<u>Key Features of California Accidental Risk Prevention (Refinery Safety), Program 4, Comparison to CAL ARP Program 3 & Contra Costa Industrial Safety Ordinance</u>

Key Element	CAL-ARP Program 3	Contra Costa Industrial Safety Ordinance	CALARP- Accidental Release Prevention, Program 4
Applicable Refinery Operations	Applies only to Petroleum Product production areas; Jurisdiction statewide	Same as CAL-ARP Program 3 so only applies to Petroleum Production process areas	Regulatory oversight of the entire refinery including utilities, safety related equipment such as flares, and air pollution equipment; Jurisdiction is statewide
Analysis of hazards of processes using a qualified team to identify refinery hazards	Requires an analysis of hazards of only Petroleum Production processes recognized generally acceptable engineering practices and requires time limit of 2.5 years or next refinery scheduled maintenance (turnaround) for corrective actions	Similar to CAL-ARP Program 3 by requiring an analysis of the hazards of only Petroleum Production processes with the added requirement to perform an analysis for inherently safer systems on these production processes	Required to perform an analysis of hazards of processes including Petroleum Production, all utilities, & safety related equipment e.g. flares, and air pollution equipment to include modifications for inherently safer designed systems; Must be to the extent feasible, engineering not just monetary.
Accidental Release Prevention Program Management System	Not present	Not Present	Requires increased employer accountability by creating a system that is updated every three years for effective communications and implementation of safety, operations, maintenance, corrective actions, recommendations, & findings
Employee participation	Requires owner to have written plan to ensure employee participation in the analysis of hazards of Petroleum Production processes and other aspects regarding safety of the Petroleum Production processes	Similar to CAL-ARP Program 3 and only applies to Petroleum Production processes with the added requirement to include employee participation in developing, implementing, & revising, check lists to audit for additional safety conditions	Requires increased employee involvement in all aspects of the safety and prevention programs of the refinery including utilities and safety equipment
Work place Safety Culture Assessments	Not present	Requires Safety Culture Assessment to Petroleum Production processes and requires assessment every five years must start on recommendations 90 days after report completion	Assessments to evaluate whether management is emphasizing safety over production pressures refinery wide; Requires assessment by April 1, 2019, with report 90 days after assessment; Must implement findings within 24 months after report completion with periodic reassessments

<u>Key Features of California Accidental Risk Prevention (Refinery Safety), Program 4, Comparison to CAL ARP Program 3 & Contra Costa Industrial Safety Ordinance</u>

Key Element	CAL-ARP Program 3	Contra Costa Industrial Safety Ordinance	CALARP- Accidental Release Prevention, Program 4
Work Stop Authority Procedures	Not required	Not specifically addressed	Refinery must establish written work stop authority that allows a qualified operator to shut down a unit or entire refinery without repercussions
Anonymous Reporting	Not required	Not specifically addressed	Requires written procedures for the anonymous reporting of hazards and requires refinery to prioritize and respond with 30 days; Must correct all hazards that present potential of death or physical harm
Incident investigations	Requires Incident investigation involving Petroleum Production processes that resulted in or could have resulted in a catastrophic release with 48 hours and requires corrective actions within two years following the incident	Requires investigation following incidents involving Petroleum Production processes and to perform and identify the root cause of incidents for any major chemical accident or release or other qualifying incidents in which requires major changes.	Requirement for refinery wide investigations to determine root causes of incidents and require evaluation of all mechanisms that can cause damage e.g. corrosion, heat, & pressure; Interim and permanent corrective actions. Requires final report with 5 months and to post it on Solano County website
Refinery Safety Performance Indicators	Not Required	Not required	Starting 2019, requires annual public reporting of refinery safety metrics e.g. past due inspections, corrective actions, major incident investigation corrective actions, and major incidents and temporary repairs