

A Publication of the National  
Wildfire Coordinating Group

Sponsored by United States  
Department of Agriculture

United States Department  
of the Interior

National Association of  
State Foresters

## NATIONAL INTERAGENCY INCIDENT MANAGEMENT SYSTEM

# WILDLAND FIRE QUALIFICATION SUBSYSTEM GUIDE

## PART 2 PRESCRIBED FIRE



**PMS 310-1 (Part 2)**  
**NFES 2479**

**February 1995**

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**NATIONAL INTERAGENCY INCIDENT  
MANAGEMENT SYSTEM**

**WILDLAND FIRE QUALIFICATION  
SUBSYSTEM GUIDE**

**310-1 (Part 2)**

**Prepared by**

**National Wildfire Coordinating Group  
Incident Command System Working Team**

**1995**

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# PRESCRIBED FIRE QUALIFICATION SUBSYSTEM

## *Part 2: Prescribed Fire Qualification Subsystem*

### A. INTRODUCTION

The Prescribed Fire Qualification Subsystem (PMS 310-1, Part 2), developed under the sponsorship of the National Wildfire Coordinating Group (NWCG), provides guidance to participating agencies and organizations. This guidance is given for the establishment of standards for prescribed fire personnel working on prescribed fire activities (management-ignited prescribed fires and prescribed natural fires). Personnel meeting the established standards are qualified for participation on interagency prescribed fires of moderate complexity and higher.

Personnel who are certified in a position prior to the implementation of this subsystem may retain such certification at the discretion of their agency. To qualify in any other position, the individual must meet the standards identified herein for prescribed fires of moderate and above complexity levels involving multi-agency participation.

This system is designed to:

1. Establish minimum training, skills, knowledge, and experience for prescribed fire positions to which all participating agencies have agreed for participation in interagency prescribed fire activities. Standards may be augmented to meet specific needs within an agency, but cannot be imposed on cooperators meeting the minimums outlined in this guide.
2. Allow cooperating agencies at low complexity levels to jointly agree upon training, skills, knowledge, experience, and physical fitness standards required to meet prescribed fire needs at the local level. A single agency can also establish its own qualifications for higher complexity burns where the resources of other agencies are not utilized.

Any organization or agency intending to supply resources to prescribed fires to meet interagency requests will be expected to meet the minimum requirements described in this guide.

### B. DESCRIPTION OF THE SUBSYSTEM

The Prescribed Fire Qualifications system is a "performance based" qualifications system. In this system, the primary criteria for qualification is individual performance as observed by an evaluator using approved standards. This system differs from previous prescribed fire

qualifications systems which have been "training based." Training based systems use the completion of training courses or a passing score on an examination as a primary criteria for qualification.

A performance based system has two advantages over a training based system:

- Qualification is based upon real performance, as measured on the job, versus perceived performance, as measured by an examination or classroom activities.
- Personnel who have learned skills from sources outside prescribed fire, such as agency specific training programs or training and work in wildfire, structural fire, law enforcement, search and rescue, etc., may not need to complete suggested courses in order to qualify in a prescribed fire position.

1. The components of the prescribed fire qualification system are as follows:

a. Position Task Books (PTB) contain all critical tasks which are required to perform the job. There is a PTB for each position included in the system. Tasks in each PTB have been established by experts from all NWCG agencies and geographical areas of the United States, tested on prescribed fires, and approved by NWCG. PTB's have been designed in a format which will allow documentation of a trainee's ability to perform each task. Tasks pertaining to tactical decision making and safety are flagged and require a position performance on a prescribed fire. Remaining tasks may be evaluated through other means such as simulation, wildfire, insect eradication, or other emergency and non-emergency work. Successful completion of all tasks required of the position, as determined by an evaluator, will be the basis for recommending certification.

The following positions utilize the same PTB for the Type 2 and Type 1 levels (RXM1/2, RXB1/2, RXI1/2). It is expected that for those positions having the same PTB the trainee will complete a second book for the next complexity level. Example: A person completes a PTB for RXB2 and is now qualified in that position. With adequate experience and any required training received, the local office makes a determination that the person is ready for advancement to the RXB1 position. The local office issues a new RXB1/2 PTB and in crossing out the number 2 from the PTB cover, identifies that the trainee is working to complete the RXB1 position. In some cases, there are tasks which are only performed at the higher complexity level. These tasks are noted in the PTB.

**IMPORTANT NOTE:** Training requirements include completion of all required training courses prior to obtaining a PTB. Use of the suggested training courses or job aids is recommended to prepare the employee to perform in the position. An employee should not be given a position performance assignment if training would be necessary to complete the required tasks of the position.

b. Training courses and job aids provide the specific skills and knowledge required to perform tasks as prescribed in the PTB. This provides a direct link between training and job performance. Required training has been held to the minimum required for safe operations on a prescribed fire. Although most training courses are not "required," all training will be available and is still intended to be the primary means by which personnel can prepare for qualification. The decision on development of a specific job aid and/or a training course will be made at the time of development. Current training courses are expected to be used until the newly-developed job aids or courses are available.

c. Agency certification is issued in the form of a qualification card certifying that the individual is qualified to perform in a specified position. Individuals are responsible for demonstrating proof of qualification on a prescribed fire for all prescribed fire positions.

2. Responsibilities - The local office is responsible for selecting trainees, proper use of task books, and certification of trainees; see the Task Book Administrator's Guide, PMS 330-1, for further information.

The individual is responsible for showing proof of qualifications, completing training courses, and completing a position task book.

Management of training and qualification programs on prescribed fires is the responsibility of the local agency. Documentation of training and experience for contractors is the responsibility of the contractor. Certification of contractors is the responsibility of the administrative unit contracting for the work.

### C. CERTIFICATION AND RECERTIFICATION

Management at the sending unit is responsible for certifying and recertifying qualifications of its personnel based upon the requirements of this guide. This responsibility includes evaluation of personnel for recertification in cases where position qualifications have been lost as a result of a lack of current experience.

A key component in the certification or recertification process is the subjective evaluation by management of an individual's capability to perform in a position. Completion of prerequisite training and experience requirements alone do not guarantee that an individual is qualified to perform the work. This is the primary reason for requiring performance in many positions before certification is granted.

The quality of experiences gained in a given position should be closely evaluated when making a determination for advancement to the next higher position or to a different position. The quality of experience may relate to the number of fuel types in which an individual has performed, size of the organization in terms of personnel and equipment, and the number of assignments or complexity of operations to include the different types of resources managed.

This guide does not recommend the number of times an individual should be evaluated before advancement. That is a determination that a supervisor must make based on task evaluations, position performance evaluations, and their own judgement on the quality of an individual's experience. For advancement in prescribed fire positions which require a prerequisite in a suppression position, an individual need not be currently qualified in that suppression position provided he/she has previously achieved that qualification level.

#### D. CURRENCY REQUIREMENTS

Local agencies will determine currency requirements for prescribed fire positions. For suppression positions used on prescribed fires, currency requirements (310-1, Part 1, Wildfire Qualifications Subsystem) are mandatory.

#### E. CHALLENGE PROCESS/REQUIRED TRAINING

Required training (those courses designated as required in Appendix B, PMS 310-1) and required experience are mandatory and cannot be challenged. It is not viewed as reasonable to challenge any positions due to the availability of task books and training courses to trainees. The process of demonstrating the abilities to perform the position is the completion of a task book.

#### F. FITNESS STANDARDS

Physical fitness requirements for Prescribed Fire positions will be established by the certifying agency. All NWCG agencies will accept physical fitness requirements of a single agency provided that other position qualification requirements are met.

#### G. PRESCRIBED FIRE COMPLEXITY

There are many factors that determine the complexity of a prescribed fire such as size; location; threat to life and property; political, social, and environmental sensitivity; organizational complexity; jurisdictional boundaries; values-at-risk; fuel type; topography; and agency policy. A complexity determination will be recommended for all prescribed fires and an NWCG Guide has been developed. This Guide represents an aid for use in this process, although agencies can develop their own specific determination procedures. For burns evaluated to have low complexity, the agency and its local cooperators will jointly agree on qualifications required. A single agency can also establish its own qualifications for higher complexity burns where the resources of other agencies are not utilized. For burns which are of moderate complexity or higher and on which resources of more than one agency are utilized, NWCG qualifications are required.

## H. REVIEW AND UPDATE OF THE QUALIFICATION SUBSYSTEM

To keep the prescribed fire qualification subsystem viable and current, it is necessary to have a process for making revisions. This process requires users of the system to submit proposed revisions (in writing) through agency channels to the Prescribed Fire and Fire Effects Working Team (PF&FEWT).

While the PF&FEWT may handle special problems at any time, the planned revision interval will be three (3) years. Users may submit proposed revisions as needs are identified. The PF&FEWT will review the proposals and recommend adoption or rejection by NWCG.

## I. POSITION CATEGORIES

The following three types of positions are identified in this guide:

### 1. Prescribed Fire Positions

a. The following positions are used in prescribed fire operations and are included in the qualifications system. These positions are unique to prescribed fire. They require a level of specific skill and knowledge to perform prescribed fire responsibilities. Personnel should be assigned only to positions in which they have demonstrated the ability to perform successfully.

Prescribed Fire Manager Type 1 (RXM1)  
Prescribed Fire Manager Type 2 (RXM2)  
Prescribed Fire Burn Boss Type 1 (RXB1)  
Prescribed Fire Burn Boss Type 2 (RXB2)  
Prescribed Fire Behavior Analyst (RXFA)  
Prescribed Fire Behavior Specialist (RXFS)  
Prescribed Fire Monitor (RXFM)  
Ignition Specialist Type 1 (RXI1)  
Ignition Specialist Type 2 (RXI2)

### b. Prescribed Fire Functions Included in the System:

1. Prescribed Fire Planner: The working team originally identified a Fire Planner position, but dropped it after lengthy discussion. The team recognized that, although this is a function very important to the Prescribed Fire program, no single position is required to accomplish this function. The position title for planning was not "standardized," but the knowledge, skills, and abilities required to perform the duties of the position were identified and included in the curriculum.

2. Holding Specialist - The PF&FEWT elected to drop this position as a prescribed fire qualification system position. Although the function is necessary to the implementation of a prescribed fire plan and a specific individual must be identified to complete these

responsibilities, the team agreed that the knowledge, skills, and abilities of the position are a duplication of those available within the suppression qualifications system. The planning process will be used to identify appropriate holding resources, and those resources will be obtained from suppression positions. Holding Specialist requirements will be identified during the prescribed fire planning process, based on the projected complexity of the burn. A specific position from the suppression qualifications system will be identified to complete the Holding Specialist responsibilities. The exact position title, however, will not utilize the Holding Specialist terminology, but will utilize the existing suppression position title (i.e., FFT1, SRB, STCR, etc.).

3. Crew Member - The PF&FEWT elected to drop this position as a prescribed fire position because the knowledge, skills, and abilities of the position are a duplication of the Firefighter Type 2 (FFT2) identified in the suppression qualifications system. The position, however, is still necessary to completion of prescribed fires and represents the basic resource to be used in all operational functions.

2. ICS Positions - Any position found on the ICS organizational chart in the Operational System Description (OSD). Training may include required and suggested "I" courses, "S" courses, and job aids. The following list presents ICS positions potentially relevant for prescribed fire implementation activities:

## ICS POSITIONS AND MNEMONICS

Agency Representative (AREP)  
Air Operations Branch Director (AOBD)  
Air Support Group Supervisor (ASGS)  
Air Tactical Group Supervisor (ATGS)  
Air Tanker/Fixed Wing Coordinator (ATCO)  
Base/Camp Manager (BCMG)  
Claims Specialist (CLMS)  
Commissary Manager (CMSY)  
Communications Unit Leader (COML)  
Compensation/Claims Unit Leader (COMP)  
Compensation-for-Injury Manager (INJR)  
Cost Unit Leader (COST)  
Demobilization Unit Leader (DMOB)  
Display Processor (DPRO)  
Division/Group Supervisor (DIVS)  
Documentation Unit Leader (DOCL)  
Equipment Manager (EQPM)  
Equipment Time Recorder (EQTR)  
Facilities Unit Leader (FACL)  
Field Observer (FOBS)  
Finance/Administrative Section Chief Type 1 (FSC1)  
Finance/Administrative Section Chief Type 2 (FSC2)  
Food Unit Leader (FDUL)  
Ground Support Unit Leader (GSUL)  
Helibase Manager 1-3 (HEB2)  
Helibase Manager 4+ (HEB1)  
Helicopter Coordinator (HLCO)  
Helicopter Crewmember (HECM)  
Helicopter Manager (HEMG)  
Interagency Resource Representative (IARR)  
Information Officer Type 1 (IOF1)  
Information Officer Type 2 (IOF2)  
Information Officer Type 3 (IOF3)  
Liaison Officer (LOFR)  
Logistics Section Chief Type 1 (LSC1)  
Logistics Section Chief Type 2 (LSC2)  
Medical Unit Leader (MEDL)  
Operations Branch Director (OPBD)  
Operations Section Chief Type 1 (OSC1)  
Operations Section Chief Type 2 (OSC2)  
Ordering Manager (ORDM)  
Personnel Time Recorder (PTRC)  
Planning Section Chief Type 1 (PSC1)  
Planning Section Chief Type 2 (PSC2)  
Procurement Unit Leader (PROC)  
Receiving/Distribution Manager (RCDM)  
Resource Unit Leader (RESL)  
Safety Officer (SOF1)  
Safety Officer (SOF2)  
Security Manager (SECM)  
Service Branch Director (SVBD)  
Situation Unit Leader (SITL)  
Strike Team Leader Dozer (STDZ)  
Strike Team Leader Crew (STCR)  
Strike Team Leader Engine (STEN)  
Strike Team Leader Tractor/Plow (STPL)  
Staging Area Manager (STAM)  
Status/Check-In Recorder (SCKN)  
Supply Unit Leader (SPUL)  
Support Branch Director (SUBD)  
Task Force Leader (TFLD)  
Time Unit Leader (TIME)

3. Suppression Skill Positions - These positions have been identified as unique to wildfire suppression because they require a level of skills and knowledge to perform wildfire suppression responsibilities and were not identified in the OSD. These positions, as described in 310-1, Part 1, Wildfire Qualifications Subsystem, also possess the skills and knowledge to perform in the prescribed fire organization.

The following is a list of suppression skill positions used in prescribed fire activities:

Firefighter (FFT2)	Strike Team Leader-Engine (STEN)
Firefighter (FFT1)	Strike Team Leader-Dozer (STDZ)
Crew Boss (Single Resource) (CRWB)	Strike Team Leader-Tractor Plow (STPL)
Dozer Boss (Single Resource) (DOZB)	Task Force Leader (TFLD)
Engine Boss (Single Resource) (ENGB)	Division/Group Supervisor (DIVS)
Felling Boss (Single Resource) (FELB)	Operations Section Chief, Type 2 (OSC2)
Firing Boss (Single Resource) (FIRB)	Operations Section Chief, Type 1 (OSC1)
Strike Team Leader-Crew (STCR)	

J. PRESCRIBED FIRE POSITION QUALIFICATIONS

The normal flow of training and qualifications is a building block from crew member through prescribed fire manager. The qualifications for each prescribed fire position are established based on the following criteria:

REQUIRED TRAINING A course that contains critical knowledge and skills required for safe operations on a prescribed fire. Training in this course or an agency-equivalent course with like learning and performance objectives is mandatory. Statistics indicate that lack of this type of knowledge and/or skill may have contributed to accidents.

SUGGESTED TRAINING Training designed to provide the candidate with the knowledge, skills, and abilities to be successful. Trainees must still demonstrate ability to perform tasks whether or not training is taken.

EXPERIENCE Experience includes: (1) Satisfactory performance in prerequisite positions and (2) a satisfactory position performance assignment in the position to which qualifications are being sought. These should be based on fuel groups. The fuel group qualifications will be tracked in task book evaluations and as a data entry category for the computerized qualifications system.

PHYSICAL FITNESS Agency-established requirements.

S))Q  
CREW MEMBER (FFT2)

See appropriate qualification in 310-1, Part 1, Wildfire Qualifications Subsystem.

S))Q  
HOLDING SPECIALIST

(FFT1, CRWB, DOZB, ENGB, FELB, FIRB, STCR, STEN, STDZ, STPL, TFLD, DIVS, OSC2, OSC1, as appropriate)

See appropriate qualification in 310-1, Part 1, Wildfire Qualifications Subsystem.

))  
IGNITION SPECIALIST 2 (RXI2)

REQUIRED TRAINING None

SUGGESTED TRAINING Rx-230 and Training in appropriate ignition devices

EXPERIENCE Satisfactory performance in any Single Resource Boss position  
AND  
Satisfactory performance as a Holding Specialist  
AND  
Successful completion of a RXI2 position performance assignment in representative fuel group on a prescribed fire

S))  
IGNITION SPECIALIST 1 (RXI1)

REQUIRED TRAINING None

SUGGESTED TRAINING None

EXPERIENCE Satisfactory performance as an Ignition Specialist 2  
AND  
Successful completion of a RXI1 position performance assignment in representative fuel group on a prescribed fire

S))  
PRESCRIBED FIRE BURN BOSS 2 (RXB2)

REQUIRED TRAINING S-390

SUGGESTED TRAINING Rx-300, Rx-340, S-301

EXPERIENCE Satisfactory performance as an Ignition Specialist 2  
AND  
Satisfactory performance as an Incident Commander Type 4  
AND  
Successful completion of a RXB2 position performance assignment in representative fuel group on a prescribed fire

S))Q  
PRESCRIBED FIRE BURN BOSS 1 (RXB1)

REQUIRED TRAINING S-490

SUGGESTED TRAINING Rx-420, Rx-440, Rx-450, S-401,  
Fire in Resource Management

EXPERIENCE Satisfactory performance as a Prescribed  
Fire Burn Boss 2  
AND  
Satisfactory performance as an Incident  
Commander Type 3  
AND  
Successful completion of a RXB1 position  
performance assignment in representative  
fuel group on a prescribed fire

S))Q  
PRESCRIBED FIRE MANAGER (RXM2)

REQUIRED TRAINING None

SUGGESTED TRAINING Rx-420, I-300

EXPERIENCE Satisfactory performance as a Prescribed  
Fire Burn Boss 2  
AND  
Successful completion of a RXM2 position  
performance assignment in representative  
fuel group(s) on a prescribed fire

S))Q  
PRESCRIBED FIRE MANAGER (RXM1)

REQUIRED TRAINING None

SUGGESTED TRAINING I-300

EXPERIENCE Satisfactory performance as a Prescribed  
Fire Burn Boss 1  
AND  
Successful completion of a RXM1 position  
performance assignment in representative  
fuel group(s) on a prescribed fire

S))Q

PRESCRIBED FIRE BEHAVIOR MONITOR (RXFM)

REQUIRED TRAINING S-290  
SUGGESTED TRAINING Rx-290, S-244  
EXPERIENCE Satisfactory performance as a Firefighter Type 2  
AND  
Successful completion of a RXFM position performance assignment in representative fuel group on a prescribed fire

S))Q

PRESCRIBED FIRE BEHAVIOR SPECIALIST (RXFS)

REQUIRED TRAINING S-390  
SUGGESTED TRAINING S-201, current processing system for fire behavior calculations  
EXPERIENCE Satisfactory performance as a Prescribed Fire Behavior Monitor  
AND  
Satisfactory performance as a Firefighter Type 1  
AND  
Successful completion of a RXFS position performance assignment in representative fuel group on a prescribed fire

S))Q

PRESCRIBED FIRE BEHAVIOR ANALYST (RXFA)

REQUIRED TRAINING S-490, RX-590  
SUGGESTED TRAINING Rx-450, current processing system for fire behavior calculations  
EXPERIENCE Satisfactory performance as a Prescribed Fire Behavior Specialist  
AND  
Satisfactory performance as an Ignition Specialist 2  
AND  
Successful completion of a RXFA position performance assignment in representative fuel group on a prescribed fire

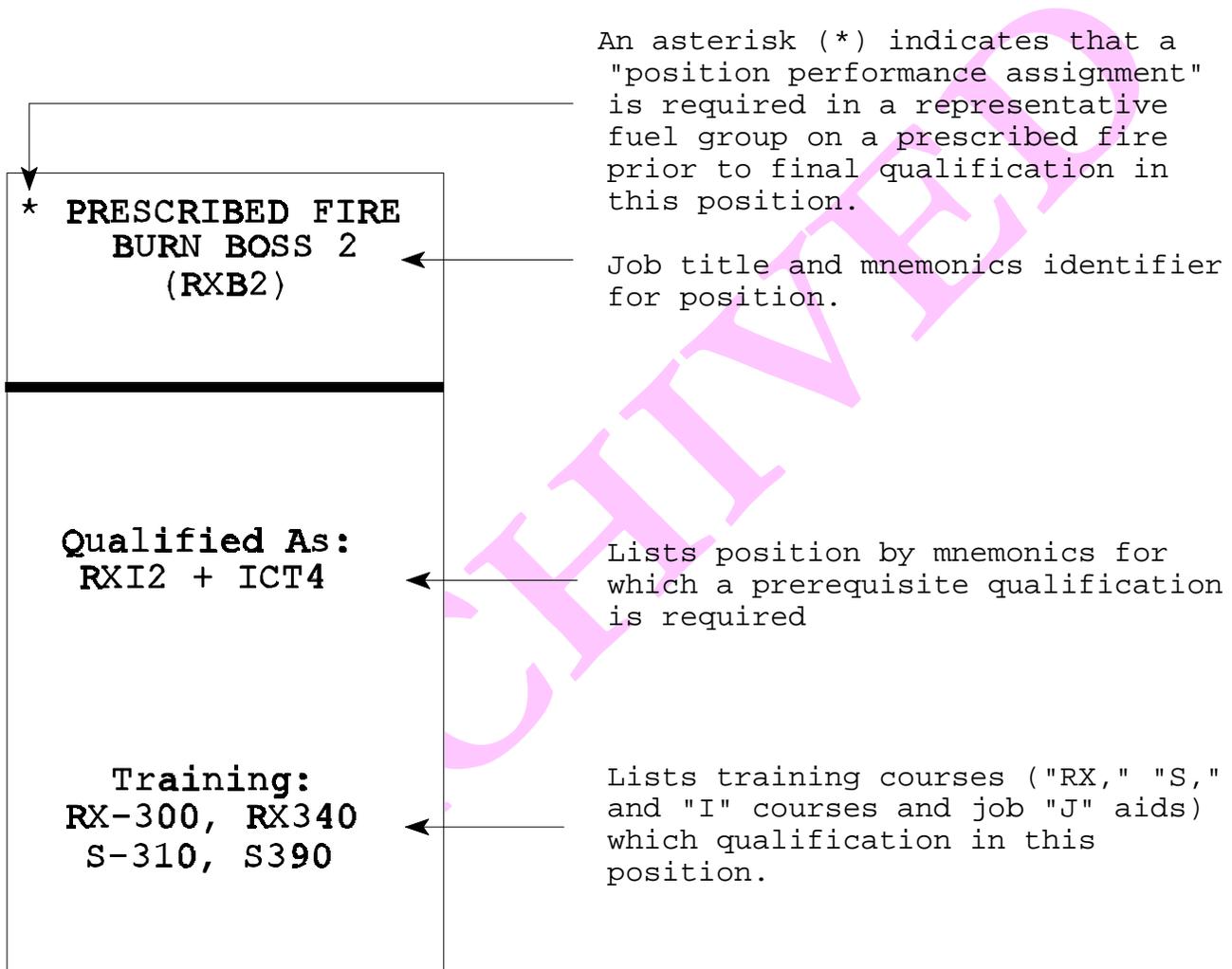
# APPENDIX A

## PRESCRIBED FIRE QUALIFICATION FLOW CHARTS

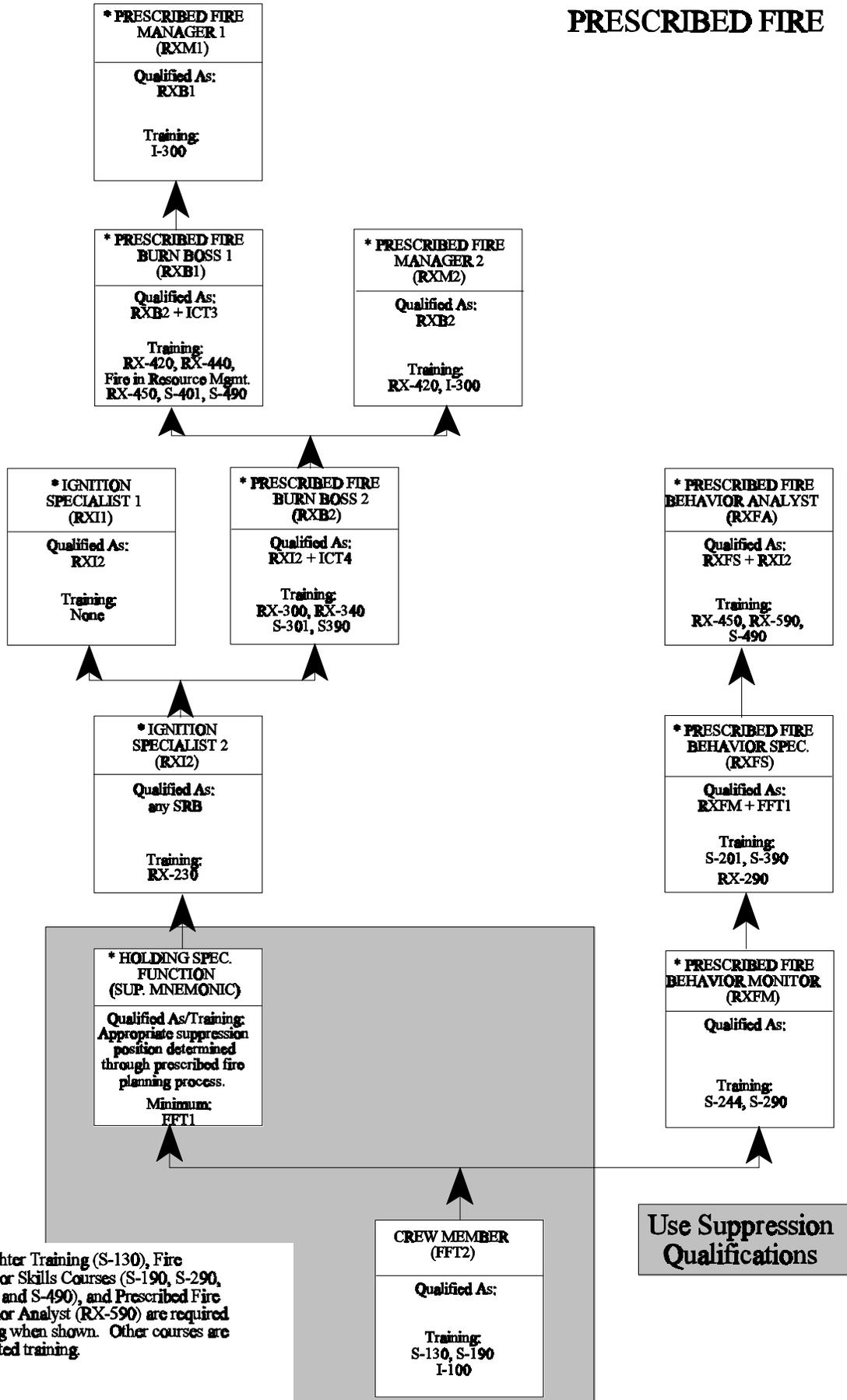
## KEY TO QUALIFICATION FLOW CHARTS

The charts in this appendix show the progression of qualification from one position to another within the system. These charts are not organization charts.

Each box within the charts contains information pertaining to prerequisite qualifications, training, and physical fitness and should be read as shown in the diagram below:



# PRESCRIBED FIRE



**NOTE:** Firefighter Training (S-130), Fire Behavior Skills Courses (S-190, S-290, S-390, and S-490), and Prescribed Fire Behavior Analyst (RX-590) are required training when shown. Other courses are suggested training.

APPENDIX B

PRESCRIBED FIRE TRAINING COURSES

## Prescribed Fire Courses

Rx-230	Ignition Specialist
Rx-290	Prescribed Fire Monitoring and Analysis
Rx-300	Prescribed Fire Burn Boss
Rx-340	Introduction to Fire Effects
Rx-420	Prescribed Fire Management
Rx-440	Applied Fire Effects
Rx-450	Smoke Management Techniques
Rx-590	Prescribed Fire Behavior Analyst

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