

Title	Compatibility test protocol for lifejackets and immersion suits on offshore installations
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Executive Summary	<p>To date there are three main standards groups which have specified requirements for lifejackets used in the offshore environment:</p> <ul style="list-style-type: none"> • The International Maritime Organisation (IMO) Safety of Life at Sea regulations (SOLAS) covering those lifejackets to be used by ships registered in the Flag States of the IMO, which includes Mobile Drilling Units and some FPSOs. • The Civil Aviation Authority (CAA) for those lifejackets to be provided on helicopters for passengers and crew. • The Comité Européen De Normalisation (CEN) for those situations where lifejackets are deemed necessary but there is no regulatory requirement to comply with the other two standards. It is noted that fixed offshore installations are one of those situations. <p>Immersion suit standards are also specified by the IMO and the CAA for crewmembers and there is a CEN standard in production for immersion suits. Up to the present time, the offshore industry has accepted the performance standards used for type testing of lifejackets and immersion suits developed for the marine industry and helicopter crews. A significant shortfall with these performance standards is that the compatibility and suitability of lifejackets and immersion suits when used in combination are not adequately addressed. There have been several HSE and industry reports on tests of lifejacket and immersion suit combinations going back several years each indicating that several combinations are unsuitable for use offshore. Also none of these standards considers all of the emergency situations faced by offshore installation personnel.</p> <p>This Test Protocol is not attempting to replace these international standards with new standards for offshore installations. The intention is to enhance existing standards by devising a testing regime to take account of the compatibility problems posed by combinations of life jackets and immersion suits likely to be used in differing emergency scenarios by offshore installation personnel.</p> <p>The format for this Test Protocol is based on Core Tests, which covers those compatibility situations that are common to all installations e.g. Donning and in-water use.</p> <p>Any installation specific compatibility requirements are included in the appendices. This protocol has been written as a stand-alone document but where compatibility testing has already been undertaken as part of an existing approval test or to a harmonized European Standard then those tests need not be repeated. To ensure effective use of resources any compatibility tests included in this protocol may be undertaken at the same time as formal approval tests.</p> <p>Although the main Test Centres in the UK have wave machines the waveform between centres is not consistent. Therefore as there are no repeatable tests to ascertain the absolute performance of life jackets or immersion suits then this document has used the worst case for self-righting, which is in calm fresh water.</p> <p>As well as achieving repeatability these tests also provided a comparison of products to aid specifiers in selecting the most appropriate and suitable equipment. As the water temperatures experienced on the UKCS does not have a significant effect on the performance of lifejackets and immersion suits, a water temperature</p>

	<p>of 250C was chosen for the comfort of the test subjects.</p> <p>The scope of this protocol is limited to those evacuation, escape and rescue arrangements in the Emergency Response Plan of an Offshore Installation that could be compromised if they are not compatible with lifejackets and/or immersion suits and associated items of equipment.</p>
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