

# Production Readiness Review (PRR)

The PRR is held after the component CDR and prior to the beginning of any significant fabrication or assembly activity. The PRR presents a final detailed fabrication and assembly plan using completed drawings, processes, tooling, in-process test procedures to show that the production will meet the final performance and interface specifications and the required design objectives. The PRR should represent a complete and comprehensive presentation of the entire production activity. It should present the hardware production and interfaces by means of work flow diagrams, critical parameters, critical operations, critical processes, tooling, test equipment, test procedures, handling provisions, quality provision, inspection, material flow diagrams, staffing plans, and changes required to the design presented at the CDR. Final estimates of weight, power, and volume are to be presented. Final calculations for mechanical performance are to be presented. Final software requirements and updated system performance estimates should also be presented. Compliance to parts selection, de-rating criteria and screening requirements, and to the results of a FMEA are to be presented. The PRR should include the following additional items:

- Production Plan and Production Flow Diagram
- Qualification/Environmental Test Plans and Test Flow
- Production Quality Control Plan
- Inspection and Measurement Documentation Plan.
- Plans for handling, shipping containers, environmental control and mode of transportation, identification, and storage
- Traceability Plan for all flight hardware
- Production Schedule
- Closure of Actions from the Previous Reviews
- Complete drawing package approved for production
- Subsystem Specification Complete & Under CM
- Complete fabrication, test, and assembly procedures
- Complete analyses of production tooling and test equipment
- Certification of all flight hardware, production tooling and test equipment
- Control methods for all safety hazards
- Interface Control requirements
- Materials
- Equipment identification and certification
- Personnel identification and certification
- Leadership
- Contingency Plans
- Risk Assessment, mitigation, and recovery plans

Completion of the PRR and resolution of all resulting action items constitutes readiness for production.

## Production Readiness Review Presentation Format:

The format given here is for reference whereas the specific content may be adjusted upon the mutual agreement of the Chief Engineer, LAT System Engineering manager, S&MA manager and the subsystem manager of the related production. The recommended format for the presentation should cover the following:

- Flight hardware design status (include discussion of post CDR changes)
- Production Plan
- Results of previous pre-production efforts
- Status of supporting plans, procedures, processes and documentation.
- Certifications of facility, processes, production setups (tooling), and personnel
- QC Provisions
  - Hardware travelers
  - Data capture – certifications, handling, event logs, test & inspection results, discrepancy reports, hardware identification and etc.
  - Oversight/approval
  - NCR, ESD, hardware controls
  - Process documentation

- Etc.

Note: The focus of the review is to assess the certification and QC provisions being applied throughout the production process. The majority of the review effort should focus on these two areas.