

CITY OF BENICIA ORDINANCE NO. 17-____

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BENICIA ADDING
CHAPTER 8.55 OF TITLE 8 (HEALTH AND SAFETY) OF THE BENICIA
MUNICIPAL CODE TO PROVIDE FOR AN INDUSTRIAL AND COMMUNITY
SAFETY ORDINANCE**

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BENICIA DOES
ORDAIN** as follows:

Section 1.

Section 8.55 of Title 8 of the Benicia Municipal Code is added to read as follows:

Section 2. Summary.

This Ordinance adds Chapter 8.55 to the Benicia Municipal Ordinance Code (hereinafter “the Code”).

Chapter 8.55 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 City of Benicia (hereinafter “City”), stringent requirements for the contents of a Safety Plan and Safety Program, public review of the Safety Plan, authorization for the City or its delegee 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 City or its delegee 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. An evacuation plan for residential areas of Benicia and the Industrial park is established and widely publicized. A local air monitoring program is established.

This Ordinance sets 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.

Section 3. Chapter 8.55 is added to the City Ordinance Code, to read:

Section 4 - 8.55 010. Background and findings.

The City Council of the City of Benicia finds as follows:

- (a) Recent near catastrophic incidents in City 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. Section 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 Section 68). The facility must submit the Federal RMP to the EPA by June 21, 1999 (40 CFR Section 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 (Section 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 City or its delegee 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 Department of Resource Management, Environmental Health Services Division ("EHSD") is the Certified Unified Program Agency ("CUPA") for the County of Solano ("Solano") pursuant to a program that applies regulatory standards established by five different state agencies to implement various laws and regulations pertaining to the use and disposal of hazardous materials and hazardous wastes, including the California Health and Safety Code, Chapters 6.5, 6.67, 6.7, 6.75, 6.95, & 6.11 and the California Code of Regulations, Title 19, Title 22, Title 23, & Title 27 found at Health and Safety Code and California Code of Regulations. The CUPA is charged with implementation of various federal and state regulatory statutes and regulations that are intended to protect employees and the community from the release or threatened release of hazardous materials, including California Health and Safety Code Section 25500, *et. seq.*, which regulates the business and risk planning of business that routinely handle substantial amounts of hazardous material.
- (f) Programs administered by EHSD under the CUPA include the adoption of Hazardous Material Business Plans ("HMBS"), Risk Assessment and Release Reporting ("RARP"), and as well as the implementation of the California Code of Regulations adopted October 1, 2017, for the California Accidental Release Prevention Program ("CalARP" or Program 4") adopted by the Cal EPA Refinery Task Force. These programs are intended to provide health and safety oversight of private business risk assessment and prevention plans.

- (g) Section 25500 of the California Health and Safety Code specifically provides that the Legislature, does not intend to preempt any local actions, ordinances, or regulations that impose additional or more stringent requirements on businesses that handle hazardous materials. Health & Safety Code §§ 25404.2(a)(2), (3) and (4) require the CUPA, in conjunction with local agencies, to make consistent any local or regional regulations, ordinances, or requirements and to create a “single, unified inspection and enforcement program” which includes enforcement of “any local ordinance or regulation pertaining to the handling of hazardous waste or hazardous materials.” Health & Safety Code §25404.2(a)(4) provides that such coordinated programs do not prevent “any other agency, from conducting inspections, or from undertaking any other enforcement-related activity, without giving prior notice to the regulated entity, except if the prior notice is otherwise required by law.”
- (h) The Emergency Planning and Community Right-to-Know Act (“EPCRA”) of 1986 was created to help communities plan for chemical emergencies. It also requires industry to report on the storage, use and releases of hazardous substances to federal, state, and local governments. EPCRA requires state and local governments, and Indian tribes to use this information to prepare their community for potential risks. Under this authority, the Governor’s Office Emergency Services (“OES”) and the California State Emergency Response Commission (“SERC”) established six emergency planning districts known as Local Emergency Planning Committee (“LEPC”). LEPC Region II, which includes Solano, provides a forum for emergency management agencies, responders, industry and the public to work together to evaluate, understand, train about, coordinate and communicate chemical hazards in the community and develop regional hazardous material emergency plans.
- (i) All California businesses are required to report any release or threatened release of hazardous materials as a result of any incidents where there is a substantial probability of harm that necessitates immediate action to mitigate the risk of harm as follows: 1) Immediate notification must be provided to the local CUPA, State OES and local first responding agency; 2) Where the release incident involves a “reportable quantity” of a federal “hazardous substance” (listed at 40 CFR Part 302) or “extremely hazardous substance” (listed at 40 CFR Part 355), immediate notification must also be made to the federal National Response Center; 3) The Local Emergency Response Agency: 9-1-1 or the Local Fire Department; 4) The Governor’s Office of Emergency Services (“Governor’s OES”), California State Warning Center; 5) For releases occurring on highways, the California Highway Patrol.
- (j) The success of all of the above-referenced safety programs is dependent upon the cooperation of industrial chemical and oil refining facilities within Solano CUPA and the City and among related emergency response agencies. The public must be assured that measures necessary to prevent or respond to incidents are being implemented, including changes or actions required by the Department, as defined below, or the stationary source that are necessary to comply with this chapter.

Section 5 8.55 020- Purpose and goals.

- (a) The purpose of this chapter is to impose regulations which improve industrial and community safety by:
- (1) Requiring the conduct of process hazard analyses for covered processes handling hazardous materials not covered by the federal or state accidental release prevention, notification and response 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 City or its delegee, local fire departments, Cal/OSHA, CalEPA, other agencies that have oversight of refineries, 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 accidental release prevention programs to processes not covered by the federal or state accidental release prevention programs;
 - (8) Verifying that an approved security and vulnerability study is performed, and that the recommendations are addressed within a reasonable time frame;
 - (9) Requiring the development and implementation of a written human factors program;
 - (10) Preventing and reducing the number, frequency, and severity of accidental releases in the City or its delegee to the greatest extent feasible, and;
 - (11) Establishing a community-wide air-monitoring system with ground level monitors which measure ambient air quality and provide real-time monitoring of any actual or potential offsite impacts, including odors and chemical releases, through a publicly available website, with real time data monitoring, sufficient to enable the State, City and community to detect and respond to any potentially dangerous releases and also to anticipate and prevent possible larger releases.
 - (12) Enabling the City Manager, the Department or their delegee to receive notification of any actual or threatened release of hazardous materials through the State OES and pursuant to the Best Management Practices ("BMPs") of the Federal Emergency Management Agency ("FEMA") and to meaningfully participate in the emergency response in the event of an incident and act as the lead outside facility in setting up the command center in response thereto. This would include notification of any anticipated spike in emission releases due to maintenance or any work at the facility.

(Ords. 17-____ § 5)

Section 6 - 8.55 030 Authority.

The ordinance codified in this chapter is adopted by the City Council 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. 17-____ § 6)

Section 7 - 8.55 040 Administration.

The Fire and Life Safety Division of the Fire Department of the City (“the Department”) is charged with the responsibility of administering and enforcing this chapter.

(Ord. 17-____ § 7)

Section 8 - 8.55 050 Applicability.

- (a) This chapter shall apply to stationary sources except that:
- (b) The following are exempt from the provisions of this chapter except Sections 8.55 080(c) and (e), and 8.55 090(f) and (g):
 - (1) Storage tanks containing a nonregulated substance, except for storage tanks that contain a material that has a flashpoint above one hundred forty-one degrees Fahrenheit and below two hundred degrees Fahrenheit in accordance with the definition of combustible liquid in 49 CFR 173.120(b);
 - (2) Drum storage of: (A) a nonregulated substance; (B) less than ten thousand pounds of a hazard category B material located such that the drums could reasonably be expected to be involved in a single release; and (C) 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 five hundred 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. (Ords. 2006-22 § 3; 17-____ § 8)

Section 9 - 8.55 060 - Air Quality Monitoring And Inspections.

Under the direction and supervision of the City and the Department, there shall be installed at the expense of the stationary source, which expenses shall be paid through the fees assessed pursuant to Section 17 below, a network of **community monitors throughout the residential and industrial community** and ground level monitors to measure ambient air quality **on all sides of the** fence line of the property on which the refinery is located and at strategic locations to be determined by the City, in the community in order to enhance available air quality monitoring data, as follows:

- (a) Under the direction and supervision of the City and the Department, **a network of** ground-level monitoring systems to measure ambient air quality around the stationary source, which system will be located at the fence line of the refinery and throughout the community, shall be installed at the expense of the refinery. The air monitoring system shall be installed and operational within six (6) months of the adoption of this Ordinance. Failure to complete the installation within said time period shall be enforced by the imposition of penalties and remedies pursuant to Section 18 below.
- (b) The ground-level monitoring system shall measure ambient air quality at strategic locations in **and throughout the** community, near schools, public gathering places and in **residential neighborhoods and industrial community**, under the direction and supervision of the City and the Department. **All monitors shall be capable for detecting discharges or releases of chemicals at levels that represents significant public health risks.**
- (c) The monitoring system shall be of sufficient quantity and quality to meet the requirements of California Senate Bill SB 25, now codified as Health & Safety Code Section 39606(d)(1) ("SB 25") and shall be consistent with standards adopted by the California Air Resources Board ("CARB") and the Bay Area Air Quality Management District ("BAAQMD") for monitoring stationary sources. The City and Department may adopt additional or more stringent standards that they deem necessary to protect public health and safety.
- (d) The monitoring system shall be of sufficient quantity and quality and design to immediately notify the City, the Department and the Benicia community of any Major Chemical Accidents or Releases.
- (e) **T**he precise location of each monitor within the monitoring system shall comply with any and all rules or guidelines adopted by the City, the Department, CARB and BAAQMD. The Department shall publish and adopt rules and regulations within ninety (90) calendar days of the adoption of this Ordinance and shall regularly update said rules and regulations concerning the precise location of each monitor.
- (f) The data and analysis from the monitoring systems shall be reviewed by the City, Department, CARB, BAAQMD, on an annual basis to determine whether additional monitoring is necessary in order to achieve the objectives of this Ordinance.

- (g) The City and Department shall annually publish a report containing data and analysis of the public health and safety implications of the compiled data from the monitoring system in a form that can be understood by laypersons.
- (h) Within ninety (90) calendar days of the effective date of this Ordinance, the City and the Department shall establish and maintain a publicly-available website which will make all data and information obtained through the monitoring system available to the City, Department, and the Benicia community in real time. The data should come with an API (application programming interface) and should be available for direct download from publicly accessible websites. If any data is invalidated by the refinery or its contractor, an explanation must be provided with backup documented for the reason the data was invalidated.
- (i) The City and the Department shall maintain the monitoring system in continuous and uninterrupted operation except the monitoring system may cease operation temporarily when necessary for routine servicing and maintenance or improvements. The system shall be operational at least 95% of the time. If the monitoring system is not working for more than ten (10) calendar days consecutively, a report must be made to the public regarding the status of the system and when it will be running again.
- (j) All data records generated by the monitoring equipment, including validated data and spectral data if available, must be retained for at least five (5) years and shall be publicly available through the website. There should be a redundant recording system to make sure that no data is ever lost.
- (k) The monitoring system shall use the latest available technologies. The annual report prepared by or for the City shall address whether the latest available technologies are being used and shall identify chronic and routine releases and discharges to any emergency releases and discharges.

The City or its delegate shall be allowed reasonable access to any part of the stationary source subject to the requirements of this chapter and to supporting documentation retained by the source for the purpose of determining compliance with this chapter. "Reasonable access" shall not be interpreted as requiring prior notice to the regulated entity, except if the prior notice is otherwise required by law.

(Ord. 17-___ § 9)

Section 10 - 8.55 070 - 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 Section 68.3) and in California Health and Safety Code Article 2 (Section 25531 et seq.) of Chapter 6.95, unless the context indicates otherwise.

- (a) "City" means the City of Benicia, by and through the City Manager and City Council.

- (b) "Covered process" means any process at a stationary source.
- (b) "Department" means the Fire and Life Safety Division of the Fire Department of the City and any director-authorized deputies or any police office authorized by the Fire Chief pursuant to BMC 104.10.1.1.
- (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 following criteria:
 - 1) Forbidden Materials, as referenced in 49 CFR 173.21 and 173.54;
 - 2) Explosive And Blasting Agents Class 1, as defined in 49 CFR 173.50(b)(1) through 173.50(b)(6);
 - 3) Reactive Materials, including a) Air Reactive Materials - Class 4, Division 4.2 as defined in 49 CFR 173.124(b)(1) and (2); b) Water Reactive Materials - Class 4, Division 4.3 as defined in 49 CFR 173.124(c); c) Organic Peroxides - Class 5, Division 5.2 as defined in 49 CFR 173.128;
 - 4) Radioactive Materials Class 7 as defined in 49 CFR 173.403(y);
 - 5) Oxidizers D.O.T. Packing Group I, Class 5, Division 5.1 as defined in 49 CFR 173.127(a) when Packing Group I is required per 49 CFR 173.127(b)(2)(I);
 - 6) Poisons, D.O.T., including Poisons, Class 6, Division 6.1 as defined in 49 CFR 173.133 (applies to all hazard zones);
 - 7) Infectious Substances, Class 6, Division 6.2 as defined in 49 CFR 173.134;
 - 8) Poison Gas Class 2, Division 2.3 as defined in 49 CFR 173.115(c).
- (e) "Hazard category B materials" are substances which meet the following criteria:
 - 1) Flammable Liquids, Class 3 Packing Groups I and II as defined in 49 CFR 173.120(a);
 - 2) Flammable Solids, as defined by Class 4, Division 4.1 as defined in 49 CFR 173.124(a);
 - 3) Oxidizers D.O.T. Packing Group II, as defined by Class 5, Division 5.1 as defined in 49 CFR 173.127(a) when Packing Group II is required per 49 CFR 173.127(b)(2)(ii);
 - 4) Flammable Gases, as defined by Class 2, Division 2.1 as defined in 49 CFR 173.115(a);
 - 5) Corrosives, D.O.T. Packing Group I or II, as defined by Class 8 Packing Groups I or II as defined in 49 CFR 173.136(a) and 173.137(a) and (b).
- (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, but not limited to, the American Petroleum Institute (API), the American Chemistry Council (ACC), the

American Society of Mechanical Engineers (ASME) or the American National Standards Institute (ANSI), and meets recognized and generally accepted good engineering practices (RAGAGEP).

- (g) "Inherently safer systems" means "inherently safer design strategies" as discussed in the latest edition of the 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 three or level two incident in the community warning system incident level classification system defined in the hazardous materials incident notification policy, as determined by the Department; or results in the release of a regulated substance and meets one or more of the following criteria:
 - (1) Results in one or more fatalities;
 - (2) Results in at least twenty-four hours of hospital treatment of each of at least three persons, or results in more than 10 people seeking medical attention;
 - (3) Causes on- and/or off-site property damage or substantial loss of business due to a shut-down of City facilities, road closures or other disturbances (including clean-up and restoration activities) initially estimated at five hundred thousand dollars (\$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 vapor cloud of flammables and/or combustibles that is more than five thousand pounds within a seventy-two (72) hour period.
- (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. Mixtures containing less than one-percent 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 Section 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 8.55 080.
- (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 8.55 080.
- (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 three requirements and whose primary North American Industry Classification System code (NAICS) is three hundred twenty-four (petroleum and coal products manufacturing) or three hundred twenty-five (chemical manufacturing).
- (p) "California accidental release prevention program" means the documentation, development, implementation, and integration of management systems by a facility to comply with the regulations set forth in California Code of Regulations, Title 19, Division 2, Chapter 4.5.
- (q) "Catastrophic release" means a major uncontrolled emission, fire, or explosion, involving one or more highly hazardous chemicals, that presents serious danger to employees in the workplace and/or the public. As used in this section, "highly hazardous chemical" has the meaning ascribed to it in 29 CFR 1910.119(b) as of May 21, 2003.
- (r) "Human factors" means a discipline concerned with designing machines, operations, and work environments so that they match human capabilities, limitations, and needs. "Human factors" can be further referred to as environmental, organizational, and job factors, and human and individual characteristics that influence behavior at work in a way that can affect health and safety.
- (s) "Human systems" means the systems, such as written and unwritten policies, procedures, and practices, in effect to minimize the existence/persistence of latent conditions at the stationary source. It also includes the broad area of safety culture of a stationary source to the extent that it influences the actions of individuals or groups of individuals.
- (t) "Layer of protection analysis" (LOPA) means a semi-quantitative analysis of the risk of process hazards and the adequacy of safeguards against those hazards.
- (u) "Process hazard analysis" (PHA) means a qualitative, semi-quantitative or quantitative analysis of a process, involving the identification of individual hazards of a process, determination of the mechanisms by which hazards could give rise to undesired events, and evaluation of the consequences of these events on health, property and the environment.
- (v) "Process safety performance indicators" are measurements of a stationary source's activities and other events that are used to evaluate the performance of process safety systems.

Section 11 - 8.55 080 - Stationary source safety requirements.

The stationary source shall submit a safety plan to the Department and the City Council within one-(1) year of the effective date of the ordinance codified in this chapter or within three (3) 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). In addition, the stationary source shall comply with the safety requirements set forth in subsections (a) through (e), (i) and (j) 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), (i) and (j) prior to initial startup. Failure to comply with these requirements shall result in the imposition of penalties pursuant to Section 18 below.

- (a) **Safety Program Elements.** All covered processes shall be subject to the safety program elements listed below. The safety plan shall include a description of the manner in which these safety program elements listed below shall be applied to the covered process. These safety program elements shall be implemented in conformance with the California accidental release prevention program and the safety plan shall follow Chapters 5, 7, 8 and 9 of health services Department CalARP program guidance document.

- (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, information pertaining to the equipment in the process, and 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 the ordinance codified in 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.
 - (iii) 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.
 - (iv) Safety systems and their functions.
 - (B) Operating procedures shall be readily accessible to employees who work in or maintain a process.
 - (C) 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.
 - (D) 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. 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 subsection (a)(2)(A). 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. Subsections (a)(5)(B) through (a)(5)(F) apply to the following process equipment: pressure vessels and storage tanks; piping subsystems (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 subsection (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. A copy of these procedures shall be provided to the Department, or City. The stationary source shall provide notice within ten (10) calendar days to the Department, and City, when changes are considered subject to this Section
 - (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. The procedures shall also require identification and analysis of inherently safer systems as required by subsection (i).

- (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 startup 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 subsection (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 subsection (a)(2), such procedures or practices shall be updated accordingly.
- (7) Pre-Startup 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, subsection (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. except that the initial compliance audit from the stationary source shall be due within one calendar year of the effective date of this ordinance.
 - (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 and submitted to the Department, and the City, with the time frames designated herein.
 - (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 provide to the City within thirty (30) calendar days after the completion of the compliance audit and its responses thereto, if any, and 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 not later than twenty-four (24) hours of the incident consistent with Best Available Technology for such an incident regarding what operations or functions failed and what hazardous materials or toxic chemicals were released due to the incident.
- (C) An incident investigation team shall be established and consist of at least one representative of the City and the Department, 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 but not later than thirty (30) calendar days from the date of the incident which shall include at a minimum the following: 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 within ten (10) business days after completion. The report shall be completed within one (1) month of the incident. If not completed within a month then a report stating the reasons why it cannot be completed and a time frame for completion will be submitted. In no event shall a report take longer than six (6) months to complete.
- (E) In consultation with and supervision by the Department and the City, the stationary source shall establish a system to promptly address and resolve the incident report findings and recommendations. As part of this system, inherently safer systems shall be identified and analyzed as required by subsection (i). 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 Section 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 subsection (a)(12).
- (iv) The stationary source shall develop and implement safe work practices consistent with subsection (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 subsection (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 subsection (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) In consultation with and supervision by the Department and the City, 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, including documentation of 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;
 - (v) The plan shall include criteria for the determination of whether or not an incident would require evacuation or shelter in place, the method(s) of public notice and communication, evacuation processes, and coordination with the Department regarding an evacuation;
 - (vi) The plan shall include a public education program to inform the public in residential, industrial and commercial zones what to do during a declared shelter in place or an evacuation, responsible project managers and routine and continuous public education. The Benicia Unified District (BUSD) shall be a participant in developing various scenarios related to schools. Costs associated for this participation including consultants shall be covered by fees pursuant to Section 17 below;
 - (vii) On or prior to January 1, 2022, the plan shall also include a plan for the safe disposal of hazardous materials and contaminated materials and equipment as well as land and groundwater remediation or any contaminated areas within the stationary source's properties upon the cessation of refinery operations in whole or in part. Elements of the plan shall include: 1) a brief summary of site conditions expected at the beginning of phase one of cessation of operations; 2) a summary of the general approach and the general requirements that apply to the disposal of hazardous materials and site remediation; 3) set of specific milestones and/phasing of

implementation of the disposal and remediation, including a timeline for completion of each milestone or phase; 4) a summary of the types of remediation and demolition technologies to be employed; 5) a brief summary of mitigation measures including economic impacts and economic activities replacement, and; 6) the conceptual project schedule.

- (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 subsection (a)(12)(A), shall satisfy the requirements of this section if the stationary source also complies with subsection (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. Section 11003 and promptly shared and coordinated with the City or the Department. Upon request of the local emergency planning committee or emergency response officials, the stationary source shall promptly provide to the City or the Department emergency response officials information necessary for developing and implementing the community emergency response plan, including without limitation costs estimates for implementation, a schedule of implementation, an organizational chart showing allocation of responsibilities for implementation, and such further information as may be requested by the Department or such other Local Emergency Response Agency designated by the City in order to develop an appropriate local emergency response plan.
 - (D) The stationary source whose employees will not respond to accidental releases of regulated substances need not comply with subsections (a)(12)(A) through (a)(12)(C) 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 (U.S.C.); or
 - (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; and
 - (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. A copy of this plan shall be provided to the Department and the City.
 - (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 subsection (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.

(D) Process Safety Performance Indicators.

- (i) Within six (6) months after the effective date of this Ordinance, , the Department shall develop a list of stationary source activities and other events to be measured by each stationary source in order to evaluate the performance of process safety systems. This list is the "event list." Each stationary source shall measure these activities and other events and document the measurements. These documented measurements are "common process safety performance indicators." No later than June 30 of each year thereafter, each stationary source will report to the Department the common process safety performance indicators recorded by the stationary source in the prior calendar year. The Department will include these common process safety performance indicators in the annual performance review and evaluation report required by this Ordinance.
- (ii) The Department shall review the event list at least once every three years to determine if it should be revised. If the Department determines that a new activity or other event will be added to the event list, stationary sources shall report to the Department the new common process safety performance indicator(s) by June 30 of the next year following the revision of the event list.
- (iii) No later than six (6) months following the effective date of this Ordinance, each stationary source shall develop a list of site-specific activities and other events that it will measure in order to evaluate the performance of its process safety systems. Each stationary source shall document these site-specific process safety performance indicators and make this documentation available to the Department during an audit or inspection and upon request.

(b) Human Factors Program.

- (1) Pursuant to 8 CCR § 5189.1(s) of the California Code of Regulations ("CCR"), stationary sources are required to develop, implement and maintain written human factors programs within eighteen (18) months following the effective date of Section 5189.1. Such Human Factors programs shall be adopted according to the human factors guidance developed or adopted by the Department and the program shall be provided to the City.

(c) Root Cause Analysis and Incident Investigation.

- (1) Within seventy-two (72) hours after containment has occurred, the stationary sources shall conduct a root cause analysis for each Major Chemical Accident Or Release which occurs after the effective date of the ordinance codified in this chapter. Stationary sources shall periodically update the Department and the City Council 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. The Department, City and the stationary source shall coordinate these meetings with the City and other agencies with jurisdiction over the stationary source. Within ninety (90) calendar days of completing an initial root cause analysis performed pursuant to this section, the stationary source shall submit to the Department and City a final report containing that analysis, including recommendations to be implemented to mitigate against the release or incident reoccurring, if any, and a schedule for completion of resulting recommendations. The stationary source shall also comply with subsection (i)(1)(E) if applicable. The Department or the City may require the stationary source to submit written, periodic update reports at a frequency not to exceed every thirty (30) calendar days until the final report is submitted. The methodology of the root cause analysis shall be one of the methodologies recognized by the Center for Chemical Process Safety or shall be reviewed by the Department to determine substantial equivalency.

- (2) The Department or the City may elect to do its own independent root cause analysis or incident investigation for a Major Chemical Accident Or Release. If the Department or the City elects to conduct a root cause analysis or incident investigation the stationary source shall cooperate with the Department and the City 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 and the City 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 and the City with pertinent documentation; and
 - (iii) Allow the Department and the City 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 or the City's root cause analysis or incident investigation access is required to areas of the stationary source which in the judgment of the stationary source requires personnel entering the area to use protective equipment and/or have specialized training the Department and the City shall provide its personnel with such equipment and training. To the maximum extent feasible, the Department and the City 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, and the City or stationary source, or incident investigation conducted by the Department and the City, 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.

- (4) If the Department and the City issues a root cause analysis report, the stationary source shall comply with subsection (i)(1)(E) if applicable.
- (d) Process Hazard Analysis/Action Items.
- (1) Process hazard analyses will be conducted for each of the covered processes 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 PHA shall be appropriate to the complexity of the covered process and shall identify, evaluate, and control the hazards involved in the covered process. The PHA shall address: the hazards of the process; the identification of any previous incident which had a likely potential for catastrophic consequences; engineering and administrative control 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. Process hazard analyses should also include consideration of external events including wildfires except for seismic analyses, which are only required when criteria listed in subsection (d)(2) are satisfied. 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 PHA methodology being used.
 - (2) The process hazard analyses shall be conducted within one-year of the effective date of the ordinance codified in 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 five 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. 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 4.5, Section 2750.3 is within the distance to a toxic or flammable endpoint as defined in California Code of Regulations, Title 19, Chapter 4.5, Section 2750.2(a).

- (3) For all covered processes, the stationary source shall document the decision made to implement or not implement all PHA recommended action items and the results of recommendations for additional study. The stationary source shall complete recommended actions from the initial PHA and from PHA revalidations, 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 the completion of the PHA; all actions requiring a process shutdown shall be completed during the first regularly scheduled turnaround of the applicable process subsequent to one-year after the completion of the PHA 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 PHA. 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.

(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 and the City. The first report shall be due two years after the effective date of the ordinance codified in this chapter, and subsequent reports shall be due by June 30th of each year.

- (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.
- (g) Security and Vulnerability Assessment. Each stationary source shall perform and document a security and vulnerability assessment as defined by the City or its delegee and the CalARP program guidance document, by June 30, 2007, and at least once every five years after the initial assessment, or as prescribed by federal regulation. The stationary source shall document its process for assuring that recommendations are addressed.
- (h) Safety Culture Assessment. The stationary source shall conduct a safety culture assessment. The assessment shall be based upon a method listed in the CalARP program guidance document or shall be reviewed by the Department to determine substantial equivalency. The initial assessment shall be performed by one-year following the revisions to the industrial safety ordinance guidance document that addresses the safety culture assessment, and at least once every five years thereafter. The safety culture assessment will be reviewed during the audit and inspection of the stationary source. The Department may perform its own safety culture assessment after a Major Chemical Accident Or Release or the occurrence of any incident that could reasonably have led to a Major Chemical Accident Or Release, or based on Department audit results of the stationary source.
- (i) Inherently Safer Systems Analysis.
 - (1) A stationary source shall conduct an inherently safer systems analysis (ISSA) for each covered process as follows:
 - (A) The stationary source shall conduct an ISSA on existing covered processes every five years.
 - (B) The stationary source shall conduct an ISSA in the development and analysis of recommended action items identified in a PHA.
 - (C) After the effective date of this Ordinance, whenever a major change is proposed at a facility that could reasonably result in a Major Chemical Accident Or Release, the stationary source shall conduct an ISSA as part of a management of change review required by subsection (a)(6)(B).
 - (D) If an incident occurs on or after the effective date of this Ordinance, an investigation of the incident is conducted pursuant to subsection (a)(9)(A) and the incident investigation report recommends a major change that could reasonably result in a Major Chemical Accident Or Release, the stationary source shall commence and complete an ISSA of the recommended major change as soon as administratively practicable after completion of the incident investigation report.
 - (E) If an incident occurs on or after the effective date of this Ordinance, a root cause analysis of the incident is conducted as required by subsections (c)(1) or (c)(2), and the root cause analysis report or an associated incident investigation report recommends a major change that could reasonably result in a major chemical accident or release, the stationary source shall commence and complete

an ISSA of the recommended major change as soon as administratively practicable after completion of the root cause analysis report.

- (F) The stationary source shall conduct an ISSA during the design of new processes, process units and facilities. Immediately upon completion of the ISSA report referred to in subsection (i)(2), the stationary source shall advise the Department of the availability of the ISSA report.
- (2) The stationary source shall prepare a written report documenting each ISSA within thirty (30) calendar days of completion of the ISSA and make the report available to the Department and the City during an audit or inspection and upon request. The ISSA report must contain, at a minimum, the following information:
 - (A) Identification and a description of the inherently safer system(s) analyzed in the ISSA;
 - (B) A description of the methodology used to analyze the inherently safer systems(s);
 - (C) The conclusions of the analysis;
 - (D) The rationale for the conclusions; and
 - (E) An action plan, including a timeline to implement the inherently safer system(s) recommended in the ISSA.
- (3) The stationary source shall select and implement each inherently safer system identified in an ISSA report to the greatest extent feasible and as soon as administratively practicable. If a stationary source concludes that implementation of an inherently safer system is not feasible, the stationary source shall document the basis for this conclusion in meaningful detail. The documentation shall include sufficient evidence to demonstrate to the Department's satisfaction that implementing the inherently safer system is not feasible and the reasons for this conclusion. A claim that implementation of an inherently safer system is not feasible shall not be based solely on evidence of reduced profits or increased costs.
- (j) Safeguard Protection Analysis.
 - (1) Within one (1) year after the effective date of this Ordinance, a stationary source shall conduct a Layer of Protection Analysis or an alternative type of analysis approved by the Department that uses a quantitative, qualitative or equivalent semi-quantitative method to determine the effectiveness of existing safeguards and safeguards recommended in a PHA to reduce the probability and/or severity of a catastrophic release. The safeguard protection analysis may be a standalone analysis or incorporated within a PHA.
 - (2) The stationary source shall complete the safeguard protection analysis no later than June 30, 2019. A safeguard protection analysis that was completed by a stationary source within five years prior to June 30, 2019, in accordance with the standards set forth in subsection (j)(1), will be deemed to comply with this requirement. The stationary source shall update and revalidate the safeguard protection analysis at least once every five years.

- (3) All safeguard protection analyses shall be performed by a team with expertise in engineering and process operations. The team shall include at least one employee who has experience and knowledge specific to the safeguards and one member who is knowledgeable about the specific safeguard protection analysis method used.
- (4) The stationary source shall prepare a written report that documents the safeguard protection analysis in accordance with the standard of practice applicable to the type of analysis conducted. The stationary source will complete the report within thirty (30) calendar days after the completion of the safeguard protection analysis and make the report available to the Department during an audit or inspection and upon request.

(Ords. 17-___ § 11)

Section 12 - 8.55 090 - 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 8.55 080 are included and complete. The Department shall provide to the stationary source a written notice of deficiencies, if any. The stationary source shall have sixty (60) calendar days from receipt of the notice of deficiencies to make any corrections. The stationary source may request, in writing, a one-time thirty (30) calendar day extension to correct deficiencies. By the end of the sixty (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. Public comments on the safety plan shall be taken by the Department for a period of forty-five (45) calendar days after the safety plan is made available to the public. The Department shall participate in a public meeting conducted by the CUPA on the stationary source's safety plan during the forty-five (45) calendar day comment period. The public meetings shall be held in the affected community on evenings or weekends. The Department shall respond in writing to all written comments received during the forty-five (45) day comment period and to all oral comments received and not addressed at the public meeting. 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 and provide a timetable for resolution

of the recommendations. 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 ninety (90) calendar 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 pursuant to 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 forty-five (45) calendar days after the safety plan, the preliminary determination and the stationary source's responses are made available to the public. The Department shall schedule a public meeting on the stationary source's safety plan during the forty-five (45) calendar day comment period. The public meetings shall be held in the affected community on evenings or weekends. The Department shall respond in writing to all written comments received during the forty-five (45) day comment period and to all oral comments received and not addressed at the public meeting.
- (c) Based upon the Department's preliminary determination, review of the stationary source's 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. A copy of the final determination report will be sent to Cal/OSHA, EPA and the local fire Department that has oversight of the stationary source. The Department may not include in a final determination any requirements to a safety plan or safety program that 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 thirty (30) calendar days of the Department's final determination, the stationary source and/or any person may appeal the final determination to the City council by a verified written notice of appeal filed with the clerk of the City council 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 that 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 City council 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 receipt by the Department and shall be reviewed and updated by the stationary source every three years pursuant to the requirements of this chapter. 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 thirty (30) calendar days of a Major Chemical Accident Or Release, initiate a safety inspection to review and audit the stationary source's compliance with the provisions of Section **8.55 080**. The Department shall review and audit the stationary source's compliance with the provisions of Section **8.55 080** 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 such inspection.
- (g) Within thirty (30) calendar 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 **8.55 080**.
- (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 sixty (60) calendar days from receipt of the notice of findings to make any corrections. The stationary source may request, in writing, a one-time thirty (30) calendar day extension to make corrections. The Department may not include in its notice of findings requirements to a safety plan or safety program that 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 thirty (30) calendar days of the Department's notice of findings, the stationary source and/or any person may appeal the notice of findings to the City council pursuant to Chapter 14-4 by a verified written notice of appeal filed with the clerk of the City council 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 that 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 City council 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 City or its delegee 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.

(Ords. 17-___ § 12)

Section 13 - 8.55 100 - 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. 17-___ § 2)

Section 14 - 8.55 110 - 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 the City 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.

(Ords. 17-___ § 2)

Section 15 - 8.55 120 - 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.

(Ord. 17-____ § 2)

Section 16 - 8.55 130 - Notification of Releases.

Any person in charge of a stationary source shall, as soon as he or she has knowledge of any threatened release (other than a federally permitted release) of a hazard category A or B materials from such facility in quantities equal to or greater than those permitted by federal and state law or in the event of any Major Chemical Accident Or Release, shall immediately notify the City and Department of such release in addition to notifying any other federal or state agency of such release.

Section 17 - 8.55 140 - Fees.

The Department may, upon a majority vote of the City council, 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. There shall be one-time fees for capital projects adequate for project initiation, installed and operational. The fee schedule shall include the cost of the ombudsperson position.

(Ord. 17-____ § 2)

Section 18 - 8.55 150 - Penalties.

(a) 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 1.08 of the Benicia Municipal Code or any other Ordinance Code, specifically including but not limited to Chapter 1.08 (General Penalty), and Title 8 (health and safety) as misdemeanors or infractions, including without limitation the revocation of any existing land use permit.

(b) Penalties for failure to notify; use of notice or information pursuant to notice in criminal case.

Any person in charge of a stationary source from which such hazard category A or B materials from such facility in quantities equal to or greater than those permitted by federal and state law are

released or threatened to be released or in the event of any Major Chemical Accident Or Release, who fails to notify immediately the City or its delegee and the Department as soon as he has knowledge of such threatened release or who submits in such a notification any information which he knows to be false or misleading shall, upon conviction, be fined in accordance with schedule of fines adopted by the Department.

(Ord. 17-____ § 2)

Section 19 - 8.55 160 - 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 of this Ordinance.
- (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 City council on or before October 31, 2019, 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 this chapter, including for each: (i) the status of the stationary source's 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 this Ordinance; (iv) a summary, including the status, of any root cause analyses 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; (viii) process safety performance indicators reported by the stationary source as required under Section **8.55 080, and;** (ix) a description in lay-person terms to inform, educate and update the community concerning the risk of as well as the anticipated public safety and emergency response measures that should be taken in the event of a future Major Chemical Accident or Release.
 - (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 City council members on or before October 31st of each year.

(Ords. 17-____ § 18)

Section 20 - 8.55 170 - 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. 17-____ § 19)

Section 21 – 8.55.180 - Severability.

If any section, subsection, phrase or clause of this ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this and each section, subsection, phrase or clause thereof irrespective of the fact that any one or more sections, subsections, phrase or clauses be declared unconstitutional on their face or as applied.

On motion of Council Member, seconded by Council Member, the foregoing ordinance was introduced at a regular meeting of the City Council on the ____ST day of June, 2018, and adopted at a regular meeting of the Council held on the ____ day of June, 2018, by the following vote:

Ayes:

Noes:

Absent:

Elizabeth Patterson, Mayor

Attest:

Lisa Wolfe, City Clerk