

State of Oregon
Oregon Department of Public Safety Standards
and Training

**Fire Investigator
Task Book**

Task Book Assigned To:	
Printed Name	AP#
Fire Agency Name	Date Initiated
Printed Signature of Department Head or Training Officer	Date Completed

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<http://www.dpsst.state.or.us>

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Task Book Qualification Record Books (Task Book) have been developed for various certification levels within the Oregon Department of Public Safety Standards and Training (DPSST) system. Each Task Book lists the job performance requirements (JPR's) for the specific certification level in a format that allows a candidate to be trained and evaluated. Successful performance of all tasks, as observed and recorded by a qualified and approved evaluator will result in the candidate's eligibility for DPSST certification.

To become certified at a specific level, the applicant must successfully complete the JPR's in sequence. Before a job performance evaluation can be taken, all requisite knowledge and skills must be satisfied. In addition, all relative task book evaluations must be checked off by the evaluator. When all prescribed requirements have been met, an application for certification will be forwarded to DPSST. All certificates are mailed to the Training Officer at his/her fire agency.

Note to fire agencies: These JPR's serve as general guidelines. At all times, standard operating procedures of the fire agency in which the evaluation is being conducted will govern. Fire agencies should have available for evaluators, a copy of the fire agencies' standard operational guidelines.

The JPR's covered in this Task Book meet or exceed all NFPA published standards for this certification level at the time of this publication. Mention of NFPA and its standards do not, and are not intended as adoption of -or reference to- NFPA standards.

259-0019-0062

Fire Service Personnel Certification

(C) Task books shall be monitored by a Field Training Officer approved by the Department. The Field Training Officer shall be certified at or above the level being monitored and have at least 5 years fire investigation experience. The Department may approve other Field Training Officers with equivalent training, education and experience as determined by designated Department Staff.

HOW TO EVALUATE PERFORMANCE:

Each JPR has a box to the right in which to confirm a candidate's success. The field training officer shall indicated successful passing by the candidate of each JPR by dating and signing (see example).

1.1 Secure a fire scene, given marking devices, sufficient personnel, and special tools and equipment, so that unauthorized persons can recognize the perimeters of the investigative scene and are kept from restrictive areas, and all evidence or potential evidence is protected from damage or destruction.



TASK BOOK QUALIFICATION RECORD

FOR THE CERTIFICATION LEVEL OF 1.0 – Fire Investigator

Prior to becoming certified in this position, the Fire Investigator shall successfully complete the following Job Performance Requirements (JPR). The evaluator shall initial and date the appropriate boxes to indicate successful completion of each requirement. For each JPR there are requisite knowledge and skills requirements. The evaluators shall initial and date in the box provided to indicate the meeting of those requirements before the Fire Investigator may proceed.

1.1 Secure a fire scene, given marking devices, sufficient personnel, - special tools and equipment, so that unauthorized persons can recognize the perimeters of the investigative scene and are kept from restrictive areas, so that all evidence or potential evidence is protected from damage or destruction.

Requisite Knowledge: Fire ground hazards, types of evidence, and the importance of fire scene security; evidence preservation, and issues relating to spoliation.

Requisite Skills: Use marking devices.

1.2 Conduct an exterior survey, given standard equipment and tools, so that evidence is preserved, fire damage is interpreted, hazards are identified to avoid injuries, accessibility to property is determined, and all potential means of egress are discovered.

Requisite Knowledge: Knowledge of the types of building construction and the effects of fire upon construction materials, types of evidence commonly found in the perimeter, evidence preservation methods, the effects of fire suppression, fire behavior and spread, and burn patterns.

Requisite Skills: Assess fire ground and structural condition, observe the damage and effects of the fire, and interpret burn patterns

1.3 Conduct an interior survey, given standard equipment and tools, so that areas of potential evidentiary value requiring further examination are identified and preserved, the evidentiary value of contents is determined,

and hazards are identified in order to avoid injuries.

Requisite Knowledge: Knowledge of the types of building construction, interior finish and the effects of fire upon those materials, the effects of fire suppression, fire behavior and spread, evidence preservation methods, burn patterns, effects of building contents on fire growth, and the relationship of contents to the overall investigation.

Requisite Skills: Assess structural conditions, observe the damage and effects of the fire, discover the impact of fire suppression efforts on fire flow and heat propagation, evaluate and protect areas to determine the presence and/or absence of contents.

1.4 Interpret burn patterns, given standard equipments and tools and some structural or content remains, so that each individual pattern is evaluated with respect to the burning characteristics of the material involved, effects of suppression, false origin area patterns are recognized, and all areas of origin are correctly identified.

Requisite Knowledge: Knowledge of fire development and the interrelationship of heat release rate, form, ignitibility of materials.

Requisite Skills: Interpret the effects of burning characteristics on different types of materials.

1.5 Correlate burn patterns, given standard equipment and tools some structural or content remains, so that fire development is determined, methods and effects of suppression are evaluated, false origin area patterns are recognized, and all areas of origin are correctly identified.

Requisite Knowledge: Knowledge of fire behavior and spread based on fire chemistry and physics, fire suppression effects, and building construction.

Requisite Skills: Interpret variations of burn patterns on different materials with consideration given to heat release rate, form, and ignitibility; distinguished impact of different types of fuel loads; evaluate fuel trails; and analyze and synthesizes information.

1.6 Examine, remove debris and preserve evidence, given standard equipment and tools, so that all debris is checked for fire cause evidence, the ignition source(s) is identified, the fire cause is determined, and evidence is preserved without investigator inflicted damage or contamination.

Requisite Knowledge: Basic understanding of ignition processes, characteristics of ignition sources, and ease of ignition of fuels, debris layering techniques, use of tools and equipment during the debris search, types of fire cause evidence commonly found in various degrees of damage, and evidence-gathering methods and documentation.

Requisite Skills: Employ search techniques that further the discovery of fire cause evidence and ignition sources, use search techniques that incorporate documentation, and collect and preserve evidence.

1.7 Reconstruct the area of origin, given standard and if needed, special equipment and tools as well as sufficient personnel, so that all protected areas and burn patterns are identified and correlated to content or structural remains, items potentially critical to cause determination and photo documentation are returned to their pre-fire location, and the point(s) of origin are discovered.

Requisite Knowledge: Knowledge of the effects of fire on different on types of material and the importance and uses of reconstruction.

Requisite Skills: Examine all material to determine the effects of fire, identify and distinguish among different types of fire-damaged contents, return material to their origin position using protected areas and burn patterns.

1.8 Inspect the performance of building systems, including detection, suppression, HVAC, utilities, and building compartmentation, given standard and special equipment and tools, so that a determination can be made as to the need for expert resources, an operating system impact on fire growth and spread is considered in identifying origin areas, and defeated system are identified.

Requisite Knowledge: Different types of detection, suppression, HVAC, utility, and building compartmentation such as fire walls and fire doors, types of expert resources for building systems, the impact of various systems, and common methods used to defeat a system's functional capability.

Requisite Skills: Determine the systems operation and its effect on the fire, identify alterations to building systems, and evaluate the impact of suppression efforts on building systems.

1.9 Discriminate the effects of explosions from other types of damage, given standard equipment and tools, so that an explosion is identified and its evidence is preserved.

Requisite Knowledge: Different types of explosions and their causes, characteristics of an explosion, and the difference between low and high order explosions.

Requisite Skills: Identify explosive effects on glass, walls, foundations, and other building materials, distinguished between low and high order explosion effects, and analyze damage to document the blast zone and origin.

1.10 Diagram the scene, given standard tools and equipment, so that the scene is accurately represented and evidence, pertinent contents, significant patterns and origin points are identified.

Requisite Knowledge: Commonly used symbols and legends that clarify the diagram, types of evidence and patterns that need to be documented, and formats for diagramming the scene.

Requisite Skills: Ability to sketch the scene, basic drafting skills, evidence recognition and observational skills.

1.11 Photographically document the scene, given standard tools and equipment, so that the scene is accurately depicted and the photographs appropriately support scene findings.

Requisite Knowledge: Working knowledge of a 35-mm camera, flash, types of 35-mm cameras, types of film and flash available, as well as the strengths and limitation of each.

Requisite Skills: Ability to use a 35-mm camera and flash.

1.12 Construct investigative notes, given a fire scene, available documents (e.g., pre-fire plans and inspection reports), and interview information, so that the notes are accurate, provide further documentation of the scene, and represent complete documentation of the scene findings.

Requisite Knowledge: Relationship between notes, diagrams, and photos, reduce scene information into concise notes, and the use of notes during report writing and legal proceedings.

Requisite Skills: Data-reduction skills, note-taking, observational and correlating skills.

1.13 Utilize proper procedures for managing victims and fatalities, given a protocol and appropriate personnel, so that all evidence is discovered and preserved and the protocol procedures are followed.

Requisite Knowledge: Types of evidence associated with fire victims and fatalities and evidence preservation methods.

Requisite Skills: Observational skills and the ability to apply protocols to given situations.

1.13 Locate, collect and package evidence, given standard or special tools/equipment, evidence collection materials, so that evidence is identified, preserved, collected, packaged to avoid contamination and investigator-inflicted damage, and the chain of custody is established.

Requisite Knowledge: Types of evidence (exclusionary or fire-cause supportive evidence), types, capabilities, and limitations of standard and special tools used to locate evidence, types of laboratory tests available, packaging techniques and materials, and impact of evidence collection on the investigation.

Requisite Skills: Ability to recognize different types of evidence and determine what is critical to the investigation.

1.15 Select appropriate evidence for analysis, given information from the investigation file, so that sample forwarded for analysis supports specific investigative needs.

Requisite Knowledge: Purpose for submitting samples, types of analytical services available, and capabilities or limitations of the services performing the analysis.

Requisite Skills: Evaluate the fire to determine forensic, engineering, or laboratory needs.

1.16 Maintain a chain of custody, given standard investigative tools, marking tools, and evidence tags or logs, so that written documentation exists for each piece of evidence and evidence is secured.

Requisite Knowledge: Rules of custody and transfer procedures, types of evidence (e.g., physical evidence obtained at the scene, photos, and documents), and methods of recording the chain of custody.

Requisite Skills: Ability to execute the chain of custody procedures and accurately complete necessary documents.

1.17 Dispose of evidence, given jurisdictional or agency regulations and file information so that the disposal is timely, safely conducted, and in compliance with jurisdictional or agency requirements.

Requisite Knowledge: Disposal services available and common disposal procedure and problems.

Requisite Skills: Documentation skills.

1.18 Develop an interview plan, given no special tools or equipment, so that the plan reflects a strategy to further determine the fire cause and affix responsibility and includes a relevant questioning strategy for each individual to be interviewed that promotes the efficient use of the investigator's time.

Requisite Knowledge: Persons who can provide information that furthers the fire cause determination or the affixing of responsibility, types of questions that are pertinent and efficient to ask of different information sources (fire department, neighbors, witness, suspects, and so forth), and pros and cons of interview versus document gathering.

Requisite Skills: Planning skills, development of focused question for specific individuals, and evaluation of existing file data to help develop questions and fill investigative gaps.

1.19 Conduct witness interviews or interrogations, given incident information, so that pertinent information is obtained, follow-up questions are asked, response to all questions are elicited, and the response to each question is documented accurately.

Requisite Knowledge: Knowledge of types of interviews, personal information needed for proper documentation or follow-up, documenting methods.

Requisite Skills: Adjust interview strategies based on deductive reasoning, interpret verbal and nonverbal communication, applying applicable legal requirements, and exhibit strong listening skills.

Note: Interview should be completed at an actual fire investigation scene,

though a simulation is acceptable.

1.20 Evaluate interview information, given interview transcripts or notes and incident data, so that all interview data is individually analyzed and correlated with all other interviews, corroborative and conflictive information is documented, and new leads are discovered.

Requisite Knowledge: Types of interviews, report evaluation methods, and data correlating methods.

Requisite Skills: Data correlating skills and the ability to evaluate source information (e.g. fire department and witness).

1.21 Gather reports and records, given no special tools, equipment, or materials, so that all gathered documentation is appropriate to the investigation, complete, and authentic, the chain of custody, is maintained, and the material is acceptable to the courts.

Requisite Knowledge: Types of reports needed that facilitate determining responsibility for the fire (e.g., police reports, fire reports, insurance policies, financial records, deeds, private investigator reports, outside photos, and videos) and location of these reports.

Requisite Skills: Identify the proper reports and documents necessary for the investigation, implementing the chain of custody, and organizational skills.

1.22 Evaluate the investigative file, given all available fire information, so that areas for further investigation are identified, the relationship between gathered documents and information is interpreted, and corroborative evidence and information discrepancies are discovered.

Requisite Knowledge: File assessment and/or evaluation methods, proper and acceptable documentation, and proper contents of investigative findings and gathered documentation.

Requisite Skills: Information assessment and correlation skills and organizational skills.

1.24 Establish evidence as to the motive and/or opportunity, given an incendiary fire, so that the evidence is the result of a prudent and complete investigation, is supported by documentation, and meets the evidentiary requirements of the jurisdiction.

Requisite Knowledge: Types of motives common to incendiary fire investigation, methods used to discover opportunity, and understanding human behavior patterns relative to fire setting.

Requisite Skills: Financial analysis, record gathering and analysis, interviewing, and interpreting fire scene information and evidence for relations to motive and/or opportunity.

1.25 Formulate an opinion of the person(s) and/or product(s) responsibility for the fire, given all investigative findings, so that the opinion regarding responsibility for a fire is supported by all records, reports, documents, and evidence.

Requisite Knowledge: Analytical methods and procedures (e.g., hypothesis testing, system analysis, time lines, link analysis, fault tree analysis, and data reduction matrixing.)

Requisite Skills: Analytical and assimilation skills.

1.26 Prepare a written investigation report, given investigative findings, documentation, and a specific audience, so the report reflects investigative findings, is concise, expresses the investigator's opinion, and is appropriate for the intended audience(s).

Requisite Knowledge: Elements of writing, typical components of a written report, and types of audiences and their respective needs.

Requisite Skills: Writing skills, ability to analyze information, and ability to determine the reader's needs.

1.27 Express investigative findings verbally, given investigative findings, notes, time allotment, and specific audience, so the information is accurate, the presentations completed within the allotted time, and the presentation includes-only need-to-know information for the intended audience.

Requisite Knowledge: Types of investigative findings, informational needs of various types of audience, and the impact of releasing information.

Requisite Skills: Communication skills, ability to determine audience needs, and ability to correlate findings.

1.28 Testify during legal proceedings, given investigative findings, contents

of reports, and consultation with legal counsel, so that all pertinent investigative information and evidence is presented clearly and accurately, the investigator's demeanor and attire are appropriate to the proceedings.

Requisite Knowledge: Types of investigative findings, understanding of the types of legal proceedings, appropriate demeanor for each, and an understanding of legal proceedings.

Requisite Skills: Communication and listening skills, ability to differentiate facts from opinions, and ability to determine appropriate procedures, practices, and etiquette during legal proceedings.

The testimony portion could be completed by the attendance and completion of a Courtroom and Testimony Course through IAAI, NFA, NAFI or equivalent.

1.29 Conduct public informational presentation, given relative data, so information is accurate, appropriate to the audience, and clearly supports the information needs of the audience.

Requisite Knowledge: Types of data available regarding the fire loss problem and the issues about which the community must know.

Requisite Skills: Ability to assemble, organize, and present information.