



Overall CAS Improvements at LANL

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FY17 CAS Accomplishments/ Improvements at LANL

- Issuance of the revised Issues Management (IM) procedure to ensure more effective and sustainable remediation of the institution's issues, including the incorporation of existing causal analysis and corrective action development procedures.
- Development of the IM Guide, that provides guidance for the implementation of the CAS Issues Management process and complements the new policy.
- Enhancements to the IM data management system (IM Tool) to align with IM Policy, and to also support changes to DOE Order 232.2A, Occurrence Reporting.
- Assist line organization(s) with implementation of IM principles by conducting CAS workshops on developing good Corrective Actions, Extent of Conditions, Effectiveness Evaluations, Causal Analysis training, IM Process and Tool familiarization.

FY17 CAS Accomplishments/ Improvements at LANL

- Implementation of OPEXatLANL, which provides a user friendly, centralized repository and resource for operating experience/lessons learned data.
- Completion of key institutional Critical Function Evaluations (CFE) and Effectiveness Evaluations, based on identified risks.
- Issuance of a revised Institutional Metrics Program document that captures the new change control process for Executive Dashboard metrics and requires periodic briefings by metric-owning ADs to the Institutional Management Review Board (IMRB) and Executive Management Risk Review (EMRR).
- Improved institutional engagement with regard to CAS policies through Senior Assurance Advisory Board (SAAB).
- Deputy Director for Mission Assurance serving as CAO and Chief Risk Officer (CRO). Meetings of Executive Risk Working Group held during course of FY17.

FY18 CAS Path Forward – IPAIP Improvements

Institutional Performance Assurance Improvement Plan (IPAIP) developed to ensure institutional integration and CAS implementation. Four main goals identified.

Goal 1: Organizational Learning. Create an organization that learns from its experience and proactively plans new activities by building on operating experience to reduce the occurrence of issues.

Goal 2: CAS Integration/Implementation. Integrate CAS into existing work practice to facilitate CAS becoming part of day-to-day activities (making it easy to do the right thing).

Goal 3: CAS Process Governance and Transparency (BOG, Site Office, LANL Executive Leaders). Develop a transparent assurance and governance model focused on integration with parent companies and the Los Alamos Field Office.

Goal 4: Improve Risk Informed Decision Making. Implement an institutional risk framework that supports the appropriate allocation of resources to be applied to the right issues, at the right time, at the right level.



Issues Management Improvements at LANL

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Issues Management

The IM process ensures issues are identified, categorized by risk, communicated, corrected in a timely manner, and that implemented corrections are effective and sustainable.

It allows managers to address identified issues using a graded risk approach of high, moderate, low, and potential risk.

“An issue ignored is crisis ensured.”

(Reger and Larkin, 2008)



IM Process Components

IDENTIFY

ANALYZE

MITIGATE

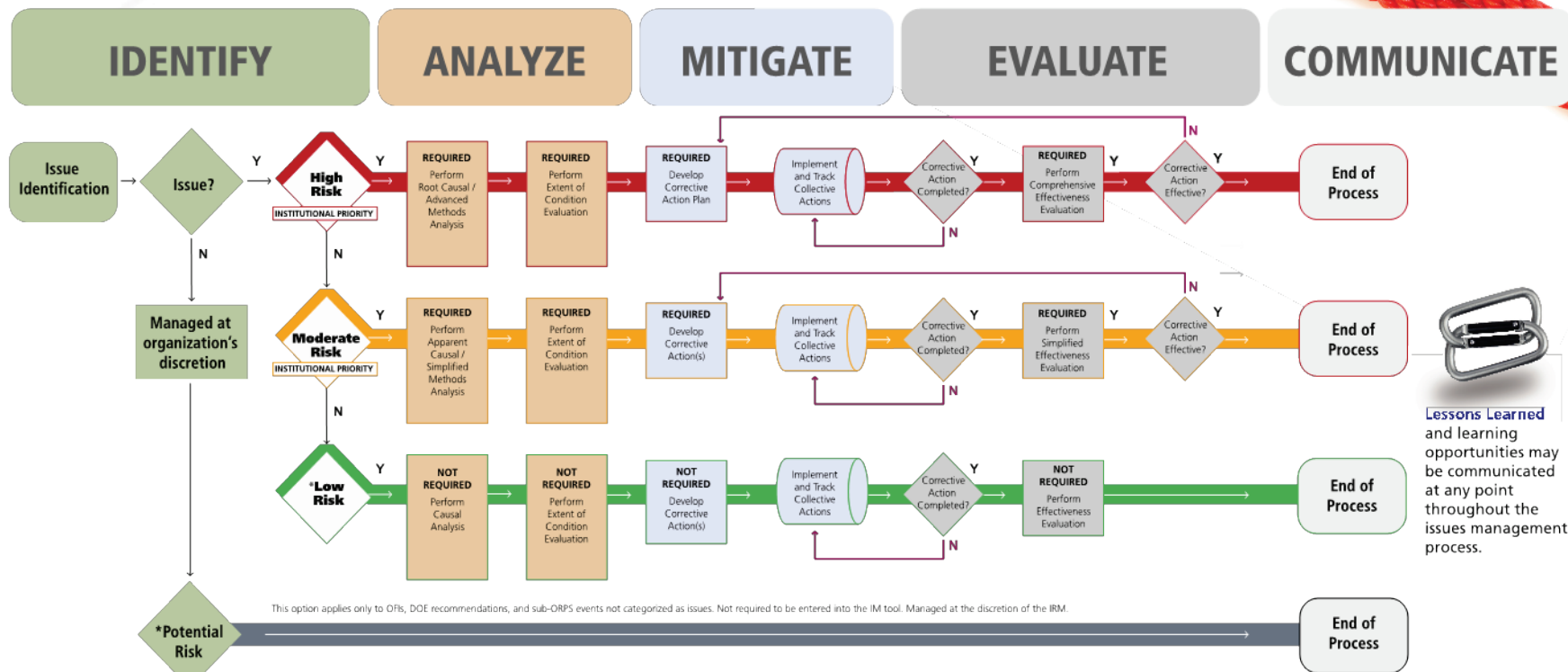
EVALUATE

COMMUNICATE

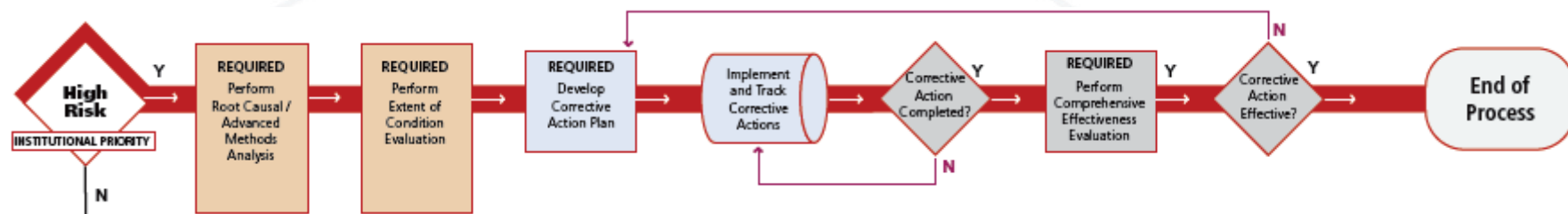
- **Identify** – Identify issue and determine risk level based on screening criteria.
- **Analyze** – Analyze the issue to understand the cause and extent of the issue.
- **Mitigate** – Develop corrective actions to address and resolve the identified issue.
- **Evaluate** – Evaluate the issue to determine if corrective actions taken to address the identified issue were effective and sustainable.
- **Communicate** – Communicate identified issues, resolution, and effectiveness to appropriate audiences.

Issues Management Process

An issue is a failure to meet a documented requirement that results in a risk to performance



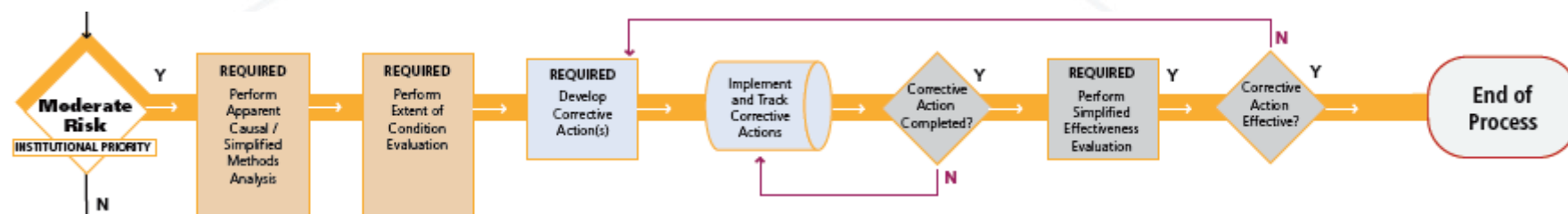
High Risk



- Causal = Root Causal/ **Advanced Methods (Graded Approach)**
- **Extent of Condition = Required**
- Corrective Actions = Corrective Action Plan (CAP)
- Effectiveness Evaluation (EE) = **Comprehensive Approach**
- Approvals = local organizational MRB then elevated to IMRB
- IM Tool Entry = Required
- **Communicate Element = Lessons learned can be identified at any point in issue resolution process**

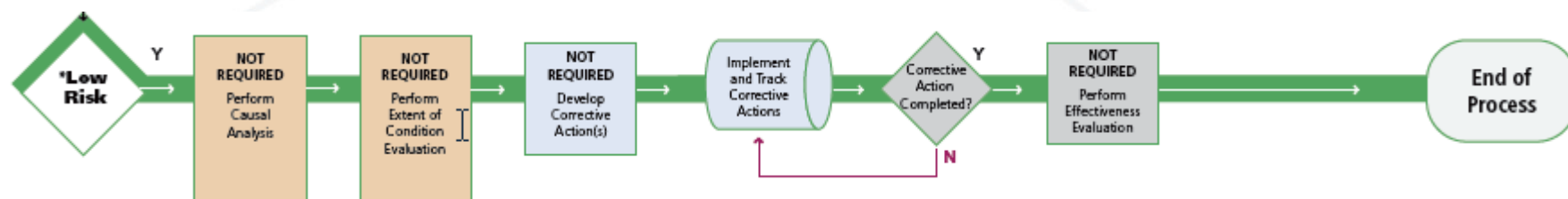
Note: Blue font indicates improvement(s) from previous issues resolution process

Moderate Risk



- Causal = Apparent Causal/Simplified Methods (Graded Approach)
- Extent of Condition = Required
- Corrective Actions = Required
- Effectiveness Evaluation (EE) = Simplified Approach
- Approvals = MRB
- IM Tool Entry = Required
- Alternate Disposition = Pending Resolution
- Communicate Element = Lessons learned can be identified at any point in issue resolution process

Low Risk



- Causal = Not Required
- Extent of Condition = Not Required
- Corrective Actions = At IRM Discretion
- Effectiveness Evaluation (EE) = Not Required
- Approvals = IRM
- IM Tool entry = Required
- Alternate Disposition = **Pending Resolution, Found & Fixed**
- **Managed at discretion of Issues Responsible Manager (as opposed to MRB)**
- **Communicate Element = Lessons learned can be identified at any point in issue resolution process**

Potential Risk

*Potential Risk

This option applies only to OFIs, DOE recommendations, and sub-ORPS events not categorized as issues. Not required to be entered into the IM tool. Managed at the discretion of the IRM.

End of Process

*NOTE: For **Low** and **Potential Risk** Only.
Causal Analysis, Extent of Condition, Corrective Actions and Effectiveness Evaluations are managed at the discretion of the IRM.

Includes: OFIs, DOE recommendations, Sub-ORPS

- Causal = Not Required
- Extent of Condition = Not Required
- Corrective Actions = Not Required
- Effectiveness Evaluation (EE) = Not Required
- IM Tool Entry = Not Required

Note: The Potential Risk category was created in the new IM tool to document opportunities for improvement

IM Process Requirements by Risk

Institutional Priority	High Risk (Institutional Priority)	Moderate Risk (Institutional Priority)	Low Risk	Potential Risk
	Includes but is not limited to the following: • Significant negative impact or significant deficiencies related to mission or operations • Significant compliance issues related to health, safety, security, environment, or waste • Significant negative impact on cost, scope, schedule of key project deliverables • Systemic ineffective resolution of issues • Compensatory measures not sufficient to mitigate risk • Institutional effort is required to mitigate risk	Includes but is not limited to the following: • Negative impact or deficiencies related to operations or mission • Risk to cost, scope or schedule of key projects / deliverables • Compliance issue related to safety, environment, waste, security*	Includes but is not limited to the following: • Minimal negative impact to operations or mission	Potential risks identified from opportunities for improvement (OFIs), DOE recommendations, and Sub-ORPS (that are not categorized as issues) may be documented in this category. Although not required to be entered into the IM tool they may be precursors to larger issues that warrant further review. OFIs, DOE recommendations, and Sub-ORPS are managed at the discretion of the IRM.

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	High Risk (Institutional Priority)	Moderate Risk (Institutional Priority)	Low Risk	Potential Risk
Causal Analysis	Root Causal / Advanced Methods	Apparent Causal / Simplified Methods	Not Required	
Compensatory Measures	As Needed	As Needed	As Needed	
Extent of Condition Evaluation	Required	Required	Not Required	
Corrective Actions	Corrective Action plan	Corrective Actions	Corrective Actions as deemed appropriate by IRM	
Effectiveness Evaluation	Comprehensive Approach	Simplified Approach	Not Required	
IMRB / MRB (Final approval required)	IMRB: • Screening • Root / Advanced Methods Causal Analysis • Extent of Condition Evaluation • Corrective Action Plan • Action / Issue Closure • Effectiveness Evaluation Plan and Report	MRB: • Screening • Apparent / Simplified Methods Causal Analysis • Extent of Condition Evaluation • Corrective Actions • Action / Issue Closure • Effectiveness Evaluation Plan and Report	IRM: • Screening • Causal Analysis (if conducted) • Extent of Condition Evaluation (if conducted) • Corrective Actions • Action / Issue Closure • Effectiveness Evaluation Plan and Report (if conducted)	

*Although Table 1 outlines the criteria for each risk level, the IRM/MRB has the latitude, and is ultimately responsible for applying professional judgment when categorizing issues. Once categorized, issues must follow the appropriate risk level requirements. See Section 3.2.3 *Process Requirements by Risk* for more detail.

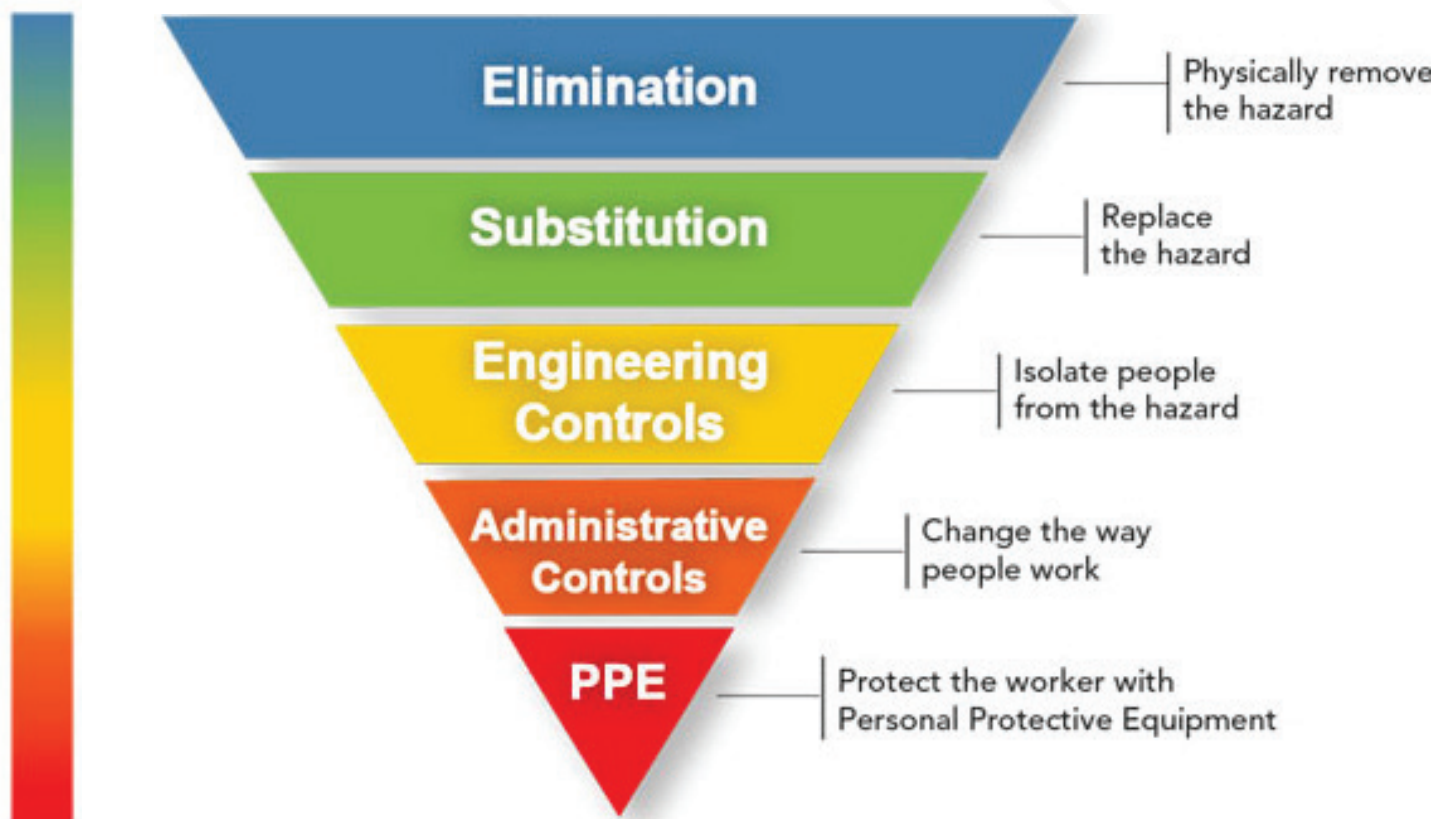
Proposed ORPS Crosswalk to IM Risk Levels

Table 2. ORPS Crosswalk to IM Risk Levels				
P322-3 ORPS Report Level	P322-4 Risk Level			
	High	Moderate	Low	Potential
High	Required*			
Low	Optional	Optional	Required **	
Informational	IRM Discretion or MRB/IMRB Determination			
Sub-ORPS				
* ORPS High Level events may be categorized as High or Moderate Risk in the IM process however, recommendations to screen as a Moderate Risk must be approved and documented by the organizations Associate Directorate level MRB. ** Minimum required. • ORPS Report Level Low events are categorized, at a minimum, as Low Risk but may be categorized higher, by IRM, MRB, or IMRB. • ORPS Report Level Informational events may be categorized as High Risk, Moderate Risk, Low Risk, or Potential Risk, by IRM, MRB, or IMRB • Sub-ORPS events may be categorized as High Risk, Moderate Risk, Low Risk, or Potential Risk, by IRM, MRB, or IMRB				

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Hierarchy of Controls

***Most Effective: Making the Work Safe**



Least Effective: Making the Person Safe

“S-M-A-R-T-E-R” Corrective Actions

- Specific
 - *Directly addresses causes and contributing factors*
 - Includes who, what, where, when how, how much how long, etc.
- Measurable
 - Progress can be measured
 - Completion criteria are defined
- Accountable / Agreed upon
 - Responsible party is identified
 - Has buy in with all impacted
- Reasonable / Relevant
 - Doing it because it's needed not because it's easy
 - *Returns system to normal operations or system performance is enhanced or improved*
- Timely
 - Can be completed as soon as practical
 - Due dates are defined and obtainable
- Effective
 - Effectiveness evaluation plan or strategy is pre-identified
 - Effectiveness evaluation plan or strategy is executed and documented
- Resilient / Sustained
 - *Remain in place over time until / unless they are intentionally discontinued*
 - Immune to mission, system, org, or personnel changes

Questions

