Capital Shield — Sample Simulation Report

This document is a representative example of the type of simulation and validation output produced when evaluating deterministic safety gates within Capital Shield. The figures and scenarios below are illustrative and intended to demonstrate structure, not performance claims.

1. Simulation Overview

The simulation evaluates how predefined safety rules behave under stressed market conditions. Rather than optimising for profit, the objective is to verify that risk constraints behave predictably, fail closed when necessary, and produce auditable decision logs.

2. Test Scenario

Market regime: High volatility drawdown event (historically analogous to May 2021 crypto market conditions). Strategy behaviour: Continuous long exposure with fixed position sizing. Safety configuration: Maximum drawdown limit set to -10%.

3. Active Safety Rules

Rule	Description
MAX_DRAWDOWN	Blocks new trades once cumulative drawdown exceeds configured threshold
VOL_GUARD	Prevents execution during extreme volatility regimes
FAIL_CLOSED	Defaults to blocking trades when required inputs are unavailable

4. Simulation Results

As the simulated drawdown approached the -10% threshold, Capital Shield transitioned from ALLOW to BLOCK decisions. No further execution signals were permitted once the limit was breached. This behaviour was deterministic and reproducible across repeated runs.

5. Example Decision Log

Timestamp	Decision	Reason Code
T+124	ALLOW	WITHIN_LIMITS
T+131	ALLOW	WITHIN_LIMITS
T+138	BLOCK	DD_BREACH
T+139	BLOCK	DD_BREACH

6. Notes & Limitations

This report does not represent live trading results and should not be interpreted as a performance claim. Its purpose is to demonstrate the observability, determinism, and auditability of Capital Shield’s risk-gating architecture.