

# DIN EN ISO 15138:2018-10 (E)

## Petroleum and natural gas industries - Offshore production installations - Heating, ventilation and air-conditioning (ISO 15138:2018); English version EN ISO 15138:2018

<b>Contents</b>		<b>Page</b>
<b>Foreword</b>		iv
<b>1</b>	<b>Scope</b>	<b>1</b>
<b>2</b>	<b>Normative references</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions</b>	<b>2</b>
<b>4</b>	<b>Abbreviated terms</b>	<b>3</b>
<b>5</b>	<b>Design</b>	<b>4</b>
5.1	General	4
5.2	Development of design basis	6
5.2.1	Orientation and layout	6
5.2.2	Hazardous area classification and the role of HVAC	8
5.2.3	Environmental conditions	9
5.2.4	Natural/mechanical ventilation	12
5.2.5	Selection of controls philosophy	14
5.2.6	Operating and maintenance philosophy	17
5.2.7	Materials and corrosion	19
5.2.8	Design margins and calculations	20
5.2.9	Wind-tunnel and computational fluid dynamics modelling	21
5.2.10	Performance standards	26
5.3	System design — General	27
5.3.1	Natural ventilation	27
5.3.2	Mechanical ventilation	28
5.3.3	Secondary ventilation systems	30
5.3.4	Black start	31
5.4	Area-specific system design	31
5.4.1	Process and utility areas	31
5.4.2	Living quarters	32
5.4.3	Temporary refuge	35
5.4.4	Drilling and drilling utility areas	35
5.4.5	Gas turbine	37
5.4.6	Emergency plant ventilation	38
5.4.7	Battery and charger rooms	39
5.4.8	Laboratories	39
5.4.9	Purge air systems	40
5.4.10	Rooms protected by gaseous extinguishing agents	40
5.4.11	Engine-room ventilation	40
5.4.12	Watertight compartments	41
5.4.13	Air locks	41
5.4.14	Stairs and escape routes	41
5.5	Equipment and bulk selection	42
5.6	Installation and commissioning	42
5.7	Operation and maintenance	42
<b>Annex A (normative) Equipment and bulk selection</b>		<b>43</b>
<b>Annex B (normative) Installation and commissioning</b>		<b>64</b>
<b>Annex C (informative) Operation and maintenance</b>		<b>69</b>
<b>Annex D (informative) Datasheets</b>		<b>72</b>
<b>Annex E (normative) Standard data for flanges</b>		<b>136</b>
<b>Bibliography</b>		<b>139</b>