

MONTHLY REFRESHER TRAINING

Process Safety Management

December Week 1 — Taking The Field



1. Employee Involvement — TEAM

HUDDLE Safety talks, JHAs, pre-job briefs, and observations. Everyone participates. Everyone has a voice. A strong huddle prevents a bad play.

2. Process Safety Information — SCOUTING REPORT

Know your opponent: chemical behavior, flammability, reactivity, corrosivity, safe limits, incompatibilities. You don't run the play unless you know the field.

3. Process Hazard Analysis — FILM STUDY

Learn from past failures, near misses, breakdowns, and "what-if" scenarios. PHAs expose how the opponent has beaten teams before. Film study prevents repeat losses.

4. Operating Procedures — PLAY CALLS

Written, step-by-step instructions for how to do the job safely. If the play changes mid-game, call timeout — don't improvise. The playbook exists so no one runs the wrong route.

5. Training — PRACTICE DRILLS

Repetition builds instinct. Instinct builds confidence. Confidence keeps you calm when the field gets loud. Every player must know their assignment.

6. Contractor Safety — SPECIAL TEAMS

We run the hardest, highest-risk plays. We must know the hazards, the boundaries, and the rules of each PSM zone. No solo plays — always coordinated. Special Teams wins or loses the game in seconds.

A normal jobsite becomes a PSM field the moment the chemical chameleons show up in force — when enough of them are stored, pumped, or moved to cross OSHA's threshold quantity. Once those quantities are hit, the stadium changes. New rules apply. New plays must be run. The field becomes high-hazard territory identified as a PSM area.

Hexane morphs into the Sprinter — low, invisible vapor already downfield before a rookie notices the snap. Sulfuric acid shifts into the Lineman — forcing through steel and generating heat with every move. Pressure systems morph into the Blitzbacker — quiet one moment, explosive the next.

And these aren't the only Chemical Chameleons. There are more, each with their own tendencies, reactions, and formations. Just image Space Jam with their monstrous appearance standing over the All Star.

Once this team takes the field, the stadium fills with players and plays. Operations running the offense, engineering holding the defensive line, fire watch scanning for sparks, gas testers reading the air, and contractors lined up inches from the hazard.

That's why OSHA requires a playbook. That's why this is a PSM field in which there are 14 elements, each designed to identify, control and prevent catastrophic chemical releases.

WHO IS ON THE FIELD

Chemical Chameleons — Opposing Team — Their behavior shapes every play

Operations — Offense — Runs the process safely

Engineering/Safety — Defense — Build and maintain safeguards

Contractors/Maintenance — Special Teams — Execute high-risk plays (repairs, shutdowns, hot work)

THE PLAYBOOK EVERY PLAYER CARRIES

Once the chemical chameleons take the field, the stadium hands out the official playbook to everyone — **operators, engineering, fire watch, gas testers, and contractors** stepping onto the turf. OSHA requires this playbook and requires it to be followed.

Inside the PSM playbook you'll find:

The SOPs that tell us exactly how each play is supposed to run. The permits that decide when Special Teams enter the formation. The isolations and blinds that lock Chemical Chameleons in place during work. The emergency play to call when a Chameleon breaks formation. The worst-case scenario play that's written long before the game starts

On a PSM field, success isn't about improvising. It's about running the plays exactly as written.

POSSESSION — THE ONLY THING THAT DECIDES THE GAME

Possession = control of the process.

If we keep possession: pressure stays steady, vapors stay contained, temperatures stay right, equipment behaves, chameleons stay boxed in.

If they take possession: fire, explosion, toxic release, injury, shutdown, catastrophic consequences.

There is no next drive. No redo. No second half.

We protect possession because they know what the chameleons can do with the ball.

WHAT WE MUST KNOW

Contractors work closest to the Chemical Chameleons. So we MUST know what the PSM is telling us.

- **What we're dealing with** — “What chemical is here? How does it move? How does it change form? What sets it off?”
- **How it reacts when things break down** — Some chameleons move low. Some go airborne. Some explode with heat. Some corrode steel quietly. Some release stored energy in one violent motion.
- **How we hold the line** — Mechanical Integrity is reading the signs the chameleons give off.
- **How we work around them safely** — isolations, blinds, lockout, ventilation, gas testing, PPE, Hot Work permits.

WHEN THE FIELD SHIFTS — RECOGNIZING THE BLITZ

Pressure creeps. A smell appears. Vapor flickers. A pump tone changes. A single alarm chirps.

Yellow flag = pause the play.

Red flag = play over, clear the field, run the two-minute drill described in the PSM.

PROTECTING POSSESSION

Never hand the ball to someone who doesn't know the playbook. (The PSM)

We know where these locations are and what's in there. If you are ever unsure of the PSM areas where you are working, ask your supervisor!

We are the ringers on a PSM field. We run the plays with discipline. We read the formations early. We protect possession. We throw the flag when something shifts. We execute the two-minute drill when needed.

And we walk off the field safely because that is the win that counts.

7. Pre-Startup Safety Review — PRE-GAME

WARMUP Before a new or modified system starts, everything must be checked: equipment, communication, isolations, valves, guards. No kickoff until the field is ready.

8. Mechanical Integrity — STRENGTH &

CONDITIONING Inspect, test, repair, and maintain equipment: pumps, lines, tanks, hoses, supports, sensors, reliefs. If something is worn, corroded, or vibrating wrong—the opponent sees that weakness too.

9. Hot Work Permits — SIGNAL FROM THE

SIDELINE No sparks without the signal: gas testing, authorization, fire watch. Hot work changes the entire field instantly. One missed signal can hand the ball to the opponent.

10. Management of Change — FORMATION

SHIFT When equipment, chemicals, or procedures change — the whole play changes. Stop, regroup, reassess. New formation = new risks = new responsibilities.

11. Incident Investigation — POST-GAME FILM

REVIEW Break down what went wrong, why it happened, and how the opponent got through. Learn the lesson, update the playbook, and don't run the same mistake twice. Every loss teaches the next victory.

12. Emergency Planning & Response — TWO-MINUTE DRILL

The emergency play is already written in the PSM. When the **red flag** flies, we don't improvise — we follow the plan. This play is about calm, discipline, and life safety.

13. Compliance Audits — SEASON REVIEW

Check the plays, check the performance, check the discipline. Are we following the playbook? Are the plays still good? Championship teams review their season.

14. Trade Secrets — PLAYBOOK SECURITY

Every worker has the right to know the hazards, limits, and risks associated with the process. Hazard knowledge is not optional — it's required. You can't run plays from a sealed playbook.