



THE LIFE CYCLE OF PHA RECOMMENDATIONS

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KEY TOPICS

- The Origin of the PHA Recommendation
- Writing a PHA Recommendation
- What happens next?
- Domino Effect of the Recommendation
- “Closing out” Recommendation
- Do I need any other follow-up?

THE ORIGIN OF THE PHA RECOMMENDATION

- Based on risk ranking
 - PHA methodology
 - Corporate standards
- Consistent deficiencies found
- Procedural reminders
- Documentation errors
 - Out-of-date drawings
 - Errors in past PHA study
- Reminders for future work



ADVICE FROM A FACILITATOR

- Recommendations are for the benefit of everyone.
- Do not have a minimalist mindset.
- Recommendations should be achievable.
- Recommendations should improve safety for the greater good.

WRITING A PHA RECOMMENDATION

- Recommendations needs team consensus
- Standalone language – 2 parts
 - Recommendation – What is the recommendation?
 - Concern statement – What is the concern or scenario driving the recommendation?
- Flexible closure
 - “Consider...”
 - “Evaluate the need to...”
 - ~~“Ensure...”~~

ADVICE FROM A FACILITATOR

- Remove the word “ensure” from your vocabulary.
- Don’t pin yourself in a corner with recommendation language.
- In session, write what makes sense, it can be changed later when the report is reviewed.

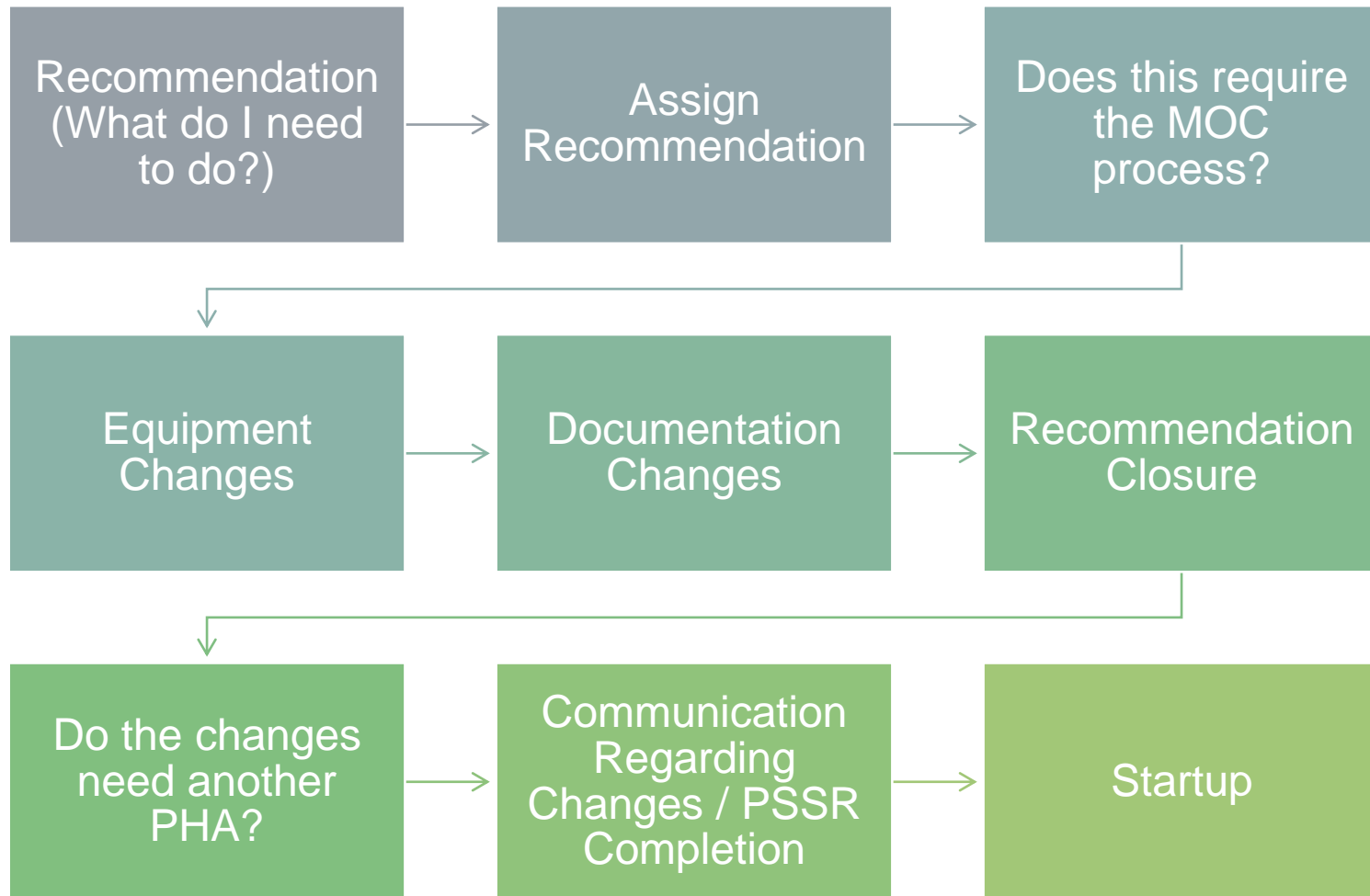
WHAT HAPPENS NEXT?

- **CLOSE THE RECOMMENDATION**
 - CalARP: 2.5 years or next turnaround or AA agreed upon schedule
 - RMP/OSHA: No timeline defined
 - RAGAGEP: Follow CalARP timeline
- **Track your recommendation closures**
 - Anticipated actions to take
 - Anticipated closure date
 - Actions taken / closure comments
 - Actual closure date

ADVICE FROM A FACILITATOR

- Have at tracking method for closure in-place.
 - Work order system
 - Excel sheet
 - Hand-written list
- Don't forget your closure comments.
- Don't wait until the last minute!

DOMINO EFFECT OF RECOMMENDATION CLOSURE



MANAGEMENT OF CHANGE (PROGRAM 3)

- Has an MOC been done?
 - Is the checklist adequate to catch all aspects of the program that may need to be changed?
 - Is there a list of people assigned to the team and their responsibilities?
 - Before final approval, has the MOC been completed and is in compliance with regulations and RAGAGEP?
- MOC must be complete prior to continuing changes to the process.

PROCESS SAFETY INFORMATION

- Do the recommendations require updates?
 - Are there changes to equipment, piping, and/or valving?
 - Are there design changes that need to be updated?
 - Have setpoints changed?
 - Was there any information missing?
- Input from personnel, as necessary.

SOPS / MECHANICAL INTEGRITY / HOT WORK

- Did the recommendation impact those portions of my program?
- Things that may:
 - Equipment changes
 - Piping / valving changes
 - Procedural changes
 - Contractual changes
- Operators / maintenance personnel to review final documentation.

HAZARD ASSESSMENT / SUBMITTAL

- Were there changes to the system that require a new dispersion model?
- Is there a new maximum inventory?
- Were there technical changes that require a new submittal?
- Are there administrative changes that require a new submittal?

SEISMIC ASSESSMENT

- Is a new seismic assessment required due to:
 - Additional equipment?
 - Change in equipment?
 - Change in piping / valving?
- Outside of California, is a seismic assessment a good idea?
 - Washington
 - Oregon

INCIDENT INVESTIGATION / EMERGENCY PREPAREDNESS

- Do the recommendations change the way incident investigations are handled?
- Were there any incidents where procedures need to be analyzed for more efficiency or accuracy in data collection?
- Does the emergency preparedness plan need to be reviewed as a result of any recommendations?

TRAINING / EMPLOYEE PARTICIPATION

- Have affected personnel been trained on changes affecting their work tasks / responsibilities?
- Is it documented?
- Have employees been given the opportunity to comment on the changes?
- Have contractors reviewed or been trained on changes pertaining to their work?

PHA (AGAIN?)

- YES, again.
- MOC may require another PHA to validate hazards and safety of the system.
- PHA may only cover the changed parts of the system.
 - Must still evaluate ultimate worst-case consequences.
 - Should use the same methodology as previous to maintain consistency.

PRE-STARTUP SAFETY REVIEW (PROGRAM 3)

- Verification check on MOC procedure and completed tasks.
- Has the PSSR been completed (BEFORE STARTUP)?
 - Should not be starting up the system until PSSR complete.
 - Even if PSSR is not required (Program 2), still a good idea to have a method in-place.

“CLOSING OUT” RECOMMENDATIONS

- Addressing the recommendation and safety concerns behind recommendation.
- Financial hardship is not an acceptable closure response.
- Recommendation action may not be necessary.
 - Be ready to defend
 - Good documentation is required
- Document closure.

DO I NEED ANY FOLLOW-UP?

- Person responsible for recommendation should sign-off its completion.
- Good idea to set a reminder to check about 1 year from recommendation assignment or ½ time between assignment and proposed completion date.
- Person responsible for implementing CalARP/RMP/PSM plan is ultimately responsible.

QUESTIONS?

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