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CEMILAC_FFGP_ACP_02

Airworthiness Certification Plan (ACP) for Metallic Materials

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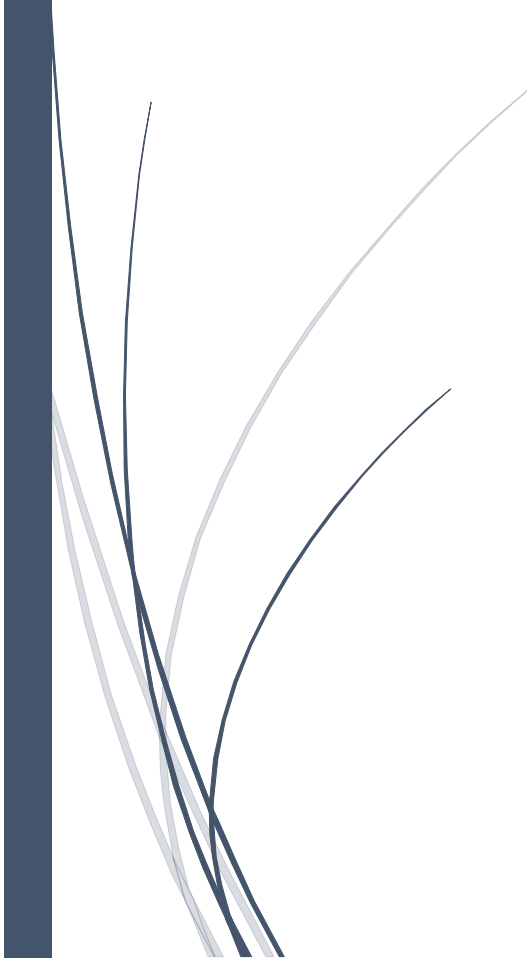

<DESIGN AGENCY LOGO>	**Document No.**			
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Title:	**Project/System :**
Airworthiness Certification Plan (ACP) for Metallic Materials	< Project/System Name>
	LRU/System Part No.
	<No.>
	Critical Level
	<A/B/C/D/E>

	Name & Designation	**Signature**
Prepared By	<Design Rep Name>, < Designation> <Agency Name>	
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Approved By	<Project Leader Name>, <Designation> <Design Agency> <Officer_Name>, <Designation> RCMA <Name>	

<Design Firm Name & Address>

Airworthiness Certification Plan (ACP) for Metallic Materials

Material Specification	
Alloy Grade	
Alloy Type	
Supply condition	
Heat treatment condition	
Size range	
Application	

ACP contains in general, the following.

1. **Description of the intended use of the material**

   This includes description of the material/part and project if any specific, Explanation of functionality of the material/ part, photographs of the components and assembly area of installation, application/end use of the material/part and assembly, functional/flight testing details.

2. **Applicable Aerospace material standards/Specifications**

   The applicable aerospace material standards are generally AMS / ASTM / AIR / BS / DIN / MIL/ customer specifications.

3. **Process control document**

   Sample example is enclosed in Annexure I

4. **Metallic material / semi-finished metallic component design criteria form**

   As per IMTAR-21 Forms

5. **Classification of Aeronautical Materials as per Table 1**

Table-1 Classification of Aeronautical Materials

Sl. No	Classification	Description
01	Critical (safety and mission)	Failure endangers the safety of the aircraft or crew or at least results in aborting the aircraft mission
02	Non-Critical	Failure does not endanger the safety of the aircraft or crew nor does it result in aborting the mission

The mill forms, Un/Semi-finished or directly machined components from feed stocks or mill forms, non-metallic materials and Airborne consumables are considered as critical or non-critical based on its function as per Table 1.

System safety analysis should be done by designers. Based on the report, criticality classification will be done. This has to be approved by platform RCMA.

6. Test schedule

Sample example is enclosed in Annexure II

7. Drawing (if applicable)

8. Major milestones in development activities and review stages

Sample example:

Major Development Activities - Milestone Chart for Forging/Casting/Mill forms/AM			
Project:		Part No:	
Sl. No	Description		Probable Date of Completion
1	Receipt of Purchase Order		--/--/----
2	LTCC Meeting		
3	Approval of Test schedule and Process control document		

4	Die Manufacturing (for forgings)	
5	Tool and Pattern Making (for Casting)	
6	Process of Forging/Casting/AM/Mill forms	
7	Heat treatment & Testing	
8	RCMA Clearance & Supply of forgings Casting/Mill forms/AM	

9. Identification as per 21.C3.1.7

Main Contractor shall ensure that the material is identified properly to the extent applicable with its type, heat number, batch number, part number, serial number with other essential information in a manner legible and acceptable to all stakeholders.

Identification	
Final Machining Part No.	
Forgings/Casting/Mill forms/Additive Manufacturing part no.	
Material Specification & Conditions	
Heat Treatment no.	
Batch No.	

10. Other technical documents, if any