

Supporting Document for the Arctic Council Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture

**Safety Systems Elements in Regulations of Norway, Canada, Greenland and the United States, and of the PAME AOOGG 2009**

This table contains 30 elements of Safety Management Systems regulated by selected Arctic countries. The regulations for countries not shown were not readily available for the construction of this table. This table will be updated as part of the Arctic Offshore Oil and Gas Regulatory Resource webpage. The report that this Table was developed for did not use this information to do a comparison or analysis, but the reader is welcome to use this information as appropriate.

<b>Safety Management Systems for Offshore Oil and Gas Operations in the Arctic</b>					
<b>Safety Management System Element</b>	<b>Norway</b> Petroleum Safety Authority (PSA) <a href="http://www.ptil.no/">www.ptil.no/</a>	<b>Canada</b> National Energy Board (NEB) <a href="http://www.neb-one.gc.ca">www.neb-one.gc.ca</a>	<b>Greenland</b> Mineral License and Safety Authority (MLSA) <a href="http://www.govm.in.gl/index.php/petroleum">http://www.govm.in.gl/index.php/petroleum</a>	<b>United States</b> Bureau of Safety and Environmental Enforcement (BSEE) <a href="http://www.bsee.gov">www.bsee.gov</a>	<b>Arctic Council Offshore Oil and Gas Guidelines 2009</b> <a href="http://www.pame.is">www.pame.is</a>
Objectives and Strategies (Goals)	<a href="#">C3 S7</a>	Part 2 Management System, <a href="#">5(1)</a> , <a href="#">5(2)(a, b)</a>	<a href="#">EO §19</a>	CFR <a href="#">§250.1900</a> ; <a href="#">§250.1901</a> ; <a href="#">§250.1909 (a)</a>	p26; p89
HSE Policies clearly stated or described	<a href="#">C2 S6</a>	Part 2 Management System, <a href="#">5(2)(a, b)</a> , <a href="#">8(a)</a> , <a href="#">9(a)</a>	<a href="#">EO chapter 6</a>	CFR <a href="#">§250.1900</a> ; <a href="#">§250.1901</a> ; <a href="#">§250.1902</a> ; <a href="#">§250.1909 (a, e)</a> ; <a href="#">§ 250.1912 (a)</a>	p26
Show how Management is Committed to HSE	<a href="#">C2 S6</a>	Part 2 Management System, <a href="#">5(2)(g, h, k)</a>	Pre-qualification procedure, <a href="#">EO §19</a>	CFR <a href="#">§250.1909 (a, e)</a> ; <a href="#">§250.1928(h)</a> ; <a href="#">§250.1932</a> ; <a href="#">§250.1933</a>	p27
Planning	<a href="#">C4 S12</a>	<a href="#">Part 2 Management System, 5(2)(j), 6(b, c, d)</a>	<a href="#">DG 1.2 EIA App 1, section 6</a>	CFR <a href="#">§250.1909 (g, h)</a>	p27
Documentation is current, valid and approved	<a href="#">C2 S6</a> ; <a href="#">C7 S24</a> ; <a href="#">C9 S42</a>	Part 2 Management System, <a href="#">5(2)(g, h)</a> , <a href="#">5(3)</a> , <a href="#">Part 3 Operator’s Duties, 17(1, 2)</a>	<a href="#">MRA 79-3</a> , <a href="#">EO §§ 19, 22, 23</a>	30CFR <a href="#">§250.1909 (g and 30CFR § 250.1910 (a, b [1,2,3]); § 250.1912 (f); § 250.1913 (e); § 250.1914 (a); § 250.1916 (d); § 250.1924 (b [4, 5]); § 250.1928; § 250.1929; §250.1931</a>	p27

Process for Periodic Review and Audit		<a href="#">Part 2 Management System, 5(2)(i)</a>	<a href="#">MRA 79.2, MRA 79.3, EO §15.3, §16.3, §17, §19, §20, §21</a>	<a href="#">CFR §250.1909 (d, j); § 250.1913 (c); § 250.1914 (e [1]); § 250.1916 (c, h); § 250.1920; §250.1921; §250.1922; §250.1924; §250.1925; § 250.1929</a>	p28
Continued improvement	<a href="#">C2 S6; C6 S23</a>	<a href="#">Part 2 Management System, 5(2)(b, i)</a>	<a href="#">EO, §19, 1), §28.2</a>	<a href="#">CFR §250.1909 (a, d, j); §250.1911 (3); § 250.1914 (e [1]); §250.1932</a>	p6
Measurement parameters and indicators (of the management system)	<a href="#">C3 S10</a>	<a href="#">Part 2 Management System, 5(2)(f, i), 8(a, h), 9(a, h)</a>	<a href="#">EO §19, DG 1.2</a>	<a href="#">CFR §250.1909 (a); § 250.1929</a>	
Mechanical Integrity		<a href="#">Part 2 Management System, 5(2)(e), 8(e), 9(e), Part 4, Equipment and Operations, Part 7, Measurements, 62</a>	<a href="#">EO §§30-33, DG chapter 5</a>	<a href="#">§ 250.1916</a>	
Operating Procedures/Work Processes	<a href="#">C4 S13</a>	<a href="#">Part 2 Management System, 6(b, c, d), 8, 9</a>	<a href="#">EO 19.6) DG 1.2, DG chapter 5</a>	<a href="#">CFR §250.1909 (g); § 250.1912 (a, 2); § 250.1913; § 250.1914 (f, g); § 250.1915 (a, b, c); §250.1930; §250.1931;</a>	p31-39
Internal Communications and Analysis	<a href="#">C2 S6; C3 S8;</a>	<a href="#">Part 2, 5(2)(f)</a>	<a href="#">MRA 79.3, EO chapter 2-3 (9[3,4,5,6]), 19.6)</a>	<a href="#">CFR §250.1909 (a, e); § 250.1913 (a, b, e); § 250.1915 (c);</a>	P27
Risk Management	<a href="#">C2 S4; C2 S5</a>	<a href="#">Part 2, Management System, 5(2)(c)</a>	<a href="#">MRA 53.4-6, 79.1; 79.3, EO chapter 6</a>	<a href="#">§250.1901 (a, b); §250.1911; §250.1913</a>	p27; p89
Risk Analysis	<a href="#">C5 S16; C5 S17</a>	<a href="#">Part 2, Management System, 5(2)(c); 8(b, c), 9(b, c)</a>	<a href="#">MRA 53.4-6, 79.1; 79.3, EO chapter 6</a>	<a href="#">CFR §250.1909 (h); §250.1911; § 250.1913 (d)</a>	p27; p89
Hazards Analysis		<a href="#">Part 2, Management System, 5(2)(c); 8(b, c), 9(b, c)</a>	<a href="#">MRA 79.1; 79.3, EO chapter 6, 8 (28, 29, 30-33), DG 1.2</a>	<a href="#">§250.1911; § 250.1913 (d)</a>	
Risk Acceptance Criteria	<a href="#">C3 S9</a>	<a href="#">Part 2, Management System, 8(c), 9(c)</a>	<a href="#">(MRA §79, EO §19.7-8) chapter 8 (28, 29, 30-33)</a>	<a href="#">CFR §250.1909 (g, h)</a>	
Safety/Working Environment Analysis	<a href="#">C5 S18</a>	<a href="#">Part 2, Management System, 8(b), 9(b)</a>	<a href="#">EO §§ 10-13, 38-40, DG 1.2</a>	<a href="#">CFR §250.1911(b) §250.1914 §250.1930; §250.1931;</a>	p38

Decision basis and criteria	<a href="#">C3 S11</a>	Part 2, Management System, <a href="#">8(c)</a> , <a href="#">9(c)</a>		30CFR <a href="#">§ 250.1910 (a)</a> ;	p89
Consent/Approval (API RP75 pre-startup review?)	<a href="#">C7 S25</a> ; <a href="#">C7 S26</a>	<a href="#">Part 2, Application for Authorization</a> , <a href="#">6</a>	<a href="#">MRA §§ 73-75, 86</a> , <a href="#">EO chapter 7, DG 1</a>	30CFR <a href="#">§ 250.1917</a>	
Training		<a href="#">Part 2, Management System, 5(2)(d)</a> , <a href="#">Part 3, Operator's Duties, 19(l)</a> , <a href="#">Part 10, Training and Competency, 72</a>	<a href="#">EO 19.4) §35</a>	<a href="#">§250.1901(b)</a> ; <a href="#">§ 250.1912 (e)</a> ; <a href="#">§250.1914</a> ; <a href="#">§ 250.1915</a> ; <a href="#">§ 250.1916 (b)</a> ; <a href="#">§ 250.1918(c)</a> ; <a href="#">§250.1928(f)</a> ; <a href="#">§250.1930(e)</a>	p40
Manning and Competence	<a href="#">C4 S14</a>	<a href="#">Part 2, Management System, 5(2)(d)</a> , <a href="#">Part 3, Operator's Duties, 19(l)</a> , <a href="#">Part 10, Training and Competency, 72</a>	<a href="#">EO 19.4)</a> , <a href="#">§22.3) §35</a> , <a href="#">DG 1.2</a>	CFR <a href="#">§250.1909 (f, i)</a> ; <a href="#">§ 250.1911 (a 2)</a> ; <a href="#">§ 250.1912 (e)</a> ; <a href="#">§ 250.1914 (b, c [2], d)</a> ; <a href="#">§ 250.1915 (a, b)</a> ; <a href="#">§ 250.1916(b)</a> ; <a href="#">§250.1921</a> ; <a href="#">§250.1922</a>	
Accountability for Contractors and all parties		<a href="#">Part 2, Management System, 5(2)(j)</a>	EO chapters <a href="#">2, 3</a> , and <a href="#">4</a>	<a href="#">§ 250.1914</a> ; <a href="#">§ 250.1915 (d)</a> ; <a href="#">§ 250.1924</a> ; <a href="#">§ 250.1925</a> ;	
Fit for place and purpose		<a href="#">Part 2, Management System, 5(4)</a> ; , <a href="#">COGO Act, 5.11(1, 2, 3)</a> , <a href="#">5.12(1, 2, 3, 4)</a>	<a href="#">MRA §§53</a> , <a href="#">EO chapter 6, DG 1</a>	<a href="#">§250.1901(a)</a> ; <a href="#">§ 250.1911</a> ; <a href="#">§ 250.1916</a>	
Collection, processing and use of data	<a href="#">C6 S19</a> ; <a href="#">C9 S42</a>	<a href="#">Part 2, Management System, 5(2)(f)</a> , <a href="#">6(i)</a> , <a href="#">8(g)</a> , <a href="#">11(b)</a> , <a href="#">Part 5, Evaluation of Wells, Pools and Fields, 49 to 55</a> , <a href="#">Part 5 Submission of Samples and Data, 53 to 55</a>	<a href="#">DG 2.1, 3, 11, 12</a> <a href="#">EIA 2, Appendix 1, 6</a>	30CFR <a href="#">§ 250.1910 (a, b [1,2,3])</a> ; <a href="#">§250.1911 (a2)</a> ; <a href="#">§ 250.1914 (e [2])</a> ; <a href="#">§ 250.1928</a>	
Reporting, review and investigation of hazards and accidents	<a href="#">C6 S20</a> ; <a href="#">C8 S29</a> ; <a href="#">C8 S30</a> ; <a href="#">C8 S31</a> ; <a href="#">C8 S32</a> ; <a href="#">C8 S33</a> ; <a href="#">C9 S36</a>	<a href="#">Part 2, Management System 5(2)(f)</a> , <a href="#">Part 11, Incidents and Near-misses, 75</a>	<a href="#">MRA §65, 79.1; 79.3</a> <a href="#">EO §§ 37, 19.8-12) chapter 6, 8 (28, 29, 30-33)</a> <a href="#">DG 1.2</a>	CFR <a href="#">§250.1909 (d)</a> and <a href="#">§ 250.1911 (1 [iv], 2)</a> ; <a href="#">§ 250.1913 (d, e)</a> ; <a href="#">§ 250.1919</a> ; <a href="#">§ 250.1928</a>	
Handling of situations/Emergency Response and Control measures		<a href="#">Part 2, Application for Authorization, 6(j)</a> , <a href="#">Part 11, Environmental</a>	<a href="#">MRA §64</a> <a href="#">EO chapter 9, §45.2</a> , <a href="#">DG 1.2</a>	30CFR <a href="#">§ 250.1918</a>	

		<a href="#">Reports, 86(1)(b), 86(2)(B)</a>			
Identification of the responsible person(s) for system establishment, maintenance and implementation		<a href="#">Part 2, Management System, 5(2)(k)</a>	EO chapters <a href="#">2, 3</a> , and <a href="#">4</a> , §19.3	CFR <a href="#">§250.1909 (b, c)</a> ; <a href="#">§250.1911 (2, 3)</a> ; <a href="#">§ 250.1916</a> ; <a href="#">§ 250.1920 (d [2])</a> ; <a href="#">§250.1930</a> ; <a href="#">§250.1931</a> ; <a href="#">§250.1932</a>	
Management of Change		<a href="#">COGO Act, 5.11</a>	<a href="#">EO §19.12</a> ), <a href="#">§23 DG 2.2</a>	<a href="#">§ 250.1912</a> ; <a href="#">§250.1928(c)</a>	
Information requirements	<a href="#">C4 S15</a> ; <a href="#">C9 S34</a> ; <a href="#">C9 S35</a> ; <a href="#">C9 S37</a> ; <a href="#">C9 S38</a> ; <a href="#">C9 S40</a> ; <a href="#">C9 S42</a>	<a href="#">Part 2, Application for Authorization and Well Approvals. 6 to 12</a>	MRA <a href="#">§§65, 82, 86.3</a>	30CFR <a href="#">§ 250.1910 (a, b [1,2,3])</a> ; <a href="#">§250.1911 (a, b)</a> ; <a href="#">§ 250.1913 (a, 8 and 10)</a> ; <a href="#">§ 250.1919 (a)</a> ; <a href="#">§ 250.1928</a> , <a href="#">§250.1930</a> ; <a href="#">§250.1931</a> ; <a href="#">§250.1932</a> ; <a href="#">§250.1933</a> ;	
Reporting Work Hours	<a href="#">C7 S27</a>	<a href="#">Canada Labour Code, Part II</a>	<a href="#">EO §36, DG 1.2</a>	<a href="#">Form BSEE-0131</a>	
Compliance Audits and Inspections	<a href="#">C6 S21</a>	<a href="#">Part 2, Management System 5(2)(i)</a>	<a href="#">MRA §86.2</a> , EO chapters <a href="#">2, 3, 5-6, 12</a>	<a href="#">§250.1904</a> ; <a href="#">§250.1921</a> ; <a href="#">§250.1922</a> ; <a href="#">§ 250.1924</a> ; <a href="#">§ 250.1925</a> ; <a href="#">§250.1928</a> ; <a href="#">§ 250.1929</a>	p28
Issues of Non Compliance	<a href="#">C6 S22</a> ; <a href="#">C10 S43</a>	<a href="#">Part 2, Management System 5(2)(i); COGO Act, Regulation of Operations, 16</a>	<a href="#">MRA §§ 89, 96.2</a> , <a href="#">EO chapter 14</a>	<a href="#">§ 250.1927</a>	
Enforcement	<a href="#">C10 S43</a>	<a href="#">COGO Act, Safety and Conservation Officers, 53 to 54, 58</a>	<a href="#">MRA §§ 89, 96.2</a> , <a href="#">EO chapter 14</a>	<a href="#">§ 250.1927 (b, c)</a>	
Safety culture			<a href="#">EO § 12, § 19.6</a> ), <a href="#">DG 1.2, 6</a>		

**For the United States:** (Current 12/10/13)

**30 CFR Subpart S—SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEMS (SEMS)** including Form BSEE-0131, Performance Measures Data

**For Canada:** (Acts and associated Regulations are current to 2012-02-20)

Canada Oil and Gas Operations Act (O-7) (COGO Act), <http://laws-lois.justice.gc.ca/eng/acts/O-7/FullTet.html>

- Canada Oil and Gas Drilling and Production Regulations (SOR/2009-315), <http://laws-lois.justice.gc.ca/PDF/SOR-2009-315.pdf>
- Canada Oil and Gas Certificate of Fitness Regulations (SOR/96-114), <http://laws-lois.justice.gc.ca/eng/regulations/SOR-96-114/FullTet.html>

Canada Labour Code, Part II, (R.S.C., 1985, c. L-2), <http://laws-lois.justice.gc.ca/eng/acts/L-2/FullTet.html>

- Oil and Gas Occupational Safety and Health Regulations (SOR/87-612), <http://laws-lois.justice.gc.ca/eng/regulations/SOR-87-612/FullTet.html>

**For Norway:**

Regulations Relating to Management and the Duty to Provide Information in the Petroleum Activities and at Certain Onshore Facilities (The Management Regulations)

[http://www.ptil.no/management/category401.html#\\_Toc280619385](http://www.ptil.no/management/category401.html#_Toc280619385)

**For Greenland:**

Health, Safety and Environment connected to hydrocarbon drilling activities in Greenland are regulated after:

- The Mineral Resources Act (“MRA”)(framework act), chapter 13, 14, 15: environmental protection, environmental liability, environmental impact assessment, chapter 17: health and safety for offshore installations  
[http://www.govmin.gl/images/stories/faelles/mineral\\_resources\\_act\\_unofficial\\_translation.pdf](http://www.govmin.gl/images/stories/faelles/mineral_resources_act_unofficial_translation.pdf)
- Executive order on health and safety in connection with offshore hydrocarbon activities in Greenland (draft, expected issued within a short while) (“EO”)  
<http://dk.nanoq.gl/Service/Hoeringsportal/Bekendtgoerelser/2011/sikkerhed%20og%20sundhed%20pa%20mobile%20offshoreanlaeg%20ifb%20med%20offshore%20kulbrinteaktiviteter%20i%20Grønland.asp>
- MLSA exploration drilling guidelines (DG)  
[http://www.govmin.gl/images/stories/petroleum/110502\\_Drilling\\_Guidelines.pdf](http://www.govmin.gl/images/stories/petroleum/110502_Drilling_Guidelines.pdf)
- MLSA guidelines for preparing an Environmental Impact Assessment (EIA)  
[http://www.govmin.gl/images/stories/petroleum/BMP\\_EIA\\_Guidelines\\_Jan\\_2011.pdf](http://www.govmin.gl/images/stories/petroleum/BMP_EIA_Guidelines_Jan_2011.pdf)
- MLSA terms of approval for an exploration drilling programme  
<http://www.govmin.gl/petroleum/approval-of-activities/exploration-drilling>
- In approving the exploration drilling activities the MLSA will adhere to the NORSOK standards, e.g.:
  - [NORSOK D-010: NORSOK Standard D-010, August 2004, Well Integrity in Drilling and Well operations.](#)
  - [NORSOK D-SR-007: NORSOK Standard D-SR-007, Jan 1996, System Requirements - Well Testing Systems.](#)
  - [NORSOK R-003: NORSOK Standard R-003, July 2004, Safe use of lifting equipment..](#)

- [NORSOK S-001: NORSOK Standard S-001, February 2008, Technical Safety.](#)
- [NORSOK S-003: NORSOK Standard S-003, December 2005, Environmental Care.](#)
- [NORSOK Z-013: NORSOK Standard Z-013, Oct. 2010, Risk and emergency.](#)

**For the Arctic Council:**

Arctic Offshore Oil and Gas Guidelines 2009 [www.pame.is](http://www.pame.is)