

DATA ITEM DESCRIPTION

Title: RADIATION HAZARD CONTROL PROCEDURES (RHCP)

Number: DI-SAFT-82008

Approved Date: 20151130

AMSC Number: F9602

Limitation: N/A

DTIC Applicable: No

GIDEP Applicable: No

Preparing Activity: 24 (96 TW/SEU)

PROJECT Number: SAFT-2016-001

Applicable Forms: N/A

Use/Relationship: The RHCP provides the data describing and defining radio frequency (RF) power density and x-ray characteristics for ground electronic systems, subsystems, equipment, components, and end items.

a. This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

b. This DID is applicable to all ground electronic systems, subsystems, equipment, components, and end items acquired by the Government. In addition, it is applicable to airborne emitters which plan testing at Eglin test ranges.

Requirements:

1. Format. Contractor format is acceptable.

2. Content. The RHCP shall contain technical information describing and defining RF power density and x-ray characteristics for electronic systems. Where applicable, previously furnished documentation shall be referenced throughout the package. The RHCP shall include the following information:

2.1 Preliminary data. This section shall contain information which will indicate the prediction of RF power densities for personnel directly in front of, adjacent to, and behind the radiating element of the end item and adjacent to any component of the end item which is suspected of producing 0.01 watt/cm^2 under any conditions of operations and maintenance including conditions wherein maintenance required visual inspection with enclosures removed. This section shall include a detailed list of the proposed measuring equipment.

2.1.1 Final data. This data shall be based on calculations or actual measurements of the end item which will accurately define and illustrate areas wherein an RF power density is unsafe for personnel. It shall describe the operating characteristics under which the information was derived along with the operating parameters of the end item.

2.1.2 Baseline data. This data shall include the following information:

a. Nomenclature of emitter: AN/(number) or manufacturer and model number.

b. Data by which construction or modification is projected to start and scheduled data of operation.

c. Maximum transmitter peak power (kilowatts).

d. Type of emission (pulse, CW, voice, etc.).

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- e. Pulse width (micro seconds) and pulse repetition frequency (pulses/second); or maximum duty cycle.
- f. Frequency and mission bandwidth.
- g. Antenna characteristics.
 - (1) Type of antenna and dimensions.
 - (2) Gain in dB.
 - (3) 3dB beamwidth (degrees or radians).
 - (4) Antenna center height above ground level in feet.
 - (5) Scan rate; horizontal and vertical (surveillance radars only) in degrees/second.
- h. System insertion losses between transmitter and antenna in dB.
- i. Polarization of transmitted wave.
- j. Safety devices for azimuth and elevation control (stops/locks/cutouts; mechanical/electrical/software) with a description of the device and limitations.

3.1.3 X-radiation.

- a. The method employed to determine the levels of x-radiation, including a description of the instrumentation to be used for the determination for both quality and quantity shall be described.
- b. The method by which measurements for these factors shall be taken throughout the operating capability range of the electronic or electrical equipment shall be described.
- c. Preliminary and final x-ray survey data shall be included.

End of DI-SAFT-82008