



PIPELINE SAFETY ENGINEER

1FS05

DEPARTMENT(S): Department of Forestry & Fire Protection
OPENING DATE: APRIL 12, 2021
FINAL FILING DATE: MAY 10, 2021
EXAM TYPE: OPEN
SALARY: \$7,476.00 - \$12,211.00
LOCATIONS: Statewide

EQUAL EMPLOYMENT & DRUG FREE STATEMENTS

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right to family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding and related medical conditions), and sexual orientation.

It is an objective of the State of California to achieve a drug-free state work place. Any applicant for State employment will be expected to behave in accordance with this objective, because the use of illegal drugs is inconsistent with the law of the state, the rules governing civil service, and the special trust placed in public servants.

WHO CAN APPLY

Persons who meet the minimum qualifications of the classification, as stated on this examination bulletin. All applicants must meet the education and/or experience requirements by the final filing date of **MAY 10, 2021** unless otherwise noted on the class specification.

SPECIAL TESTING ARRANGEMENTS

If you have a disability and need special testing arrangements, mark the appropriate box on the application and you **MUST** submit the [Accommodation Request Form \(STD. 679\)](#) with your application. This can also be found on the California Department of Human Resources website.

HOW TO APPLY

To apply for this examination, please complete and return the following:

- [Examination/Employment Application \(STD.678\)](#). This can also be found on the California Department of Human Resources' website. *You may submit your application by mail or in person.*
- A Training and Experience Narrative which is a written document responding to the questions in the **EXAMINATION INFORMATION** which will demonstrate how your background meets the knowledge, skills, and abilities cited in this examination bulletin.

SUBMIT BY MAIL OR IN PERSON:

Department of Forestry and Fire Protection
710 Riverpoint Court,
West Sacramento, CA 95605
Examination Unit – (Attn: ASHLEE WARNER)

DO NOT SUBMIT APPLICATIONS VIA E-mail

Applications postmarked or personally delivered after the final filing date, **MAY 10, 2021** will not be accepted for any reason.

All applications/resumes must include "from" and "to" employment dates (month/day/year), time base, and applicable civil service class titles. Applications/resumes received without this information will be rejected.

Dates printed on Mobile Bar Codes, such as the Quick Response (QR) Codes available at the USPS, are not considered Postmark dates for the purpose of determining timely filing of an application.

EXAMINATION INFORMATION

To obtain a position on the eligible list, applicants must receive a minimum rating of 70% on the examination. *This exam will consist of the following:*

TRAINING AND EXPERIENCE NARRATIVE - WEIGHTED AT 100%

A TRAINING AND EXPERIENCE NARRATIVE DOCUMENT WHICH RESPONDS TO THE FOLLOWING FIVE QUESTIONS:

1. Describe at least four significant differences between California State statutes and Federal regulations related to integrity assessments of hazardous liquid pipelines.
2. Describe in detail at least six steps for a thorough and complete hazardous liquid pipeline accident investigation.
3. A pipeline operator is constructing a new 10-mile pipeline, and you have been tasked as the lead inspector for the Office of the State Fire Marshal. Describe in detail at least eight significant construction activities you would inspect or review for this project.
4. Describe in detail at least four types of corrosion that could affect pipelines and the processes to mitigate each one.
5. Describe at least eight different inspections that Pipeline Hazardous Material Safety Administration (PHMSA) and the Office of the State Fire Marshal perform relating to hazardous liquid pipeline safety.

When preparing your Training and Experience Narrative; follow the instructions below:

- Please use Arial font, size no smaller than 10
- Limit your responses to no more than a total of five pages **(Only the first five pages will be scored)**
- Your document **MUST** be typewritten **(NO handwritten narratives)**
- Please clearly label the number that corresponds to the question to which you are responding.
- You may include multiple responses on a single page.

In this type of exam, the **TRAINING AND EXPERIENCE NARRATIVE DOCUMENT** is the examination. It is imperative you refer to the knowledge, skills, and abilities when responding to the questions above.

APPLICATIONS RECEIVED WITHOUT A NARRATIVE MAY RECEIVE A DISQUALIFYING SCORE.

PLEASE NOTE: All exam questions are based on the Knowledge, Skills and Abilities listed in this bulletin and the [Pipeline Safety Engineer](#) classification specification which is located on the CAL HR website. Use this information when preparing for this exam and retain this bulletin for your reference.

MINIMUM QUALIFICATIONS

Education: Equivalent to graduation from college with a major in civil, chemical, mechanical, or petroleum engineering. (Registration as a senior in a recognized institution will admit applicants to the examination but they must produce evidence of graduation or its equivalent before they can be considered eligible for appointment.) Work experience performing responsible engineering duties in hazardous liquid, petroleum, or natural gas pipeline safety may be substituted for the required education on a year-for-year basis.

***NOTE- If you are using education to meet the minimum qualifications, please attach a copy of your diploma and/or transcripts showing proof of completion/graduation, to your application packet.**

ELIGIBLE INFORMATION

A Departmental eligible list will be established for the Department of Forestry and Fire Protection. This list will be abolished 12 months after it is established unless the needs of the service and conditions of the list warrant a change in this period.

POSITION DESCRIPTION

This is the entry, training, and full journey level in the series. Under close supervision, incumbents learn and perform the more routine and less complex technical review and inspection work. Under general supervision, as a full journey level, incumbents independently perform the more difficult and complex field and office technical review and inspection work for ensuring the compliance with pipeline safety laws and regulations.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

1. Safety precautions involved in hazardous liquid pipeline activities (e.g., construction, hazardous liquid pipeline investigations, trench shoring) to ensure personal and public safety.
2. Hazardous liquid pipeline operation and maintenance to enforce Federal and State laws and regulations.
3. Hazardous liquid pipeline safety regulations to determine if there has been a violation.
4. Nationally recognized hazardous liquid pipeline standards, associations, regulations, and laws relating to the hazardous liquid pipeline industry to ensure compliance.
5. Accepted hazardous liquid pipeline repair methods to ensure safe operation.
6. Hazardous liquid pipeline design and construction to enforce Federal and State laws and regulations.
7. Basic electrical principles for cathodic protection to ensure pipeline integrity.
8. Potential work hazards encountered during the performance of field duties (e.g., traffic, tripping hazards, construction equipment, hazardous materials) for personal and public safety.
9. Various methods of hazardous liquid pipeline testing (e.g., in-line inspection, hydrostatic testing, acoustic testing) to determine hazardous liquid pipeline integrity (e.g., damage, leaks, defects).
10. Practices and techniques for a thorough and complete hazardous liquid pipeline accident investigation.
11. Hazardous liquid pipeline terminology and principles for proper application to the job.
12. Principles of combustion and causes of fire to understand hazardous liquid pipeline malfunction during an investigation.
13. Applicable laws, regulations, and internal policies and procedures (e.g., Injury and Illness Prevention Program, Code of Safe Practices, California Occupational Safety and Health Administration, Violence in the Workplace Policy, Workers' Compensation Program) for employee workplace safety and protection.
14. Fire protection principles and practices (e.g., fire tetrahedron, fire suppression, fire extinguishers, safe zones) to monitor and enforce compliance with hazardous liquid pipeline safety regulations.

Skill to:

1. Operate software (e.g., Microsoft Office Suite, inspection software) to electronically compile and analyze data, produce reports, and manage operations.
2. Operate all information technology devices (e.g., smartphones, computers, laptops) for correspondence, effective job performance, and communication.

3. Use and maintain appropriate Personal Protective Equipment (PPE) to ensure personal safety.
4. Research regulatory documentation (e.g., advisory bulletins, interpretations, enforcement guidance) to determine and interpret the proper application of Federal and State laws and regulations.
5. Conduct pipeline safety inspections in an effective and efficient manner to ensure compliance with Federal and State laws and regulations.
6. Inspect pipeline operators on accidents to determine compliance with Federal, State, and local laws and regulations, and Division policies and procedures.
7. Drive appropriate Department vehicles (e.g., pick-up trucks, SUVs, ATVs) in various types of terrain to ensure employee and public safety and protect State property.
8. Manage time and prioritize daily activities during emergency and routine operations to ensure safe and an effective program.
9. Manage assigned tasks and/or projects (e.g., construction, integrity management, abandonment) to comply with Division policies and procedures.
10. Plan, organize, and prioritize tasks to ensure efficient completion of assignments.
11. Make sound decisions under stressful situations with staff, stakeholders, or the public to effectively manage daily operations.
12. Publicly address groups and facilitate meetings to all levels (e.g., staff, management, public, stakeholders) to effectively disseminate necessary information.

Ability to:

1. Work cooperatively as part of team on hazardous liquid pipeline accidents and non-emergency situations to ensure appropriate procedures are performed.
2. Work independently with minimal supervision for an effective job performance.
3. Work in a variety of hazardous situations on the job (e.g., construction sites, accidental releases, refineries) using safety protocol and Personal Protective Equipment (PPE).
4. Recognize hazardous situations and conditions (e.g., illegal activities, unsafe surroundings) to ensure personal and public safety.
5. Inspect hazardous liquid pipeline operators to ensure public safety and compliance with Federal and State hazardous liquid pipeline safety laws and regulations.
6. Use basic computer software programs (e.g., Microsoft Office Suite, Adobe Acrobat Pro) to produce reports and correspondence.
7. Travel long distances in emergency and non-emergency circumstances (e.g., inspections, investigations, training) to accomplish the responsibilities of the Department.
8. Prepare accurate, clear, concise, and well-written reports and correspondence for an effective job performance.
9. Make sound decisions under extreme situations (e.g., deadlines, hazardous surroundings) to ensure tasks are completed safely.

10. Inspect hazardous liquid pipelines to ensure compliance with all Federal and State hazardous liquid pipeline safety laws and regulations.
11. Read and write effectively to exchange information and accomplish daily tasks.
12. Perform basic engineering calculations to ensure hazardous liquid pipelines are designed, constructed, maintained, and operated in a safe manner.
13. Conduct investigations (e.g., root cause) to determine cause of hazardous liquid pipeline related incidents.
14. Follow oral and written directions for an effective job performance.
15. Write technical reports (e.g., inspection activities, investigation) to accurately communicate and summarize findings.
16. Analyze situations, reason logically, and recommend an effective course of action for hazardous liquid pipeline safety and an effective job performance.
17. Read and interpret regulations, reference manuals, training materials, data, and correspondence to acquire knowledge essential to the performance of the job.
18. Assess technical and administrative data to develop reports, briefings, and other documents.
19. Maintain State vehicles to comply with the Department of General Services.

VETERANS' PREFERENCE

Veterans' Preference will be granted for this examination, pursuant to Government Code section 18973.1, effective January 1, 2014 as follows: 1) Any veteran, widow or widower of a veteran, or spouse of a 100 percent disabled veteran, who achieves a passing score in an entrance examination, shall be ranked in the top rank of the resulting eligibility list. Any veteran who has been dishonorably discharged or released is not eligible for Veterans' Preference. 2) An entrance examination is defined, under the law, as any open competitive examination. And 3) Veterans' Preference is not granted once a person achieves permanent civil service status. Veteran status is verified by the California Department of Human Resources (CalHR). Directions to apply for Veterans' Preference are on the Veterans' Preference Application (Std. Form 1093), which is available at [CAL HR Veterans Information](#) , and the [Department of Veterans Affairs](#).

CONTACT INFORMATION

Department of Forestry and Fire Protection
(916) 894-9580

CALFIREexams@fire.ca.gov

TDD is Telecommunications Device for the Deaf and is reachable only from phones
Equipped with a TDD Device

1 (800) 735-2929 (TT/TDD) 1 (800) 735-2922 (Voice)

STS is Speech-to-Speech Service for persons with a speech disability and is
reachable at

1 (800) 854-7784 (California) or 1 (800) 947-8642 (Nationwide)

GENERAL INFORMATION

For all examinations (with or without a written feature), it is the candidate's responsibility to contact the Department of Forestry and Fire Protection, (916) 894-9580, three weeks after the cut-off/final filing date if he/she has not received a progress notification or notice to appear.

Applications are available online at CalHR, local offices of the Employment Development Department and the testing Department on this job bulletin.

If you meet the requirements stated on this bulletin, you may take this examination, which is competitive. Possession of the entrance requirement does not assure a place on the eligible list. Your performance in the examination will be compared with the performance of the others who take this test, and all candidates who pass will be ranked according to their scores.

The Department of Forestry and Fire Protection reserves the right to revise the examination plan to better meet the needs of the service, if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all competitors will be notified.

General Qualifications: Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, and ability to work cooperatively with others; and a state of health consistent with the ability to perform the assigned duties of the classification. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.

Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) Departmental promotional, 3) multi-Departmental promotional, 4) service-wide promotional, 5) Departmental open, 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

Confidentiality and Security: Pursuant to Government Code Sections 19680(c) and 19681(b) it is unlawful to copy and/or furnish confidential examination material for the purpose of either improving or injuring the chances of any person or to obtain examination questions or other examination material before, during, or after an examination. Every person violating these provisions is guilty of a misdemeanor, and adverse action will be pursued. This may result in the person being barred from competition in future examinations, withheld from certification lists, or cancellation of eligibility for employment in State civil service.

How to apply for Veterans' Preference: The California Department of Human Resources (CalHR) has information on how to apply for Veterans' Preference at [CAL HR Veterans Information](#), and the Application for Veterans' Preference Application for (CalHR 1093). Additional information is also available on the [Department of Veterans Affairs](#) website.