4.1 National work

This standardisation committee has not published home grown national standards.

4.2 European work

This standardisation committee has contributed to the European standards that have been published by **CEN/TC 12** as far as linked to the international work programme (see 4.3) The list of publications can be obtained by selecting the technical committee concerned.

4.3 International work

This standardisation committee has contributed to the international standards that have been published by **ISO/TC 67/SC 7** (see note b in 2.2) and **ISO/TC 67/SC 8**. The list of publications can be obtained by selecting the technical committee concerned and is also summarised in Table 1.

Table 1 – Overview of published international standards

Standard	Title	Year of publication
ISO 19901-6	Petroleum and natural gas industries – Specific requirements for offshore structures – Part 6: Marine operations	2009
ISO 19906	Petroleum and natural gas industries – Arctic offshore structures	2010
ISO 35101	Petroleum and natural gas industries – Arctic operations – Working environment	2017
ISO 35103	Petroleum and natural gas industries – Arctic operations – Environmental monitoring	2017
ISO 35104	Petroleum and natural gas industries – Arctic operations – Ice management	2018
ISO/TS 35105	Petroleum and natural gas industries – Arctic operations – Material requirements for arctic operations	2018
ISO 35106	Petroleum and natural gas industries – Arctic operations – Arctic metocean, ice and seabed data	2017

5 Ambition, objectives and services – The service profile

The annual client satisfaction survey amongst members of the NEN standardisation committees revealed the need for greater clarification of NEN's added value. This need will be met with establishing the service profile that provides insight into the needs of the standardisation committee and will allow NEN to optimise its added value for the standardisation committee. Human resources and other resources can then be deployed as effectively and efficiently as possible. The service profile is an agreement at the level of the standardisation committee; individual agreements with committee members are not included.

The service profile consists of four aspects:

1) **Influence –** Influencing the content and applicability of standards and other agreements in the interest of the own organisation, the sector and / or society.

2) **Consensus building –** Creating a broad support base / building consensus for solutions that are established in standards or other agreements.
3) **Network –** Access to a Dutch, European and / or international network of people and organisations.
4) **Knowledge –** Knowledge of standards and other developments related to technology, legislation and implementation of standards.

Various NEN services have been categorised under each aspect. Each aspect has been divided into a basic service level and additional service levels. Every standardisation committee will receive the basic service level as a minimum. It is up to the committee members to discuss the potential need for additional services.

The standardisation committee 'Arctic operations' has reviewed the current activities and possibilities related to the four aspects, which are summarised below.

1) Influence
   - participation in standardisation activities of ISO/TC 67/SC 8 and ISO 19906:
     — as expert in working group (i.e. writing standards);
     — as reviewer of draft standards (i.e. providing comments);
     — as delegate in plenary meetings (i.e. taking [strategic] decisions);
   - determining the (future) work programme of ISO/TC 67/SC 8 (i.e. defining new work items);
   - informing other bodies / organisations about ISO activities and the benefits of influencing the standardisation activities for their operations / business.

2) Consensus building
   - developing broadly supported and consensus-based international standards that are needed as part of the license to operate (i.e. key driver);
   - creating alignment amongst international standards (under development) and amongst the stakeholders involved;
   - members informing their rank and file and validating whether standards meet their expectations;
   - informing potential stakeholders through various channels and inviting them to participate.

3) Network
   - having access to the ISO/TC 67/SC 8 network and having the possibility to participate in working group and / or plenary meetings;
   - members participating in the Dutch Arctic Circle and representing standardisation committee where needed, also in view of international standardisation being identified as one of the priorities;
   - maintaining contact with Ministry of Foreign Affairs, also in view of Dutch polar strategy and role of international standardisation, and providing feedback to standardisation committee;
   - linking activities for oil and gas sector to other sectors active in the Arctic and where needed making distinction between open water and icy areas in the Arctic basin.

4) Knowledge
   - providing access to documents through ISOlutions (password-protected, web-based documentation system) and circulating important documents by e-mail with explanatory note;
   - working group reports are provided by experts during standardisation committee meetings;
   - knowledge sharing through participation / presentations in various meetings;
   - information sharing through news articles and other publications;

- developing and advertising informative materials like brochure of JIPs related to Arctic [1].

Figure 3 shows the service profile of the standardisation committee 'Arctic operations by illustrating the importance of the four aspects based on the current situation.

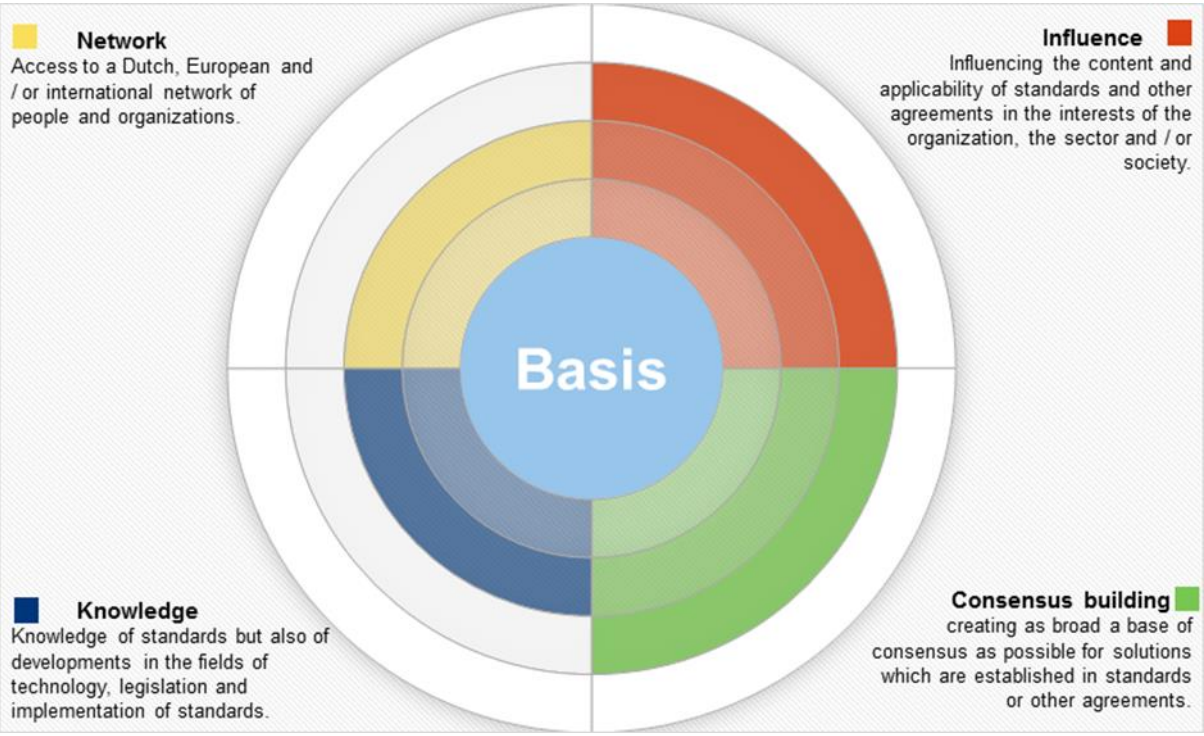

Figure 3 – Service profile standardisation committee 'Arctic operations'

6 Work programme, objectives and planned activities

6.1 National work

The standardisation committee 'Arctic operations' has defined the following activities in 2018 (and beyond):

— contributing to the development of the European and international standards listed in the work programme (see 6.2 and 6.3);

— increasing awareness amongst and engagement of the stakeholders and sector associations, like **IRO** (the Association of Dutch Suppliers in the Oil and Gas Industry and Offshore Renewables Industry) and **NML** (Nederland Maritiem Land / Maritime by Holland), about the international standardisation activities on Arctic operations (e.g. promotional material, articles, presentations);

— continuing, and where possible intensifying, cooperation with the Dutch Arctic Circle (**DAC network**) and its members, especially by actively contributing to the elaboration of the key item on international standardisation;

[1] This brochure with an overview of joint industry projects (JIPs) was developed to increase awareness of the Dutch knowhow and experience amongst the working group experts and delegates of ISO/TC 67/SC 8 during the meetings that were hosted by Van Oord in Rotterdam in April 2013.

— exploring possibilities how the standardisation committee can contribute to innovative (research) programmes, e.g. relevant programmes under the **TKI** (Top consortia for Knowledge and Innovation) or projects within the **Netherlands Polar Programme** of NWO (the Netherlands Organisation for Scientific Research).

— elaborating on new work item proposals related to competency and training programmes, and on developing 'apps' to make the requirements in standards more easily accessible to the user of the standard;

— further exploring possibilities to develop international standards for Arctic operations in general, irrespective of (economic) activity, to support sustainable development of this vulnerable region, also by building on experiences with oil and gas operations and taking into account the **Arctic operations handbook** (that may be revised as well in this context).

This standardisation committee has currently no home grown national standards on its work programme.

6.2 European work

CEN/TC 12

Scope

The scope of CEN/TC 12 is standardisation of the materials, equipment and offshore structures used in the drilling, production, transport by pipelines and processing of liquid and gaseous hydrocarbons within the petroleum, petrochemical and natural gas industries, excluding gas infrastructure from the input of gas into the on-shore transmission network up to the inlet connection of gas appliances (covered by CEN/TC 234), installation and equipment for LNG (covered by CEN/TC 282) and those aspects of offshore structures covered by IMO requirement (ISO/TC 8). The standardisation is to be achieved wherever possible by the adoption of ISO standards.

Structure

CEN/TC 12 has no active working groups as normally the all European standards are adoptions of ISO standards and the task of CEN/TC 12 is to ensure European participation in the ISO work and to ensure that the standards are not in conflict with European legislation.

Work programme

The overview of current active work items of CEN/TC 12 and their status in the development process can be reviewed in the **online work programme**. CEN/TC 12 took a decision to adopt all international standards developed by ISO/TC 67/SC 8 as European standards once the standard

Equipment for oil and gas: In 2019, CEN/TC 12 'Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries' will continue, in cooperation with ISO/TC 67, to maintain its standards portfolio. The main objective is to further improve safety, also in response to industry events (i.e. license to operate). Expected publications in 2019 include the revised editions of EN ISO 10418 'Offshore production installations - Process safety systems' and EN ISO 23251 'Pressure-relieving and depressuring systems'.

Another area of action is addressing climate change and adaptation. This is taken into account in the design and construction of offshore structures with a lifetime of several decades, which should withstand more extreme weather conditions (e.g. higher waves and wind speeds). In this context, in 2019, CEN/TC 12 and ISO/TC 67 will finalise a number of revised editions within the EN ISO 19900 series on offshore structures, including among others EN ISO 19900 on General requirements, EN ISO 19902 on Fixed steel offshore structures and EN-ISO 19906 on Arctic offshore structures.

*Special attention to activities of CEN/TC 12 including Arctic offshore structures in the **CEN-CENELEC work programme 2019***

is published by ISO. This process has been initiated in 2018 after the first publications by the end of 2017 (see Table 1).

6.3 International work

6.3.1 ISO/TC 67/SC 7

Scope
The scope of ISO/TC 67/SC 7 is standardisation of offshore structures used in the petroleum and natural gas industries.

Structure
ISO/TC 67/SC 7 has ten active working groups (as per 2019-01-01), of which two are directly of interest for Arctic operations:
- WG 8 'Offshore arctic structures'
- WG 9 'Marine operations'

Work programme
The overview of current active work items of ISO/TC 67/SC 7 and their status in the development process can be reviewed in the **online work programme** and is also summarised in Table 2, listing the relevant work items for Arctic operations.

Table 2 – Overview of active work items of ISO/TC 67/SC 7 related to Arctic operations

Standard	Title	Status [a]
ISO 19901-6	Petroleum and natural gas industries – Specific requirements for offshore structures – Part 6: Marine operations	WD
ISO 19906	Petroleum and natural gas industries – Arctic offshore structures	FDIS

[a] Explanation of the status categories (per 2019-01-01):
FDIS = final draft international standard – document for formal voting for publication amongst all ISO members
WD = working draft stage – standard under development by working group

6.3.2 ISO/TC 67/SC 8

Scope
The scope of ISO/TC 67/SC 8 covers standardisation related to arctic operations by the petroleum and natural gas industries.

Structure
ISO/TC 67/SC 8 has three active working groups (as per 2019-01-01):
- WG 2 'Escape, evacuation and rescue'
- WG 4 'Ice management'
- WG 5 'Arctic materials'

Work programme
The overview of current active work items of ISO/TC 67/SC 8 and their status in the development process can be reviewed in the **online work programme** and is also summarised in Table 3.

Table 3 – Overview of active work items of ISO/TC 67/SC 8

Standard	Title	Status [a]
ISO 35102	Petroleum and natural gas industries – Arctic operations – Escape, evacuation and rescue from offshore installations	DIS

[a] Explanation of the status categories (per 2019-01-01):
DIS = draft international standard – document for public enquiry amongst all ISO members

In addition to this work item, ISO/TC 67/SC 8 is elaborating on a possible new work item related to Arctic oil spill response and controls for working environment for which updated proposals will be presented in the course of 2019. Furthermore, a possible revision of ISO/TS 35105 to transform this technical specification into a full ISO document including a possible scope expansion with other materials, currently not covered in this technical specification, will be investigated, also building on the experiences with the application of ISO/TS 35105. Concerning the latter, ISO/TC 67/SC 8 will work together with ISO/TC 67/WG 8 "Materials, corrosion control, welding and jointing, and non-destructive examination (NDE)".

7 Memberships in working groups

The following experts participate in one or more working groups, noting that some working groups have no active work items and might be disbanded in near future:

Working group	Title	Expert
ISO/TC 67/SC 7/WG 8	Arctic offshore structures	Jolles, Lengkeek, Verlaan
ISO/TC 67/SC 7/WG 9	Marine operations	
ISO/TC 67/SC 8/WG 2	Escape, evacuation and rescue	Campman, Reed
ISO/TC 67/SC 8/WG 4	Ice management	Jolles, Reed, Wassink
ISO/TC 67/SC 8/WG 5	Artic materials	Hu, Walters

8 Evaluation and progress report

The planned ISO/TC 67/SC 8 plenary meeting for fall 2018 was postponed to 2019. For this reason, the standardisation committee ‘Arctic operations' didn't organise a meeting and only exchanged information by correspondence including the ballots on ISO documents under development. Several Dutch experts contributed to the development of these documents by participating in working groups and/or providing comments during the ballot stages.

Several members and NEN attended the DAC network meeting that took place on 6 June 2018. Prior to this DAC network meeting, a dedicated workshop session was organised in which the earlier presented idea to develop international standards for sustainable development of polar regions under Dutch leadership was discussed in more detail. A 'task group' has been created to elaborate on the results of this workshop session.

For communication purposes, the URL **www.nen.nl/arctic** was created in 2017, which directs visitors the web page of the standardisation committee that also contains a link to this committee plan as well as other relevant background information developed by the members of this standardisation committee.

9 Financing

9.1 Activities of standardisation committee

The standardisation committee 'Arctic operations' is responsible for the Dutch input and position with respect to the development of international standards for Arctic operations. Once the international standards have been published, the standardisation committee will also be involved in the maintenance of this standards portfolio by providing advice during the systematic reviews (i.e. confirm, revise or withdraw a standard).

Membership of the standardisation committee includes:
- participating in national meetings (at least prior to the ISO/TC 67/SC 8 meetings);
- access to ISO/TC 67/SC 8 documents and with that early access to information about future developments;
- possibility to participate as expert in one or more working groups under ISO/TC 67/SC 8 or working group for revision of ISO 19901-6 or ISO 19906;
- possibility to be part of the Dutch delegation in plenary ISO/TC 67/SC 8 meetings;
- possibility to comment on draft standards, new projects and other documents circulating for voting and comments, or propose new projects;
- determine the Dutch position jointly with other stakeholders;
- support on standardisation processes;
- networking with other stakeholders in the field of Arctic operations.

See also Clause 5 and 6.1 for the activities of the standardisation committee, to which members can contribute.

9.2 NEN services for standardisation committee

NEN provides the following services based on the planned activities:
- organising standards committee meetings including reporting (most likely 1 time in 2019);
- coordinating input of the Dutch vote, comments and position on documents, new work item proposals and strategy;
- providing support with information and documentation provision within standardisation committee (e.g. ISOlutions);
- providing support to experts in standardisation processes, and advice and support to delegates in plenary meetings;
- maintaining and where possible intensifying contact with interested parties in the Netherlands and beyond, like authorities, sector associations, knowledge institutes, and related standardisation committees;
- developing promotional materials, issuing press releases/news items, contributing to articles in magazines, and other activities to increase awareness of activities of this standardisation committee;
- representing standardisation committee in DAC network to bridge activities related to international standardisation including possibility to initiate process of developing international standards for sustainable development of the polar regions in general.

9.3 Financing standardisation committee

The secretariat's activities for the standardisation committee are estimated at 15 days of consultancy. The daily rate for consultants is € 1.168 (excl. VAT) in 2019. In addition, standardisation committees contribute to the policy committee with a surplus of 10 %. The participation fee (at organisational level)

is € 2.750. For small and medium-sized enterprises and research institutes a reduced fee of € 700 applies. Based on this fee structure, there is still a gap that needs to be bridged by attracting new members as a result of the activities planned for 2019.

APPENDIX A — EXPLANATION OF STAKEHOLDERS CATEGORIES

Clause 3 describes the committee composition and the stakeholders categories by using a number. This appendix provides an explanation of the eleven stakeholders categories that are distinguished for taking part in standardisation activities.

	Stakeholders	**Description**
1a	Direct users	End user of the service, process or product.
1b	Trade organisations of direct users	As a group, in the form of interest groups.
2a	Requirement-specifying organisations/clients	Organisations that determine the requirements which the product or service must meet. For example, clients. Legal requirements are determined by legislative authorities (see 9).
2b	Trade organisations of requirement-specifying parties	
3a	Consulting organisations	Organisations able to advise other stakeholders on specialist matters (e.g. engineering firms, advice agencies, consultancy firms).
3b	Trade organisations of consulting parties	
4a	Implementing/executing/service-provider organisations	Product standardisation: organisations that use/apply the product as part of their service to the end user (e.g. contractor, installer). Service standardisation: organisations that deliver a process or service to the end user (e.g. debt relief agency).
4b	Trade organisations of implementing/ executing /service-provider parties	
5a	Manufacturers/suppliers of main product	In product standardisation, this is the main producer/main supplier. In service standardisation, this category does not apply. The role of 'manufacturer/supplier' is fulfilled by the implementing, service-provider organisation.
5b	Trade organisations of manufacturers/ suppliers of main product	
6a	Manufacturers/suppliers of associated products and services	In product standardisation, this concerns manufacturers/suppliers of products such as raw materials, semi-finished goods or residual/waste products along the product chain. In service standardisation, this concerns providers of additional services.
6b	Trade organisations of manufacturers/ suppliers of associated products and services	

	Stakeholders	Description
7	Research and knowledge institutes	Institutions that carry out research independently of direct commercial interest. E.g. educational institutions, laboratories, research bodies.
8	Monitoring authorities	E.g. inspectorates, certification bodies.
9	Legislative authorities	Governments.
10	Existing/new instigators	Parties that undertake alternative initiatives comparable to NEN (standards, certification schemes, guidelines, etc.).
11	Influencers - wider context	Organisations (e.g. foundations, platforms) that are involved at a generic level.