Overview: New Process/ New Material Request Approval Process

V1

Because microfabrication equipment and processes are sensitive and highly dependent on baseline conditions and process interactions, it is important that process limits and materials are always well understood and controlled. Before introduction of new materials or significant process changes into the lab, careful evaluation is needed to avoid risk to equipment performance and other user's process results.

This document is intended to provide a high-level outline for approval of new materials, new processes, and process changes into tools or for processing in the lab.



Simplified Flow Chart

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Overview:

- 1. The attached process flow chart lays out the basic process for change approval:
 - a. Risk assessment and qualification plans will be generated by the Requesting Party(RP) in conjunction with a WNF assigned Process Owner (PO)
 - b. Stake holders include WNF staff and interested tool users
 - c. PO owns final recommendations for qualification plan
 - d. Approval of the qualification plan is at discretion of the director
 - e. Approval of the qualification result is at discretion of the director
- 2. Factors for the evaluation of risk and acceptance of new processes or materials will be assessed in the following priority:
 - a. Safety
 - b. Equipment impacts
 - c. Impact to baseline processes and common user processes
 - d. Value of the new process to the lab and general user base
 - e. Impact to specialty user processes
 - f. Value of the new process to the requesting party (RP)
- 3. The following items shall be considered/evaluated during process risk assessment:
 - a. Health and safety
 - b. Material compatibility
 - c. Process flow identifying all equipment/benches affected during full life of the affected parts/materials while in the lab
 - d. Individual equipment and staff impacts:
 - required modifications, risk of damage, maintenance and staff workload impact, etc.
 - e. Potential process interactions
 - f. Input from Stake Holders
 - g. Common/best industry practices
- 4. Goal of assessment **IS**:
 - a. to evaluate risks to lab, equipment, workload, and user processes
 - b. to generate a qualification plan
 - c. to make reasonable effort when needed to verify risks or risk mitigation
- 5. Goal of assessment IS NOT:
 - a. to absolutely prove zero impact to all processes or risk items.