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C-A OPERATIONS PROCEDURES MANUAL

9.2.3 Procedure for Chief Engineers to Certify the Conformance of Devices

Text 2 through 4

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ *Signature on File* _____
Collider-Accelerator Department Chairman Date

E. Lessard

9.2.3 Procedure for Chief Engineers to Certify the Conformance of Devices

1. Purpose

- 1.1 Certain devices in safety systems must perform as specified for the whole system to function as expected. The Chair of the review committee for the system may choose to have the appropriate Chief Engineer evaluate and certify that the device will perform as specified.

Note:

These instructions apply to devices installed after October 1, 1995.

- 1.2 This procedure describes the certification process for a device to ensure that it will conform to standards for safe and environmentally sound operation. Process is given for a Committee Chair to request a certification of a device; a Chief Engineer to certify it; and the Project Engineer/Physicist to maintain certification of the device.

2. Responsibilities

- 2.1 The Chair of the Radiation Safety Committee, the Chair of the [Experimental Safety Review Committee](#), the Chair of the Accelerator Systems Safety Review Committee, the Chair of the ALARA Committee, the C-A ESHQ Associate Chair, or the C-A Department Chair:
- 2.1.1 Shall identify those devices requiring certification.
- 2.1.2 Shall provide the appropriate Chief Engineer the specifications that the device should be certified to.
- 2.2 The Chief Mechanical Engineer, or Chief Electrical Engineer, shall evaluate the devices and provide certification that it complies with the provided specification.
- 2.3 The Project Physicist/Engineer shall ensure that the device is used as specified and request re-certification or de-certification when appropriate.

3. Prerequisites

Safety committee minutes, or memo requesting certification.

4. Precautions

Misuse of a certified device may defeat the function of associated system.

5. Procedure

- 5.1 A Committee Chair shall request a Chief Engineer to certify on the basis of, but not limited to, the following criteria:
 - 5.1.1 Failure or mis-operation of the device could cause serious injury or death, loss of greater than \$100,000 in property damage and cleanup, or significant environmental release.
- 5.2 The Certification Process
 - 5.2.1 For new devices, the Requesting Chair, with the assistance of the appropriate Chief Engineer, shall fill out and sign the Specification section of [C-A-OPM ATT 9.2.3.a](#). “Engineering Units” shall be used, not “Physics Units”, (e.g. Beam power shall be in watts not protons per second). Calculations may be attached showing the conversion from physics to engineering units.
 - 5.2.2 The appropriate Chief Engineer shall fill out and sign the certification section of [C-A-OPM ATT 9.2.3.a](#) and forward it to the C-A Training and Documentation Office. The C-A Training and Documentation Administrator shall file the original certification forms, and forward copies to the Committee Chair requesting certification, with a copy to the Project Physicist/Engineer.
 - 5.2.3 The Chief Engineer shall attach a certification tag, [C-A-OPM-ATT 9.2.3.b](#), to the device.
- 5.3 The Project Physicist/Engineer shall inform the Chief Engineer and Committee Chair if:
 - 5.3.1 The certified device is altered in size, shape or material.
 - 5.3.2 The mission of the certified device is changed.
 - 5.3.3 The certified device’s operating parameters are changed.
 - 5.3.4 The certified device is moved to another location.
 - 5.3.5 Transducers or sensors on the certified device are materially or parametrically altered.
- 5.4 The Committee Chair shall decide to re-certify or de-certify the device and inform the Chief Engineer.

6. Documentation

- 6.1 The C-A Training and Documentation Administrator shall maintain the original certification forms.
- 6.2 The Chair of the safety committee requesting certification shall maintain copies of completed certification forms in the appropriate committee files.
- 6.3 The certifying Chief Engineer and Project Physicist/Engineer shall keep copies of the certification until it is decertified.

7. References

None

8. Attachments

- 8.1 [C-A-OPM ATT 9.2.3.a, "Certification Form for Devices"](#)
- 8.2 [C-A-OPM ATT 9.2.3.b, "Certification Tag for Devices"](#)