

DUNE APA UK Production Readiness Review

- a. Scope: The goal of this review is to examine the APA manufacturing process and ensure that quality control is in place.

- b. Documentation required
 - i. Documentation Index including document number, revision and title
 - ii. Final, signed-off drawings including EDMS number, link, revision number and title
 - a. Printed circuit board documentation must include schematics, instructions and layout files
 - b. Drawings must include a bill of materials for the components
 - iii. Procedures
 - a. Manufacturing
 - b. Handling, storage and packaging
 - c. QC plan, including inspection and testing, sign-offs, travelers and non-conformance documents
 - iv. Production
 - a. Cost and schedule
 - b. Personnel requirements
 - c. Facilities requirements (tooling, space, equipment)
 - d. Availability of sufficient management, personnel, equipment and resources for production
 - e. Health and safety assessment
 - f. Shipping plans
 - g. Supplier documentation for procured items including test reports, compliance certificates, welder qualifications, etc
 - v. Lessons learned based on final prototypes
 - vi. Installation
 - a. Safety requirements for installation at SURF have been incorporated into the design
 - b. Interface requirements to install equipment at SURF have been incorporated into the design

- c. Timing: To be held in advance of the start of mass production, logically after the manufacture of first articles if this is planned

d. Charge Questions

The Production Readiness Review Committee should evaluate the component readiness by responding to the following questions:

1. Technical Scope and Schedule

- a. Is the scope of work defined properly?
- b. Is the schedule reasonable to achieve the defined scope, with opportunities for schedule recovery in cases of supply issues or component rework?
- c. Are the prototype test-results consistent with initial acceptance criteria?

2. Design Status

- a. Are all design specifications, requirements, performance, and interface documents reviewed, approved and released?
- b. Are the drawing packages complete and released?
- c. Have all previous review recommendations been closed out?
- d. Is there a process for design-change management in place?

3. Work planning and control

- a. Have all key project team members been identified, with defined roles and responsibilities?
- b. Is the staffing level suitable to support the production plan?
- c. Is there evidence of work planning for day-to-day procedures?
- d. Has an appropriate health and safety assessment been performed, with appropriate risk-mitigation put in place?

4. Production and Quality Assurance

- a. Have all of the major risks been identified and managed?
- b. Is the supply chain in place and well planned, including shipments between partner laboratories?
- c. Is the process for incoming component inspection well planned?
- d. Are all travelers, and assembly and quality control procedures updated and available?
- e. Is there a plan to manage all relevant inspection, assembly and testing data?

5. Have any other issues been identified that need to be addressed?