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Introduction

NFPA 1033 Standard, Professional Qualifications for Fire Investigator, identifies the Job Performance Requirements (JPRs) that a student must complete to gain a qualification as a Fire Investigator. To gain certification as a Fire Investigator in Saskatchewan, a student must;

- (a) complete all NFPA 1033 JPRs through self study, training on the job and/or through course and seminars,
- (b) complete specified investigation duties designed to provide a minimum level of experience as an investigator; and
- (c) successfully complete evaluations and audits.

This appendix contains information on completing the certification process. It also contains a record keeping system students must utilize to record their progress within this program towards certification under the International Fire Service Accreditation Congress (IFSAC) and/or National Board on Fire Service Professional Qualifications (NPQS). Only fire service members will receive IFSAC and/or NPQS seals.

Qualifications and Certification Steps

The certification process is not bound by a specific time frame, nor is the process rigid in procedure. Students may utilize any appropriate fire investigation work done in the past to qualify within the program. Students may also complete any part of the program at their discretion. However, certification should be completed within the life span of the NFPA Standard, which is usually revised every 5 years. Students beginning the program in the first year of the adoption of a standard will have 5 years to complete the program, 4 years in the second year, etc. Students may be required to complete additional JPRs to gain certification if they have not completed the entire program within the life span of the currently adopted standard.

A person must apply, in writing, to the Fire Commissioner to be registered within the certification program for fire investigator. The application must include:

- (a) A letter of recommendation from an employer, certifying that the student is a certified Fire Fighter under NFPA 1001 (Level 2) or has 5 years fire fighting experience.
- (b) Two letters of reference to attest to the character of the student. Acceptable references include but are not limited to:
 - School Teacher/College, University Professor
 - Religious Authority (priest, rabbi, etc..)
 - Police Officer
 - Fire Chief
- (c) Proof of certification under NFPA 472 Standard for Professional Competence of Responders to Hazardous Materials Incidents to at least Awareness Level. This prerequisite may be achieved any time during the program prior to audit and testing.

Notwithstanding the above prerequisites, a student may be required to undergo an interview to determine qualification to undergo this certification process. It is strongly recommended students be conversant with provincial fire safety regulations.

1. Complete All JPRS Identified In The NFPA 1033 Standard

The completion of JPRs must be recorded in the JPR log included in this appendix. The student must have all JPRs verified as satisfactorily completed by their supervisor or other authority acceptable to the Office of the Fire Commissioner. The JPR log is subject to audit by the Office

of the Fire Commissioner.

2. Complete A Minimum Of 25 Fire Investigations

All fires investigated must be documented through reports following an acceptable, standardized format. The 25 fires must encompass as broad a spectrum of property types and investigation circumstance as possible and/or practical for the student. Reports are subject to audit by the Office of the Fire Commissioner.

3. Provide Testimony In Court At Least Once (Alternative Is To Give A Deposition)

Must be qualified or recognized as a knowledgeable or expert witness by the court during a proceeding involving a fire loss. Testimony may be within any court system (Municipal, Provincial or Federal) and may be within either legal process (criminal or civil).

4. Successfully Pass, With A Minimum 70% Mark, Written Evaluations Totaling 150 Questions

Written evaluation will be based upon different sections of the NFPA 1033 Standard. Written evaluations will cover all aspects of fire investigation and will include questions based on numerous publications, documents and legislation such as, the *Fire Prevention Act, 1993*, NFPA 1033 Standard, *Professional Qualifications for Fire Investigator*, the Criminal Code of Canada, the *Saskatchewan Coroner's Act*, NFPA 921 Guide (1998 edition) *Guide for Fire and Explosion Investigations*, Kirks Fire Investigation 3rd Edition, and may include questions from other publications and documents identified in the certification achievement guide. Written evaluation may be in three sections (1) Part 3.2 of the Standard; (2) Part 1-1; 2-1, 3-1 and 3-3, 3.4 of the Standard and; (3) Part 3-5, 3-6 and 3-7 of the Standard. Written evaluations will be subject to a maximum time frame of 30 minutes for every 25 questions.

5. Successfully Complete A Practical Evaluation Conducted During The Investigation Of A Fire At A Fire Scene Acceptable To The Office Of The Fire Commissioner.

Students are required to investigate at least one fire under Audit. The fire scene will be a scene to allow for standardization of evaluation. The audit will be conducted at the discretion of the fire commissioner.

6. Successfully Complete An Audit While Delivering A Presentation On Fire Loss Information

Students must conduct a public informational presentation regarding the fire loss problem and the issues about which the community must know. The presentation will be audited by the OFC. Audit form is included in this Appendix. This objective will be considered met if the student is certified to NFPA 1035, Level 2 or NFPA 1041 Level 2.

Recommended Reading/Study Materials

- *The Fire Prevention Act, 1992*
- NFPA 1033 Standard (1993 edition), *Professional Qualifications for Fire Investigator*
- Martins Criminal Code 1998 (applicable sections)

- *Saskatchewan Coroners Act*
- NFPA 921 Guide (1998 edition) *Guide for Fire and Explosion Investigations*
- NFPA Fire Protection Handbook - 18th Edition
- Kirks Fire Investigation - 4th Edition. Chapters 7, 9, 10, 14, 16 17 and Appendix X.
- Uniform Building and Accessibility Standards (National Building Code of Canada) (Parts 1,2 and 3 pages 29 to 54).
- IFSTA Essentials of Fire Fighting - 3rd Chapters 2,3,4, and 17, 4th Edition Chapters 1,3,15 and 16..
- IFSTA Fire Inspection and Code Enforcement - 5th Edition. Glossary, Introduction and Chapters 2,3,5,9, and 10.
- NFPA 906M Fire Incident Field Notes - 1993 Edition.
- Brannigan Building Construction for the Fire Service - 3rd Edition. Chapters 2,3,7 and 8.
- IFSTA Building Construction Related to Fire Service - 1st Edition. Chapters 3, 4 and 5.

Recommended Courses Seminars (Saskatchewan)

- Canadian Fire Investigation School Seminars
- Saskatchewan Police College Fire Investigation Courses and Seminars
- Photography Course or Seminar
- Interviewing/Interrogation Course or Seminar
- Technical Writing Skills Course or Seminar (SIAST or equivalent)
- Building Construction (for the Fire Service or equivalent) Course or Seminar
- International Association of Arson Investigator Courses and Seminars

Continuing Qualification

Persons certified by the Saskatchewan Office of the Fire Commissioner as a Fire Investigator must continue to maintain their qualification after certification. Certified fire investigators shall file an annual report to the Office of the Fire Commissioner contained in this appendix. To maintain qualifications as a Fire Investigator, persons certified shall (a) attend seminars to keep abreast with changes in Acts, Regulations and Standards; (b) persons certified will be subject to audit by the Office of the Fire Commissioner once every 5 years to maintain qualifications as a fire investigator.

Job Performance Requirement Log

Audit Date

Student's Name

Auditor's Signature

JPR		SUPERVISOR	
PART 3-2 SCENE EXAMINATION	1033 Ref	Date	Verified
Secure the fire ground, 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 restricted areas, and all evidence or potential evidence is protected from damage or destruction.	3-2.1		
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 the property is determined, and all potential means of ingress and egress are discovered.	3-2.2		
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.	3-2.3		
Interpret burn patterns, given standard equipment 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.	3-2.4		
Correlate burn patterns, given standard equipment and tools and 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 or origin are correctly identified.	3-2.5		
Examine and remove fire debris, 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.	3-2.6		

Job Performance Requirement Log

Audit Date

Student's Name

Auditor's Signature

JPR		SUPERVISOR	
PART 3-2 SCENE EXAMINATION	1033 Ref	Date	Verified (initial)
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 contents or structural remains, items potentially critical to cause determination and photo documentation are returned to their prefire location, and the point(s) of origin is discovered.	3-2.7		
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 systems impact on fire growth and spread is considered in identifying origin areas, and defeated systems are identified.	3-2.8		
Discriminate the effects of explosion from other types of damage, given standard equipment and tools, so that an explosion is identified and its evidence is preserved.	3-2.9		

Job Performance Requirement Log

Audit Date

Student's Name

Auditor's Signature

JPR		SUPERVISOR	
PART 3-3 DOCUMENTING THE SCENE	1033 Ref	Date	Verified (initial)
Diagram the scene, given standard tools and equipment, so that the scene is accurately represented and evidence, pertinent contents, significant patterns, and origin areas or points are identified.	3-3.1		
Photographically document the scene, given standard tools and equipment, so that the scene is accurately depicted and the photographs appropriately support scene findings.	3-3.2		
3-3.3 Construct investigative notes, given fire scene, available documents (e.g., prefire 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.	3-3.3		

Job Performance Requirement Log

Audit Date

Student's Name

Auditor's Signature

JPR		SUPERVISOR	
PART 3-4 EVIDENCE COLLECTION/PRESERVATION	1033 Ref	Date	Verified (initial)
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.	3-4.1		
Locate, collect, and package evidence, given standard or special tools and equipment and evidence collection materials, so that evidence is identified, preserved, collected, and packaged to avoid contamination and investigator-inflicted damage, and the chain of custody is established.	3-4.2		
Select appropriate evidence for analysis, given information from the investigative file, so that samples forwarded for analysis support specific investigative needs.	3-4.3		
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.	3-4.4		
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.	3-4.5		

Job Performance Requirement Log

Audit Date _____

Student's Name _____

Auditor's Signature _____

JPR		SUPERVISOR	
PART 3-5 INTERVIEW/INTERROGATION	1033 Ref	Date	Verified (initial)
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.	3-5.1		
Conduct interviews or interrogations, given incident information, so that pertinent information is obtained, follow-up questions are asked, responses to all questions are elicited, and the response to each question is documented accurately.	3-5.2		
Evaluate interview information, given interview transcripts or notes and incident data, so that all interview data is individually analysed and correlated with all other interviews, corroborative and conflictive information is documented, and new leads are discovered.	3-5.3		

Job Performance Requirement Log

Audit Date	Student's Name	Auditor's Signature	
JPR		SUPERVISOR	
PART 3-6 POST INCIDENT INVESTIGATION	1033 Ref	Date	Verified (initial)
Gather reports and records, given no special tools, equipment or materials, so that all gathered documents are appropriate to the investigation, complete, and authentic, the chain of custody is maintained, and the material is acceptable to the courts.	3-6.1		
Evaluate the investigative file, given all available file 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.	3-6.2		
Coordinate expert resources, given the investigative file, reports, and documents, so that the expert's competencies are matched to the specific investigation needs, financial expenditures are justified, and utilization clearly furthers the investigation toward the goals of causation determination or affixing responsibility.	3-6.3		
Establish evidence as to 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.	3-6.4		
Formulate an opinion of the person(s) and/or product(s) responsible 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.	3-6.5		

Job Performance Requirement Log

Audit Date	Student's Name	Auditor's Signature	
JPR		SUPERVISOR	
PART 3-7 PRESENTATIONS	1033 Ref	Date	Verified (initial)
Prepare a written investigation report, given investigative findings, documentation, and a specific audience, so that the report accurately reflects the investigative findings, is concise, expresses the investigator's opinion, and is appropriate for the intended audience(s).	3-7.1		
Express investigative findings verbally, given investigative findings, notes, a time allotment, and a specific audience, so that the information is accurate, the presentation is completed within the allotted time, and the presentation includes only need-to-know information for the intended audience.	3-7.2		
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, and the investigator's demeanour and attire are appropriate to the proceedings.			
Conduct public informational presentations, given relative data, so that information is accurate, appropriate to the audience, and clearly supports the information needs of the audience.	3-7.4		

Court Testimony Log

Audit Date

Student's Name

Auditor's Signature

Trial #	Date	Location	Plaintiff	Defendant	Lawyer

The above must document the court testimony was given as an expert or knowledgeable witness or two depositions given (see JPR 3-7.4)

All information indicated above must be entered. Trial number may be a lawyer's file number, however the lawyer holding the file must be fully identified (name, address, company, phone number, etc..). Date denotes when the student started testimony. Location denotes the Court local. The plaintiff and defendant must be properly identified by full names. Lawyers who student provided testimony for during the proceeding.

Practical Evaluation
Audit - Controlled Fire Scene

Name of Person Being Audited: _____		
Audit Date: _____		
Rating: 0 Points - Unskilled 1-2 Points - Skilled 70 Points Total Required to Achieve Pass		
	Points Attained	Score
A. SCENE EXAMINATION		
C Clothing, personnel protection, safety equipment identified.	2	
C Secured scene	2	
C Fireground hazards identified and marked	1	
C Evidence preservation	1	
C Exterior survey	1	
C Access & egress routes	1	
C Knowledge of building type/use	1	
C Building construction	1	
C Effects of suppression	1	
C Fire behavior and direction	1	
C Burn patterns	1	
C Damage assessment	1	
C Interior finish	1	
C Contents damage effect on fire growth	1	
C Fire flow	1	
C Heat transfer rate	1	
C Recognition of false origin	1	
C Correctly determining area of origin	1	
C Fire chemistry and physics of area of origin	1	
C Interpret impact of different fuels	1	
- evidence documented	1	
C Evidence protected from damage	1	
C Evidence protected from contamination	1	
C Debris layering techniques	1	
C Ignition process	2	
C Ignition source	1	
C Reconstruction	1	
C Note documentation	1	
C Building containment features	1	
C Fire wall performance	1	
C Fire door performance	1	
C Alterations to HVAC and building fire impact	1	
C Impact of explosion	1	
C Type of explosion high/low order	1	
C Explosion effects on glass, walls and foundation	1	

Name of Person Being Audited:			
Audit Date: _____			
Rating: 0 Points - Unskilled 1-2 Points - Skilled 70 Points Total Required to Achieve Pass			
		Points Attained	Score
C	Document blast zone	1	
C	Document and locate origin	<u>1</u>	
		40	
B.	DOCUMENTING SCENE		
C	Diagram scene	2	
C	Measure scene	1	
C	Use of symbols	1	
C	Drafting skills	1	
C	Photograph scene	2	
C	Camera use	1	
C	35 mm and flash	1	
C	Film used, why	1	
C	Construct investigation notes	2	
C	Interview information	1	
C	Develop relationship between notes, diagram and photos	1	
C	Observational and correlation skill	1	
		<u>15</u>	
C.	EVIDENCE COLLECTION/PRESERVATION		
C	Samples sent for analysis	1	
	- support specific need	1	
	- knowledge of analysis	2	
	- purpose of submission	1	
C	Collect and package tagging	2	
C	Avoid contamination	2	
C	Chain of custody	2	
C	Documentation of evidence	2	
	- location	1	
	- sketch	1	
	- photo	1	
C	Disposal of evidence	1	
C	Return of evidence to owner	2	
		<u>20</u>	
D.	INTERVIEWING/INTERROGATION		
C	Develop interview plan	2	
C	Plan strategy	1	
C	Relevant questions	1	
C	Who should be interviewed	1	

Name of Person Being Audited:		
Audit Date: _____		
Rating: 0 Points - Unskilled 1-2 Points - Skilled 70 Points Total Required to Achieve Pass		
	Points Attained	Score
C Document questions and response	1	
C Follow up	1	
C Good listener	1	
C Legal requirement	1	
C Evaluate information from interviews	1	
	10	
E. POST INCIDENT INVESTIGATION		
C Draft reports	2	
C Types of reports required	1	
C Who receives reports	2	
C Chain of custody	1	
C Corroborative evidence	1	
C Discrepancies discovered	1	
C Expert resources	1	
C Need for investigative experts	1	
C Establish motive or opportunity	1	
C Formulate opinion	1	
C Develop hypothesis	2	
C Test hypothesis	1	
	15	

Audit form does not require completion of every item i.e. Documenting Scene can be general averaged based on the 15 credits available etc.

Auditor's Signature

Annual Report

Fire Investigators Name: _____
Print legibly

Date of Certification: _____ Certificate Seal # _____

Home Address: _____

Municipality: _____ Postal Code: _____

Home Phone: _____ Work Phone: _____

Work Address: _____

Municipality: _____ Postal Code: _____

FIRES INVESTIGATED SINCE LAST REPORT

duplicate as necessary

Date	Location	Report Filed (Y/N)*	Report File #

