
STATUTORY INSTRUMENTS

2021 No. 792

The Space Industry Regulations 2021

PART 9

Cosmic radiation requirements: crew of a launch vehicle and crew of a carrier aircraft

CHAPTER 3

Provisions relating to classified crew

Classification of crew

143.—(1) Subject to paragraph (2), a spaceflight operator may classify a crew member for the purpose of regulation 135(1) and (2) and a crew member classified under this regulation is referred to in this Part as a “classified crew member”.

(2) A spaceflight operator must not classify a crew member unless—

(a) at the crew member’s most recent medical examination or health review, under regulation 144, an approved doctor determined that the crew member is—

(i) fit to work as a classified crew member, or

(ii) fit, subject to certain conditions, to work as a classified crew member, and

(b) in a case within sub-paragraph (a)(ii), the conditions are complied with.

(3) A spaceflight operator must, as soon as is practicable following a crew member’s most recent medical examination or health review under regulation 144, review the suitability of the crew member for the crew member’s classification, having regard to the results of—

(a) any monitoring under regulation 139 or 146 undertaken in relation to the crew member since the beginning of the year in which the medical examination or health review takes place,

(b) the crew member’s most recent medical examination or health review under regulation 144, and

(c) any other medical examination the crew member has been subject to since the date of the crew member’s most recent medical examination or health review under regulation 144.

(4) A spaceflight operator must cease to classify a crew member as a classified crew member if—

(a) at the crew member’s most recent medical examination or health review, in accordance with regulation 144, an approved doctor determines that the crew member is—

(i) unfit to work as a classified crew member, or

(ii) fit, subject to certain conditions, to work as a classified crew member, and

(b) in a case within sub-paragraph (a)(ii), the conditions are not complied with.

Medical surveillance

144.—(1) A spaceflight operator must ensure that—

- (a) before classifying a crew member as a classified crew member, the crew member undergoes a medical examination by an approved doctor to determine the crew member's fitness to perform duties as a classified crew member, and
 - (b) each classified crew member has at least one review of their health ("health review") by an approved doctor once in every 12 months to determine whether the crew member remains fit to perform their duties.
- (2) For the purposes of paragraph (1), every crew member must submit to such a medical examination or health review when required by the spaceflight operator to do so.
- (3) A spaceflight operator must ensure that the approved doctor who performs an examination or health review in accordance with paragraph (1)—
- (a) determines that the crew member is—
 - (i) fit to work as a classified crew member,
 - (ii) fit, subject to certain conditions, to work as a classified crew member, or
 - (iii) unfit to work as a classified crew member, and
 - (b) in a case within sub-paragraph (a)(ii), specifies the conditions concerned.
- (4) A spaceflight operator must, as soon as reasonably practicable, notify the crew member concerned of—
- (a) the determination made by the approved doctor of the crew member's fitness under paragraph (3)(a), and
 - (b) any conditions the approved doctor has specified in relation to the crew member under paragraph (3)(b).
- (5) A spaceflight operator must allow an approved doctor access to any information the approved doctor may reasonably require in relation to the approved doctor's functions under this regulation.

Health records

- 145.**—(1) A spaceflight operator must ensure that a health record is created in respect of each classified crew member.
- (2) A "health record" is a written document containing the information specified in Schedule 6.
- (3) A spaceflight operator must ensure that each health record is—
- (a) maintained while the crew member to whom it relates is classified by the spaceflight operator as a classified crew member, and
 - (b) retained until the later of—
 - (i) the 75th anniversary of the birth of the crew member, whether or not the crew member survives until that date, and
 - (ii) the 30th anniversary of the date on which the crew member was last exposed to cosmic radiation in the course of performing duties for the spaceflight operator on board a carrier aircraft or launch vehicle.
- (4) A crew member may request a copy of their health record.
- (5) An approved doctor may request a copy of the health record in respect of a crew member whom the approved doctor has examined, is due to examine, or whose health the approved doctor has reviewed, or is due to review, in accordance with regulation 144(1) in connection with the performance of the approved doctor's functions under that regulation.
- (6) A spaceflight operator must, within a reasonable time of receiving a request under paragraph (4) or (5), ensure that a copy of the health record is produced to the crew member or approved doctor.

(7) The spaceflight operator must take measures to ensure that a health record is protected as confidential information, and not disclosed otherwise than in accordance with this regulation or to an approved medical assessor for the purposes of that assessor performing duties as a medical assessor.

Monitoring of exposure to cosmic radiation: classified crew

146.—(1) A spaceflight operator must ensure that the exposure to cosmic radiation of each classified crew member is individually monitored.

(2) Monitoring of the crew of a carrier aircraft or a launch vehicle under this regulation may be undertaken by proper use of any of the following computer programs, which calculate the effective dose of cosmic radiation received by an individual on board a carrier aircraft or a launch vehicle, or of a computer program that performs an equivalent function—

- (a) CARI-7;
- (b) EPCARD;
- (c) SIEVERT PN;
- (d) PCAire.

(3) In this regulation, “CARI-7”, “EPCARD”, “SIEVERT PN” and “PCAire” have the same meaning as in regulation 139.

Records of exposure to cosmic radiation of classified crew

147.—(1) A spaceflight operator must maintain a record of all monitoring undertaken under regulation 146.

(2) A record under paragraph (1) is a written document containing—

- (a) the crew member’s—
 - (i) name,
 - (ii) date of birth,
 - (iii) gender, and
 - (iv) nationality,
- (b) the name and address of the crew member’s employer, where it is not the spaceflight operator, and
- (c) the start date of the period to which the monitoring relates and, where possible, the end date.

(3) An operator must ensure that a record under paragraph (1) is retained until the later of—

- (a) the 75th anniversary of the birth of the crew member to whom the record relates, whether or not the crew member survives until that date, and
- (b) the 30th anniversary of the date on which the crew member was last exposed to cosmic radiation in the course of performing duties for the spaceflight operator on board a launch vehicle or a carrier aircraft.

(4) On or before 31st March of each calendar year the spaceflight operator must submit to the regulator a copy of all records under paragraph (1) relating to the previous calendar year.

Access to records of individual exposure to cosmic radiation

148.—(1) An interested person may request that a spaceflight operator cause to be produced to the interested person a copy of the record required to be maintained under regulation 147 in relation to a crew member specified in that request.

- (2) “Interested person” means—
- (a) the crew member to whom the record relates,
 - (b) another spaceflight operator (“O”), or a person other than O employing or otherwise engaging the crew member to perform duties for O on board a launch vehicle or a carrier aircraft, where the request is made for the purpose of complying with O’s requirements in relation to the crew member under this Part,
 - (c) any approved doctor who makes the request—
 - (i) in relation to an examination or health review the approved doctor is due to perform, or has performed, in accordance with regulation 144 of the crew member to whom the record relates, and
 - (ii) in connection with making a determination as mentioned in paragraph (3) of that regulation.
- (3) The spaceflight operator must, within a reasonable time of receiving a request under paragraph (1), cause a copy of the record to be produced to the person who requested it.
- (4) The spaceflight operator must take measures to ensure that all records referred to in paragraph (1) are protected as confidential information, and not disclosed otherwise than in accordance with this regulation or to an approved medical assessor for the purposes of that assessor performing duties as a medical assessor.