COMPLIANCE AUDITS : ENSURING THE VIABILITY OF A LIVING PROGRAM

Ryan Bray

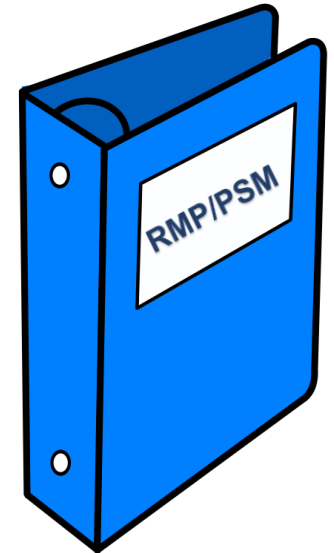Risk Management Professionals, Inc.
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ENSURING THE VIABILITY OF A LIVING PROGRAM

- Compliance Audit
  - An evaluation to verify that the procedures and practices, as stipulated by the applicable regulatory authority, are being followed

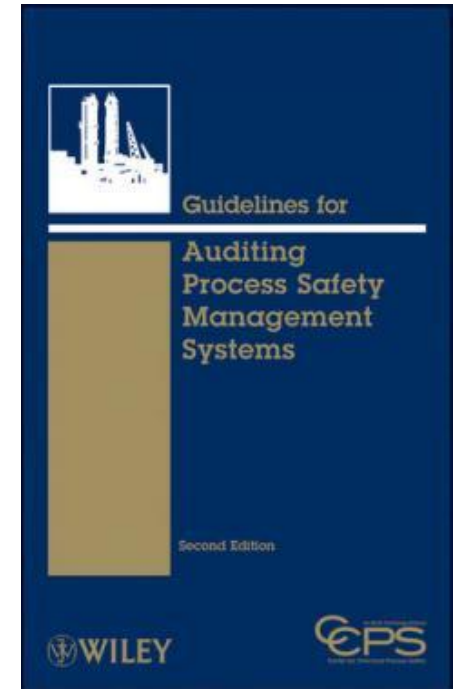**EPA RMP (40 CFR 68)**

CalARP (California)

CAPP (Nevada)

OSHA PSM (29 CFR 1910.119)

TCPA (New Jersey)

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DISCUSSION TOPICS

- Regulatory Requirements Overview

- Tips on performing thorough Compliance Audits
  - Preparation
  - Implementation
  - Finalization

- Discussion on the Individual Audit Elements

OVERVIEW OF COMPLIANCE AUDIT REQUIREMENTS

CalARP/RMP/PSM have nearly identical requirements:

- Certify evaluation of compliance (3 years)
- Compliance Audit Team shall include one (1) person knowledgeable in the process
- Document findings
- Address deficiencies
- Retain two (2) most recent Audit reports

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CalARP/RMP/PSM Program Overlap Compliance Matrix

| Section	CalARP (19 CCR)*	EPA (40 CFR)*	OSHA (29 CFR)
Trade Secrets			1910.119 (p)
Process Safety Information	2760.1	68.65	1910.119 (d)
Process Hazard Analysis	2760.2	68.67	1910.119 (e)
Operating Procedures	2760.3	68.69	1910.119 (f)
Training	2760.4	68.71	1910.119 (g)
Mechanical Integrity	2760.5	68.73	1910.119 (j)
Management of Change	2760.6	68.75	1910.119 (l)
Pre-Startup Safety Review	2760.7	68.77	1910.119 (i)
Compliance Audit	2760.8	68.79	1910.119 (o)
Incident Investigation	2760.9	68.81	1910.119 (m)
Employee Participation	2760.10	68.83	1910.119 (p)
Hot Work Permit	2760.11	68.85	1910.119 (k)
Contractors	2760.12	68.87	1910.119 (h)
Emergency Response Plan	2765.2	68.95	1910.119 (n)

* Program 3 required

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COMPLIANCE AUDIT - PLANNING

- ## Preparation
  - Information Gathering
  - Planning and Scheduling
  - Offsite Auditing

- ## Implementation
  - Kick-Off Meeting
  - Observation
  - Personnel Interviews
  - Unit Walkdown

- ## Finalization
  - Documentation of Findings
  - Development of Recommendations

PREPARATION – INFORMATION GATHERING

- ## Information Gathering
  - List of regulated chemicals onsite
  - Facility specific audit and other safety related policies (PHA, MOC, Incident Investigation, etc.)
  - Plot Plans, P&ID's, and PFD's
    - Develop sampling strategy

  - List of units currently undergoing turnaround or otherwise inaccessible during the proposed audit dates
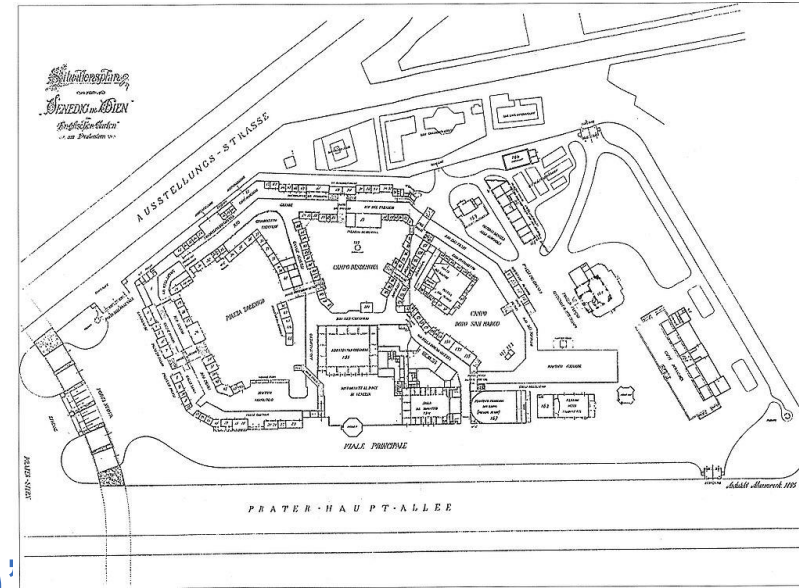
PREPARATION – INFORMATION GATHERING, CONT.

- Information Gathering (3 to 4 weeks prior to audit)
    - Asset Integrity and Reliability manuals/procedures, related to
        - Inspection
        - Testing
        - Preventative maintenance
    - Previous Incident Reports
    - Facility Organizational Chart
    - Copies of Safe Work Practice procedures
        - Hot Work, Confined Space, etc.

PREPARATION – INFORMATION GATHERING, CONT.

- Information Request
  - Process Safety Information
    - Ventilation Calculations
    - Safe Upper and Lower Limits of Equipment
    - Safety Devices and Associated Setpoints
  - PPE Requirements
  - Copies of previous audits (both internal and from an administering agency)

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PREPARATION – PLANNING & SCHEDULING

- Define agenda and schedule (2 to 3 weeks prior to audit)
  - Allows for proper personnel to attend
- Develop a comprehensive Audit Plan
  - Provide audit protocol details
    - Sampling methodologies
    - Personnel to be interviewed
    - Units to be Walked-down
    - List of records to be reviewed

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PREPARATION – OFFSITE AUDITING

- Preliminary Review of RMP Prevention Program Elements (1 week prior to audit)
  - Provides auditor with focus points during the onsite portion of the audit
  - Reduces expenses associated with onsite work

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IMPLEMENTATION – "KICKOFF MEETING"

- Formalize Planning & Agenda
- Introduce Auditor to Personnel
  - Allows personnel to be more comfortable around the "new faces"
  - Lets the auditor know who to go to with specific questions
    - Identify personnel responsible for specific program elements

- Discuss Audit Procedure and Timeline
  - Ensure Team understands the difference between Findings and Recommendations
- Determine areas of facility with limited access, guided access, or no access

IMPLEMENTATION – UNIT WALKDOWN

- Unit Walkdowns
  - Verify accuracy of P&ID's (PSI)
  - Observe demonstration of procedures against actual written procedure (OP's)
  - Discuss the overall safety program with guide (Employee Participation, PHA, etc.)
  - Discuss how maintenance issues are disseminated and addressed in the field (Mechanical Integrity)

IMPLEMENTATION – PERSONNEL INTERVIEWS

- Combination of normal conversation during walkdowns and formalized interview
- Anonymity for best results
- Use standardized questionnaire with open-ended questions
- Sample size based on number of operators/maintenance personnel on staff

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IMPLEMENTATION - WORKSHEETS

- Provide regulatory verbiage, and space to denote Findings as well as Recommendations
- Sectioned by program element

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COMPLIANCE AUDIT WORKSHEET EXAMPLE

		OPERATING PROCEDURES (OP)			
ID#	Regulatory References	Requirement	Answer Y/N/P/NA	Comments/Findings	Recommendations
OP-01	EPA 40CFR 68.69 (a) OSHA 29CFR 1910.119 (f) (1) Cal/OSHA 8CCR 5189 (f) (1) CalARP 19CCR 2760.3 (a)	The owner, operator or employer shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements. *Hint: In order to determine if the operating procedures have been implemented, operators must be interviewed to determine they are knowledgeable of and follow the written procedures.*			
		Steps for each operating phase:			
		Initial startup;			
		Normal operations;			
		Temporary operations;			
		Emergency shutdown including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner.			
		Emergency operations;			
		Normal shutdown; and,			

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COMPLIANCE AUDIT WORKSHEET EXAMPLE - FINDINGS

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COMPLIANCE AUDIT WORKSHEET EXAMPLE - FINDINGS

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FINALIZATION - CLOSEOUT MEETING

- Review with audit team, participants, and management

- Review findings and get facility input on Recommendations

  - Example: "*2017.Compliance Audit.OP-1 - Ensure that all written procedures, in use at the facility accurately reflect procedures performed by operations personnel.*"

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FINALIZATION - CLOSEOUT MEETING

- Review with audit team, participants, and management

- Review findings and get facility input on Recommendations

  - Example: "**2017.Compliance Audit.OP-1** - *Ensure that all written procedures, in use at the facility accurately reflect procedures performed by operations personnel.*"

  - **2017.Compliance Audit.OP-1** – *Ensure that all written procedures, in use at the facility, are reviewed by appropriate personnel (operations, supervisors, etc.) to verify accuracy. Any procedures, noted as inaccurate by the review team, should be updated following typical facility Operation Procedures development policies. As part of this recommendation, a list of verified and updated procedures should be compiled and approved by Operations Supervisor*

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FINALIZATION – REPORT DEVELOPMENT

- Include Executive Summary
  - State the number of findings
  - The number of deficiencies
  - The number of recommendations
- Include methodology
- Include name of personnel on the audit Team as well as interviewees
- Include list of documents reviewed, including specific procedure titles and reference numbers

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RECOMMENDATION FOLLOW-UP

- Assign an individual responsible for following up on the recommendation.

- Assign an anticipated date of completion to each and every recommendation.

- Document the actions taken for addressing the recommendation, label it as "CLOSED" and state the date of completion.

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RECOMMENDATION ACTION TRACKING LOG

Facility Name - City, State							
Covered Process - Year Recommendation Tracking Log							
Action ID	Recommendation	Recommendation Closure Statement	Applicable Personnel Trained? Y/N	Responsible	Target Date	Completion Date	Status
PHA Recommendations - YEAR							
Compliance Audit Recommendations - YEAR							
Seismic Assessment Recommendations - YEAR							

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COMPLIANCE AUDIT – ENSURING VIABILITY OF A LIVING PROGRAM

- Should not only determine if regulatory requirements are met but also address effectiveness of program

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GENERAL ELEMENTS

- Submittal
- Management Program
- Hazard Assessment
- Prevention Program
- Emergency Response Program

[Note: OSHA PSM requires Prevention Program elements only.]

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PROCESS SAFETY INFORMATION

- Information pertaining to the hazards of the regulated substance
  - Look for SDS for covered chemical

- Information pertaining to the technology of the process
  - Overview of process
  - Maximum intended inventory calculations
  - Safe Operating Limits or reference to location

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PROCESS SAFETY INFORMATION

- Information pertaining to the equipment in the process
  - Piping and Instrumentation Diagrams (P&ID's)
    - Ensure updates have been captured
  - List out Materials of Construction, Electrical Classification, Design Codes and Standards
  - Calculations or explanation of relief system design and ventilation design

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PROCESS HAZARD ANALYSIS

- Process Hazard Analysis (PHA) completed
- Seismic Assessment Completed (CA only)
- Appropriate methodology and team members
- Recommendation close out (2.5 years – CA Only)
- Revalidated on five (5) year timeframe

OPERATING PROCEDURES

- Include steps for each operating phase, as required by the regulations
- Operating Procedures synchronized with Operators actions in the field
  - Complete Operator Interview
- Operating Procedures reviewed annually
  - Certification Sheet

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TRAINING

- Training program in place
- Training being completed as required by the regulations
  - Initial and Refresher Training (every 3 years)
    - Ask for list of employees
    - Verify Training Records
- Training must be on operations of the process and must include a method of verification of understanding

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MECHANICAL INTEGRITY

- Preventative Maintenance (PM) Program
  - Includes all equipment for the regulated process
  - Formal schedule for maintenance task
  - Means to document maintenance being completed according to schedule
  - Method to note and correct equipment deficiencies in a timely manner

MANAGEMENT OF CHANGE

- Have there been any changes to the covered process?

- If there have been changes have all elements of Management of Change (MOC) been implemented (including Training of the MOC)?
    - Check MOC Documentation

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PRE-STARTUP SAFETY REVIEW

- If there have been major modifications to the regulated process or a new regulated process is being constructed was a Pre-Startup Safety Review (PSSR) completed?
  - Look for PSSR Record

- If no MOC's have been completed, is there a procedure to complete PSSR?

COMPLIANCE AUDIT

- Compliance Audit Report
  - Completed every 3 years
  - List of participants
- Recommendation Follow-up & Closure (1.5 Years – CA Only)

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INCIDENT INVESTIGATION

- Procedure exists to Investigate Incidents and includes:
  - Requirement to initiate investigation within 48 hours
  - Proper Team Members
  - Development of Report
  - Communication to affected personnel
- Has there been an incident?
  - Look for Incident Report
  - Must be retained for 5 years

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EMPLOYEE PARTICIPATION

- Written Plan for Employee Participation
- Employees have access to CalARP/RMP/PSM Program Information
  - Interview Operators

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HOT WORK PERMIT

- Procedure to issue Hot Work Permits
- Hot Work Permits being maintained on File
   - Look for Hot Work Permits

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CONTRACTORS

- Policy to evaluate contractor records
- Contractors being used on or near regulated process?
    - Look for Contractor Records
- Make sure that Contractors are evaluated prior to hiring and periodically after

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COMMON DEFICIENCIES AND MISCONCEPTIONS

- Program documentation and implementation
  - Mechanical Integrity documentation
  - Training Records (including MOC, OP, PSSR, etc.)
  - Operating Procedure accuracy
  - P&ID accuracy
  - PSI information

- PHA revalidation every 5 years requires reviewing every scenario/line item from the past PHA to verify accuracy

- PHA/CA/Seismic Assessment Recommendation Closure

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PREVENTION PROGRAM LIFE CYCLE

These are "living" documents. Deficiencies will occur, procedures will change. The idea is to update and follow-up in order to demonstrate you are following your safety program.
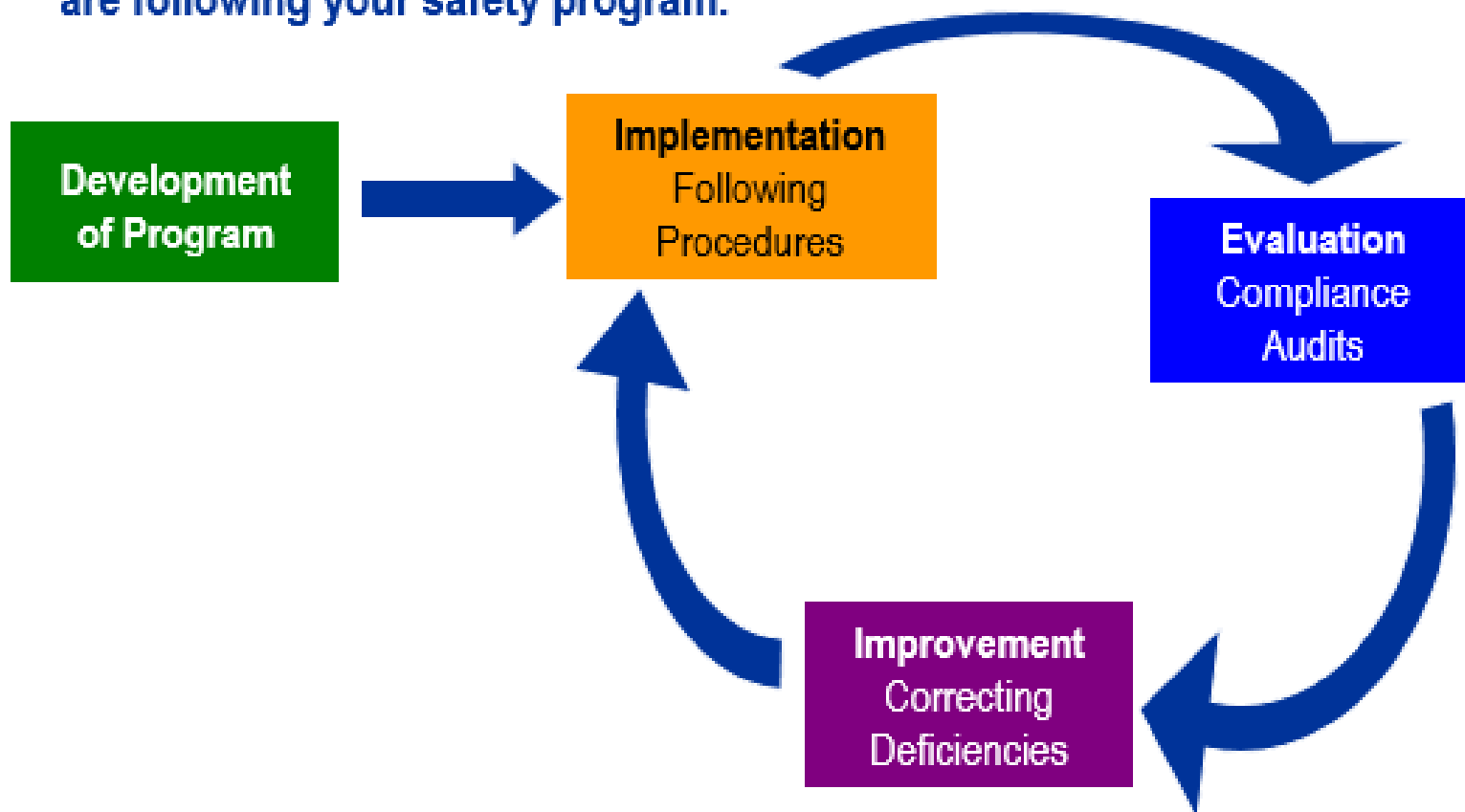
COMPLIANCE AUDIT REVIEW

- Ensure you have the appropriate Team
- Ensure a method to document the results
- Ensure regulatory requirements are met
- Review supporting documentation
- Look for program implementation
- **BE OBJECTIVE!**
- Follow-up on Recommendations

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THANK YOU!

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