

# SENTINEL AUTHORITY

## CAT-72 Procedure v1.0

Convergence Authorization Test requirements and format.

### 1. Purpose

The Convergence Authorization Test (CAT-72) is a formal evidentiary procedure establishing that an autonomous system demonstrates bounded behavior within its declared Operational Design Domain across operational regimes.

### 2. Test Requirements

**Duration** — Minimum 72 hours of continuous operation under test conditions.

**Coverage** — Operation must span representative operational regimes and edge conditions.

**Monitoring** — Continuous telemetry capture at minimum 1 Hz for critical state variables.

**Evidence** — Cryptographically signed, tamper-evident record of all boundary interactions.

### 3. Pass Criteria

- No uncontrolled boundary violations during test period
- All interlock activations properly logged and resolved
- Fail-closed behavior verified on simulated deviation
- Convergence metrics within declared tolerances

### 4. Tolerance Declaration

Applicants declare operational tolerances prior to CAT-72 commencement. Tolerances must be quantitative, bounded, and documented. Sentinel Authority does not prescribe universal tolerances; they are domain-specific and determined by the applicant.

### 5. Contact

For test coordination: [conformance@sentinelauthority.org](mailto:conformance@sentinelauthority.org)