

附件 9

第 MSC.527(106)号决议 (2022 年 11 月 10 日通过)

《载运工业人员船舶安全国际规则》 (《IP规则》)

海上安全委员会，

忆及《国际海事组织公约》关于本委员会职能的第28(b)条，

认识到需要关于船上安全载运工业人员和往返于其他船舶和/或海上设施进行人员转移时人员安全的强制性规则，

注意到按照以第MSC.521(106)号决议通过的《1974年国际海上人命安全公约》(“本公约”)的第XV章，《载运工业人员船舶安全国际规则》(《IP规则》)的规定已具有强制性，

在其第106届会议上，审议了《IP规则》，

- 1 通过《IP规则》，其文本载于本决议附件；
- 2 提请本公约各缔约国政府注意，在本公约第XV章生效时，《IP规则》将于2024年7月1日生效；
- 3 还提请各缔约国政府考虑尽实际可能自愿将《IP规则》适用于小于500总吨的船舶和非国际航行的船舶；
- 4 要求本组织秘书长，将本决议及其附件中所载《IP规则》文本的核正无误副本送交本公约所有缔约国政府；
- 5 还要求本组织秘书长，将本决议及其附件中所载《IP规则》文本的副本分发给非本公约缔约国政府的本组织所有会员。

附 件
《载运工业人员船舶安全国际规则》
(《IP 规则》)

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- 工业人员安全证书格式
- 工业人员安全证书的设备记录(格式 IP)

前言

- 1 随着近海行业和能源行业的发展，已出现新的海上工业活动。因而对安全载运往返于其他船舶和/或海上设施的工业人员产生了日益增长的需求。
- 2 认识到现有国际海事组织文书中的安全标准并未完全涵盖近海行业内海上作业的特定风险，例如人员转移作业。
- 3 此外，认识到在制定本规则时，工业人员是尚未在《1974 年国际海上人命安全公约》(《安全公约》)第 I/2 条中定义的特殊类别人员。
- 4 然而，还认识到国际海事组织现有文书对工业人员缺乏明确定义以及缺乏船上载运工业人员的国际安全标准所带来的困难。
- 5 为满足近海行业和能源行业的需求并克服困难，已制定《载运工业人员船舶安全国际规则》(《IP 规则》)，以补充现有的国际海事组织文书。除《安全公约》规则中的货船要求外，本规则提供载运工业人员船舶的国际安全标准，通过解决与作业相关的附加风险，促进安全载运和安全转移。
- 6 本规则针对《安全公约》第 I/2(d)条定义的国际航行船舶制定。然而，认识到大量工业人员的运输在特定沿海国范围内进行，或者在基地港口和领海以外的海上设施之间进行。为促进载运工业人员的船舶的国际航行和安全营运，鼓励主管机关也对只从事该航行的船舶适用本规则。
- 7 本规则适用于 500 总吨及以上的船舶。然而，认识到 500 总吨以下的船舶载运的乘客、特殊人员和工业人员的总人数也可能超过 12 人。在此情况下，主管机关可尽实际可行应用本规则的目标和功能要求。如果该船符合《IP 规则》，主管机关可考虑向载运 12 名以上工业人员的船舶签发《工业人员安全证书》，但证书中应注明所有放宽。

第 I 部分 总 则

1 目标

本规则的目标为：通过解决《1974 年国际海上人命安全公约》(《安全公约》)的适用安全标准目前尚未充分减缓的任何风险，规定船上工业人员的安全载运和在人员转移操作期间的人员安全。

2 定义

2.1 载运系指运输、起居或两者兼而有之。

2.2 重要系统系指《安全公约》第 II-2/21.4 条所述系统。

2.3 《高速船规则》系指由本组织海上安全委员会以第 MSC.97(73)号决议通过、并经修正的《2000 年国际高速船安全规则》。

2.4 工业人员(IP)系指为在其他船舶和/或海上设施上进行海上工业活动而在船上运输或起居的所有人员。

2.5 工业人员区域系指允许工业人员进入的或在航行期间工业人员通常拟停留的每个区域或处所。

2.6 海上工业活动系指与可再生能源或碳氢化合物能源部门、水产养殖、海洋采矿或类似活动的资源勘探和开发相关的(但不限于此)海上设施的建造、维护、退役、营运或维修。

2.7 人员转移系指将海上人员及其设备从本规则适用的船舶转移至另一船舶或海上设施(反之亦然)。

2.8 《安全公约》系指经修正的《1974 年国际海上人命安全公约》。

3 发证和检验

3.1 本规则适用的每艘船舶，须在船上备有有效的《工业人员安全证书》。

3.2 在对符合本规则要求的船舶进行初次或换证检验后，须签发《工业人员安全证书》。

3.3 本条所述证书须由主管机关或主管机关按《安全公约》第 XI-1/1 条认可的组织签发。在任何情况下，主管机关对证书承担全部责任。

3.4 《工业人员安全证书》须按与本规则附录所示样本相一致的格式写成。如语言既非英语、法语，也非西班牙语，则文本须包括其中一种语言的译文。

3.5 《工业人员安全证书》的有效期、检验日期和签注须视情按《安全公约》第 I/14 条或第 X/3.2 条与相关《安全公约》证书协调。证书须包括记录本规则要求的设备的附件。

3.6 除《安全公约》第 XV/5.1.1 条要求的相关证书外，须签发《工业人员安全证书》和《设备记录》。

第 II 部分

目标和功能要求

1 工业人员

1.1 目标

本章的目标旨在规定：

- .1 载运工业人员期间的安全操作；和
- .2 工业人员身体健康并熟悉与操作环境相关的危险，包括与人员转移操作相关的风险。

1.2 功能要求

为实现上述第 1.1 款所列目标，以下功能要求体现在第 III 部分的规则中。

须有措施确保工业人员：

- .1 身体健康；
- .2 能与船员沟通；
- .3 已接受适当的安全培训；
- .4 已接受船舶特定的船上安全熟悉；和
- .5 已接受关于船舶转移设备和装置的船上熟悉。

2 人员的安全转移

2.1 目标

本章的目标旨在规定：人员转移涉及的所有人的安全，包括安全和合适的转移方式以及安全执行与人员转移相关的操作的能力。

2.2 功能要求

为实现上述第 2.1 款所列目标, 以下功能要求体现在第 III 部分的规则中。

2.2.1 须设有避免人员转移期间受伤的措施。

2.2.2 人员转移装置须:

- .1 设计、建造和维护成承受其经受的载荷;
- .2 设计和制造成在其相关功能丢失或减少的情况下无法进入安全状态; 和
- .3 能在失去动力后将转移中的人员安全返回到安全位置。

2.2.3 须设有和布置位置保持的措施, 以防止人员转移过程中发生事故, 并适合操作模式和与其他船舶或海上设施的相互作用。

2.2.4 须设有确保更新船上工业人员数量及其身份信息的措施, 以有助于确保始终了解船上的实际人数。

3 分舱与稳性

3.1 目标

本章的目标旨在规定: 船舶在完整和破损状态下具有充足的稳性, 并考虑到船上总人数。

3.2 功能要求

为实现上述第 3.1 款所列目标, 船舶须设计为具有在完整和破损状态下规定充足的稳性标准的风雨密和水密限界面, 并考虑船上总人数。该功能要求体现在第 IV 和 V 部分的规则中。

4 轮机

4.1 目标

本章的目标旨在规定: 轮机能够提供所需功能, 以确保在正常操作和任何紧急情况下的安全航行和船上人员的安全载运, 并考虑船上的总人数。

4.2 功能要求

为实现上述第 4.1 款所列目标, 以下功能要求体现在第 IV 和 V 部分的规则中:

- .1 如果确保任何机械系统所需功能需要的容量取决于船上人数(例如: 舱底泵系统), 须设有必要的额外容量;
- .2 操舵系统须能在发生任何影响轮机的事故后保持转向; 和
- .3 重要系统须具有必要的冗余或隔离或两者的组合, 以确保在发生任何影响轮机的事故后安全容纳船上人员的能力, 并考虑到船上的人数。

5 电气装置

5.1 目标

本章的目标旨在规定:

- .1 应急电源能够在应急情况下提供重要系统的所需功能, 并考虑到船上的总人数; 和
- .2 保护船上所有人员免受各种电气灾害。

5.2 功能要求

为实现上述第 5.1 款所列目标, 以下功能要求体现在第 IV 和 V 部分的规则中。

- .1 对重要系统的应急供电须具有必要的冗余或隔离或两者的组合, 以确保在破损后安全容纳船上人员的能力, 并考虑到船上的人数和有序撤离的时间; 和
- .2 须设有触电、电气火灾及其他电气灾害的预防措施。

6 周期性无人值班机器处所

6.1 目标

本章目标旨在确保如果和当机器处所周期性无人值班时, 不影响船舶和船上人员的安全。

6.2 功能要求

为实现上述第 6.1 款所列目标, 以下功能要求体现在第 IV 和 V 部分的规则中。

- .1 周期性无人值班机器处所须提供安全操作, 并考虑到船上人数; 和
- .2 周期性无人值班机器处所须设有提供安全操作的附加控制、监控和警报系统, 并考虑到船上人数, 以达到与通常有人值班机器处所等效的安全。

7 消防安全

7.1 目标

本章目标旨在满足《安全公约》的消防安全目标或《高速船规则》的基本消防安全原则,并考虑到船上人数。

7.2 功能要求

为实现上述第 7.1 款所列目标,满足《安全公约》的消防安全功能要求或《高速船规则》的基本消防安全原则的措施(并考虑到船上人数),体现在第 IV 和 V 部分的规则中。

8 救生设备与装置

8.1 目标

本章的目标旨在规定:为确保安全弃船和营救人员具有合适和充分的措施。

8.2 功能要求

为实现上述第 8.1 款所列目标,以下功能要求体现在第 IV 和 V 部分的规则中。

- .1 救生艇筏的容量须足以容纳船上所有人员;
- .2 船上所有人员须有合适和充分的个人救生设备;
- .3 必须确保具有召集和集合的充分空间;
- .4 须设有船上通信和警报系统,以确保船上所有人员的应急通信;和
- .5 须设有确保安全营救人员的措施。

9 危险货物

9.1 目标

本章的目标旨在规定:在按本规则核准的船上运输和装卸危险货物时安全载运工业人员,并考虑到船上的总人数。

9.2 功能要求

为实现上述第 9.1 款所列目标,须考虑运输和装卸危险货物引起的任何危险,并最大程度减少对船上所有人的风险,并考虑危险货物的性质。该功能要求体现在第 IV 和 V 部分的规则中。

第 III 部分 规则

第 1 条 - 工业人员

1.1 为满足第 II/1.2.1 款规定的功能要求, 所有工业人员须至少 16 岁, 并且须按照主管机关接受的标准向船长提供文件证明, 表明其身体健康可满足本条的所有要求。

1.2 为满足第 II/1.2.2 款规定的功能要求, 所有工业人员须证明充分了解船上的工作语言, 以便能够有效地沟通并理解船员给出的任何指令。

1.3 为满足第 II/1.2.3 款规定的功能要求, 在登船前, 所有工业人员须接受关于以下方面的培训或指导:¹

- .1 个人生存, 包括:
 - .1 了解船上可能发生的应急情况;
 - .2 使用个人救生设备;
 - .3 从高处安全入水, 并在水中生存; 和
 - .4 穿着救生衣从船上和水上登上救生艇筏;
- .2 消防安全, 包括了解船上火灾危险的类型以及为防止火灾而采取的预防措施; 和
- .3 个人安全和社会责任, 包括:
 - .1 了解船长或其在船上的代表的权限;
 - .2 遵守船上人员提供的指示; 和
 - .3 了解船上发现的安全信息符号、标志和警报信号。

1.4 除非已向船长提供文件, 确认工业人员已接受本条要求的培训或指导, 否则船上不得载运工业人员。

¹ 符合《海上移动装置人员培训和发证建议书》(第 A.1079(28)号决议)第 5.5 段培训要求或行业培训标准, 例如全球风能组织(GWO)、海上石油行业培训机构(OPITO)或基本海上安全入职和应急培训(OPITO 认可)的人员, 可视为满足本节的要求。

1.5 为满足第 II/1.2.4 款规定的功能要求, 所有工业人员须在离港前或登船后立即接受船舶特定的船上安全熟悉, 包括:

- .1 船舶布置;
- .2 个人救生设备、集合和登乘站、应急脱险通道和急救站的位置;
- .3 船上的安全信息、符号、标志和警报; 和
- .4 发出警报或宣布应急情况时应采取的行动。

1.6 为满足第 II/1.2.5 款规定的功能要求, 在被转移之前, 所有工业人员须熟悉将人员转移至其他船舶和/或海上设施的船舶程序、布置和任何额外的安全措施或设备。

第 2 条 - 安全转移

2.1 为满足第 II/2.2.1 款规定的功能要求, 以下适用:

- .1 人员转移设备与装置须保持干净, 适当维护保养, 并定期检查, 以确保其安全使用。
- .2 人员转移装置的安装和使用, 须由一名负责高级船员进行监督, 并由经适当培训的人员操作。须制定安全程序, 且从事安装和操作任何机械设备的人员须遵守该程序。
- .3 进行监督的负责高级船员和驾驶室之间须设有通信措施。
- .4 须对所有人员转移装置进行永久性标记, 从而能为检验、检查和保持记录识别每个装置。船上须保留一份使用和维护记录。
- .5 在开始人员转移操作前, 须检查人员转移装置确保其功能正常。
- .6 须提供安全和无障碍的通道, 确保工业人员往来于人员转移装置和船上转移或起居处之间。
- .7 须设有能够由应急电源供电的照明, 以照亮人员转移装置、装置下方的水面和上述第.6 项规定的通道。
- .8 须指定人员转移的甲板区域, 且没有障碍。
- .9 在计划海上人员转移时和实施海上人员转移前, 须进行作业安全分析。分析须考虑到环境条件以及操作和设备限制。

- .10 在计划人员转移时, 应考虑到本组织制定的指南²或主管机关接受的其他相关指南³。

2.2 为满足第 II/2.2.2 款规定的功能要求, 人员转移装置须按主管机关接受的标准⁴或主管机关按《安全公约》第 XI-1/1 条认可的船级社的要求进行设计、建造、试验和安装。

2.3 此外, 以下适用:

- .1 人员转移装置的设计须适合于船舶的布置。
- .2 须进行分析以评估可能影响转移装置的可用性和/或危及所有相关人员安全的工业人员转移布置及其所有相关系统的故障。

分析⁵须:

- .1 考虑由于单个故障、任何处所发生火灾或任何水密舱室进水而导致的所有设备和系统故障的影响(可能会影响转移布置的可用性); 和
- .2 提供出现上述第.1 项所述故障时, 确保工业人员转移布置的可用性和所有相关人员安全的解决方案。
- .3 如果单个故障导致系统中的多个组件发生故障(共因故障), 须一起考虑所有导致的故障。当故障的发生直接导致进一步的故障时, 须一起考虑所有这些故障。

2.4 为满足第 II/2.2.3 款规定的功能要求, 须评估船舶的操纵性以及保持船位的预期需求, 以确保正确使用船位保持设备。

2.5 为满足第 II/2.2.4 款规定的功能要求, 须制定程序以确保始终具有关于船上人员数量和身份的正确信息。

² 参阅《海上人员转移安全指南》(第 MSC-MEPC.7/Circ.10 号通函)。

³ 例如最新修订的 IMCA M202《关于人员进出近海船舶和结构的转移指南》。

⁴ 参阅 EN 13852-1:2013 的相关节。

⁵ 适当的分析可以是 QFA 或 FMEA 及其相关报告。

第 IV 部分

按《安全公约》第 I 章核准的船舶的附加规则

第 1 条 - 通则

1.1 除本部分另有明文规定外, 载运工业人员的船舶须满足《安全公约》的货船要求和本部分的适用规则。

1.2 除本部分的适用规则外, 符合第 1.1 款的船舶, 视为满足第 II/3 至 II/9 款的目标和功能要求。

第 2 条 - 分舱与稳性

2.1 为满足第 II/3.2.1 款规定的功能要求, 以下适用:

- .1 如船舶核准载运 240 人以上, 须符合《安全公约》第 II-1/5 条的要求, 船舶视为客船, 且工业人员算作乘客。但是, 《安全公约》第 II-1/5.5 条不适用。
- .2 分舱与破损稳性须符合《安全公约》第 II-1 章, 船舶视为客船且工业人员算作乘客, R 值如下所述:

- .1 如船舶核准载运 240 人以上, R 值确定为 R ;
- .2 如船舶核准载运不超过 60 人, R 值确定为 $0.8R$; 或
- .3 如超过 60 人但不超过 240 人, 须通过上述第.1 和.2 项规定的 R 值线性内插确定 R 值。

$$R = 1 - \frac{5,000}{L_s + 2.5N + 15,225}$$

式中:

$$N = N_1 + 2N_2$$

N_1 = 救生艇可供使用的人数

N_2 = 船舶在 N_1 以外允许载运的人数(包括高级船员和普通船员)

- .3 如营运条件使基于 $N = N_1 + 2N_2$ 符合上述第 2.1.2 款成为不切实际, 且如主管机关认为危险程度已适当降低, 可取较小的 N 值, 但均不得小于 $N = N_1 + N_2$ 。

- .4 对于上述第 2.1.2.1 款适用的船舶, 《安全公约》第 II-1/8 和 II-1/8-1 条以及《安全公约》第 II-1 章 B-2、B-3 和 B-4 部分的要求须适用, 船舶视为客船且工业人员为乘客。但是, 《安全公约》第 II-1/14 和 II-1/18 条不适用。
- .5 对于上述第 2.1.2.2 和 2.1.2.3 款适用的船舶, 除以下第 2.1.6 款规定外, 《安全公约》第 II-1 章 B-2、B-3 和 B-4 部分的规定须适用, 船舶视为货船且工业人员为船员。但是, 无需适用《安全公约》第 II-1/8 和 II-1/8-1 条的要求, 且《安全公约》第 II-1/14 和 II-1/18 条不适用。
- .6 按本规则发证的所有船舶须符合《安全公约》第 II-1/9、II-1/13、II-1/19、II-1/20 和 II-1/21 条, 船舶视为客船。

第 3 条 - 轮机

- 3.1 为满足第 II/4.2.1 款规定的功能要求, 船舶须符合《安全公约》第 II-1/35-1 条, 船舶视为客船。
- 3.2 为满足第 II/4.2.2 款规定的功能要求, 如船舶核准载运超过 240 人, 船舶须符合《安全公约》第 II-1/29 条, 船舶视为客船。

第 4 条 - 电气装置

- 4.1 为满足第 II/5.2.1 款规定的功能要求, 以下适用:
 - .1 对于船长超过 50 m、船上载运不超过 60 人的船舶的装置, 除《安全公约》第 II-1/43 条的要求外, 《安全公约》第 II-1/42.2.6.1 条的要求须适用; 和
 - .2 对于船上载运超过 60 人的船舶的装置, 《安全公约》第 II-1/42 条的要求须适用。
- 4.2 为满足第 II/5.2.2 款对于船上载运超过 60 人的船舶的装置的功能要求, 《安全公约》第 II-1/45.12 条须适用。

第 5 条 - 周期性无人值班机器处所

为满足第 II/6.2 款规定的功能要求, 与《安全公约》第 II-1 章 E 部分相关时, 船上载运超过 240 人的船舶须视为客船。

第 6 条 - 消防安全

为满足第 II/7.2 和 4.2.3 款规定的功能要求, 以下适用:

- .1 如船舶核准在船上载运超过 240 人, 《安全公约》第 II-2 章关于载客超过 36 人的客船的要求须适用; 和
- .2 如船舶核准在船上载运超过 60 人、但不超过 240 人, 《安全公约》第 II-2 章关于载客不超过 36 人的客船的要求适用, 但无需适用《安全公约》第 II-2/21 和 22 条。

第 7 条 - 救生设备与装置

7.1 为满足第 II/8.2 款规定的功能要求:

- .1 对于船上载运超过 60 人的船舶, 《安全公约》第 III 章关于国际航行(非短程国际航行)的客船的要求须适用;
- .2 无论船上人数, 《安全公约》第 III/2 和 III/19.2.3 条不适用;
- .3 如《安全公约》第 III 章使用术语“乘客”, 须理解为系指《安全公约》第 XV/2.3 条规定的工业人员; 和
- .4 尽管有上述第.3 项的规定, 婴儿或儿童救生衣的所需数量须仅根据船上乘客人数计算。

第 8 条 - 危险货物

8.1 通则

工业人员仅可出于离船后履行职责的目的将危险货物带上船, 并事先征得船长的同意。危险货物须视为货物, 并须按《安全公约》第 VII 章 A 部分的规定进行运输。

8.2 包装危险货物运输

为满足第 II/9.2 款规定的功能要求:

- .1 对于核准船上载运超过 240 人的船舶, 《安全公约》第 II-2/19.3.6.2 条关于载客超过 36 人的客船的要求须适用; 和
- .2 就《国际危规》的要求而言, 核准船上载运超过 240 人的船舶须视为客船, 核准船上载运不超过 240 人的船舶须视为货船。

8.3 固体散装危险货物运输

为满足第 II/9.2 款规定的功能要求:

- .1 对于核准船上载运超过 240 人的船舶,《安全公约》第 II-2/19.3.6.2 条关于载客超过 36 人的客船的要求须适用;和
- .2 就《国际固散规则》的要求而言,工业人员须视为人员保护情况下的人员。

8.4 运输危险液体化学品、液化气体和油

8.4.1 为满足第 II/9.2 款规定的功能要求,当同时载运散装危险液体化学品和/或液化气体货物以及工业人员时,船舶须按《安全公约》第 VII 章 B 或 C 部分的要求发证,或满足的标准应不低于本组织制定的标准⁶,并按该标准发证。此外:

- .1 当船上总人数超过 60 人时,不得运输有毒货品、低闪点货品或酸;
- .2 就载运工业人员而言,船上禁止工业人员进入的区域和处所须有明显标志;
- .3 人员转移布置须位于货物区域以外;
- .4 进入人员转移布置的通道须尽实际可行位于货物区域以外;和
- .5 不得同时进行登乘或人员转移和货物装卸。

8.4.2 为满足第 II/9.2 款规定的功能要求,当同时载运《防污公约》附则 I 定义的油类货物和工业人员时,上述第 8.4.1 款的附加要求须适用:

8.4.3 就本要求而言:

- .1 “低闪点货品”系指:
 - .1 闪点不超过 60°C 的有毒液体物质;
 - .2 闪点不超过 60°C 的油;和
 - .3 按《国际气体规则》第 19 章要求进行可燃蒸气探测的液化气体。
- .2 “有毒货品”系指:
 - .1 《国际散化规则》第 15.12 款的特殊要求适用的危险化学品;和
 - .2 按《国际气体规则》第 19 章要求进行有毒蒸气探测的液化气体;和

⁶ 参阅《近海供应船散装运输和装卸有害有毒液体物质规则》(《OSV 化学品规则》)(第 A.1122(30)号决议)。

.3 “酸”系指《国际散化规则》第 15.11 款的特殊要求适用的危险化学品。

8.4.4 当散装运输液化气体时,为满足第 II/9.2 款规定的功能要求,就《国际气体规则》的要求而言,工业人员须视为培训和人员保护情况下的人员。

第 V 部分 按《安全公约》第 X 章核准的船舶的附加规则

第 1 条 - 通则

1.1 按《安全公约》第 X 章核准的高速船不得在船上载运超过 60 人。

1.2 除本部分另有明文规定外,船上载运不超过 60 人的高速船须满足《高速船规则》的货船要求和本部分的适用规则。

1.3 除本部分的适用规则外,符合上述第 1.2 款的船舶,视为满足第 II/3 至 II/9 条的目标和功能要求。

1.4 高速船载运工业人员不视为《高速船规则》第 1.9.1.1 款规定的过渡航行,且需要营运许可证书。

1.5 如《高速船规则》的适用要求使用术语“乘客”,须理解为系指“除船员以外的船上人员”。

第 2 条 - 分舱与稳性

为满足第 II/3.2 款规定的功能要求,以下适用:

- .1 除第 2.13.2 和 2.14 款外,《高速船规则》第 2 章 B 部分(取代第 2 章 C 部分)须适用。
- .2 在适用《高速船规则》第 2 章规定时,“乘客”须理解为“除船员以外的船上人员”。此外,每人的质量须假定为 90 kg,而不是 75 kg。

第 3 条 - 轮机

为满足第 II/4.2 款规定的功能要求,《高速船规则》第 10 章 B 部分(取代第 10 章 C 部分)的规定须适用于 A 类客船。

第 4 条 - 电气装置

为满足第 II/5.2 款规定的功能要求, 《高速船规则》第 12.7.10 款须适用。

第 5 条 - 周期性无人值班机器处所

[无规定]

第 6 条 - 消防安全

[无规定]

第 7 条 - 救生设备与装置

为满足第 II/8.2 款规定的功能要求:

- .1 《高速船规则》第 4.2.3 款须适用;
- .2 《高速船规则》第 8.4.3 款须适用—“乘客处所”须理解为“工业人员处所”;
和
- .3 婴儿或儿童救生衣的所需数量须仅根据船上乘客人数计算。

第 8 条 - 危险货物

8.1 工业人员仅可出于离船后履行职责的目的将危险货物带上船, 并事先征得船长的同意。危险货物须视为货物, 并须按《高速船规则》第 7 章 D 部分的规定进行运输。

8.2 为满足第 II/9.2 款规定的功能要求:

- .1 就载运工业人员而言, 船上禁止工业人员进入的区域和处所须有明显标志;
- .2 人员转移布置须位于货物区域以外;
- .3 进入人员转移布置的通道须尽实际可行位于货物区域以外; 和
- .4 不得同时进行登乘或人员转移和货物装卸。

附录

载运工业人员船舶安全证书格式

工业人员安全证书

本证书须附有工业人员安全证书的设备记录(格式 IP)

(公章)

(国家)

本证书由 _____
(经授权的人员或组织)

根据 _____ 政府授权
(国家名称)

按照经修正的《1974 年国际海上人命安全公约》的规定签发

船舶资料 ⁷

船名.....

船舶编号或呼号.....

船籍港.....

总吨位.....

IMO 编号 ⁸.....

安放龙骨或处于类似建造阶段的日期(年/月/日),
或(如适用)重大改建或改装或改造开始之日期

⁷ 船舶资料亦可横向排列于方格中。

⁸ 按照《国际海事组织船舶识别号计划》(第 A.1117(30)号决议)。

兹证明:

1 ☐ 复选框, 如适用

该船作为公约第 XV/3.1 或 3.4 条适用的船舶, 业已按《载运工业人员船舶安全国际规则》第 I/3 节的要求进行了检验。

.1 检验表明:

- .1 该船的结构、设备、配件和材料及其状况在各方面均令人满意, 并且该船符合本规则的相关规定; 和
- .2 如设有, 人员转移设备和布置及其状况在各方面均令人满意, 并且符合本规则第 III/2 条的规定。

2 ☐ 复选框, 如适用

该船作为公约第 XV/3.2 或 XV/3.3 条适用的船舶, 业已按《载运工业人员船舶安全国际规则》第 I/3 节的要求进行了检验。

.1 检验表明:

- .1 救生设备和救生艇、救生筏及救助艇设备系按照本规则第 IV/7 或 V/7 条(如适用)配备;
- .2 如允许运输危险货物, 该船符合本规则第 IV/8 或 V/8 条(如适用)的相关规定; 和
- .3 如设有, 人员转移设备和布置及其状况在各方面均令人满意, 并且符合本规则第 III/2 条(第 2.1.7 款除外)的规定。

3 当船上总人数超过 60 人时, 本证书对运输有毒货品、低闪点货品或酸无效。

本证书有效期至 止。

本证书所依据之检验的完成日期为(年/月/日)

本证书签发于

(发证地点)

.....
(发证日期)

.....
(经授权的发证官员签字)

(发证机关盖章或钢印)

年度、定期和中间检验的签注

兹证明, 本规则第 I/3 节要求的检验证实该船符合规则的有关规定。

年度/定期*检验: _____ 签字: _____
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

年度/定期/中间*检验: 签字: _____
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

年度/定期/中间*检验: 签字:
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

年度/定期*检验: 签字:
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

* 不适用者划去。

**公约第 I/14(C)条或《高速船规则》第 1.8.8 条适用的，
有效期限短于 5 年的证书延期签注**

该船符合公约的有关要求，根据公约第 I/14(c)条*或《高速船规则》第 1.8.8 条*，须承认本证书为有效，有效期限至 止。

签字:
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

换证检验业已完成而且公约第 I/14(D)条或《高速船规则》第 1.8.9 条适用的签注

该船符合公约的有关要求，根据公约第 I/14(d)条*或《高速船规则》第 1.8.9 条*，须承认本证书为有效，有效期限至 止。

签字:
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

**公约第 I/14(E)条或第 I/14(F)条或《高速船规则》第 1.8.10 条适用的、
将证书有效期延期至驶抵进行检验的港口或给予宽限期的签注**

根据公约第 I/14(e)/I/14(f)条*或《高速船规则》第 1.8.10 条*，须承认本证书为有效，有效期限至 止。

签字:
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

* 不适用者划去。

公约第 I/14(H)条或《高速船规则》第 1.8.12 条适用的周年日提前的签注

根据公约第 I/14(h)条*或《高速船规则》第 1.8.12 条*, 新的周年日为.....。

签字:
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

根据公约第 I/14(h)条或《高速船规则》第 1.8.12 条, 新的周年日为.....。

签字:
(经授权的官员签字)

地点:

日期:
(主管当局盖章或钢印)

* 不适用者划去。

工业人员安全证书的设备记录
(格式 IP)

工业人员安全证书须附有本记录

证明符合《载运工业人员船舶安全国际规则》的设备记录

1 船舶资料

船名

船舶编号或呼号

核准的船上总人数

2 救生设备明细表

1 已配备救生设备人员的总数		.....	
		左舷	右舷
2	救生艇的总数	.....	.....
2.1	救生艇可容纳人员的总数		
2.2	半封闭救生艇的数量	.....	.....
	(《安全公约》第 III/21 或 III/31 条或《高速船规则》第 8.10 条(如适用)和《救生设备规则》第 4.5 节)	.....	.....
2.3	自扶正半封闭救生艇的数量		
	(《安全公约》第 III/21 或 III/31 条或《高速船规则》第 8.10 条(如适用)和《救生设备规则》第 4.5 节)	.....	.....
2.4	全封闭救生艇的数量		
	(《安全公约》第 III/21 或 III/31 条或《高速船规则》第 8.10 条(如适用)和《救生设备规则》第 4.6 节)	.....	.....
2.5	其他救生艇	.....	.....
2.5.1	数量	.....	.....
2.5.2	类型	.....	.....

3	(上述救生艇总数包括的)机动救生艇的数量	.....
3.1	装有探照灯的救生艇的数量	.....
4	救助艇的数量	.....
4.1	上述救生艇总数中舢板的数量	.....
5	救生筏	.....
5.1	需要经认可的降放装置的救生筏	.....
5.1.1	救生筏的数量	.....
5.1.2	救生筏可容纳的人数	.....
5.2	不需要经认可的降落装置的救生筏	.....
5.2.1	救生筏的数量	.....
5.2.2	救生筏可容纳的人数	.....
6	海上撤离系统(MES)的数量	.....
6.1	海上撤离系统可搭载的人数	.....
7	浮具	.....
7.1	数量	.....
7.2	可承载的人数	.....
8	救生圈的数量	.....
9	救生衣的数量(总数)	.....
9.1	成人救生衣的数量	.....
9.2	儿童救生衣的数量	.....
9.3	婴儿救生衣的数量	.....
10	救生服	.....
10.1	总数	.....
11	保温用具的数量 ⁹	.....

兹证明本记录全部正确无误。

本记录签发于
(本记录签发地点)

.....
(发证日期) (经正式授权的记录签发官员签字)

(签发机关盖章或钢印)

⁹ 《救生设备规则》第 4.1.5.1.24、4.4.8.31 和 5.1.2.2.13 款要求者除外。

ANNEX 9

**RESOLUTION MSC.527(106)
(adopted on 10 November 2022)**

**INTERNATIONAL CODE OF SAFETY FOR SHIPS
CARRYING INDUSTRIAL PERSONNEL (IP CODE)**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the function of the Committee,

RECOGNIZING the need for a mandatory code for the safe carriage of industrial personnel on ships and for ensuring their safety during personnel transfer operations to and from other ships and/or offshore facilities,

NOTING resolution MSC.521(106), by which it adopted chapter XV of the International Convention for the Safety of Life at Sea, 1974 ("the Convention") to make the provisions of the International Code of Safety for Ships Carrying Industrial Personnel (IP Code) mandatory under the Convention,

HAVING CONSIDERED, at its 106th session, the IP Code,

- 1 ADOPTS the IP Code, the text of which is set out in the annex to the present resolution;
- 2 INVITES Contracting Governments to the Convention to note that the IP Code will take effect on 1 July 2024 upon entry into force of chapter XV of the Convention;
- 3 ALSO INVITES Contracting Governments to consider the voluntary application of the IP Code, as far as practicable, to ships of less than 500 gross tonnage and to ships not operating on international voyages;
- 4 REQUESTS the Secretary-General of the Organization to transmit certified copies of the present resolution and the text of the IP Code, contained in the annex, to all Contracting Governments to the Convention;
- 5 ALSO REQUESTS the Secretary-General of the Organization to transmit copies of the present resolution and the text of the IP Code contained in the annex to all Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

**INTERNATIONAL CODE OF SAFETY FOR SHIPS
CARRYING INDUSTRIAL PERSONNEL (IP CODE)**

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Appendix

Model Industrial Personnel Safety Certificate
Record of Equipment for the Industrial Personnel Safety Certificate (Form IP)

Preamble

1 As the maritime offshore and energy sectors are expanding, new offshore industrial activities have emerged. This in turn has created a growing demand to provide for the safe carriage of industrial personnel to and from other ships and/or offshore facilities.

2 It is recognized that the safety standards in the existing IMO instruments do not fully cover specific risks of maritime operations within the offshore sectors, such as personnel transfer operations.

3 Furthermore, it is recognized that, at the time of developing this Code, industrial personnel are a special category of persons yet to be defined in regulation I/2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974.

4 However, the difficulties caused by the lack of a clear definition for industrial personnel and the lack of an international safety standard for the carriage of industrial personnel on board in the existing IMO instruments are also recognized.

5 The International Code of Safety for Ships Carrying Industrial Personnel (IP Code) has been developed to supplement existing IMO instruments in order to meet the demand from the offshore and energy sectors and overcome these difficulties. The Code, in addition to the cargo ship requirements in SOLAS regulations, provides an international standard of safety for ships carrying industrial personnel which will facilitate safe carriage and safe personnel transfer by addressing additional risks connected to such operations.

6 The Code has been developed for ships operating on international voyages as defined in SOLAS regulation I/2(d). However, it is recognized that the transport of a large number of industrial personnel will take place either within the confines of a particular coastal State or between a base port and an offshore installation outside territorial waters. To facilitate international movement and safe operations of ships carrying industrial personnel, Administrations are encouraged to apply this Code also to ships operating only on such voyages.

7 The Code applies to ships of 500 gross tonnage and upwards. However, it is recognized that ships below 500 gross tonnage may also carry an aggregated number of passengers, special personnel and industrial personnel in excess of 12. In such cases the Administration may apply the goals and functional requirements of the Code as far as practicable. If such ships are in compliance with the IP Code, Administrations may consider issuing an Industrial Personnel Safety Certificate for a ship carrying more than 12 industrial personnel, as long as all relaxations are indicated in this certificate.

PART I GENERAL

1 Goal

The goal of this Code is to provide for the safe carriage of industrial personnel on ships and their safety during personnel transfer operations by addressing any risks present not adequately mitigated by the applicable safety standards in the International Convention for the Safety of Life at Sea (SOLAS), 1974.

2 Definitions

2.1 *Carriage* means transportation, accommodation or both.

2.2 *Essential systems* mean systems referred to in SOLAS regulation II-2/21.4.

2.3 *HSC Code* means the International Code of Safety for High-Speed Craft, 2000, as adopted by the Maritime Safety Committee of the Organization by resolution MSC.97(73), as amended.

2.4 *Industrial personnel (IP)* means all persons transported or accommodated on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

2.5 *IP area* is every area or space where IP are normally intended to stay during voyage or are allowed to access.

2.6 *Offshore industrial activities* mean the construction, maintenance, decommissioning, operation or servicing of offshore facilities related, but not limited, to exploration and exploitation of resources by the renewable or hydrocarbon energy sectors, aquaculture, ocean mining or similar activities.

2.7 *Personnel transfer* means the full sequence of the operation of transferring personnel and their equipment at sea to or from a ship to which this Code applies and from or to another ship or an offshore facility.

2.8 *SOLAS* means the International Convention for the Safety of Life at Sea, 1974, as amended.

3 Certificate and survey

3.1 Every ship to which this Code applies shall have on board a valid Industrial Personnel Safety Certificate.

3.2 The Industrial Personnel Safety Certificate shall be issued after an initial or renewal survey to a ship which complies with the requirements of this Code.

3.3 The certificate referred to in this regulation shall be issued either by the Administration or by an organization recognized by it in accordance with SOLAS regulation XI-1/1. In any case, the Administration assumes full responsibility for the certificate.

3.4 The Industrial Personnel Safety Certificate shall be drawn up in a form corresponding to the model given in the appendix to this Code. If the language is not English, French or Spanish, the text shall include translation into one of these languages.

3.5 The Industrial Personnel Safety Certificate validity, survey dates and endorsements shall be harmonized with the relevant SOLAS certificates in accordance with the provisions of SOLAS regulation I/14 or X/3.2, as appropriate. The certificate shall include a supplement recording equipment required by the present Code.

3.6 The Industrial Personnel Safety Certificate and the Record of Equipment shall be issued in addition to the relevant certificates required in SOLAS regulation XV/5.1.1.

PART II

GOALS AND FUNCTIONAL REQUIREMENTS

1 Industrial personnel

1.1 Goal

The goal of this chapter is to provide:

- .1 for safe operations during the carriage of industrial personnel; and
- .2 that industrial personnel are medically fit and familiar with the hazards associated with the operational environment including the risks associated with personnel transfer operations.

1.2 Functional requirements

In order to achieve the goal set out in paragraph 1.1 above, the following functional requirements are embodied in the regulations in part III:

Means shall be provided to ensure that industrial personnel:

- .1 are medically fit;
- .2 are able to communicate with the ship's crew;
- .3 have received appropriate safety training;
- .4 have received onboard ship-specific safety familiarization; and
- .5 have received onboard familiarization with the ship's transfer arrangements and equipment.

2 Safe transfer of personnel

2.1 Goal

The goal of this chapter is to provide for the safety of all persons involved in personnel transfer, including safe and suitable means of transfer and the capability of safely carrying out the operations connected to personnel transfer.

2.2 Functional requirements

In order to achieve the goal set out in paragraph 2.1 above, the following functional requirements are embodied in the regulations in part III:

2.2.1 Means shall be provided to avoid injuries during personnel transfer.

2.2.2 Arrangements for personnel transfer shall be:

- .1 designed, constructed and maintained to withstand the loads they are subjected to;
- .2 designed and engineered to fail to a safe condition in the event of a loss or reduction in their associated functionality; and
- .3 capable of safely returning persons in transfer to a safe location after loss of power.

2.2.3 Means for position keeping shall be provided and arranged in a manner that prevents accidents during transfer of personnel and is suitable for the mode of operation and interactions with other ships or offshore facilities.

2.2.4 Means shall be provided to ensure that the information on the number of industrial personnel on board and their identity is kept updated to assist in ensuring that the actual number of persons on board is known at all times.

3 Subdivision and stability

3.1 Goal

The goal of this chapter is to provide for adequate stability of the ship, in both the intact and damaged conditions, taking into consideration the total number of persons on board.

3.2 Functional requirement

In order to achieve the goal set out in paragraph 3.1 above, the ship shall be designed with weathertight and watertight boundaries providing for an adequate stability standard, in both the intact and damaged conditions, taking into account the total number of persons on board. This functional requirement is embodied in the regulations in parts IV and V.

4 Machinery installations

4.1 Goal

The goal of this chapter is to provide for machinery installations capable of delivering the required functionality to ensure safe navigation and safe carriage of persons on board both during normal operation and in any emergency situation, taking into account the total number of persons on board.

4.2 Functional requirements

In order to achieve the goal set out in paragraph 4.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

- .1 where the capacity needed to ensure the required functionality of any machinery system is dependent on the number of persons on board (e.g. bilge pumping systems), necessary additional capacity shall be provided;
- .2 steering gear systems shall be capable of maintaining steerage after any incident affecting machinery installations; and

- .3 essential systems shall have the necessary redundancy or isolation, or a combination thereof, in order to ensure the capability of safely accommodating persons on board after any incident affecting machinery installations, taking into account the number of persons on board.

5 Electrical installations

5.1 Goal

The goal of this chapter is to provide for:

- .1 emergency sources of power capable of delivering the required functionality of essential systems in emergency situations, taking into account the total number of persons on board; and
- .2 protection of all persons on board from electrical hazards.

5.2 Functional requirements

In order to achieve the goal set out in paragraph 5.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

- .1 emergency power supply to essential systems shall have the necessary redundancy or isolation, or a combination thereof, to ensure the capability of safely accommodating persons on board after damage, taking into account the number of persons on board and the time for orderly evacuation; and
- .2 precautions against shock, fire and other hazards of electrical origin shall be provided.

6 Periodically unattended machinery spaces

6.1 Goal

The goal of this chapter is to ensure that, if and when a machinery space is periodically unattended, this does not impair the safety of the ship or the persons on board.

6.2 Functional requirements

In order to achieve the goal set out in paragraph 6.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

- .1 periodically unattended machinery spaces shall provide safe operations, taking into account the number of persons on board; and
- .2 a periodically unattended machinery space shall be equipped with additional controls, monitoring and alarm systems to provide safe operation, taking into account the number of persons on board, in order to achieve a safety equivalent to that of a normally attended machinery space.

7 Fire safety

7.1 Goal

The goal of this chapter is to fulfil the fire safety objectives of SOLAS or the basic fire safety principles of the HSC Code, taking into account the number of persons on board.

7.2 Functional requirement

In order to achieve the goal set out in paragraph 7.1 above, the means to fulfil the fire safety functional requirements of SOLAS or the basic fire safety principles of the HSC Code, taking into account the number of persons on board, are embodied in the regulations in parts IV and V.

8 Life-saving appliances and arrangements

8.1 Goal

The goal of this chapter is to provide for appropriate and sufficient means to ensure safe abandonment of the ship and recovery of persons.

8.2 Functional requirements

In order to achieve the goal set out in paragraph 8.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

- .1 the capacity of the survival craft shall be sufficient to accommodate all persons on board;
- .2 appropriate and sufficient personal life-saving appliances shall be available for all persons on board;
- .3 sufficient space for assembling and mustering must be ensured;
- .4 onboard communication and alarm systems shall be provided to ensure emergency communication to all persons on board; and
- .5 means shall be provided to ensure the safe recovery of persons.

9 Dangerous goods

9.1 Goal

The goal of this chapter is to provide for the safe carriage of industrial personnel while transporting and handling dangerous goods on ships certified in accordance with this Code, taking into consideration the total number of persons on board.

9.2 Functional requirement

In order to achieve the goal set out in paragraph 9.1 above, any hazard caused by the transportation and handling of dangerous goods shall be taken into account and the risk to all persons on board shall be minimized, having regard to the nature of the dangerous goods. This functional requirement is embodied in the regulations in parts IV and V.

PART III REGULATIONS

Regulation 1 - *Industrial personnel*

1.1 In order to meet the functional requirements set out in paragraph II/1.2.1, all industrial personnel shall be at least 16 years of age and documentary evidence shall be made available to the master that they are physically and medically fit to fulfil all the requirements in this regulation, based on a standard acceptable to the Administration.

1.2 In order to meet the functional requirements set out in paragraph II/1.2.2, all industrial personnel shall demonstrate adequate knowledge of the working language on board in order to be able to communicate effectively and understand any instructions given by the ship's crew.

1.3 In order to meet the functional requirements set out in paragraph II/1.2.3, all industrial personnel shall, prior to boarding the ship, receive training or instruction with respect to:¹

- .1 personal survival that includes:
 - .1 knowledge of emergency situations that may occur on board a ship;
 - .2 the use of personal life-saving equipment;
 - .3 safely entering the water from a height, and survival in the water; and
 - .4 boarding a survival craft from the ship and water while wearing a lifejacket;
- .2 fire safety that includes knowledge of the types of fire hazards on board ships and precautionary measures to be taken to prevent a fire; and
- .3 personal safety and social responsibilities that include:
 - .1 understanding the authority of the master or their representative on board;
 - .2 complying with instructions provided by the shipboard personnel; and
 - .3 understanding safety information symbols, signs and alarm signals found on board ships.

1.4 No industrial personnel shall be carried on board the ship unless the master has been provided with documentation confirming that such personnel have received the training or instructions required by this regulation.

1.5 In order to meet the functional requirement set out in paragraph II/1.2.4, all industrial personnel shall, prior to leaving port or immediately after boarding, receive onboard ship-specific safety familiarization that includes:

- .1 the layout of the ship;
- .2 the location of personal life-saving appliances, muster and embarkation stations, emergency escape routes and first aid stations;

- .3 the safety information, symbols, signs and alarms on board; and
- .4 action to be taken in the event of an alarm sounding or the declaration of an emergency.

1.6 In order to meet the functional requirement set out in paragraph II/1.2.5, all industrial personnel shall, prior to being transferred, receive familiarization in the ship's procedures, arrangements and any additional safety measures or equipment for the transfer of personnel to other ships and/or offshore facilities.

¹ Personnel meeting the training requirements in paragraph 5.5 of the *Recommendations for the training and certification of personnel on mobile offshore units* (resolution A.1079(28)) or industrial training standards, such as those of the Global Wind Organization (GWO), Offshore Petroleum Industry Training Organization (OPITO) or Basic Offshore Safety Induction and Emergency Training (OPITO-accredited), may be considered as meeting the requirements of this section.

Regulation 2 - Safe transfer

2.1 In order to meet the functional requirement in paragraph II/2.2.1, the following applies:

- .1 Personnel transfer appliances and arrangements shall be kept clean, properly maintained and regularly inspected to ensure that they are safe to use.
- .2 The rigging and use of the personnel transfer arrangements shall be supervised by a responsible officer and operated by properly trained personnel. Safety procedures shall be established and followed by personnel engaged in rigging and operating any mechanical equipment.
- .3 Means of communication shall be provided between the supervising responsible officer and the navigation bridge.
- .4 All personnel transfer arrangements shall be permanently marked to enable identification of each appliance for the purposes of survey, inspection and record-keeping. A record of use and maintenance shall be kept on board the ship.
- .5 Prior to commencing personnel transfer operations, the personnel transfer arrangements shall be checked to ensure they are functioning properly.
- .6 Means shall be provided to ensure safe and unobstructed passage for industrial personnel between the personnel transfer arrangements and where they are being transported or accommodated on board.
- .7 Lighting capable of being supplied by the emergency source of power shall be provided to illuminate the personnel transfer arrangements, the water below the transfer arrangements and the passage specified in sub-paragraph .6 above.
- .8 The deck area for personnel transfer shall be designated and free from obstructions.

- .9 A job safety analysis shall be carried out when planning, and before executing, personnel transfer at sea. The analysis shall take into account environmental conditions, as well as operational and equipment limitations.
- .10 When planning personnel transfer, the guidance developed by the Organization² or other relevant guidance³ acceptable to the Administration should be taken into account.

2.2 In order to meet the functional requirement in paragraph II/2.2.2, personnel transfer arrangements shall be designed, constructed, tested and installed in accordance with standards⁴ acceptable to the Administration or requirements of a classification society which is recognized by the Administration in accordance with the provisions of SOLAS regulation XI-1/1.

2.3 In addition, the following applies:

- .1 The design of the personnel transfer arrangements shall be suitable for the arrangement on the ship.
- .2 An analysis shall be performed in order to evaluate failures in IP transfer arrangements and all its associated systems which might impair the availability of the transfer arrangements and/or endanger the safety of the persons involved.

The analysis⁵ shall:

- .1 consider the effects of failure in all the equipment and systems due to single failure, fire in any space or flooding of any watertight compartment that could affect the availability of the transfer arrangements; and
- .2 provide solutions to ensure the availability of the IP transfer arrangements and the safety of all persons involved upon such failures identified in .1.
- .3 Where a single failure results in failure of more than one component in a system (common cause failure), all the resulting failures shall be considered together. Where the occurrence of a failure leads directly to further failures, all those failures shall be considered together.

2.4 In order to meet the functional requirement in paragraph II/2.2.3, the manoeuvrability of the ship together with the expected need for the ship to keep position over time shall be evaluated, to ensure the correct use of position-keeping equipment.

2.5 In order to meet the functional requirement in paragraph II/2.2.4, procedures shall be in place to ensure correct information on the number and identity of personnel on board at all times.

² Refer to the *Guidance on safety when transferring persons at sea* (MSC-MEPC.7/Circ.10).

³ Such as the latest revision of IMCA M202 Guidance on the transfer of personnel to/from offshore vessels and structures.

⁴ Refer to relevant sections of EN 13852-1:2013.

⁵ Appropriate analysis may be QFA or FMEA and their associated reports.

PART IV
ADDITIONAL REGULATIONS FOR SHIPS CERTIFIED IN ACCORDANCE
WITH SOLAS CHAPTER I

Regulation 1 - General

1.1 Unless expressly provided otherwise in this part, ships carrying industrial personnel shall meet the SOLAS requirements for cargo ships and the applicable regulations in this part.

1.2 Ships complying with paragraph 1.1 in addition to the applicable regulations in this part are considered to meet the goals and functional requirements in paragraphs II/3 to II/9.

Regulation 2 - Subdivision and stability

2.1 In order to meet the functional requirement set out in paragraph II/3.2.1, the following applies:

- .1 Where the ship is certified to carry more than 240 persons on board, it shall meet the requirements of SOLAS regulation II-1/5 as though the ship is a passenger ship and the industrial personnel are counted as passengers. However, SOLAS regulation II-1/5.5 is not applicable.
- .2 Subdivision and damage stability shall be in accordance with SOLAS chapter II-1, where the ship is considered a passenger ship and industrial personnel are counted as passengers, with the value R as follows:
 - .1 where the ship is certified to carry more than 240 persons, the value R is assigned as R ;
 - .2 where the ship is certified to carry not more than 60 persons, the value R is assigned as $0.8R$; or
 - .3 for more than 60 persons, but not more than 240 persons, the value R shall be determined by linear interpolation between the values given in sub-paragraphs .1 and .2 above.

$$R = 1 - \frac{5,000}{L_s + 2.5N + 15,225}$$

Where:

$$N = N_1 + 2N_2$$

N_1 = number of persons for whom lifeboats are provided

N_2 = number of persons (including officers and crew) the ship is permitted to carry in excess of N_1

- .3 Where the conditions of service are such that compliance with paragraph 2.1.2 above on the basis of $N=N_1+2N_2$ is impracticable and where the Administration considers that a suitably reduced degree of hazard exists, a lesser value of N may be taken but in no case less than $N=N_1+N_2$.

- .4 For ships to which paragraph 2.1.2.1 above applies, the requirements of SOLAS regulations II-1/8 and II-1/8-1 and of SOLAS chapter II-1 parts B-2, B-3 and B-4 shall be applied as though the ship is a passenger ship and the industrial personnel are passengers. However, SOLAS regulations II-1/14 and II-1/18 are not applicable.
- .5 For ships to which paragraphs 2.1.2.2 and 2.1.2.3 above apply, except as provided in paragraph 2.1.6 below, the provisions of SOLAS chapter II-1, parts B-2, B-3 and B-4 shall apply as though the ship is a cargo ship and the industrial personnel are crew. However, the requirements of SOLAS regulations II-1/8 and II-1/8-1 need not be applied and SOLAS regulations II-1/14 and II-1/18 are not applicable.
- .6 All ships certified in accordance with this Code shall comply with SOLAS regulations II-1/9, II-1/13, II-1/19, II-1/20 and II-1/21 as though the ship is a passenger ship.

Regulation 3 - *Machinery installations*

3.1 In order to meet the functional requirement set out in paragraph II/4.2.1, the ship shall comply with SOLAS regulation II-1/35-1 as though the ship is a passenger ship.

3.2 In order to meet the functional requirement set out in paragraph II/4.2.2, where the ship is certified to carry more than 240 persons on board, it shall comply with the requirements of SOLAS regulation II-1/29 as though the ship is a passenger ship.

Regulation 4 - *Electrical installations*

4.1 In order to meet the functional requirement set out in paragraph II/5.2.1, the following applies:

- .1 for installations in ships of more than 50 m in length carrying not more than 60 persons on board, the requirements in SOLAS regulation II-1/42.2.6.1 shall apply in addition to the requirements in SOLAS regulation II-1/43; and
- .2 for installations in ships carrying more than 60 persons on board, SOLAS regulation II-1/42 shall apply.

4.2 In order to meet the functional requirement set out in paragraph II/5.2.2 for installations on ships carrying more than 60 persons on board, SOLAS regulation II-1/45.12 shall apply.

Regulation 5 - *Periodically unattended machinery spaces*

In order to meet the functional requirements set out in paragraph II/6.2, ships carrying more than 240 persons on board shall be considered as passenger ships in relation to SOLAS chapter II-1, part E.

Regulation 6 - Fire safety

In order to meet the functional requirements set out in paragraphs II/7.2 and 4.2.3, the following applies:

- .1 where the ship is certified to carry more than 240 persons on board, the requirements of SOLAS chapter II-2 for passenger ships carrying more than 36 passengers shall apply; and
- .2 where the ship is certified to carry more than 60, but not more than 240 persons on board, the requirements of SOLAS chapter II-2 for passenger ships carrying not more than 36 passengers apply, except that SOLAS regulations II-2/21 and 22 need not apply.

Regulation 7 - Life-saving appliances and arrangements

In order to meet the functional requirements set out in paragraph II/8.2:

- .1 for ships carrying more than 60 persons on board, the requirements of SOLAS chapter III for passenger ships engaged on international voyages, which are not short international voyages, shall apply;
- .2 regardless of the number of the persons on board, SOLAS regulations III/2 and III/19.2.3 are not applicable;
- .3 where the term "passenger" is used in SOLAS chapter III, it shall be read to mean industrial personnel as prescribed in SOLAS regulation XV/2.3; and
- .4 notwithstanding sub-paragraph .3 above, the required number of infant or child lifejackets shall be calculated solely based on the number of passengers on board.

Regulation 8 - Dangerous goods**8.1 General**

Industrial personnel may only bring dangerous goods on board for the purpose of their role off the ship and with the prior consent of the master of the ship. These dangerous goods shall be considered as cargo and shall be transported in accordance with part A of SOLAS chapter VII.

8.2 Carriage of dangerous goods in packaged form

In order to meet the functional requirements in paragraph II/9.2:

- .1 for ships certified to carry more than 240 persons on board, SOLAS regulation II-2/19.3.6.2 for passenger ships carrying more than 36 passengers shall apply; and
- .2 for the purpose of the requirements of the IMDG Code, ships certified to carry more than 240 persons on board shall be considered as passenger ships and those certified to carry 240 or fewer persons on board shall be considered as cargo ships.

8.3 Carriage of dangerous goods in solid form in bulk

In order to meet the functional requirements in paragraph II/9.2:

- .1 for ships certified to carry more than 240 persons on board, SOLAS regulation II-2/19.3.6.2 for passenger ships carrying more than 36 passengers shall apply; and
- .2 for the purpose of the requirements of the IMSBC Code, industrial personnel shall be considered as personnel in the context of personnel protection.

8.4 Carriage of dangerous liquid chemicals, liquefied gases and oil

8.4.1 In order to meet the functional requirements in paragraph II/9.2, when simultaneously carrying dangerous liquid chemicals and/or liquefied gases as cargo in bulk and industrial personnel, the ship shall either be certified in accordance with the requirements of parts B or C of SOLAS chapter VII or meet and be certified in accordance with a standard not inferior to that developed by the Organization.⁶ In addition:

- .1 carriage of toxic products, low-flashpoint products or acids shall not be allowed when the total number of persons on board exceeds 60;
- .2 for the purpose of carrying industrial personnel, the areas and spaces on ships where industrial personnel are not permitted to enter shall be clearly marked;
- .3 the arrangements for personnel transfer shall be located outside the cargo area;
- .4 the access to the arrangements for personnel transfer shall, as far as practicable, be located outside the cargo area; and
- .5 embarkation or personnel transfer and loading or unloading of cargo shall not take place simultaneously.

8.4.2 In order to meet the functional requirements in paragraph II/9.2, when simultaneously carrying oil as cargo, as defined in Annex I of MARPOL, and industrial personnel, the additional requirements in paragraph 8.4.1 above shall apply.

8.4.3 For the purpose of this requirement:

- .1 "low-flashpoint products" mean:
 - .1 noxious liquid substances with a flashpoint not exceeding 60°C;
 - .2 oil with a flashpoint not exceeding 60°C; and
 - .3 liquefied gases which require flammable vapour detection in accordance with chapter 19 of the IGC Code;
- .2 "toxic products" mean:
 - .1 dangerous chemicals to which special requirement 15.12 of the IBC Code applies; and

- .2 liquefied gases which require toxic vapour detection in accordance with chapter 19 of the IGC Code; and
- .3 "acids" mean dangerous chemicals to which special requirement 15.11 of the IBC Code applies.

8.4.4 In order to meet the functional requirements in paragraph II/9.2 when carrying liquefied gases in bulk, for the purpose of the requirements of the IGC Code, industrial personnel shall be considered as personnel in the context of training and personnel protection.

⁶ Refer to the *Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code)* (resolution A.1122(30)).

PART V

ADDITIONAL REGULATIONS FOR CRAFT CERTIFIED IN ACCORDANCE WITH SOLAS CHAPTER X

Regulation 1 - General

- 1.1 High-speed cargo craft certified in accordance with SOLAS chapter X shall not carry more than 60 persons on board.
- 1.2 Unless expressly provided otherwise in this part, high-speed craft carrying not more than 60 persons on board shall meet the requirements for cargo craft in the HSC Code and the applicable regulations in this part.
- 1.3 Craft complying with paragraph 1.2 above in addition to the applicable regulations in this part are considered to meet the goals and functional requirements in paragraphs II/3 to II/9.
- 1.4 The carriage of IP on high-speed craft is not considered as transit voyage, as specified in 1.9.1.1 of the HSC Code, and a permit to operate is required.
- 1.5 Where the term "passenger" is used in applicable requirements in the HSC Code, it shall be read to mean "persons on board other than crew".

Regulation 2 - Subdivision and stability

In order to meet the functional requirements set out in paragraph II/3.2, the following applies:

- .1 Chapter 2, part B, except 2.13.2 and 2.14, of the HSC Code shall apply in lieu of chapter 2, part C of the HSC Code.
- .2 When applying the provisions of chapter 2 of the HSC Code, the expression "passenger" shall be read as "persons on board other than crew". In addition, the mass of each such person shall be assumed to be 90 kg instead of 75 kg.

Regulation 3 - Machinery installations

In order to meet the functional requirements set out in paragraph II/4.2, provisions in chapter 10, part B of the HSC Code shall apply as applicable to category A passenger craft in lieu of chapter 10, part C of the HSC Code.

Regulation 4 - *Electrical installations*

In order to meet the functional requirements set out in paragraph II/5.2, 12.7.10 of the HSC Code shall apply.

Regulation 5 - *Periodically unattended machinery spaces*

[no provisions]

Regulation 6 - *Fire safety*

[no provisions]

Regulation 7 - *Life-saving appliances and arrangements*

In order to meet the functional requirements set out in paragraph II/8.2:

- .1 4.2.3 of the HSC Code shall apply;
- .2 8.4.3 of the HSC Code shall apply – the expression "passenger spaces" shall be read as "IP area"; and
- .3 the required number of infant or child lifejackets shall be calculated solely based on the number of passengers on board.

Regulation 8 - *Dangerous goods*

8.1 Industrial personnel may only bring dangerous goods on board for the purpose of their role off the craft and with the prior consent of the master of the craft. These dangerous goods shall be considered as cargo and shall be transported in accordance with chapter 7, part D of the HSC Code.

8.2 In order to meet the functional requirements set out in paragraph II/9.2:

- .1 for the purpose of carrying IP, the areas and spaces on craft where IP are not permitted to enter shall be clearly marked;
- .2 the arrangement for personnel transfer shall be located outside the cargo area;
- .3 the access to the arrangements for personnel transfer shall, as far as practicable, be located outside the cargo area; and
- .4 embarkation or personnel transfer and loading or unloading of cargo shall not take place simultaneously.

APPENDIX

FORM OF SAFETY CERTIFICATE FOR SHIPS CARRYING INDUSTRIAL PERSONNEL

INDUSTRIAL PERSONNEL SAFETY CERTIFICATE

This Certificate shall be supplemented by a Record of Equipment for the
Industrial Personnel Safety Certificate (Form IP)

(Official seal)

(State)

Issued under the provisions of the

International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

(name of the State)

by _____
(person or organization authorized)

Particulars of ship⁷

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO number⁸

Date [dd/mm/yyyy] on which keel was laid or ship was at a similar
stage of construction or, where applicable, date on
which work for a conversion or an alteration or
modification of a major character was commenced

⁷ Alternatively, the particulars of the ship may be placed horizontally in boxes.

⁸ In accordance with the *IMO Ship Identification Number Scheme* adopted by the Organization by resolution A.1117(30).

THIS IS TO CERTIFY:

1 ☐ *check box, if applicable*

That the ship has been surveyed in accordance with the provisions of section I/3 of the International Code of Safety for Ships Carrying Industrial Personnel as a ship to which regulations XV/3.1 or 3.4 of the Convention apply.

.1 That the survey showed that:

- .1 the structure, equipment, fittings and materials of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the relevant provisions of the Code; and
- .2 if fitted, the personnel transfer appliances and arrangement and the condition thereof are in all respects satisfactory and comply with the provisions of regulation III/2 of the Code.

2 ☐ *check box, if applicable*

That the ship has been surveyed in accordance with the provisions of section I/3 of the International Code of Safety for Ships Carrying Industrial Personnel as a ship to which regulations XV/3.2 or XV/3.3 of the Convention apply.

.1 That the survey showed that:

- .1 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with regulation IV/7 or V/7 of the Code, as applicable;
- .2 the ship, if permitted to carry dangerous goods, complies with the relevant provisions of regulation IV/8 or V/8 of the Code, as applicable; and
- .3 if fitted, the personnel transfer appliances and arrangement and the condition thereof are in all respects satisfactory and comply with the provisions of regulation III/2 (except for paragraph 2.1.7) of the Code.

3 This certificate is not valid for the carriage of toxic products, low-flashpoint products or acids when the total number of persons on board exceeds 60.

This certificate is valid until

Completion date of the survey on which this certificate is based (dd/mm/yyyy):
.....

Issued at
(Place of issue of certificate)

.....
(Date of issue)

.....
(Signature of authorized official
issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

ENDORSEMENT FOR ANNUAL, PERIODICAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by section I/3 of the Code, the ship was found to comply with the relevant provisions of the Code:

Annual/Periodical* survey:

Signed:

.....
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Annual/Periodical/Intermediate* survey:

Signed:

.....
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Annual/Periodical/Intermediate* survey:

Signed:

.....
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Annual/Periodical* survey:

Signed:

.....
(Signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

*Delete as appropriate.

**ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN FIVE YEARS
WHERE REGULATION I/14(C) OF THE CONVENTION OR 1.8.8 OF THE 2000 HSC CODE
APPLIES**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with regulation I/14(c) of the Convention* or 1.8.8 of the 2000 HSC Code,* be accepted as valid until.....

Signed:
(Signature of authorized official)

Place:

Date:
(Seal or stamp of the authority, as appropriate)

**ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND
REGULATION I/14(D) OF THE CONVENTION OR 1.8.9 OF THE 2000 HSC CODE APPLIES**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with regulation I/14(d) of the Convention* or 1.8.9 of the 2000 HSC Code,* be accepted as valid until.....

Signed:
(Signature of authorized official)

Place:

Date:
(Seal or stamp of the authority, as appropriate)

**ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING
THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION I/14(E)
OR I/14(F) OF THE CONVENTION OR 1.8.10 OF THE 2000 HSC CODE APPLIES**

This certificate shall, in accordance with regulation I/14(e)/I/14(f)* of the Convention or 1.8.10 of the 2000 HSC Code,* be accepted as valid until.....

Signed:
(Signature of authorized official)

Place:

Date:
(Seal or stamp of the authority, as appropriate)

*Delete as appropriate.

**ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE
REGULATION I/14(H) OF THE CONVENTION OR 1.8.12 OF THE 2000 HSC CODE
APPLIES**

In accordance with regulation I/14(h) of the Convention* or 1.8.12 of the 2000 HSC Code,* the
new anniversary date is

Signed:
(Signature of authorized official)

Place:

Date:
(Seal or stamp of the authority, as appropriate)

In accordance with regulation I/14(h) of the Convention* or 1.8.12 of the 2000 HSC Code,* the
new anniversary date is

Signed:
(Signature of authorized official)

Place:

Date:
(Seal or stamp of the authority, as appropriate)

*Delete as appropriate.

Record of Equipment for the Industrial Personnel Safety Certificate (Form IP)

This Record should be permanently attached to the
Industrial Personnel Safety Certificate

RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL

1 Particulars of ship

Name of ship

Distinctive number or letters

Total number of persons on board
for which certified

2 Details of life-saving appliances

1	Total number of persons for which life-saving appliances are provided	.....	
		Port side	Starboard side
2	Total number of lifeboats	.....	.....
2.1	Total number of persons accommodated by them	.....	.....
2.2	Number of partially enclosed lifeboats (SOLAS regulation III/21 or III/31, or 8.10 of the HSC Code, as applicable, and LSA Code, section 4.5)	.....	.....
2.3	Number of self-righting partially enclosed lifeboats (SOLAS regulation III/21 or III/31, or 8.10 of the HSC Code, as applicable, and LSA Code, section 4.5)	.....	.....
2.4	Number of totally enclosed lifeboats (SOLAS regulation III/21 or III/31, or 8.10 of the HSC Code, as applicable, and LSA Code, sections 4.6)	.....	.....
2.5	Other lifeboats	.....	.....
2.5.1	Number	.....	.....
2.5.2	Type	.....	.....

3	Number of motor lifeboats (included in the total lifeboats shown above)	.....
3.1	Number of lifeboats fitted with searchlights	.....
4	Number of rescue boats	.....
4.1	Number of boats which are included in the total lifeboats shown above	.....
5	Liferafts	.....
5.1	Those for which approved launching appliances are required	.....
5.1.1	Number of liferafts	.....
5.1.2	Number of persons accommodated by them	.....
5.2	Those for which approved launching appliances are not required	.....
5.2.1	Number of liferafts	.....
5.2.2	Number of persons accommodated by them	.....
6	Number of marine evacuation systems (MES)	.....
6.1	Persons accommodated by them	.....
7	Buoyant apparatus	.....
7.1	Number of apparatuses	.....
7.2	Number of persons capable of being supported	.....
8	Number of lifebuoys	.....
9	Number of lifejackets (total)	.....
9.1	Number of adult lifejackets	.....
9.2	Number of child lifejackets	.....
9.3	Number of infant lifejackets	.....
10	Immersion suits	.....
10.1	Total number	.....
11	Number of thermal protective aids ⁹	.....

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

.....
(Date of issue)

(Signature of duly authorized official
issuing the Record)

(Seal or stamp of the issuing authority, as appropriate)

⁹ Excluding those required by the LSA Code, paragraphs 4.1.5.1.24, 4.4.8.31 and 5.1.2.2.13.
