– EFFICIENT COMPLIANCE AUDITS –
– BALANCING TIME AND RESOURCES –

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Abstract

Every three years, facilities across the United States must review their Risk Management Plan (RMP) and Process Safety Management (PSM) Programs against the Federal (and sometimes State) regulations. The Triennial Compliance Audit is commonly overlooked and under fulfilled. The purpose of the Triennial Compliance Audit is to address deficiencies at regular intervals and confirm compliance is met before a regulatory inspection occurs.

The Triennial Compliance Audit is for internal use; however, regulators may request the documentation at any time to determine whether the facility is doing enough to be compliant, such as meeting recognized and generally accepted good engineering practices (RAGAGEP) standards and General Duty Clause requirements. While facility personnel already have so much to accomplish, they have one more regulatory deadline to meet. With so much already on their list of responsibilities, how are facilities supposed to make the time to address this audit? How do they manage their resources and continue to conduct a comprehensive audit in an efficient manner?

This paper addresses the balance of time and resources while conducting a Triennial Compliance Audit. From preparation to implementation, and finalization, there are a number of common deficiencies to be aware of; therefore, having a means for streamlining the process, and strategies for personnel interviews are essential for conducting an efficient Triennial Compliance Audit.

Introduction

A Triennial Compliance Audit is conducted every three (3) years as part of the United States Environmental Protection Agency's (USEPA's) Risk Management Plan (RMP) and the Occupational Safety and Health Administration's (OSHA's) Process Safety Management (PSM) Programs. In addition, some states go beyond the Federal requirements, and require additional standards or detail within the audits.

This paper will provide a brief explanation of the requirements of a Triennial Compliance Audit, but assumes that the reader has a general idea of the requirements at the Federal level. Additional information is provided in regards to further State requirements (specifically, California, Nevada, and New Jersey).

What are the Requirements of a Compliance Audit?

Code of Federal Regulations, Title 40, Chapter I, Subchapter C, Part 68, Section 68.58 and Section 68.79 (40 CFR §68.58 and §68.79) list the requirements for Program Level 2 and Program Level 3 facilities, respectively. The Federal requirements of a Triennial Compliance Audit are as follows.

- Certify an evaluation of compliance against the Compliance Audit requirements in the 40 CFR §68.58 or §68.79, depending on the program level, every 3 years. The requirements further say that procedures and practices are to be evaluated.

- Compliance Audit must be conducted by at least one (1) person knowledgeable in the process.

- A report of the findings must be developed.

- An appropriate response to each finding and the corrective action to the deficiency is to be documented.

- The two (2) most recent reports shall be retained, but does not apply to reports greater than five (5) years old.

The California Accidental Release Prevention Program (CalARP) goes further as to state the following:

- Findings from the Compliance Audit are to be resolved within a timeframe mutually agreed upon by the Unified Program Agency (UPA), within one and one-half (1.5) years of the audit, or during the next planned turnaround.

- Completions dates for the findings and resolutions are to be documented.

The CalARP program is implemented by the California Office of Emergency Services (Cal OES), but is enforced by local agencies assigned by Cal OES (local cities / counties, fire departments, hazardous materials departments, public health departments, etc.). These local agencies are referred to as the Unified Program Agencies (UPAs).

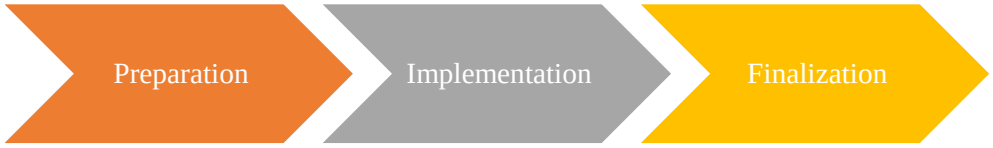
The Nevada Division of Environmental Protection (NDEP) implements and enforces the Chemical Accident Prevention Program (CAPP) in Nevada. While there are no additional requirements to the CAPP Compliance Audit, the NDEP developed their own Compliance Audit checklist available on-line. This list contains the inspector's line-items for checking procedures and implementation of the CAPP Program.

The New Jersey Department of Environmental Protection (NJDEP) implements the USEPA's RMP program through their Toxic Catastrophe Prevention Act (TCPA). Additional requirements of the NJDEP TCPA are as follows.

- Compliance Audits must be conducted annually, not every three (3) years.
- The facility must review the Process Safety Information (PSI) and verify that the technology and equipment is built and operated in accordance with the PSI. It should be noted that the TCPA includes additional requirements for PSI, but they will not be discussed in this paper.
- The Compliance Audit report must include the scope, audit techniques, methods used, and the names of the individuals who participated in the audit.
- A written schedule for corrective actions to be completed shall be documented, and should state what actions were taken for the correction.

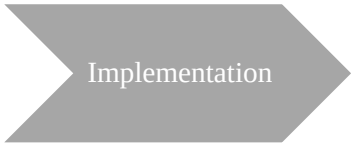
Compliance Audit Timeline

The timeline for a Compliance Audit can be broken down into three (3) phases: preparation, implementation, and finalization.



Preparation starts with defining a schedule and agenda. While considering members for the Team, think about which personnel may be available and what schedules may prove to be challenging. Perhaps the facility operates on a 24/7 schedule, and the person best suited for some of the audit questions works the 2nd shift. In addition, accommodating vacation schedules may be challenging during particular times of the year. It's important to develop a schedule to ensure the necessary individuals are participating and available, while still allowing personnel to take care of their other responsibilities. In addition, does the audit require that members of the corporate organization be present as part of a company policy? Will their schedule need to be accounted for in the process (including travel)?

Perhaps the last regulatory audit by a governing agency (local, state, or federal) did not go well. Does having a third party (outside consultant / source or personnel from another facility) review documentation and implementation with the team make sense? Something to consider is evaluating the need for a different perspective and accommodating that person's schedule in the preparation phase.



During implementation of the Triennial Compliance Audit, a sign-in sheet can be very helpful in identifying team members long after the session is complete. A copy of the sign-in sheet should either be reproduced or included in the final report. A coordination meeting prior to beginning the audit session is recommended to help set a tone for the team, allow the lead auditor to address and specific issues they may be looking for, and to guide the team in what the lead auditor will be doing during the session.

The value of a site walkdown cannot be stressed enough. From the experienced on-site operator to the third party auditor, it is always beneficial to conduct a

process walkdown with a set of piping and instrumentation diagrams (P&IDs) to redline along the way. Field observations, including those for implementation of procedures on-site, should be documented in the final report along with the rest of the findings. A close-out meeting is also helpful to give the team a chance to ask final questions and review recommendations and personnel assignments for recommendation closure.

Finalization of the Triennial Compliance Audit includes the documentation of methodology, findings, team participation, and recommendations, if any. Part of recommendation documentation includes a tracking mechanism for organizing actions needed. A list of recommendations is not enough. Some regulatory requirements state that a person responsible, plan or description to complete each recommendation, target date for completion, comments summarizing the recommendation closure, and sign-off of the responsible person who closes the recommendation is required. Even if this is not required in a facility's particular jurisdiction, it is a useful method for tracking recommendations and can be considered a RAGAGEP item.

Common Deficiencies

A Triennial Compliance Audit should not only address the documentation of the Prevention Program in-place, but also the implementation of that program. Very frequently, one of these is missing from an audit. It is important to note that regulators do look at both sides of the program (documentation AND implementation) when they conduct their regulatory audits at each facility. The table below illustrates some examples of documentation review versus implementation review.

Documentation vs. Implementation		
Program Element	**Documentation**	**Implementation**
Mechanical Integrity (MI)	Inspect maintenance logs and work orders. Check the maintenance schedule against best practice known in the industry.	Interview maintenance personnel on procedures and knowledge about the MI process / forms. During the walk-down, are there any obvious signs of lack of maintenance or housekeeping?
Training (TRN)	Inspect training records. Does it look like training records are complete? Are trainings completed on-time? Does it appear that the trainings are relevant and that no relevant topics are missing?	Interview personnel on their training retention and knowledge on where documents / information is kept. Check that management staff understands the training needed and are at least as trained as their subordinates.

Documentation vs. Implementation		
Program Element	**Documentation**	**Implementation**
Operating Procedures (OP)	Inspect OPs and review during site walkdown.	Request an operator to run through a "mock" procedure and verify practice against documentation.
Employee Participation (EP)	Review documentation and procedures.	Interview personnel on their involvement and knowledge of the process. Check that operators are aware of their roles in managing the program and have been asked to participate in the Hazard Review or Process Hazard Analysis (PHA).

P&ID accuracy is also often overlooked. It is critical that current and updated P&IDs are available at all times to on-site personnel. A P&ID review should be completed more often than every three (3) years, but at a very minimum should be reviewed in detail before the Compliance Audit and/or PHA. Although Program Level 3 facilities are required to conduct a Management of Change (MOC) and Pre-Startup Safety Review (PSSR) when changes are made to the system, P&IDs are often overlooked or forgotten.

Recommendation tracking, follow-through, and documentation are commonly deficient as part of the Compliance Audit process. Each facility should have a method to track recommendations (i.e., work order system, simple spreadsheet, computer program, etc.) from assignment to completion. There should be an assigned person responsible for closing the recommendations (such as a Facility Supervisor or Operations Manager). This person may have to designate the work task to close the recommendation, but they would be responsible for the closure. Finally, the process from assignment to closure should be documented and is required to be kept for the life of the process. Documentation and good recordkeeping practice is key.

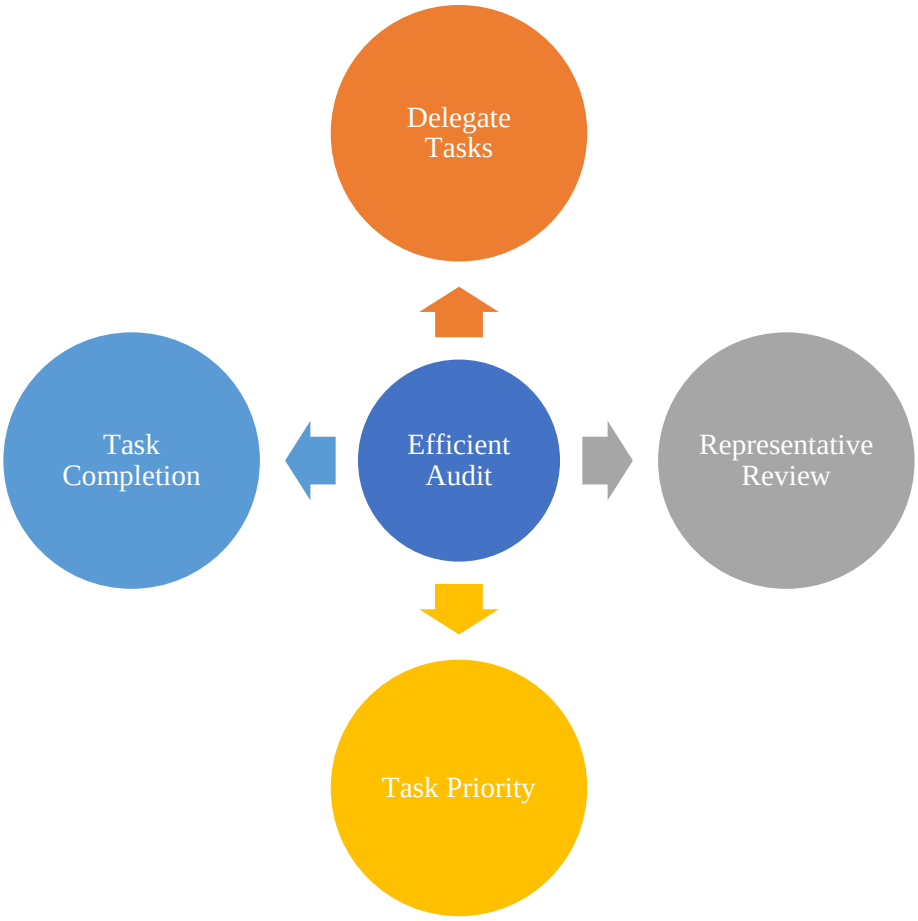
How to Streamline Your Compliance Audit?

Every facility wants to save time, be efficient, and have a job task completed in a high quality manner. The same goes for the Compliance Audit, especially for those who are busy and have many responsibilities.

First, assign an operator or maintenance personnel to review P&IDs in detail prior to the Compliance Audit. This saves time spent on the walk-down, where more people may be present. In addition, consider having a newer operator walk-down the P&IDs with a more experienced operator overseeing the effort. This enables a fresher set of eyes to review the documentation, walk-through the system, and can possibly be recorded as training for the newer operator who may still be familiarizing himself / herself with the process at the facility. Reviewing P&IDs prior to the Compliance Audit also enables the auditor to spot-check what has already been done and saves time in the field.

In the preparation phase, pre-reviewing documentation by the lead auditor may help keep the team focused in a group setting; thereby, using fewer resources and avoiding taking personnel away from their everyday tasks. Providing hard copies

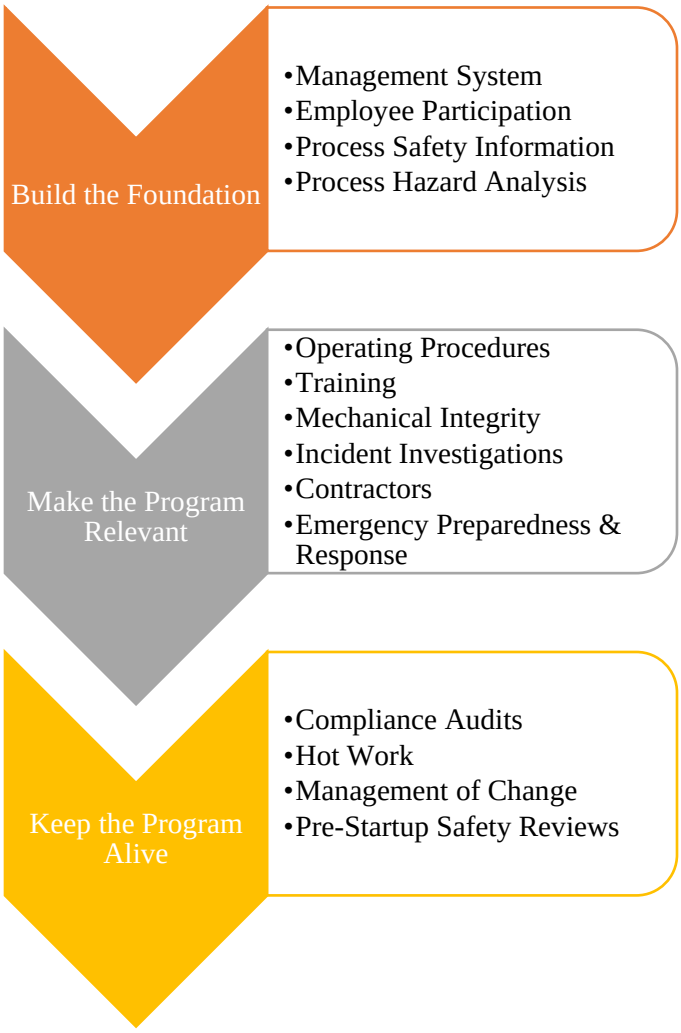
or electronic copies of even some RMP / PSM elements enables the auditor to get a head start on the Compliance Audit and arrive to the on-site audit with prepared questions and items to verify.



During the on-site audit, reviewing a representative sample of documentation for MI, Operating Procedures (OP) and Training, for example, will save some time and is still very effective. For larger facilities, a representative sample of equipment may also be used for reviewing the PSI and MI sections of the Compliance Audit (both documentation and implementation). Usually, selecting the “best”, “average”, and “worst” example documentation is an effective way to audit several elements where completed documentation should be reviewed. Randomly selecting documentation for review is also allowable and effective. As

a reminder, reviewing the "best" documentation is not helpful for Compliance Audits. The important thing is not to walk away with zero recommendations, the goal is to evaluate the effectiveness of the program in its documentation and implementation.

Another method to streamlining the Compliance Audit is the order in which RMP / PSM elements are reviewed. Starting with the "foundation" of PSI, PHA, and EP elements can be a great starting place for reviewing other parts of the program. These elements contain much of the information that carries over into other elements. The figure to the right illustrates a foundational categorization of the RMP / PSM elements.



Secondly, a walk-down after the PSI, PHA, and EP review enables the auditor to ask questions in the field about the OP, TRN, and MI elements and cover some of the implementation aspects of them. In addition Incident Investigation (II), Contractors, and Emergency Preparedness & Response (EPR) can be effectively reviewed at this point. For instance, a walk-down will cover the OP review with an operator and

the P&ID review for the PSI section. Lastly, the remaining elements can follow at the end of the audit as these are primarily documentation review.

Interview Techniques and Tips

Interviews are not easy, and very few people really enjoy them. In conducting the interview, especially for third-party participants, it is important to make the interview comfortable and relaxed. The Compliance Audit interviews are not intended to get anyone in trouble or to seek out “whistle-blowers”. It is an opportunity to provide and receive real and accurate feedback on the operations, maintenance, and management of a facility. Also, it is an opportunity for the facility to make corrections to deficiencies BEFORE a regulator conducts an inspection.

In regards to OP, inquire as to how operators preform specific procedures. Do they follow the written procedures or are there updates needed to match the documentation to what is in the field? Verify that written documentation corresponds to action. Do the operators see any missing information or helpful information that should be included on the procedures? Do the operators know who to talk to about revisions and changes to procedures? Input from the personnel working directly with the equipment and system is essential for an effective program.

Employee Participation can be a complicated element to verify. Even if facility personnel are informed of the correct information, it is not a guarantee that they understand that information. Facility personnel should be asked whether they are involved in the RMP / PSM Program. Involvement can be in any or all of the elements depending on their responsibilities and expertise. Do they feel like they are adequately involved? Are there any suggestions to increase involvement? Is there a way to track involvement?

II and EPR are elements every facility hopes not to use, but preparation is key. It is important to ask facility personnel whether or not they feel adequately trained for these events. Do managers or those responsible know where to find the investigation forms and understand the process? Has the facility coordinated with local responders for emergencies and drills? Even if not explicitly required, the preparedness of those responding is essential for an effective mitigation against a large catastrophe. When examining the incidents in recent past, it was noted that many are due to the lack of preparedness of the facility and/or the responders. Have evacuation drills been conducted? Are emergency supplies / kits in good working order and well-stocked? The difference between someone going home and someone going to the hospital after an incident can come down to the review of the II and EPR elements.

More generally, keep in mind that different personalities may take inquiries and the audit differently. Be sensitive to the fact that the person who wrote or maintains the Program may think everything is acceptable or "perfect." Anyone who has conducted a Compliance Audit knows that there is always something to improve or a deficiency to correct. Gentler approaches to improving or correcting a program will go further than an abrasive or authoritative approach. The Compliance Audit team members should all have the same goal to operate safely, effectively, efficiently, and in accordance with established regulations.