

**CONTRA COSTA COUNTY
ORDINANCE NO. 98-48
AND AMENDMENTS FROM 2000-20**

INDUSTRIAL SAFETY ORDINANCE

The Contra Costa County Board of Supervisors ordains as follows (omitting the parenthetical footnotes from the official text of the enacted or amended provisions of the County Ordinance Code):

SECTION I. SUMMARY. This Ordinance adds Chapter 450-8 to the County Ordinance Code. Chapter 450-8 imposes regulations which supplement the requirements of California Health and Safety Code Article 2 (commencing with section 25531) of Chapter 6.95 concerning hazardous materials management by enacting measures to prevent and reduce the probability of accidental releases of regulated substances that have the potential to cause significant harm to the public health and increase participation by industry and the public to improve accident prevention. These measures include submission of a Safety Plan to the County, stringent requirements for the contents of a Safety Plan and Safety Program, public review of the Safety Plan, authorization for the County to require changes in the Safety Plan or Safety Program, an expansion of the list of regulated substances beyond those covered by the Federal and State Risk Management Program regulations, and authorization for the County to expand audits and inspections to all units within the Stationary Source. Root Cause Analysis is required for all Major Chemical Accidents or Releases. A public outreach and information program is established.

This ordinance substantially readopts Chapter 84-63, originally added by Ordinance No. 96-20 and repealed by Ordinance No. 96-50, and repeals Chapter 84-63, added by Ordinance No. 96-50. Articles 84-63.2, 84-63.4, 84-63.6, 84-63.8, 84-63.10 and 84-63.12 of Chapter 84-63, as added by this ordinance, set forth criteria for land use permits for development projects involving hazardous waste or hazardous material which encourage business and other entities, in planning such projects, to give greater emphasis to factors which involve potential health and safety risks to the surrounding community. Article 84-62.14 is readopted in its entirety.

SECTION II. Chapter 450-8 is added to the County Ordinance Code, to read:

**CHAPTER 450-8
RISK MANAGEMENT**

450-8.002 BACKGROUND and FINDINGS. The Board of Supervisors of Contra Costa County finds as follows:

(A) Recent incidents in Contra Costa County at industrial chemical, petrochemical, and oil industry facilities have prompted the consideration of reviews, inspections, and audits that supplement existing federal and state safety programs and the imposition of additional safety measures to protect public health and safety from accidental releases.

(B) Section 112(r)(7) of the Clean Air Act (42 U.S.C.A. § 7412(4)) required the Federal Environmental Protection Agency ("EPA") to promulgate the rule known as the "Risk Management Program", which is intended to prevent accidental releases of regulated substances, as defined in the Federal program, and reduce the severity of those releases that do occur. All facilities subject to this federal regulation must prepare a Risk Management Plan (RMP) based on a Risk Management Program established at the facility, that includes a hazard assessment of the facility, an accidental release prevention program, and an emergency response program (40 CFR § 68). The facility must submit the Federal RMP to the EPA by June 21, 1999 (40 CFR § 68.150-68.185). The Federal RMP will be available to state and local government and the public.

(C) The California Health and Safety Code article 2 (§ 25531 et seq.) of Chapter 6.95 was amended effective January 1, 1997 to implement the Federal EPA's Risk Management Program rule with certain State-specific amendments. The State's Risk Management Program is known as the California Accidental Release Prevention (CalARP) Program.

(D) The County recognizes that regulatory requirements alone will not guarantee public health and safety, and that the public is a key stakeholder in chemical accident prevention, preparedness, and response at the local level. Preventing accidental releases of regulated substances is the shared responsibility of industry, government, and the public. The first steps toward accident prevention are identifying the hazards and assessing the risks. Once information about chemical hazards in the community is openly shared, industry, government, and the community can work together towards reducing the risk to public health and safety.

(E) The success of a Safety Program is dependent upon the cooperation of industrial chemical and oil refining facilities within Contra Costa County. The public must be assured that measures necessary to prevent incidents are being implemented, including changes or actions required by the Department or the Stationary Source that are necessary to comply with this chapter.
(Ord. 98-_, § 2.)

450-8.004 PURPOSE and GOALS. (A) The purpose of this ordinance is to impose regulations which improve industrial safety by the following:

- (1) requiring the conduct of process hazard analyses for Covered Processes handling hazardous materials not covered by the Federal or State Risk Management Programs;
- (2) requiring the review of action items resulting from process hazard analyses and requiring completion of those action items selected by the Stationary Source for implementation within a reasonable time frame;
- (3) requiring the review of accidental release prevention efforts of Stationary Sources and providing for the conduct of investigations and analyses for the determination of the Root Cause for certain incidents;
- (4) providing review, inspection, auditing and safety requirements that are more stringent than those required in existing law and regulations;
- (5) providing for public input into the Safety Plan and Safety Program and public review of any inspection and audit results;

- (6) facilitating cooperation between industry, the County, and the public in the prevention and reduction of incidents at Stationary Sources;
- (7) expanding the application of certain provisions of the Federal and State Risk Management Programs to processes not covered by the Federal or State Risk Management Programs;
- (8) requiring the development and implementation of a written human factors program; and
- (9) preventing and reducing the number, frequency, and severity of accidental releases in the County.

(Ord. 98-___, § 2.)

450-8.006 AUTHORITY. This ordinance is adopted by the County pursuant to its police power for the purposes of protecting public health and safety by prevention of accidental releases of hazardous materials and to assure protection of the environment.

(Ord. 98-___, § 2.)

450-8.008 ADMINISTRATION. The Department is charged with the responsibility of administering and enforcing this chapter.

(Ord. 98-___, § 2.)

450-8.010 APPLICABILITY. (A) This ordinance shall apply to Stationary Sources; and

(B) The following are exempt from the provisions of this chapter except Sections 450-8.016 (C) and (E), and 8.018 (F) and (G):

- (1) storage tanks containing a non-regulated substance, except for storage tanks that contain a material that meets the combustible liquid definition of 49 CFR 173.120(b);
- (2) drum storage of a non-regulated substance; less than 10,000 pounds of a Hazard Category B material located such that the drums could reasonably be expected to be involved in a single release; and for a Hazard Category A material, located such that the drums could reasonably be expected to be involved in a single release, at less than the quantity specified as the Threshold Planning Quantity on the Extremely Hazardous Substances list (Appendix A to 40 CFR Chapter I, Subchapter J, Part 355, as amended from time to time) or 500 pounds, whichever is less;
- (3) activities in process plant laboratories or laboratories that are under the supervision of a technically qualified individual as defined in Section 720.3 (ee) of 40 CFR. This exemption does not apply to specialty chemical production; manufacture, processing or use of substances in pilot plant scale operations; and activities conducted outside the laboratory;
- (4) utilities, except for fuel gas and natural gas systems to the battery limits of a process unit; and

(5) any waste tanks, containers or other devices subject to the Federal and State hazardous waste laws, including the Resource Conservation and Recovery Act (RCRA), 40 CFR Chapter I, Subchapter I, commencing with Part 260, the California Hazardous Waste Control Law, California Health and Safety Code, commencing with Section 25100 and the California Code of Regulations, Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste.

(Ord. 98-___, § 2.)

450-8.012 INSPECTION. The Department shall be allowed reasonable access to any part of the Stationary Source subject to the requirements of this Chapter, Sections 450-8.016 and 450-8.018 and to supporting documentation retained by the Source for the purpose of determining compliance with this Chapter.

(Ord. 98-___, § 2.)

450-8.014 DEFINITIONS. For purposes of this chapter the definitions set forth in this section shall apply. Words used in this chapter not defined in this section shall have the meanings ascribed to them in the Clean Air Act Regulations (40 CFR § 68.3) and in California Health and Safety Code article 2 (§ 25531 et seq.) of Chapter 6.95, unless the context indicates otherwise.

(a) “Covered Process” means any process at a Stationary Source.

(b) “Department” means the Contra Costa County Health Services Director and any Director authorized deputies.

(c) “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

(d) “Hazard Category A Materials” are substances which meet the Hazard Category A Material definition as set forth in Section 84-63.1016.

(e) “Hazard Category B Materials” are substances which meet the Hazard Category B Material definition as set forth in Section 84-63.1016.

(f) "Industry Codes, Standards, and Guidelines" means the edition of the codes, standards, and guidelines in effect at the time of original design or construction for the design, construction, alteration, maintenance or repair of process units, industrial equipment, or other industrial facilities, structures or buildings published by the American Petroleum Institute (API), the Chemical Manufacturers Association (CMA), the American Society of Mechanical Engineers (ASME) or the American National Standards Institute (ANSI).

(g) "Inherently Safer Systems" means Inherently Safer Design Strategies as discussed in the 1996 Center for Chemical Process Safety Publication “Inherently Safer Chemical Processes” and

means Feasible alternative equipment, processes, materials, lay-outs, and procedures meant to eliminate, minimize, or reduce the risk of a Major Chemical Accident or Release by modifying a process rather than adding external layers of protection. Examples include, but are not limited to, substitution of materials with lower vapor pressure, lower flammability, or lower toxicity; isolation of hazardous processes; and use of processes which operate at lower temperatures and/or pressures.

(h) "Major Chemical Accident or Release" means an incident that meets the definition of a Level 3 or Level 2 Incident in the Community Warning System incident level classification system defined in the September 27, 1997 Contra Costa County guideline for the Community Warning System as determined by the Department; or results in the release including, but not limited to, air, water, or soil of a Regulated Substance and meets one or more of the following criteria:

- (1) results in one or more fatalities;
- (2) results in greater than 24 hours of hospital treatment of three or more persons;
- (3) causes on and/or off-site property damage (including clean-up and restoration activities) initially estimated at \$500,000 or more. On-site estimates shall be performed by the Stationary Source. Off-site estimates shall be performed by appropriate agencies and compiled by the Department.;
- (4) results in a flammable vapor cloud of more than 5000 pounds.

(i) "Regulated Substance" means (1) any chemical substance which satisfies the provisions of California Health and Safety Code section 25532 (g), as amended from time to time, or (2) a substance which satisfies the provisions of Hazard Categories A or B in section 84-63.1016. Mixtures containing less than 1% of a Regulated Substance shall not be considered in the determination of the presence of a regulated material.

(j) "Risk Management Program" means the documentation, development, implementation, and integration of management systems by the facility to comply with the regulations set forth in 40 CFR, Part 68 and the California Health and Safety Code, Article 2, commencing with Section 25531.

(k) "RMP" means the Risk Management Plan required to be submitted pursuant to the requirements of the 40 CFR § 68.150-68.185 and the California Health and Safety Code article 2 (Section 25531 et seq.) of Chapter 6.95.

(l) "Root Cause" means prime reasons, such as failures of some management systems, that allow faulty design, inadequate training, or improper changes, which lead to an unsafe act or condition, and result in an incident. If root causes were removed, the particular incident would not have occurred.

(m) "Safety Plan" means the Safety Plan required to be submitted to the Department pursuant to the requirements of Section 450-8.016 of the chapter.

(n) "Safety Program" means the documentation, development, implementation, and integration of management systems by the Stationary Source to comply with the safety requirements set forth in Section 450-8.016 of this chapter.

(o) “Stationary Source” or “Source” means a facility which includes at least one process as defined in 40 CFR 68.10 that is subject to Federal Risk Management Program Level 3 requirements and whose primary North American Industry Classification System code (NAICS) is 324 (Petroleum and Coal Products Manufacturing) or 325 (Chemical Manufacturing).
(Ord. 98-___, § 2.)

450-8.016 STATIONARY SOURCE SAFETY REQUIREMENTS. The Stationary Source shall submit a Safety Plan to the Department within one year of the effective date of this ordinance or within three years of the date a facility becomes a Stationary Source, that complies with the provisions of this section and that includes the safety elements listed in subsection (A) below. In addition, the Stationary Source shall comply with the safety requirements set forth in subsections (A) through (E) of this section and shall include a description of the manner of compliance with these subsections in the Safety Plan. A new Covered Process at an existing Stationary Source shall comply with subsections (A) through (E) prior to initial startup.

(A) Risk Management Program Elements. Those Covered Processes not included in the Federal program level 3 Risk Management Program shall be subject to the Risk Management Program elements listed below. The Safety Plan shall include a description of the manner in which these Risk Management Program elements listed below shall be applied to the Covered Process. These Risk Management Program elements shall be implemented in conformance with the Federal and State Risk Management Programs and the Safety Plan shall follow Chapters 6 and 7 dated July 1, 1998, and Chapter 9 dated November 2, 1998 of the Contra Costa County Health Services Department RMP guidance document, June, 1998:

(1) **Process Safety Information:** (a) The Stationary Source shall complete a compilation of written process safety information before conducting any process hazard analysis as required by this chapter. The compilation of written process safety information is to enable the Stationary Source and the employees involved in operating the Covered Process to identify and understand the hazards posed by the Covered Process. This process safety information shall include information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process. Information pertaining to the hazards of the Regulated Substances in the process.

(i) This information shall consist of at least the following: toxicity information; permissible exposure limits; physical data; reactivity data: corrosivity data; thermal and chemical stability data; and hazardous effects of inadvertent mixing of different materials that could foreseeably occur.

(ii) Material Safety Data Sheets meeting the requirements of Section 5189, Title 8 of California Code of Regulations may be used to comply with this requirement to the extent they contain the information required by this subsection.

(iii) Information pertaining to the technology of the process shall include at least the following: a block flow diagram or simplified process flow diagram; process chemistry; maximum intended inventory; safe upper and lower limits for such items as temperatures, pressures, flows or compositions; and, an evaluation of the consequences of deviations. Where the original technical information no longer exists, such information may be developed in conjunction with the process hazard analysis in sufficient detail to support the analysis.

(iv) Information pertaining to the equipment in the process shall include: materials of construction; piping and instrument diagrams (P&ID's); electrical classification; relief system design and design basis; ventilation system design; design codes and standards employed; material and energy balances for processes built after the compliance date of this Chapter; and safety systems (e.g. interlocks, detection or suppression systems).

(b) The Stationary Source shall document that equipment complies with recognized and generally accepted good engineering practices.

(c) For existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, the Stationary Source shall determine and document that the equipment is designed, maintained, inspected, tested, and operating in a safe manner.

(2) Operating Procedures: (a) The Stationary Source 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: (i) 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, startup following a turnaround, or after an emergency shutdown. (ii) Operating limits: consequences of deviation; and steps required to correct or avoid deviation.

(b) Safety and health considerations: properties of, and hazards presented by, the chemicals used in the process; precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment; control measures to be taken if physical contact or airborne exposure occurs; quality control for raw materials and control of hazardous chemical inventory levels; and, any special or unique hazards.

(c) Safety systems and their functions.

(d) Operating procedures shall be readily accessible to employees who work in or maintain a process.

(e) The operating procedures shall be reviewed as often as necessary to assure that they reflect current operating practice, including changes that result from changes in process chemicals, technology, and equipment, and changes to stationary sources. The Stationary Source shall certify annually that these operating procedures are current and accurate.

(f) The Stationary Source shall develop and implement safe work practices to provide for the control of hazards during operations such as lockout/ tagout; confined space entry; opening process equipment or piping; and control over entrance into a stationary source by maintenance, contractor, laboratory, or other support personnel. These safe work practices shall apply to employees and contractor employees.

(3) Employee Participation: (a) The Stationary Source shall develop a written plan of action regarding the implementation of the employee participation required by this chapter.

(b) The Stationary Source shall consult with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of the Safety Program in this chapter.

(c) The Stationary Source shall provide to employees and their representatives access to process hazard analyses and to all other information required to be developed under this chapter.

(4) Training: for each employee in such Covered Process: (a) Initial training. (i) Each employee presently involved in operating a Covered Process, and each employee before being involved in operating a newly assigned Covered Process, shall be trained in an overview of the process and in the operating procedures as specified in Section 450-8.016 (A)(2). The training shall include emphasis on the specific safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks. In lieu of initial training for those employees already involved in operating a process an owner or operator may certify in writing that the employee has the required knowledge, skills, and abilities to safely carry out the duties and responsibilities as specified in the operating procedures.

(b) Refresher training. Refresher training shall be provided at least every three years, and more often if necessary, to each employee involved in operating a Covered Process to assure that the employee understands and adheres to the current operating procedures of the Covered Process. The Stationary Source, in consultation with the employees involved in operating the process, shall determine the appropriate frequency of refresher training.

(c) Training documentation. The Stationary Source shall ascertain that each employee involved in operating a process has received and understood the training required by this section. The Stationary Source shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.

(5) **Mechanical Integrity: including the use of Industry Codes, Standards, and Guidelines:**

(a) **Application.** Paragraphs (b) through (f) of this section apply to the following process equipment: pressure vessels and storage tanks; piping systems (including piping components such as valves); relief and vent systems and devices; emergency shutdown systems; controls (including monitoring devices and sensors, alarms, and interlocks) and, pumps.

(b) **Written procedures.** The Stationary Source shall establish and implement written procedures to maintain the on-going integrity of process equipment.

(c) **Training for process maintenance activities.** The Stationary Source shall train each employee involved in maintaining the on-going integrity of process equipment in an overview of that process and its hazards and in the procedures applicable to the employee's job tasks to assure that the employee can perform the job tasks in a safe manner.

(d) **Inspection and testing.** (1) Inspections and tests shall be performed on process equipment. Inspection and testing procedures shall follow recognized and generally accepted good engineering practices. The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience. The Stationary Source shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

(e) **Equipment deficiencies.** The Stationary Source shall correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information in Section 450-8.106(A)(1)) before further use or in a safe and timely manner when necessary means are taken to assure safe operation.

(f) **Quality assurance.** In the construction of new plants and equipment, the Stationary Source shall assure that equipment as it is fabricated is suitable for the process application for which they will be used. Appropriate checks and inspections shall be performed to assure that equipment is installed properly and consistent with design specifications and the manufacturer's instructions. The Stationary Source shall assure that maintenance materials, spare parts and equipment are suitable for the process application for which they will be used.

(6) **Management of Change:** (a) The Stationary Source shall establish and implement written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures; and, changes to stationary sources that affect a covered process.

(b) The procedures shall assure that the following considerations are addressed prior to any change: the technical basis for the proposed change; impact of change on safety and health; modifications to operating procedures; necessary time period for the change; and, authorization requirements for the proposed change.

(c) Employees involved in operating a process and maintenance and contract employees whose job tasks will be affected by a change in the process shall be informed of, and trained in, the change prior to start-up of the process or affected part of the process.

(d) If a change covered by this section results in a change in the process safety information required by Section 450-8.016(A)(1), such information shall be updated accordingly.

(e) If a change covered by this section results in a change in the operating procedures or practices required by Section 450-8.016(A)(2), such procedures or practices shall be updated accordingly.

(7) **Pre Start-Up Reviews:** (a) The Stationary Source shall perform a pre-startup safety review for new stationary sources and for modified stationary sources when the modification is significant enough to require a change in the process safety information.

(b) The pre-startup safety review shall confirm that prior to the introduction of regulated substances to a Covered Process: construction and equipment is in accordance with design specifications; safety, operating, maintenance, and emergency procedures are in place and are adequate; for new Covered Processes, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup; and modified Covered Processes meet the requirements contained in management of change, Section 450-8.106(A)(6); and training of each employee involved in operating a process has been completed.

(8) **Compliance Audits:** (a) The Stationary Source shall certify that they have evaluated compliance with the provisions of this section at least every three years to verify that the procedures and practices developed under this Chapter are adequate and are being followed.

(b) The compliance audit shall be conducted by at least one person knowledgeable in the process.

(c) A report of the findings of the audit shall be developed.

(d) The Stationary Source shall promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected.

(e) The Stationary Source shall retain the two most recent compliance audit reports.

(9) **Incident Investigation:** (a) The Stationary Source shall investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release of a regulated substance.

(b) An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.

(c) An incident investigation team shall be established and consist of at least one person knowledgeable in the Covered Process involved, including a contract employee if the incident involved work of the contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident.

(d) A report shall be prepared at the conclusion of the investigation which includes at a minimum: date of incident; date investigation began; a description of the incident; the factors that contributed to the incident; and, recommendations resulting from the investigation. The written summary shall indicate whether the cause of the incident and/or recommendations resulting from the investigation are specific only to the process or equipment involved in the incident, or are applicable to other processes or equipment at the Stationary Source. The incident investigation report shall be made available to the Department upon request.

(e) The Stationary Source shall establish a system to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions shall be documented.

(f) The report shall be reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable.

(g) Incident investigation reports shall be retained for five years.

(10) **Hot Work:** (a) The Stationary Source shall issue a hot work permit for hot work operations conducted on or near a covered process.

(b) The permit shall document that the fire prevention and protection requirements in § 5189 of Title 8 of California Code Regulations have been implemented prior to beginning the hot work operations; it shall indicate the date(s) authorized for hot work; and identify the object on which hot work is to be performed. The permit shall be kept on file until completion of the hot work operations.

(11) **Contractors:** (a) **Application.** This section applies to contractors performing maintenance or repair, turnaround, major renovation, or specialty work on or adjacent to a covered process. It does not apply to contractors providing incidental services which do not influence process safety, such as janitorial work, food and drink services, laundry, delivery or other supply services.

(b) **Stationary Source responsibilities.** (i) The Stationary Source, when selecting a contractor, shall obtain and evaluate information regarding the contract owner or operator's safety performance and programs. (ii) The Stationary Source shall inform contract owner or operator of the known potential fire, explosion, or toxic release hazards related to the contractor's work and the process. (iii) The Stationary Source shall explain to the contract owner or operator the applicable provisions of the emergency response program Section 450-8.016(A)(12). (iv) The Stationary Source shall develop and implement safe work practices consistent with Section 450-8.016(A)(2), to control the entrance, presence, and exit of the contract owner or operator and contract employees in Covered Process areas. (v) The Stationary Source shall periodically evaluate the performance of the contract owner or operator in fulfilling their obligations as specified in Section 450-8.016(A)(11)(c).

(c) Contract owner or operator responsibilities: (i) The contract owner or operator shall assure that each contract employee is trained in the work practices necessary to safely perform his/her job. (ii) The contract owner or operator shall assure that each contract employee is instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the process, and the applicable provisions of the emergency action plan. (iii) The contract owner or operator shall document that each contract employee has received and understood the training required by this section. The contract owner or operator shall prepare a record which contains the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training. (iv) The contract owner or operator shall assure that each contract employee follows the safety rules of the Stationary Source including the safe work practices required by Section 450-8.016(A)(2). (v) The contract owner or operator shall advise the Stationary Source of any unique hazards presented by the contract owner or operator's work, or of any hazards found by the contract owner or operator's work.

(12) Emergency Response Program: (a) The Stationary Source shall develop and implement an emergency response program for the purpose of protecting public health and the environment. Such program shall include the following elements: (i) An emergency response plan, which shall be maintained at the stationary source and contain at least the following elements: procedures for informing the public and local emergency response agencies about accidental releases, emergency planning, and emergency response; documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures; and procedures and measures for emergency response after an accidental release of a regulated substance; (ii) Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance; (iii) Training for all employees in relevant procedures and the Incident Command System; and (iv) Procedures to review and update, as appropriate, the emergency response plan to reflect changes at the stationary source and ensure that employees are informed of changes.

(b) A written plan that complies with other Federal contingency plan regulations or is consistent with the approach in the National Response Team's Integrated Contingency Plan Guidance ("One Plan") and that, among other matters, includes the elements provided in Section 450-8.016(A)(12)(a), shall satisfy the requirements of this section if the Stationary Source also complies with Section 450-8.016(A)(12)(c).

(c) The emergency response plan developed under this section shall be coordinated with the community emergency response plan developed under 42 U.S.C. 11003. Upon request of the local emergency planning committee or emergency response officials, the Stationary Source shall promptly provide to the local emergency response officials information necessary for developing and implementing the community emergency response plan.

(d) The Stationary Source whose employees will not respond to accidental releases of Regulated Substances need not comply with A(12)(a) through A(12)(c) above provided that they meet the following (i) For Stationary Sources with any regulated toxic substance held in a process above the threshold quantity, the Stationary Source is included in the community emergency response plan developed under Section 11003 of Title 42 of the United States Code (USC) (ii) For Stationary Sources with only regulated flammable substances held in a process above the threshold quantity the Stationary Source has coordinated response actions with the local fire department (iii) Appropriate mechanisms are in place to notify emergency responders when there is a need for a response.

(13) Safety Program Management. (a) The owner or operator of a Stationary Source subject to this Chapter shall develop a management system to oversee the implementation of the Safety Program elements. (b) The owner or operator shall assign a qualified person or position that has the overall responsibility for the development, implementation, and integration of the Safety Program elements. (c) When responsibility for implementing individual requirements of this chapter is assigned to persons other than the person identified under section A(13)(b), the names or positions of these people shall be documented and the lines of authority defined through an organization chart or similar document.

(B) Human Factors Program. (1) Stationary Sources shall develop a written human factors program that follows the human factors guidance document developed or adopted by the Department. The program shall be developed within one year following the issuance of the Contra Costa County guidance documents or the effective date of the ordinance, whichever is later. The Human Factors Program shall address:

- (i) the inclusion of human factors in the Process Hazards Analysis process;
 - (ii) the consideration of human systems as causal factors in the incident investigation process for Major Chemical Accidents or Releases or for an incident that could reasonably have resulted in a Major Chemical Accident or Release;
 - (iii) the training of employees in the human factors program;
 - (iv) operating procedures; and
 - (v) the requirement to conduct a Management of Change prior to staffing changes for changes in permanent staffing levels/reorganization in operations or emergency response. Employees and their Representatives shall be consulted in the Management of Change.
- (2) Employees and their Representatives shall participate in the development of the written human factors program.
- (3) The program shall include, but not be limited to, issues such as staffing, shiftwork and overtime.
- (4) A description of the human factors program (b)(1) through (b)(3) above shall be included in the Safety Plan prepared by the Stationary Source.

(C) Root Cause Analysis and Incident Investigation. (1) Stationary Sources shall conduct a Root Cause analysis for each Major Chemical Accident or Release which occurs after the effective date of this chapter. Stationary Sources shall periodically update the Department on facts related to the release or incident, and the status of a Root Cause Analysis conducted pursuant to this section, at meetings scheduled by the Department in cooperation with the Stationary Source. To the maximum extent feasible, the Department and the Stationary Source shall coordinate these meetings with other agencies with jurisdiction over the Stationary Source. Within 30 days of completing a Root Cause Analysis performed pursuant to this section, the Stationary Source shall submit to the Department a final report containing that analysis, including recommendations to be implemented to mitigate against the release or incident re-occurring, if any, and a schedule for completion of resulting recommendations. The methodology of the Root Cause analysis shall be one of the recommended methodologies from the Center for Chemical Process Safety or shall be reviewed by the Department to determine substantial equivalency.

(2) The Department may elect to do its own independent Root Cause analysis or incident investigation for a Major Chemical Accident or Release. If the Department elects to conduct a Root Cause analysis or incident investigation the Stationary Source shall cooperate with the Department by providing the following access and information in a manner consistent with the safety of Department and Stationary Source personnel and without placing undue burdens on the operation of the Stationary Source: (i) allow the Department to investigate the accident site and directly related facilities such as control rooms, physical evidence and where practicable the external and internal inspection of equipment, (ii) provide the Department with pertinent documentation, (iii) and allow the Department to conduct independent interviews of Stationary Source employees, subject to all rights of the Stationary Source and employees to be represented by legal counsel and/or management and union

representatives during such interviews. If in the course of the Department's Root Cause analysis or incident investigation access is required to areas of the Stationary Source which in the judgment of the Stationary Source require personnel entering the area to use protective equipment and/or have specialized training the Department shall provide its personnel with such equipment and training. To the maximum extent feasible the Department shall coordinate any Root Cause analysis or incident investigation it conducts with investigations conducted by other agencies with jurisdiction over the Stationary Source to minimize the adverse impacts on the Stationary Source and/or its employees.

(3) No part of the conclusions, findings or recommendations of the Root Cause analysis conducted by the Department or Stationary Source, or incident investigation conducted by the Department, relating to any Major Chemical Accident or Release or the investigation thereof shall be admitted as evidence or used in any action or suit for damages arising out of any matter mentioned in such report.

(D) Process Hazard Analysis/Action Items. (1) Process hazard analyses will be conducted for each of the Covered Processes not included in the Federal program level 3 Risk Management Program according to one of the following methods: What-If, Checklist, What-If/Checklist, Hazard and Operability Study (HAZOP), Failure Mode and Effects Analysis (FMEA), Fault Tree Analysis or an appropriate equivalent methodology approved by the Department prior to conducting the process hazard analysis. The process hazard analysis shall be appropriate to the complexity of the Covered Process and shall identify, evaluate, and control the hazards involved in the Covered Process. The process hazard analysis shall address: the hazards of the process; the identification of any previous incident which had a likely potential for catastrophic consequences; engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases. (Acceptable detection methods might include process monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors.); consequences of failure of engineering and administrative controls; Covered Process and Stationary Source siting; Human Factors; and a qualitative evaluation of a range of the possible safety and health effects of failure of controls. All process hazard analyses shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. Also, one member of the team must be knowledgeable in the specific process hazard analysis methodology being used.

(2) The process hazard analyses shall be conducted within 1 year of the effective date of this Chapter and no later than the submittal date of the Safety Plan. Previously completed process hazard analyses that comply with the California Code of Regulations, Title 8, Section 5189, and/or the California Code of Regulations, Title 19, Section 2760.2 are acceptable for the purposes of this Chapter. Process hazard analyses shall be updated and revalidated at least once every 5 years after completion of the initial process hazard analysis. Updated and revalidated process hazard analyses completed to comply with the California Code of Regulations, Title 8, Section 5189, and/or the California Code of Regulations, Title 19, Section 2760 are acceptable for meeting the update and revalidation requirement. External events, including seismic events, shall be considered for processes containing a substance defined in the California Code of Regulations, Title 19, Chapter 4.51, Section 2770.5, if the distance to the nearest public receptor for a worst case release scenario specified by the California Code of Regulations, Title 19, Chapter 4.51, Section 2750.3 is beyond the distance to a toxic or flammable endpoint as defined in California Code of Regulations, Title 19, Chapter 4.51, Section 2750.2(a).

(3) For all Covered Processes, the Stationary Source shall consider the use of Inherently Safer Systems in the development and analysis of mitigation items resulting from a process hazard analysis and in the design and review of new processes and facilities. The Stationary Source shall select and implement Inherently Safer Systems to the greatest extent Feasible. If a Stationary Source concludes that an Inherently Safer System is not Feasible, the basis for this conclusion shall be documented in meaningful detail. This documentation shall include (1) sufficient evidence to demonstrate to the County's satisfaction that implementing this inherently safer system is impractical, and (2) the reason for this conclusion. A claim of "financial infeasibility" shall not be based solely on evidence of reduced profits or increased cost, but rather shall include evidence that the financial impacts would be sufficiently severe to render the inherently safer system as impractical.

(4) For all Covered Processes, the Stationary Source shall document the decision made to implement or not implement all process hazard analysis recommended action items and the results of recommendations for additional study. The Stationary Source shall complete recommended actions identified by the process hazard analysis and selected for implementation by the Stationary Source as follows: all actions not requiring a process shutdown shall be completed within one year after submittal of the Safety Plan; all actions requiring a process shutdown shall be completed during the first regularly scheduled turnaround of the applicable process subsequent to one year after submittal of the Safety Plan unless the Stationary Source demonstrates to the satisfaction of the Department that such a schedule is infeasible. For recommended actions not selected for implementation, the Stationary Source shall include the justification for not implementing the recommended action. For all Covered Processes, the Stationary Source shall retain documentation of closure, and any associated justifications, of actions identified by the process hazard analysis. The Stationary Source shall communicate the actions to operating, maintenance, and other employees whose work assignments are in the process and who may be affected by the recommendations or actions. Any documentation justifying a decision not to implement a process hazard analysis recommendation action shall include (1) sufficient evidence to demonstrate to the County's satisfaction that implementing this action is impractical, and (2) the reason for this conclusion. A claim of "financial infeasibility" shall not be based solely on evidence of reduced profits or increased cost, but rather shall include evidence that the financial impacts would be sufficiently severe to render the improvement as impractical.

(E) **Accident History.** (1) The Stationary Source shall include an accident history in the Safety Plan of all Major Chemical Accidents or Releases from June 1, 1992, through the date of Safety Plan submittal to the Department. For each Major Chemical Accident or Release the Stationary Source shall report the following information, to the extent known:

- date, time and approximate duration of the release;
- chemicals released;
- estimated quantity released in pounds;
- type of release event and its source;
- weather conditions at the time of the release;
- on-site impacts;
- known off-site impacts;
- initiating event and contributing factors;

Root Cause(s);
whether off-site responders were notified; and
operational or process changes that resulted from the investigation of the release.

(2) The Stationary Source shall annually submit a report of the accident history to the Department. The first report shall be due two years after the effective date of this ordinance, and subsequent reports shall be due on the anniversaries of the effective date of the ordinance.

(F) **Certification.** The owner or operator shall submit in the Safety Plan a single certification that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

450-8.018 REVIEW, AUDIT, AND INSPECTION. (A) Upon submission of a Safety Plan by the Stationary Source, the Department shall review the Safety Plan to determine if all the elements required by Section 450-8.016 are included and complete. The Department shall provide to the Stationary Source a written Notice of Deficiencies, if any. The Stationary Source shall have 60 calendar days from receipt of the Notice of Deficiencies to make any corrections. The Stationary Source may request, in writing, a one time 30 day calendar day extension to correct deficiencies. By the end of the 60 calendar days or any extension period, the Stationary Source shall resubmit the revised Safety Plan to the Department. After the Department determines that the Safety Plan is complete, the Department shall schedule a public meeting on the Stationary Source's Safety Plan to explain its contents to the public and take public comments. The Department shall make portions of the Safety Plan, which are not protected trade secret information, available to the public for the public meeting.

(B) (1) The Department shall, within one year of the submission of the Stationary Source's Safety Plan, conduct an initial audit and inspection of the Stationary Source's Safety Program to determine compliance with this Chapter. Based upon the Department's review of the Safety Plan and the audit and inspection of the Stationary Source, the Department may require modifications or additions to the Safety Plan submitted by the Stationary Source, or Safety Program to bring the Safety Plan or Safety Program into compliance with the requirements of this Chapter. Any determination that modifications or additions to the Safety Plan or Safety Program are required shall be in writing, collectively referred to as the "Preliminary Determination". The Preliminary Determination shall explain the basis for the modifications or additions required to bring the Safety Plan or Safety Program into compliance with the requirements of this Chapter. The Preliminary Determination shall be mailed to the Stationary Source.

(2) The Stationary Source shall respond in writing to the Preliminary Determination issued by the Department. The response shall state that the Stationary Source will incorporate into the Safety Plan or Safety Program the revisions contained in the preliminary determination or shall state that the Stationary Source rejects the revisions; in whole or in part. For each rejected revision, the Stationary Source shall explain the basis for rejecting such revision. Such explanation may include substitute revisions.

(3) The Stationary Source's written response to the Department's Preliminary Determination shall be received by the Department within 90 days of the issuance of the Preliminary Determination or such shorter time as the Department specifies in the Preliminary Determination as being necessary to protect public health and safety. Prior to the written response being due and upon written request from the Stationary Source, the Department may provide, in writing, additional time for the response to be received.

(4) After receiving the written response from the Stationary Source, the Department shall issue a public notice per the Department's Public Participation Policy and make portions of the Safety Plan, the Preliminary Determination and the Stationary Source's responses, which are not protected trade secret information, available for public review. Public comments on the Safety Plan shall be taken by the Department for a period of 45 days after the Safety Plan, the Preliminary Determination and the Stationary Sources responses are made available to the public. The Department shall schedule a public meeting on the Stationary Source's Safety Plan during the 45 day comment period. The public meetings shall be held in the affected community on evenings or weekends.

(C) Based upon the Department's Preliminary Determination, review of the Stationary Sources responses and review of public comments on the Safety Plan, the Preliminary Determination and the Stationary Source's responses, the Department may require modifications or additions to the Safety Plan submitted by the Stationary Source or Safety Program to bring the Safety Plan or Safety Program into compliance with the requirements of this Chapter. Any determination that modifications or additions to the Safety Plan or Safety Program are required, and any determination that no modifications or additions to the Safety Plan or Safety Program are required shall be in writing, (collectively referred to as "Final Determination") shall be mailed to the Stationary Source and shall be made available to the public. The Department may not include in a Final Determination any requirements to a Safety Plan or Safety Program which would cause a violation of, or conflict with, any state or federal law or regulation or a violation of any permit or order issued by any state or federal agency.

(D) Within 30 days of the Department's Final Determination, the Stationary Source and/or any person may appeal the Final Determination to the Board of Supervisors pursuant to Chapter 14-4 by a verified written notice of appeal filed with the Clerk of the Board of Supervisors and payment of the applicable appeal fee. The appeal must be limited to issues raised during the public comment period. The notice shall state the grounds for any such appeal, including (i) the reasoning that the appeal is necessary because the Stationary Source is in compliance with this Chapter, or (ii) the reasoning that the appeal is necessary to bring the Stationary Source into compliance with this Chapter. In acting on the appeal, the Board shall have the same authority over the Final Determination as the Department. The Board may require modifications or additions to the Safety Plan or Safety Program to bring the Safety Plan or Safety Program into compliance with the requirements of this Chapter. The Board may not include in its decision on the Final Determination any requirements to a Safety Plan or Safety Program which would cause a violation of, or conflict with, any State or Federal law or regulation or a violation of any permit or order issued by any State or Federal agency. The decision of the Board of Supervisors shall be final with respect to the Final Determination .

(E) The Safety Plan shall be valid for a period of three years from the date of final action and shall be reviewed and updated by the Stationary Source every three years pursuant to the requirements of this ordinance. Any revisions to the Safety Plan as a result of the review and update shall be submitted to the Department and shall be subject to the provisions of this Section.

(F) The Department may, within 30 days of a Major Chemical Accident or Release, conduct a safety inspection to review and audit the Stationary Source's compliance with the provisions of Section 450-8.016. The Department shall review and audit the Stationary Source's compliance with the provisions of Section 450-8.016 at least once every three years. The Department may audit the Stationary Source based upon any of the following criteria: accident history of the Stationary Source, accident history of other Stationary Sources in the same industry, quantity of Regulated Substances present at the Stationary Source, location of the Stationary Source and its proximity to the public and environmental receptors, the presence of specific regulated substances, the hazards identified in the Safety Plan, a plan for providing neutral and random oversight, or a complaint from the Stationary Source's employee(s) or their representative. The Stationary Source shall allow the Department to conduct these inspections and audits. The Department, at its option, may select an outside consultant to assist in conducting said inspection.

(G) Within 30 days of a Major Chemical Accident or Release the Department may commence an incident safety inspection with respect to the process involved in the incident pursuant to the provisions of Section 450-8.016 (C).

(H) (1) Based upon the Department's audit, safety inspection or an incident inspection, the Department may require modifications or additions to the Safety Plan submitted by the Stationary Source or Safety Program to bring the Safety Plan or Safety Program into compliance with the requirements of this chapter. Any determination by the Department shall be in writing and shall be mailed to the Stationary Source (referred to as the Notice of Findings). The Stationary Source shall have 60 calendar days from receipt of the Notice of Findings to make any corrections. The Stationary Source may request, in writing, a one time 30 day calendar day extension to make corrections. The Department may not include in its Notice of Findings requirements to a Safety Plan or Safety Program which would cause a violation of, or conflict with, any state or federal law or regulation or a violation of any permit or order issued by any state or federal agency. The Notice of Findings made by the Department will be available to the public.

(2) Within 30 days of the Department's Notice of Findings, the Stationary Source and/or any person may appeal the Notice of Findings to the Board of Supervisors pursuant to Chapter 14-4 by a verified written notice of appeal filed with the Clerk of the Board of Supervisors and payment of the applicable appeal fee. The appeal must state the grounds for any such appeal, including (i) the reasoning that the appeal is necessary because the Stationary Source is in compliance with this Chapter, or (ii) the reasoning that the appeal is necessary to bring the Stationary Source into compliance with this Chapter. In acting on the appeal, the Board shall have the same authority over the Notice of Findings as the Department. The Board may require modifications or additions to the Safety Plan or Safety Program to bring the Safety Plan or Safety Program into compliance with the requirements of this Chapter. The Board may not include in its decision on the Notice of Findings any requirements to a Safety Plan or Safety Program which would cause a violation of, or conflict with, any State or Federal law or regulation or a violation of any permit or order issued by any State or Federal agency. The decision of the Board of Supervisors shall be final with respect to the Notice of Findings.

(I) Nothing in this section shall preclude, limit, or interfere in any way with the authority of the County to exercise its enforcement, investigatory, and information gathering authorities under any other provision of law nor shall anything in the Chapter effect or diminish the rights of the Stationary Source to claim legal privileges such as attorney client privilege and/or work product with respect to information and/or documents required to be submitted to or reviewed by the Department.
(Ord. 98-_, § 2.)

450-8.020 TRADE SECRET. The disclosure of any trade secret information required by this chapter shall be governed by California Health and Safety Code Section 25538, as amended from time to time, or as otherwise protected or required by law.
(Ord. 98-_, § 2.)

450-8.022 HAZARDOUS MATERIALS OMBUDSPERSON. The Department shall continue to employ an ombudsperson for Hazardous Materials Programs. The ombudsperson will serve as a single point of contact for people who live or work in Contra Costa County regarding environmental health concerns, questions, and complaints about Hazardous Materials Programs. The ombudsperson will be empowered to identify and solve problems and make recommendations to the Department. The ombudsperson's role will be one of investigating concerns and complaints, facilitating their resolution and assisting people in gathering information about programs, procedures, or issues. The ombudsperson may retain appropriate technical experts in order to fulfill technical assistance requests from members of the public. The cost of experts may be funded through programs established by the U.S. EPA or other appropriate entities
(Ord. 98-___, § 2.)

450-8.024 PUBLIC INFORMATION BANK. The Department shall collect and provide ready access, including the use of electronic accessibility as reasonably available, to public documents which are relevant to the goals of this chapter, including at a minimum, business plan inventories and emergency response plans, Risk Management Plans, Safety Plans, and Department incident reports. This section shall not apply to trade secret information or other information protected from disclosure under federal or state law. The public information bank shall be completed by December 31, 2000.
(Ord. 98-___, § 2.)

450-8.026 FEES. The Department may, upon a majority vote of the Board of Supervisors, adopt a schedule of fees to be collected from each Stationary Source subject to the requirements of this chapter. Any review, inspection, audit fee schedule shall be set in an amount sufficient to pay only those costs reasonably necessary to carry out the requirements of this chapter, including costs of staff and/or consultant time or public hearings and administrative overhead. The fee schedule shall include the cost of the ombudsperson position.
(Ord. 98-___, § 2.)

450-8.028 PENALTIES. Regardless of the availability of other civil or administrative remedies and procedures for enforcing this chapter, every act or condition prohibited or declared unlawful by this chapter, and every knowing or willful failure or omission to act as required herein, is a violation of this code and shall be punishable and or subject to enforcement pursuant to the provisions of Chapter 14-6 of the County Ordinance Code specifically including but not limited to Article 14-6.4 (public nuisance), and Article 14-8 (criminal enforcement), as misdemeanors or infractions.
(Ord. 98-_, § 2.)

450-8.030 ANNUAL PERFORMANCE REVIEW AND EVALUATION.

(A) The Department shall annually: (1) Review its activities to implement this Chapter, and (2) Evaluate the effectiveness of this Chapter in achieving its purpose and goals pursuant to Section 450-8.004.

(B) An annual performance review and evaluation report shall be prepared by the Department based upon the previous fiscal year's activities and shall be submitted to the Board of Supervisors on or before October 31, 2000 and each year thereafter. The report shall contain: (1) A brief description of how the Department is meeting the requirements of this Chapter as follows: (i) Effectiveness of the Department's program to ensure Stationary Source compliance with this Chapter. (ii) Effectiveness of the procedures for records management. (iii) Number and type of audits and inspections conducted by the Department pursuant to this Chapter (iv) Number of Root Cause Analyses and/or Incident Investigations conducted by the Department. (v) The Department's process for public participation. (vi) Effectiveness of the Public Information Bank, including status of electronic accessibility. (vii) Effectiveness of the Hazardous Materials Ombudsperson. (viii) Other required program elements necessary to implement and manage this Chapter.

(2) A listing of all Stationary Sources covered by the Chapter, including for each: (i) The status of the Stationary Sources' Safety Plan and Program. (ii) A summary of all Stationary Source Safety Plan updates and a listing of where the Safety Plans are publicly available. (iii) The annual accident history report submitted by the Stationary Source pursuant to Section 450-8.016(E)(2). (iv) A summary, including the status, of any Root Cause Analyses and Incident Investigations conducted or being conducted by the Stationary Source and required by this Chapter, including the status of implementation of recommendations. (v) A summary, including the status, of any audits, inspections, Root Cause Analyses and/or Incident Investigations conducted or being conducted by the Department pursuant to this Chapter, including the status of implementation of recommendations. (vi) Description of inherently safer systems implemented by the Stationary Source. (vii) Legal enforcement actions initiated by the Department, including administrative, civil, and criminal actions pursuant to this Chapter.

(3) Total penalties assessed as a result of enforcement of this Chapter.

(4) Total fees, service charges, and other assessments collected specifically for the support of this Chapter.

(5) Total personnel and personnel years utilized by the jurisdiction to directly implement or administer this Chapter.

(6) Comments from interested parties regarding the effectiveness of the local program that raise public safety issues.

(7) The impact of the Chapter in improving industrial safety.

(C) The Department shall provide a copy of the annual Performance Audit Submission required by Title 19 Chapter 4.5 Section 2780.5 of the California Code of Regulations to the Board of Supervisors on or before October 31 of each year.

450-8.032 CONSTRUCTION. Notwithstanding any other provision of this code and for the purposes of this chapter wherever it provides that the Department shall act, such direction in all instances shall be deemed and is directory, discretionary and permissive and not mandatory. (Ord. 98-___, §2.)