



Internal Controls Flash Cards

What is an Internal Control?

Any activity that you perform to ensure that what you want to happen, happens. And what you don't want to happen, doesn't happen.

Examples of common Internal Controls:

- Lock your car when you exit it
- Keep copies of important papers in a safe place
- Use passwords on your computer
- SCADA Alarms
- Procedures, processes and training



Key:

- **Control Objective:** Indicates the purpose of the control
- **Control Activities:** Activities to improve/strengthen a control
- **ERO/RF Risk Elements:** Suggestions of possible relevant risk elements that the internal control might help to mitigate. The applicable risk element(s) will be “highlighted” within the table.

Internal Control		Catchphrase	Objective
Prevent	Access Controls	On a need basis	Selectively restrict access to a place or other resource.
	Analysis Controls	Analyze data to ensure reliability	Analyze the results of data review to discover useful information, identify approaches considered and discarded, and understand the rationales used to reach all conclusions.
	Asset Management	Identify, define, and track assets	Maximize assets to provide the best returns to stakeholders by establishing an inventory of assets and defining their attributes. Ensure controls exist to cover any acquisitions or mergers.
	Change Management	Set a methodological process for change	Ensure that no unnecessary changes are made, all changes are documented, and services are not unnecessarily disrupted and that resources are used efficiently.
	Contract (3 rd) Party Management	Ensure contract accuracy and performance	Document controls that evaluate how an entity manages: communication, commitments, document review and retention regarding contracted work.
	Documentation	Formalized, standardized format	Formalize or standardize forms, reports, checklists that identify critical steps within a process that lead to its success.
	Implementation Control	Plan. Do. Track effectiveness	Carry out, execute, or practice a plan, method, or design, idea, model, specification, Standard or policy.
	Integration Control	Identify all affected parties/components	Establish lists of inputs and outputs that impact risks to grid reliability. Bringing together sub-systems, or components of a subsystem, into one system.
	Segregation of Duties	Avoid a single point of failure	Based on shared responsibilities of a key process, disperse the critical functions of that process to more than one person or department. In smaller organizations, this may be handled by a review process.
Detect	Components Inventory Management	Supply Chain Management	Track historical failure information, maintenance of a spare parts inventory, logistics, and supply chain management.
	Internal Audit	Independent, objective assurance	Review processes that present risk to an organization and ensure achievement of an entity's objectives in operational effectiveness and efficiency, reliable reporting, and compliance with laws, Standards and Requirements.
	2 nd Party Review	Independent review for accuracy	A formal process designed to review and evaluate the effectiveness of an action or system of operation.
	Verification Controls	Substantiate the aggregate	Compare two or more items, or use supplementary tests to ensure the accuracy, correctness, or truth of the information. Perform on a "Pool" of data provided for sample selection.
	Validation Controls	Test the sample	Assess an action, decision, plan, or transaction to establish that it is (1) correct, (2) complete, (3) being implemented (and/or recorded) as intended, and (4) delivering the intended outcome. Assess the degree to which (1) an instrument accurately measures what it purports to measure, or (2) a statistical technique or test accurately predicts a value.
Correct	Incident Management	Analyze events	Activities that identify, analyze and correct an event in order to restore and reconstitute services in an efficient manner and memorializes the information to expedite analysis of future events.

PREVENT



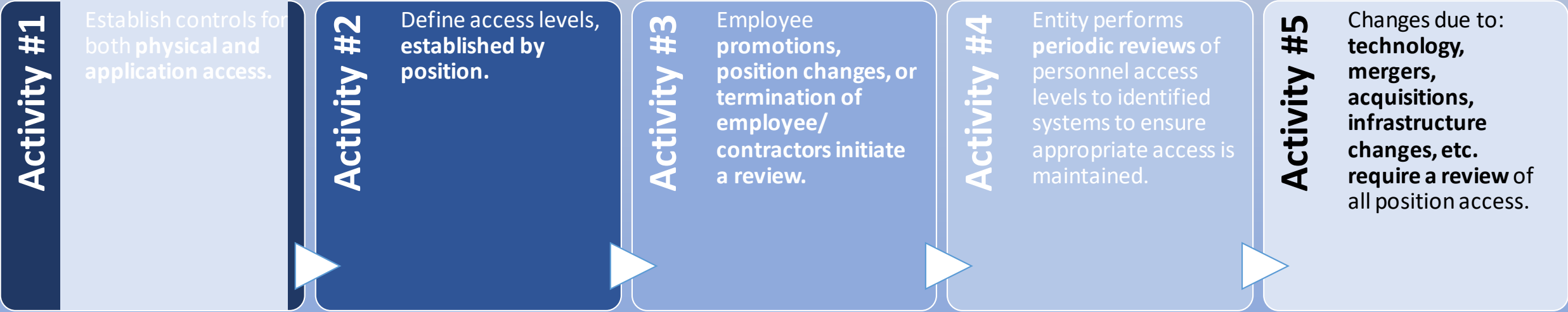
Access Controls

Objective

Selectively restrict access to a place or other resource.



ERO/RF Risk Elements
Management of Access and Access Controls
Insufficient Long-Term and Operations Planning Due to Inadequate Models
Loss of Major Transmission Equipment with Extended Lead Times
Inadequate Real-time Analysis During Tool and Data Outages
Improper Determination of Misoperations
Gaps in Program Execution
TexasRE: Resource Adequacy



Analysis Controls

Objective

Analyze the results of data review to discover useful information, identify approaches considered and discarded, and understand the rationales used to reach all conclusions.

Analyze Data to Ensure Reliability

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Activity #1

Establish measurement objectives that are clearly defined and documented to perform sound analysis.

Activity #2

Process provides methodology that describes how/where knowledge (data) will be obtained and structures the findings.

Activity #3

Process includes an established operation for data collection to ensure the data used is complete and accurate.

Activity #4

Establish process for comparing the data to the objective and methodology, using the conclusions to identify actions needed.

Activity #5

If the data is not producing desired results or meeting objectives in #4 establish a process to improve the methodology.

Activity #6

Entity documentation supporting the analysis is performed consistently.

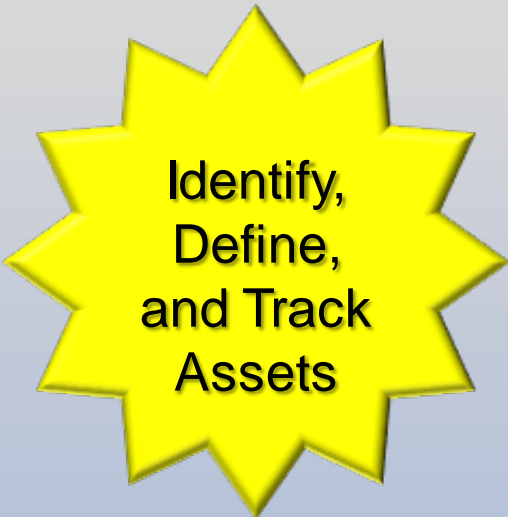
Activity #7

Identify the data that needs to be communicated and to whom.

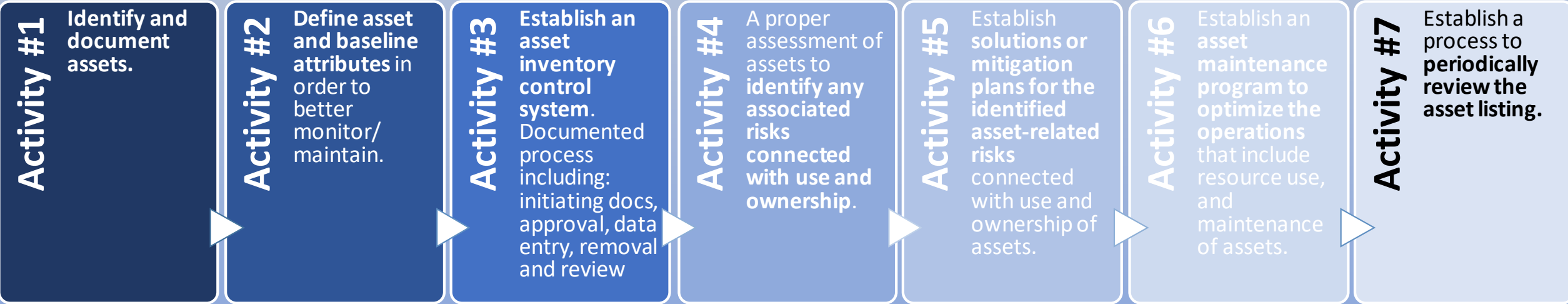
Asset Management

Objective

Maximize assets to provide the best returns to stakeholders by establishing an inventory of assets and defining their attributes. Ensure controls exist to cover any acquisitions or mergers.



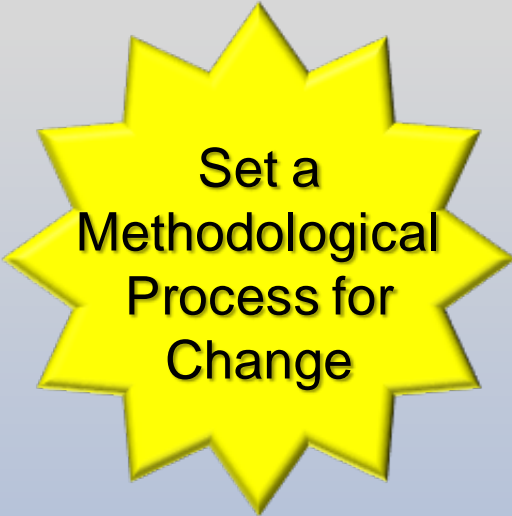
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Change Management

Objective

Ensure all changes are approved and documented, services are not unnecessarily disrupted and resources are used efficiently.



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Activity #1

Establish a plan to identify changes to operation, operating conditions, or deviations from established baselines.



Activity #2

Establish a change approval process.



Activity #3

Develop a change implementation program that details proper coordination of approved asset changes.



Activity #4

Changes are monitored.



Activity #5

Documentation of changes, follow the trail of the change from conception to monitoring.



Activity #6

Define an emergency change process.

Contract (3rd) Party Management

Objective

Document controls that evaluate how an entity manages: communication, commitments, document review and retention regarding contracted work.

Ensure Contract Accuracy and Performance

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Activity #1

Establish procedures to review all contracts to **ensure the contract:** 1) meets **Standard/Requirement**, 2) achieves expected/required outcomes, 3) details the outcome of the contract, 4) defines success factors, 5) timeline and 6) has been reviewed and approved at appropriate management level.

Activity #2

Establish **process for vetting vendors** to ensure they are qualified to implement or perform the actions and have the appropriate resources needed to perform the contracted work.

Activity #3

Establish a process to **prioritize and track all contracts** currently active, with visibility of all contract milestones, commitments and obligations.

Activity #4

Establish process for determining the following: **performance goals, timely performance, implementation milestones and completion percentage.**

Activity #5

Establish a process to **validate and track contract performance, proactively addressing performance gaps.**

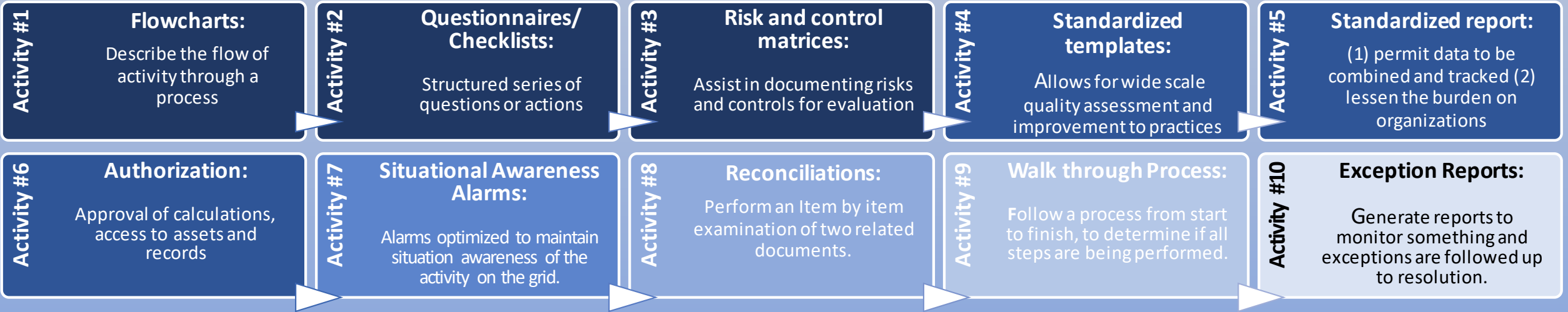
Documentation

Objective

Formalize documentation (i.e. reports, checklists, flowcharts) that identify critical steps within a process that lead to its success. Standardize documentation (i.e. templates) to ensure consistency.



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Implementation Control

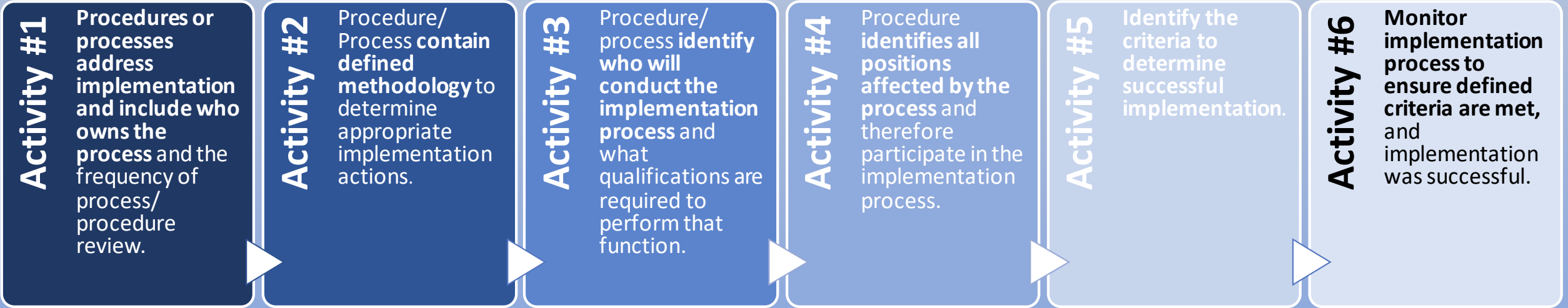
Objective

Carry out, execute, or practice a plan, method, or design, idea, model, specification, Standard or policy.

Plan
Do
Track
Effectiveness

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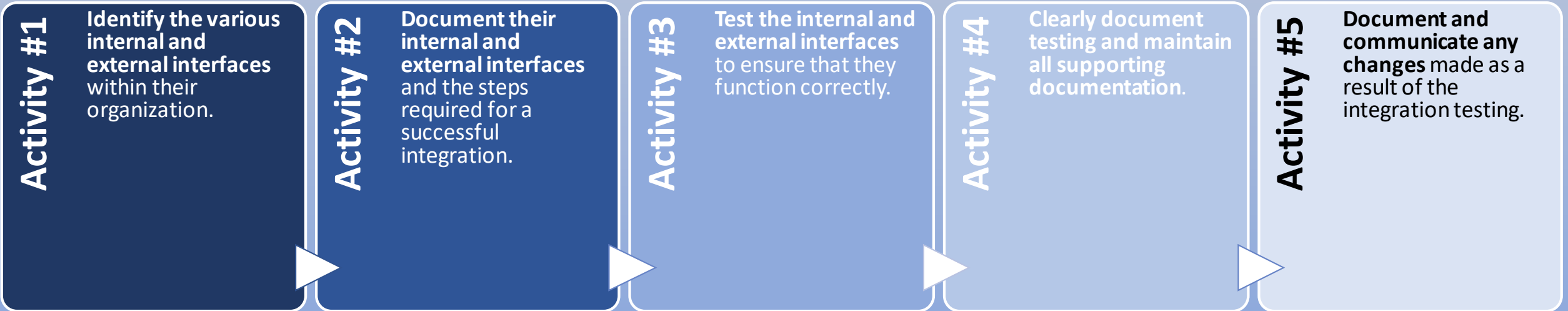
Integration Control

Objective

Establish lists of inputs and outputs that impact risk to grid reliability. Bring together sub-systems, or components of a sub-system, into one system.

Identify All Affected Parties/ Components

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Segregation of Duties

Objective

Based on shared responsibilities of a key process, disperse the critical functions of that process to more than one person or department. In smaller organizations, this may be handled by a review process.

Separate
Key
Processes

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Activity #1

Establish a **process/procedure to identify areas where a risk would exist if specific duties are not either segregated or reviewed** by a separate party.

Activity #2

Develop **procedure/process to define their segregation of duties responsibilities.**

Activity #3

Changes to technology, machinery, personnel, etc. should trigger a review of established oversight processes.

Activity #4

Perform a **periodic review** to ensure all applicable risks are identified and mitigated.

DETECT



Components Inventory Management

Objective

Track historical failure information, maintenance of a spare parts inventory, logistics, and supply chain management.

Supply Chain Management

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Activity #1

Identify critical spare parts equipment.

Activity #2

Identify equipment with exposure to external control or manipulation.

Activity #3

Establish a due diligence process regarding vetting potential vendors or third parties, including transportation, logistics, lead time.

Activity #4

Vetting process is performed separately from the requestor, to remove possible conflict of interest. If not possible, includes a review.

Activity #5

Develop standard templates for vetting vendors, to drive consistency across the company.

Activity #6

Establish inventory management controls, i.e. all inventory signed for, cycle counts, tracking failures, to ensure appropriate grid maintenance.

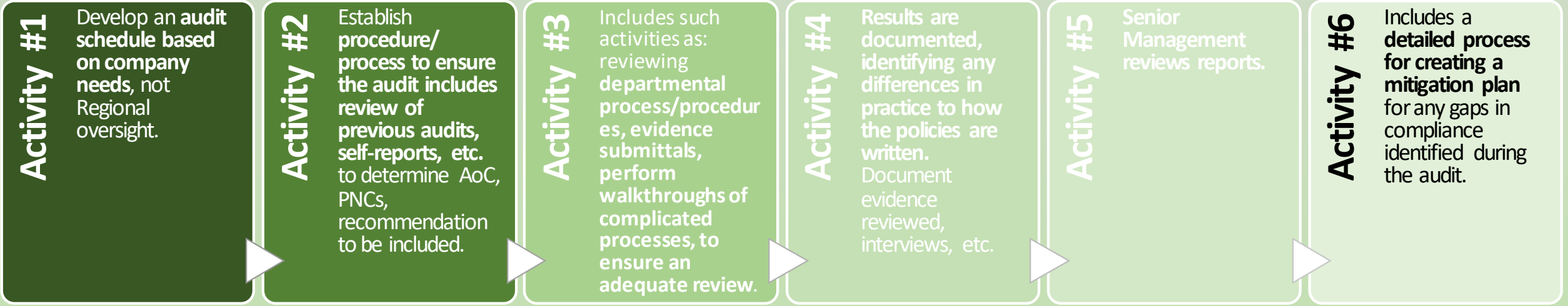
Internal Audit

Objective

Review processes that present risk to an organization and ensure achievement of an entity's objectives in operational effectiveness and efficiency, reliable reporting, and compliance with laws, Standards and Requirements.

Independent
Objective
Assurance

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2nd Party Review

Objective

A formal process designed to review and evaluate the effectiveness of an action or system of operation.

Independent
Review for
Accuracy

ERO/RF Risk Elements

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Activity #1

Establish clear **accountability and expectation regarding results of the review** that detail who will perform the 2nd party review, and what they do with the results.

Activity #2

Identify, define, and document criteria for the appropriate **review precision level**, to ensure the review isn't performed at too high a level as to not produce required assurance.

Activity #3

Establish a **process to determine that the data being used is accurate and complete.**

Activity #4

Identify criteria to determine the reviewer has appropriate **credibility needed to perform the review.**

Activity #5

Establish a **formally defined and documented process** to be applied accurately and consistently across the enterprise.

Verification Controls

Objective

Compare two or more items, or use supplementary tests to ensure the accuracy, correctness, or truth of the information. Perform on a “pool” of data provided for sample selection.

Substantiate
the Aggregate

ERO/RF Risk Elements

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Activity #1

Develop a **procedure/process** to ensure that all relative components of the pool **meet the relevant specifications**. Ensure that all expected components of the pool have been identified and addressed.

Activity #2

Entity procedure/process includes a **methodology of how the test was conducted**, including criteria considered to ensure the "pool" of data is complete and accurate.

Activity #3

Establish a **methodology to determine whether any adverse verification results arose** based on issues with its processes, verification criteria, or verification pool.

Activity #4

Identify areas that must be considered based on the expansion/contraction of asset pools and establish a process of due diligence to identify areas where changes may have occurred.

Validation Controls

Objective

Assess an action, decision, plan, or transaction to establish that it is (1) correct, (2) complete, (3) being implemented (and/or recorded) as intended, and (4) delivering the intended outcome. Assess the degree to which (1) an instrument accurately measures what it purports to measure, or (2) a statistical technique or test accurately predicts a value.

Test the
Sample

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Activity #1

Establish a validation procedure that identifies the methodology for conducting the validation, as well as the validation criteria needed to meet the goals for the validation.

Activity #2

Entity performs **validations** according to their established procedures and criteria.

Activity #3

Validation activities have been adequately documented and supporting documents are maintained.

Activity #4

Data resulting from validation should be **analyzed against the criteria** to determine whether an item meets the established criteria.

CORRECT



Incident Management

Objective

Activities that identify, analyze and correct an event in order to restore and reconstitute services in an efficient manner and memorialize the information to expedite analysis of future events.



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INTERNAL CONTROLS

Internal Controls and Risk Management are critical in achieving operational, strategic, compliance, and reporting objectives. Comprehensive risk management identifies risks to an organization, while implemented internal controls provide reasonable assurance of the mitigation of risks and reaching operational objectives. An effective internal control program can make operations more efficient, protect company assets, and assist in compliance with NERC Standards and Requirements.

An Internal Control Program consists of five components:



Control Environment

Foundation of the program, represents: organizational integrity, ethical values, commitment to competence, etc.

[COLD WEATHER PREPAREDNESS](#)
[CRITICAL INFRASTRUCTURE PROTECTION \(CIP\)](#)
[ENERGY MANAGEMENT SYSTEM \(EMS\)](#)
[HUMAN PERFORMANCE](#)
[INTERNAL CONTROLS](#)
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