

# Prescribed Fire Implementation

## RX-301



NFES 1653

Student Workbook  
APRIL 2009



## CERTIFICATION STATEMENT

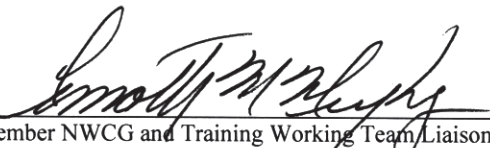
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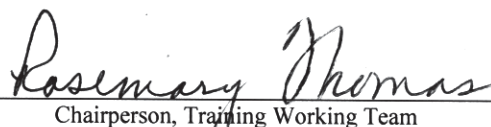
*The following training material attains the standards prescribed for courses developed under the interagency curriculum established and coordinated by the National Wildfire Coordinating Group. The instruction is certified for interagency use and is known as:*

Prescribed Fire Implementation, RX-301  
Certified at Level I

This product is part of an established NWCG curriculum. It meets the COURSE DEVELOPMENT AND FORMAT STANDARDS – Sixth Edition, 2003 and has received a technical review and a professional edit.

  
Member NWCG and Training Working Team Liaison

Date 4/7/2009

  
Chairperson, Training Working Team

Date 4/3/09

# **Prescribed Fire Implementation RX-301**

## **Student Workbook**

**APRIL 2009**  
**NFES 1653**

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Additional copies of this publication may be ordered from National Interagency Fire Center,  
ATTN: Great Basin Cache Supply Office, 3833 South Development Avenue, Boise, Idaho 83705.  
Order NFES 1653.

## **PREFACE**

Prescribed Fire Implementation, RX-301 is a recommended training course in the National Wildfire Coordinating Group (NWCG) wildland and prescribed fire curriculum. It was developed by an interagency group of experts with guidance from NWCG Training under authority of the NWCG. The primary participants in this development effort were:

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The NWCG appreciates the efforts of these personnel and all those who have contributed to the development of this training product.



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# Prescribed Fire Implementation, RX-301

## Unit 0 – Introduction

### OBJECTIVES:

During this unit the instructor will:

1. Introduce the cadre and students.
2. Discuss administrative concerns.
3. Discuss the course objective.
4. Identify course reference materials.
5. Explain student evaluation methods.





## I. INTRODUCTIONS

## II. ADMINISTRATIVE CONCERNS

## III. COURSE OBJECTIVE

To provide students with the information to successfully review a prescribed fire plan for technical accuracy and implement a prescribed fire.

## IV. COURSE REFERENCES

- Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (will be referred to as “The Guide” throughout the course)
- Incident Response Pocket Guide (IRPG), PMS 461
- Prescribed Fire Burn Boss Position Task Book
- Interagency Standards for Fire and Fire Aviation Operations (Red Book)

## V. MEASURING STUDENT PERFORMANCE

- There is a comprehensive final exam.
- Students will receive a general overview and a copy of the West Speers Loop Prescribed Fire Plan the evening prior to the examination.
- Students are expected to review the plan for technical accuracy and come to class the next day prepared to ask questions.
- Exam questions are based on the information contained in the plan and events dealing with implementation.
- The prescribed fire plan may be referenced during the exam.
- Students must receive a passing score of 70% or higher on the exam to receive a certificate of completion for the course.



## Prescribed Fire Implementation, RX-301

### Unit 1 – Pre-Course Material Review

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Identify pre-course work objectives.
2. Review pre-course work assignment.



## I. PRE-COURSE WORK OBJECTIVES

- Review and be prepared to discuss interagency policy, agency specific policy, and unit planning documents that permit the use of prescribed fires as a management tool.
- Demonstrate the ability to interpret and validate BehavePlus outputs as they apply to prescribed fire plan objectives and prescription.
- Demonstrate knowledge of ignition, holding, and monitoring skills necessary to implement a prescribed fire.
- Identify all required prescribed fire plan elements per national policy.

## II. REVIEW PRE-COURSE WORK

- We will discuss common errors and address any questions.



## Prescribed Fire Implementation, RX-301

### Unit 2 – Operational Leadership in Prescribed Fire

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Identify leadership positions in the prescribed fire organization.
2. Discuss organizational structure as it applies to prescribed fire.
3. Identify effective communication and leadership skills of the prescribed fire burn boss.





## I. LEADERSHIP POSITIONS

### A. Agency Administrator (Line Officer)

1. Project approval and general oversight.
2. The Agency Administrator is defined as the line officer or designee.

### B. Prescribed Fire Burn Boss (RXB)

1. Responsible for implementing the prescribed fire plan.
2. Responsible to the Agency Administrator, prescribed fire manager, or fire management officer/local fire management organization.

### C. Firing Boss

1. Responsible for supervising and directing ground and aerial ignition operations.
2. The firing boss reports to the RXB.

### D. Holding Specialist

1. Responsible for supervising and directing holding resources.
2. The supervisory position in charge of the holding forces reports to the RXB.

### E. Fire Management Officer (FMO)

Responsible for fire program management activities on the unit.

F. Prescribed Fire Manager

May be assigned during periods when multiple simultaneous prescribed fires are being conducted on the same unit.

G. Fire Effect Monitor (FEMO)

Responsible for collecting onsite weather, fire behavior, and fire effects information needed to assess whether the fire is achieving established resources management objectives.

## II. IDENTIFY CHAIN OF COMMAND

Prescribed fire organizations are similar to the Incident Command System (ICS).

- The organization provides flexibility based on complexity.
- The organizations flexibility helps maintain span of control.

Why might the complexity of the burn not be directly related to the organizational structure of the burn?

For example, burning piles (low complexity) in the urban interface may prompt you to have a Prescribed Fire Burn Boss Type 2 (RXB2) with a small organizational structure.

What is the recommended ratio to maintain span of control?

Why is it important for the RXB to maintain the chain of command and span of control?

What flexibility does the RXB have in regards to changing the prescribed fire plan to meet their span of control needs? Who needs to know about these changes?

### III. COMMUNICATION AND LEADERSHIP SKILLS

#### A. Leadership

##### 1. Directing

Use a directing leadership style to tell people what you want done, how you want it done, and when you want it done.

##### 2. Participating

Use a participating leadership style to facilitate burn operations. Ask for recommendations and information, but you still make the decision.

##### 3. Delegating

Use a delegating leadership style when you delegate problem solving and decisionmaking to burn personnel.

What factors may influence the type of leadership style an RXB may need to use?

For leadership information and available courses go to:  
[www.fireleadership.gov](http://www.fireleadership.gov)

## B. Communication

### 1. Pre-burn communication

- Agency Administrator
- Cooperators
- Resource staff
- Public Information Officer
- Impacted local population

Why is pre-burn communication important for leadership?

What type of information may need to be communicated pre-burn?

- Concerns (what types?)
- Checklist (what should be on it?)

Where would you find a list of items that need to be addressed and communicated?

## 2. Operational communication

Briefing and directing project personnel within the chain of command.

What dictates the topics and content delivered in a prescribed fire briefing?

Should an RXB use the briefing format found in the IRPG?

## 3. Post-burn communication

- After Action Review (AAR)
- Documentation
- Reporting
- Impacted local population

Is an AAR required on all prescribed fires?

Does it need to be documented?

Why is an AAR important for leadership?

Where do you find the documentation and reporting requirements for each specific prescribed fire?

## **EXERCISE: Osceola Ranger District Review - Impassable Bay Case Study**

Read pages 1 – 8 of the case study. Each group will be assigned one additional reading assignment:

- Planning (pages 8 – 13)
- Implementation (pages 13 – 17)
- Safety (pages 17 – 18)

Identify positive and negative examples of leadership and communication for your assigned section. Write your findings on a flip chart and present them to the class.

## Prescribed Fire Implementation, RX-301

### Unit 3 – Liability

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Discuss the liability of private, county, and state agencies/employees who conduct prescribed fires.
2. Discuss liability of the federal government under the Federal Employees Tort Claims Act (amended 1988), for the actions of its employees who conduct prescribed fires.





## **EXERCISE: Lowden Ranch Prescribed Fire Case Study**

1. Read the Executive Summary (pages 6 – 7).
2. Read the Overview (pages 11 – 17).
3. Read the Performance Findings for the Agency Administrator, Fire Management Officer, and the Burn Boss (pages 18 – 20).
4. Read the prescribed fire plan review findings (pages 25 – 34).

### **End of Exercise.**

## **I. LIABILITY OF PRIVATE, COUNTY, AND STATE AGENCIES**

### **A. Controlling Law**

The laws and regulations of the state in which the prescribed burn occurs will govern liability.

Legal action against a local, county, or state agency (for damages resulting from an escaped fire) will likely be a tort claim based on negligence.

Negligence may be based on acts or omissions. The elements of a negligent action are:

#### **1. Duty**

It is the duty of every person to use reasonable care to avoid injury to another person (i.e., plaintiff) in any situation in which one could reasonably foresee that the failure to use such care may result in injury.

Duty creates a standard of care or obligation to behave in a certain manner.

## 2. Breach of duty

Refers to an examination of whether the defendant's (local, county, or state agency) conduct conformed to the standard of care.

The question asked is whether a reasonable person confronted with the same circumstances would have acted as the defendant did?

If yes, then the defendant did not breach the duty of care. If no, then defendant did breach the standard of care.

Note: The definition of a "reasonable person" is a hypothetical individual who exercises an ordinary degree of reason, prudence, care, foresight, or intelligence whose conduct, conclusion, or expectation in relation to a particular circumstance or fact is used as an objective standard.

## 3. Causation

To be liable, the defendant's negligent act or omission must be a "substantial factor" in causing injury to the plaintiff.

## 4. Injury or damages

Damages must be shown (no damages, no recovery).

Types of damages:

- a. Property damages: The measure of value is generally the difference in value of the property before and after the negligent act. Damages may include lost profits. See McKay v. State of California, 8 Cal. App. 4th 937 (1992).
- b. Personal injuries: Damages are recoverable for medical costs, lost wages, and pain and suffering.

**Example of Negligent Action:** The RXB has a duty to use reasonable care in carrying out the prescription set forth in the prescribed burn plan. The RXB breached this duty by failing to consider the weather forecast, which predicted warming temperatures and high, gusting winds. Causation was established as this breach of duty was a substantial factor to the damage caused to plaintiff's property resulting from the escaped fire. Plaintiff proves damages in the amount of \$50,000 to his property.

B. Violation of a State Statute

Where the conduct of defendant which injures plaintiff also violates a state statute (depending upon the jurisdiction and nature of the statute), defendant may be conclusively presumed to have breached his duty.

The traditional terminology for conduct which violates a state statute is "negligence per se."

A lawsuit based on negligence "per se" can be difficult to defend and the only issue may be the amount of damages to be awarded.

To avoid a lawsuit based on negligence "per se", it is essential that the RXB be familiar with any state statute governing prescribed burning.

**Example:** State "A" has a statute requiring in part that a spot weather forecast be obtained before implementing a prescribed burn. The burn boss implements the burn under prescription, but fails to get a spot weather forecast. Plaintiff is injured in a car accident. Plaintiff claims that smoke from the burn was a contributing factor as it drifted across the highway causing poor visibility. The argument could be made that the RXB was negligent "per se" for violating a state statute, even if all weather conditions were within prescription.

Two examples of state statutes affecting prescribed burning:

1. General Liability Statutes: These statutes impose liability for damages caused by willful or negligent actions during the prescribed burn.

**Example:** California Health and Safety Code section 13007 provides: Any person who personally or through another willfully, negligently, or in violation of law, sets fire to, allows fire to be set to, or allows a fire kindled or attended by him to escape to, the property of another, whether privately or publicly owned, is liable to the owner of such property for any damages to the property caused by the fire.

2. Strict Liability Statutes: Some states have adopted statutes of strict liability governing open burning. As such, the party or agency will be held liable regardless of fault for any fire which escapes off their property and causes personal injury or damage.

**Example:** Montana Code Ann. Section 50-63-103 (1991) provides: Any person who shall upon any land within this state, whether on his or on another's land, set or leave any fire that shall spread and damage or destroy property of any kind not his own shall be liable for all damages caused thereby, and any owner of property damaged or destroyed by such fire may maintain a civil suit for the purpose of recovering such damages. Any person who shall upon any land within this state, whether on his own or on another's land, set or leave any fire which threatens to spread and damage or destroy property shall be liable for all costs and expenses incurred by the State of Montana, by any forestry association, or by any person extinguishing or preventing the spread of such fire.

## C. Liability Regarding Independent Contractors

### 1. Independent contractor vs. employee

Independent contractors are not controlled by those that employ their services.

The independent contractor contracts with the employer regarding the results to be accomplished, not regarding the manner or procedure for accomplishing and completing the work.

By contrast, an employee works under the control of the employer.

The general rule under tort law is that the landowner is not liable for the negligent actions of an independent contractor, because the landowner has no right to control the activity of the contractor.

By contrast, the landowner is responsible for damages caused by the negligent actions of its employees.

### 2. Midyette v. Madison 541 So.2d 1315, (1989)

Florida Supreme Court ruled that the use of prescribed fire was an “inherently dangerous activity.”

This ruling provided an exception to the general rule under tort law regarding independent contractors as discussed above.

As such, the Midyette ruling:

- a. Imposed a nondelegable duty on the landowner to take proper precautions to prevent harm to third parties by the actions of independent contractors.

- b. Breach of the duty to take proper precautions renders the landowner negligent and liable. Liability caused by the negligence of the independent contractor is imputed to the landowner.
- c. Applies even if the landowner did not know, but should have known that the independent contractor was acting negligently.
- d. If not prepared (time and resources) to ensure that the independent contractor will not act negligently, it would be best to cancel or postpone the prescribed burn.
- e. To avoid the potential legal consequences of the Midyette ruling and the chilling effect it could have on implementing prescribed fire, at least seven Southeast states (Mississippi, Florida, Georgia, South Carolina, Alabama, Louisiana, Virginia) have passed state statutes setting forth negligence as the measuring stick for liability. By so doing, it is yet to be seen how these statutes will hold up under court scrutiny.

## II. LIABILITY OF THE UNITED STATES AND FEDERAL EMPLOYEES

Pre-1946, the general rule was that the Doctrine of Sovereign Immunity prevented persons from suing the government.

In 1946, the Federal Tort Claims Act (FTCA) was enacted (amended 1988). The FTCA is a broad congressional authorization permitting lawsuits against the United States “for injury or loss of property, or personal injury or death caused by the negligent or wrongful act or omission of any employee of the Government while acting within the scope of employment, under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act occurred.”

- A. 28 U.S.C. Section 1346(b): The purpose of the FTCA was to treat the United States like a private, not public person (see Rayonier, Inc. v. United States, 353 U.S. 315, 317 (1957)).

Therefore, the United States waives its sovereign immunity under limited circumstances and may be held liable for:

1. Negligent and wrongful acts.
2. For employees acting within the scope of their employment.
3. To the same extent as if the United States was a private person.
4. According to the law of the place where the act occurred.

B. FTCA, Element 1 - Negligent and Wrongful Acts

To prevail, the suing party must prove the responsible government employee (i.e., RXB) was negligent or acted in a reckless manner.

The RXB may be negligent for acts of commission and omission.

1. Commission - Directs acts by the RXB.
2. Omission - Acts the RXB should have taken but did not, that a reasonable, prudent RXB in like or similar circumstances would have.

C. FTCA, Element 2 - Acting Within Scope of Employment

When either the United States or the government employee is sued for negligence, a factual determination must be made as to whether the employee was acting within the scope of employment when the injury claimed by the plaintiff occurred.

The effect of the FTCA is to afford greater protection to federal employees from lawsuits based on negligent acts or omissions performed within the scope of employment. The Act allows the federal government to substitute itself as the party defendant.



Upon certification by the U.S. Attorney General that the RXB was acting within the scope of employment, the U.S. will be substituted as the defendant and such proceedings will be moved to federal court if originally filed in state court.

An employee may be named in a lawsuit even though he/she may not ultimately be held liable for damages. The exception is the violation of a constitutional right or an intentional tort. If an employee is ever named in a lawsuit for an action arising out of work performed for their agency, and/or subpoenaed, they need to immediately follow agency protocol for notification of their agency's attorney.

D. FTCA, Element 3 - To the Same Extent as if the United States were a Private Person

In the state where the injury occurred, if a private person could be held negligent in the starting and/or the control of a prescribed fire, then the United States may also be so held.

**Example:** Anderson v. U.S. 55 F.3d 1379 (9<sup>th</sup> Cir. 1995). In this case, the U.S. Forest Service (USFS) and the California Department of Forestry conducted a prescribed burn in the Cleveland National Forest. The next eight days, the fire burned within its perimeter. Sometime after the eighth day, the USFS lost control of the fire. The fire escaped from the national forest and destroyed property and homes in the Bedford Canyon area, near the City of Corona, in Riverside County, California. Anderson, who suffered damage, brought suit against the USFS in the amount of \$11,500,000. The district court granted summary judgment to the United States on the theory that a private person would not be liable for their negligence. Thus, it reasoned, the United States was not liable either. The plaintiff appealed. The United States Court of Appeals (9th Cir.) found that under California Health & Safety Code sections 13007 and 13008, California law imposes liability on private landowners when they negligently set or fail to control fires on their property and injury results to others. As such, the Court held that as private landowners could be held liable, so could the United States. The case was reversed and remanded.

E. FTCA, Element 4 - According to the Law of the Place Where the Act Occurred

Liability is to be determined with reference to the laws of the state where the act or omission occurred (federal courts apply state law under the FTCA).

For example, the State of Florida and other southern states have adopted laws and regulations governing open burning. If a prescribed fire occurring on federally managed lands within the State of Florida escapes, then the laws and regulations from the State of Florida would govern and be applied by the federal court.

This places the responsibility on the RXB who may develop and implement prescribed burns in several states, to be knowledgeable of state laws and regulations within the state for which they will be conducting prescribed burns.

F. Exceptions to Waiver of Liability Under the FTCA. See 28 U.S.C. Section 2680:

1. Due Care Used 28 U.S.C. Section 2680(a) provides that the government is not liable for any claim based upon an act or omission of an employee of the government, who was exercising due care in the execution of a statute or regulation.

This applies whether or not such statute or regulation is invalidated later. In other words, if the RXB is using due care in carrying out the law, and you are not negligent, then no liability exists even if the law is later determined to be invalid.

2. Discretionary Function Exception 28 U.S.C. Section 2680(a). While the FTCA provides that the United States is liable for torts in the same manner and to the same extent as private individuals, 28 U.S.C. Section 2674, of the Act carves out an exception, and thus retains government immunity for performances of discretionary functions or duties.

This “discretionary function” provides that the government is not liable for “any claim based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.” 28 U.S.C. Section 2680(a). cited from Arizona Maintenance Co. v. U.S. 864 F.2d at 1499.

The Supreme Court, in describing Congress’ overall purpose, has thus said that the discretionary function exception “marks the boundary between Congress’ willingness to impose tort liability upon the United States and its desire to protect certain activities from exposure to suit by private individuals.” Berkovitz v. United States, 108 S. Ct. at 1958.

In application, the discretionary function exception is an affirmative defense available only to the government to dismiss lawsuits brought by private individuals under certain circumstances, even if the government action could be deemed negligent.

The court applies a two step process for determining whether the discretionary function exception applies in a specific fact situation:

a. Step 1

Was the challenged act a matter of judgment or choice by the employee?

If the answer is no, then the discretionary function exception does not apply.

For example, where the employee must specifically adhere to a course of action set forth in a federal statute, regulation or policy, there is no employee discretion.

If there is employee discretion, then the court applies the second step.

b. Step 2

Whether the exercise of that discretion is the kind the discretionary function exception was designed to shield, that is whether it is one grounded in “social, economic, and political policy.” Berkovitz, 108 S. CT. at 1959.

**Example:** Thune v. United States, 872 F. Supp. 921 (D. Wyoming. 1995). In 1989, the USFS, the Wyoming Game and Fish Department, and the Rocky Mountain Elk Foundation formed a plan to improve a cooperative wildlife habitat that targeted the elk population in the Bridger-Teton National Forest.

Part of this plan called for prescribed fire to reduce sagebrush to increase herbaceous forage production for the elk. On October 14, 1991, the USFS initiated a prescribed burn after receiving a favorable forecast. On October 15, 1991, fire was found still burning and was monitored.

After wind and weather changes at or about 2:30 p.m., the fire was declared a wildfire and full suppression efforts ordered. A Type 2 team took over suppression responsibility sometime prior to October 16, 1991. On October 16, the weather brought 40-50 mph winds and the incident commander (IC) ordered the area to be evacuated. At this time, Thune was working as a guide for game hunters under a license from the USFS.

Mr. Thune had left much of his equipment at his base camp, which was destroyed by the fire in the late afternoon of October 16. A Type 1 team took over the containment efforts and after several more days the "Dry Cottonwood Fire" as it became known, was finally stopped by a snow storm. A fire that was expected to burn 300 acres burned a total of 7,100 acres.

Thune filed an administrative claim for \$43,609.62, the amount he claimed he lost due to the fire. The U.S. denied the claim and Thune subsequently sued claiming damages for negligence in starting the fire and failing to contain it early.

In its answer, the U.S. argued the claim was barred by the discretionary function exception to the FTCA. In determining whether the discretionary function exception was applicable, the court applied the two step test.

First, was the challenged action a matter of judgment or choice by the employee? The court reasoned that the decision to proceed with the burn was based on many factors. The RXB had to consider the temperature, the wind, the weather forecast, the season and other considerations, including the broad policy behind the burns.

Although burn plans had been developed, the ultimate decision of whether the burn should proceed was based on the judgment of the RXB. Similarly, the RXB and ultimately the Type 2 and Type 1 ICs used their judgment and experience in fighting the Dry Cottonwood fire.

The court stated that these kinds of judgments are exactly what the Supreme Court had in mind when it cautioned against "judicial second guessing." The court further explained that as "the protector of public lands the federal government and agents of the United States are entrusted with many discretionary decisions and these actions should not be hampered by hindsight judgments by judges and juries."

As the court determined that the challenged action was a judgment of choice, the court then applied the second step of the test. Was the conduct based on considerations of public policy?

The court ruled the prescribed burn was implemented in furtherance of a policy of the USFS and the Wyoming Game and Fish Department to increase the population of elk. Therefore, the conduct of the RXB in starting the fire was clearly based on the considerations of public policy.

Thus, the court therefore granted the government's motion for Summary Judgment and dismissed plaintiff's claims for lack of subject matter jurisdiction.

### III. WHAT DOES THIS MEAN TO THE PRESCRIBED FIRE BURN BOSS?

#### A. Liability to Private, County, and State Agencies

##### 1. Employer – Employee

The general rule is that the employer is liable for injuries caused by the negligence or strict liability activities of employees as long as the tortious acts occur within the scope of the employment.

##### 2. Scope of employment

Acts which are so closely connected with what the employee was hired to do and so fairly and reasonably incidental to it that they may be regarded as methods, even though quite improper ones, of carrying out the objectives of the employment, are “within the scope of employment.”

#### B. Personal Liability – Private, County and State Employees

If damage occurs to a third party, due in part to the negligence of the RXB, can the RXB be held personally liable?

Many state and county agencies have indemnification provisions to protect their employees from personal liability.

However, private, county and state employees need to check their own agency/state regulations and laws to see if they would be indemnified should they be named as a party in a lawsuit.

Questions to ask (their employer):

1. Would I be indemnified (supported) by my agency should it be determined that I was negligent in the administration of a prescribed burn?
2. Do I hire my own attorney or is one appointed to represent me?
3. If one is appointed for me, who does the attorney work for (employee or state)?
4. How are conflicts of interest handled? Are you appointed separate legal counsel in case of potential conflict of interest between your legal interest and those of your agency?
5. If you don't like the job your attorney is doing, can you replace the attorney?
6. Do I have to pay any legal costs out of my own pocket?

#### C. Liability to Federal Government

##### 1. Employer – Employee

Liability is governed by the FTCA. The Act makes the federal government, as opposed to the federal employee, the party defendant in such cases.

The FTCA provides with limited exception, immunity to federal employees from personal liability for common law torts by making the FTCA the exclusive remedy for injury to, or loss of property, death, or personal injury caused by the negligent or wrongful acts or omission of a federal employee acting within the scope of his/her employment.

## 2. Case law

Are there any published cases where the burn boss has been held to be personally liable for a negligent act?

No. However, consider the following analogy where a legal argument could be made for personal liability:

Federal employees are commonly warned not to make a detour in a government vehicle, especially to conduct some action outside of any authorized duties.

The rationale is to avoid a situation where the employee may be found to have acted outside the scope of employment and not be covered by the FTCA.

By applying this analogy, could an RXB be held to have acted outside the scope of employment if he/she knowingly burns outside the authorized burn prescription?

There would be many variables in making such a determination, but most likely the RXB would be covered by the FTCA.

The analogy gets more complicated if the RXB knowingly and intentionally ignites an area that is outside the planned burn perimeter and not covered by the authorized burn plan.

The rationale being that this was a totally unauthorized action outside the scope of the employee's duties.

From discussions with attorneys in the Office of Regional Solicitor in Montana and The Office of General Counsel in Utah, it is their opinion that the RXB would not be held personally liable under this fact pattern. However, they stress there are no absolutes.



Although there may not be definitive answers to such hypothetical situations, the RXB can avoid risking possible denial of certification by the Attorney General with corresponding personal liability, by following the parameters of an approved prescribed burn plan.

If the prescribed fire burn boss has an issue with any components of the burn plan, then this must be resolved and documented prior to implementation.

3. Manager's liability

Although there is no current case law in regards to personal liability of managers in implementing prescribed burns, all federal managers should be cautioned against assigning duties to employees who are not physically capable of carrying out orders, or not properly trained and qualified to agency requirements.

4. Independent contractors

General rule: the government is not liable for the negligent acts of independent contractors.

Although the Court in Midyette found prescribed burning to be an "ultra hazardous activity," the negligent acts of the independent contractor are not imputed to the federal government (as they are for private, county, and state agencies).

It must be shown that the federal government was negligent; it either gained knowledge of the dangerous situation and failed to halt or remove the danger, or should have known about the danger.

If the federal agency is not prepared to ensure the independent contractor will not act negligently, then it would be in the best interest of the government to cancel or postpone the prescribed burn.

## 5. Documentation

Documentation is key to any legal defense in court and critical to justifying your actions.

One of the consistent mistakes made by the RXB is the lack of documentation as to the decisions made and why.

Throughout the planning and implementation process, the RXB needs to clearly document all decisions and actions taken.

At a minimum, the burn boss should document the following:

- Unit log describing and documenting who was there, what was done, when and why it was done, etc.
- All required checklists in prescribed fire plan filled out.
- Weather and fire behavior observation and forecasts.
- Pre-burn work documentation.

During pre-burn preparation, document conversations with resource specialist, supervisor(s), the public, and other federal, state and local agencies.

Without documentation, it is unlikely that two, three, or four years later you will recall the steps, actions, and decisions made which will justify your actions.

Stating that you "think you did it" or "I usually do that" or "it is my practice to so do it" will not be convincing to a judge/jury.



# **LEGAL ASPECTS OF PRESCRIBED BURNING**

by

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## INTRODUCTION

For forest management reasons, the private and industrial landowner may find prescribed burning to be a desirable silvicultural practice. But, what are the legal ramifications? Prescribed burning may be legally or illegally performed and may subject the landowner to almost unlimited civil liability and possibly criminal sanctions. Before engaging in prescribed burning activities, the responsible party should be acquainted with essential legal requirements as well as his potential liability toward third persons.

## COMPLIANCE WITH THE MISSISSIPPI AIR AND WATER POLLUTION CONTROL LAW

### A. The Mississippi Air and Water pollution Control Commission

The Mississippi Air and Water Pollution Control Law, passed in 1966 by the Mississippi legislature<sup>1</sup>, was prompted by the passage of numerous Federal acts which dealt with the pollution of the nation's air and water. This law created and established the Mississippi Air and Water Pollution Control Commission composed of 11 members appointed to serve staggered terms. The Commission is an administrative agency charged with the responsibility for general supervision of the administration and enforcement of the Mississippi Air and Water Pollution Control Law. It also has the authority to promulgate rules, regulation and orders necessary for the administration and enforcement of the law<sup>2</sup>.

### B. Prescribed Burning Regulations

Section 3.7, Reg. APC-S-1, deals with open burning of all types. This regulation prohibits the production or emission of dense smoke and the burning of commercial or industrial waste. However, an exception is granted for fires intentionally set for recognized forestry practices provided certain prerequisites are met.

The first prerequisite requires permission to burn to be obtained from the Mississippi Forestry Commission. Permission is acquired when the landowner contacts the County Forester. Information elicited usually includes the time, date and place of burning, a description of the area to be burned, and the method of burning. Permission may be oral or written. If the County Forester or his representative approves, a burning permit number will be issued to the requesting party.

The second requirement is the burning must occur between one hour after sunrise and one hour before sunset. Burning may be permitted at other times if the Mississippi Forestry Commission determines there is reasonable assurance that atmospheric and meteorological conditions in the area of the burning will allow good diffusion of air pollutants.

The third condition deals with starter or auxiliary fuels. Such fuels used in prescribed burning may consist of dried vegetation or of petroleum derived fuels of the gasoline, kerosene or fuel oil types, or a combination of these fuel types. Starter or auxiliary fuels which cause excessive visible emission, such as rubber tires, etc., are prohibited<sup>3</sup>.

### C. Sanctions for Violation of regulations

Compliance with regulations issued by the Mississippi Air and Water Pollution Control commission is mandatory. Any person found by the commission of violating any of the provisions of the act, or any rule, regulation, written order of the commission, or any condition or limitation of a permit is subject to a penalty of not less than \$50 and not more than \$5,000 for each violation<sup>4</sup>. No one is subject to the penalty unless a hearing is first conducted and the penalty is assessed and levied by the commission. Appeals from the imposition of a penalty may be taken to the Chancery Court. Each day a violation occurs is deemed to be a separate and additional violation. Other judicial remedies, such as injunctions, may also be utilized by the Commission<sup>5</sup>.

In addition to the monetary penalty and other judicial remedies, a violator whose unlawful acts cause the death of fish or wildlife is liable to the state for an amount equal to the sum of money reasonably necessary to restock waters or replenish wildlife. Such additional amount may be recovered by the Commission on behalf of the state in a civil action.

## LIABILITY OF INDIVIDUAL ENGAGED IN PRESCRIBED BURNING ACTIVITIES

### A. Statutory Law on Negligent Burning Activities

The Mississippi statute provides,

"If any person shall set on fire any lands of another, or shall wantonly, negligently, or carelessly allow any fire to get into the lands of another, he shall be liable to the person injured thereby, not only for the injury to or destruction of buildings, fences, and like, but for the burning an injury of trees, timber, and grass, and damage to the range as well; and shall moreover be liable to a penalty of \$150 in favor of the owner."<sup>(7)</sup>

### B. Negligence

The individual who engages in prescribed burning operations is held to the legal standard of the reasonable prudent man. If a person acts as a reasonable prudent man would act under the circumstances, then he is not negligent and is not held pecuniarily liable for his actions. However, if the conduct of a person falls below that of the reasonable prudent man, then he is negligent and liable to the injured party for damages resulting from such negligence.

In determining what conduct is or is not negligent, the nature of the conduct will be analyzed. The jury, as the ultimate finder of fact, will decide whether or not the conduct is negligent. Reasonableness of the conduct in light of all the surrounding circumstances will be determined. Put another way, a person is not negligent if he has exercised ordinary care and caution in his conduct<sup>8</sup>. It is often difficult to determine what conduct is negligent.

### C. Selected Mississippi Cases

In the case of Wofford vs. Johnson<sup>9</sup>, Holliday, an employee of the defendant Johnson, using a bulldozer pushed up several piles of brush and set one pile on fire at 3:00 p.m. on March 23, 1964. The pile was approximately 30 feet in diameter and about 152 feet from the woods on Johnson's land. The burning pile and woods were separated by a stretch of green rye grass. The fire was not checked that night. The next morning Holliday observed Johnson's woods burning but made no effort to control the fire. Johnson was informed of the fire but made no effort to control it. The fire spread to Wofford's property where it burned over 682 acres causing extensive damage. The weather conditions for that time of the year were very dry.

The court, finding for the plaintiff Wofford, held that when an owner of property or his employee sets a fire on his own property for a lawful purpose, he is not liable for damage caused by the spread of the fire to the property of another unless he was negligent in starting or controlling the fire. The court found that the measure of diligence required was ordinary care. Ordinary care was defined as such care, caution and diligence as a prudent and reasonable man would exercise under the circumstances to prevent damage to others. Such care must be used in setting the fire and in keeping it or preventing its spread. The duty of ordinary care is commensurate with the danger reasonably to be anticipated and is dependent on circumstances in the particular case<sup>10</sup>.

In Robinson vs. Turfit<sup>11</sup>, the court stated that the gist of fire trespass was negligence. In determining what action is negligence, the court held that many factors must be considered. Some of these factors include conditions and circumstances surrounding the guarding of the fire to prevent its spread; the number and magnitude of the fires; the condition of the soil and amount of litter; the state of the weather; the direction and force of the wind; and relative situation and exposure of the property of the plaintiff. Other factors to consider would be the type of fuel in the fire, the number of firefighters available, and the type and amount of equipment available for controlling the fire.

In Wilson vs. Yazoo and M.V.R. Co.<sup>13</sup>, the court held that in addition to actual damages caused by the negligence of the defendant, the plaintiff was also entitled to recover the statutory penalty of \$150.

#### Statutory Law on Grossly Negligent Burning Activities The Mississippi Statute states,

"....Provided, however, if any person recklessly or with gross negligence causes fire to be communicated to any woods, meadow, marsh, field or prairie, not his own, he shall be guilty of a misdemeanor and shall, on conviction, be fined not less than \$20 nor more than \$500, or imprisoned in the county jail not more than three months, or both, in the discretion of the court."<sup>14</sup>

#### D. Gross Negligence

Gross negligence is the lack of even slight care. Here, the conduct of the individual falls far below the conduct of the reasonable prudent man<sup>15</sup>. Gross negligence may also be defined as "the intentional failure to perform a manifest duty in reckless disregard of the consequences as affecting the life or property of another."<sup>16</sup>

One found grossly negligent in conducting his burning activities will be held liable for any damages caused by his gross negligence. He is also subject to criminal prosecution for a misdemeanor.

#### LEGAL RELATIONSHIP BETWEEN EMPLOYER AND EMPLOYEE

The landowner or person engaging in burning activities must be aware that sometimes acts of his employees may subject him to vicarious liability. Vicarious liability is the liability of one individual, without any wrongful conduct on his part, for the wrong of another. Under the doctrine of "respondeat superior", the employer is liable for the negligent acts of his employee, if such negligent acts occurred while the employee was acting within the scope of his employment. An employee is a person employed to render services to an employer. The employer retains the right to control the employee in the method of rendering services.

The essential feature of the employer/employee relationship is that the employer has the right to control the physical activities of the employee, as well as the manner of accomplishment of the employment duties. Scope of employment means the work the employee is engaged in is the type he was hired to perform during the hours he was hired to perform it in<sup>17</sup>. Thus, the landowner, whose employees are negligent in conducting prescribed burning activities, may be held vicariously liable for the negligent acts of his employees, if such employees were acting within the scope of their employment when the negligence occurred.

The doctrine of "respondeat superior" and its application to burning activities is well illustrated in Gloster Lumber Company vs. Wilkerson<sup>18</sup>. In this case, employees of Gloster Lumber Company were burning a tract of land. The fire crossed over onto the land of the plaintiff and burned over 50 acres. The employees of Gloster Lumber Company were found negligent in their control of the fire, and as a consequence the employer, Gloster Lumber Company, was held vicariously liable for the damages caused by their negligence. The court also held their negligent employees liable<sup>19</sup>.

It is also worthy to note that an employer cannot protect himself from liability by imposing safety rules on his employees or by giving his employees specific and detailed orders to proceed with their work in a careful manner.

The doctrine of "respondeat superior" is not limited to negligent torts. The employer may be held liable for intentional torts of the employee when the intentional torts are reasonably connected with the employment, and are within the scope of employment<sup>20</sup>.

#### THE INDEPENDENT CONTRACTOR

An employee is differentiated from an independent contractor in that, although the independent contractor works for the employer, the latter has no right to control the contractor in the method or mode of accomplishing the work. The independent contractor contracts with the employer only regarding the results to be completed - not regarding the manner or procedure for accomplishment of the work.

The independent contractor is usually paid a negotiated sum for the entire job, while the employee is paid an hourly wage. Although the completed job must conform to certain specifications, the method of performance is entirely within the discretion of the contractor. Also, the independent contractor usually possesses a higher degree of skill or expertise that the employer does not have. While the independent contractor usually owns his own business and uses his own tools, the employee generally depends on the employer to furnish these things<sup>21</sup>.

The paramount purpose for distinguishing between the employee and the independent contractor is that the previously discussed doctrine of "respondeat superior" applies to the former but not the latter. Therefore, the employer will generally not be held liable for negligent or intentional wrongs committed by an independent contractor unless ultra-hazardous activities are engaged in. The courts have not defined prescribed burning as an ultra-hazardous activity. However, if the employer is negligent, the hiring of an independent contractor will not insulate him against liability. If the employer is negligent in choosing the contractor, or in giving him proper instructions or in failing to stop unnecessarily dangerous activities which he observes, the employer may be held liable for his own negligence<sup>22</sup>. Thus, while it is advantageous to employ independent contractors, there are limitations.



## METHODS FOR DECREASING CHANCES OF LIABILITY

Suing has become very popular. One only need to read a local newspaper to realize that suing is big business and will continue to be so. Judgments exceeding a million dollars are not uncommon. One engaged in almost any type of business should recognize that he can be sued, and if the suit is successful, perhaps be faced with financial disaster. Obviously, the best way of avoiding being sued, and possibly being held liable for damages, is to prevent situations from occurring which would expose one to liability.

The following suggestions are given to minimize liability situations for the landowner or other individuals engaged in prescribed burning practices:

- (1) Comply with the Air and Water Pollution Control Act.
- (2) Carry an adequate amount of public liability insurance.
- (3) Learn the law. One should study the various statutes, cases and regulations which directly or indirectly relate to prescribed burning operations.
- (4) Before engaging in burning activities, study the overall situation - the weather conditions, the amount of fuel, the number and experience of personnel, the amount and type of equipment, the size of the tract to be burned, the relative location of the tract, etc. Consider recommendations made by the Mississippi Forestry Commission.
- (5) Remember the reasonable prudent man standard. Realize that your activities may be closely scrutinized by a jury, and the jury may view the reasonable prudent man standard differently than you.
- (6) When employees are involved, ensure they are competent and understand their duties and responsibilities. Employ experienced personnel when feasible. Carry adequate amounts of workmen's compensation insurance.
- (7) Employ independent contractors when possible to avoid application of the "respondeat superior" doctrine. Insist that independent contractors carry an adequate amount of liability insurance and workman's compensation insurance.
- (8) If a claim arises, do not make any voluntary statements or admissions against interest. Seek the advice of counsel.

## SUMMARY

Firm answers to legal liability questions are difficult to find in prescribed burning activities. Precedent cases are few. The reasonable man standard is elusive of clear definition. Fact situations vary tremendously from one case to another. Although the courts have not expressly stated, the trend appears to be toward strict liability in prescribed burning activities. Perhaps there is truth in the old saying, "Fire and smoke are the responsibility of the burner - no matter where they go." Obviously, reasonable caution should be the watch word of the prescribed burner.

### Footnotes

<sup>1</sup>Miss. Code Ann., sec. 49-17-1 thru 49-17-43 (1972).

<sup>2</sup>Id., sec. 49-17-7 (1972).

<sup>3</sup>Miss. Air and Water Pollution Control Comm., Air Quality Regulations, Reg. AFC-S-1, sec. 3.7(a) (Jan. 1978).

<sup>4</sup>Miss. Code Ann., sec. 49-17-43 (1972).

<sup>5</sup>Id., sec 49-17-33 to 49-17-43 (1972).

<sup>6</sup>Id., sec. 49-17-43 (1972).

<sup>7</sup>Id., sec. 95-5-25 (1972).

<sup>8</sup>W. Prosser Handbook of the Law of Torts, sec. 31, at 124-6 (2nd ed. 1955) [hereinafter cited as Prosser].

<sup>9</sup>250 Miss. 1 (1964).

<sup>10</sup>Id. at 4.

<sup>11</sup>192 Miss. 160 (1942).

<sup>12</sup>Id. at 165.

<sup>13</sup>192 Miss. 424 (1942).

<sup>14</sup>Miss. Code Ann., sec. 97-17-13 (1972).

<sup>15</sup>Prosser, sec. 33, at 148.

<sup>16</sup>H. C. Black, Black's Law Dictionary, 1185 (4th ed. 1955).

<sup>17</sup>Prosser, sec. 33 at 148.

<sup>18</sup>118 Miss. 289 (1918).

<sup>19</sup>Id.

<sup>20</sup>Prosser, Wade and Schwartz, Torts, 682-2 (6th ed. 1976).

<sup>21</sup>W. Schantz, The American Legal Environment, 401-5 (1984).

<sup>22</sup>Prosser, Wade and Schwartz, *supra* note 20 at 687-8; Prosser, sec. 64 at 357-9.

MISSISSIPPI COOPERATIVE EXTENSION SERVICE  
Mississippi State University, United States Department of Agriculture, Counties Cooperating

## **Forest Resources**

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LIMITING LEGAL LIABILITY

UNDER THE

MISSISSIPPI PRESCRIBED BURNING ACT OF 1992

by

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LIMITING LEGAL LIABILITY

UNDER THE

MISSISSIPPI PRESCRIBED BURNING ACT OF 1992

## A. INTRODUCTION

Prescribed burning is one of the most cost-effective tools the landowner and professional forester have in forest management. It is often the cheapest, most effective means of vegetation control, wildlife habitat improvement, site preparation for regeneration, and wildfire prevention.

Yet, even with these advantages the use of prescribed burning is becoming more difficult. To a large degree this is due to landowner and practitioner concerns over liability exposure when using fire. In addition, the Smoke Management Regulations of the Clean Air Act have limited the number of acceptable burning days. This concern and the regulations have almost eliminated the use of prescribed fire in certain areas.

Because of this threat to the use of prescribed fire, a number of states have passed “Prescribed Burning Acts.” The Mississippi Legislature did so during the 1992 Session. This act, entitled the “Mississippi Prescribed Burning Act”, has codified prescribed burning as a landowner property right. It recognizes prescribed fire for its benefits to society, the environment, and the economy of Mississippi. In addition, it outlines the steps that the landowner and practitioner must follow to minimize their liability when using prescribed burning for forest management.

## B. THE NEW MISSISSIPPI STATUTE

The new Mississippi statute<sup>1</sup> on prescribed burning is divided into five sections. Each section addresses unique policy and legal issues.

Section One. This section provides the citation of the new law as the “Mississippi Prescribed Burning Act.”

Section Two. (1) The application of prescribed burning is a landowner property right and a land management tool that benefits the safety of the public, the environment and the economy of Mississippi. Pursuant thereto, the Legislature finds that:

(a) Prescribed burning reduces naturally occurring vegetative fuels within the wildland areas. Reduction of the fuel load reduces the risk and severity of major catastrophic wildfire, thereby reducing the threat of loss of life and property, particularly in urbanizing areas.

(b) Most of Mississippi’s natural communities require periodic fire for maintenance of their ecological integrity. Prescribed burning is essential to the perpetuation, restoration and management of many plant and animal communities. Significant loss of the state’s biological diversity will occur if fire is excluded from fire-dependent systems.

(c) Forest lands constitute significant economic, biological and aesthetic resources of statewide importance. Prescribed burning on forest land prepares sites for reforestation, removes undesirable competing vegetation, expedites nutrient cycling, and controls or eliminates certain forest pathogens.

(d) The state manages hundreds of thousands of acres of land for parks, wildlife management areas, forests and other public purposes. The use of prescribed burning for management of public lands is essential to maintain the specific resource values for which these lands were acquired.

(e) Proper training in the use of prescribed burning is necessary to ensure maximum benefits and protection for the public.

(f) As Mississippi's population continues to grow, pressures from liability issues and nuisance complaints inhibit the use of prescribed burning.

(2) It is the purpose of this act to authorize and promote the continued use of prescribed burning for ecological, silvicultural, and wildlife management purposes.

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COMMENTS:

Our new law recognizes prescribed burning as a landowner property right. This is a milestone, since prescribed burning has had no designation. The legislature has legally and morally placed its stamp of approval on prescribed burning activities. Prescribed burning has been acknowledged by legislative *fiat* for the benefits to society it achieves, namely, the safety of the public, the environment, and the economy of the state.

The statute verifies the importance of prescribed burning activities for the reduction of naturally occurring vegetative fuels, which if allowed to accumulate unchecked, could lead to catastrophic wildfires endangering life and property.

Of particular significance is the fact that our legislature recognizes the importance of biological diversity in the ecosystem of Mississippi. Ecological integrity is stressed with prescribed burning being essential to the perpetuation, restoration, and management of many plant and animal communities. Prescribed burning is viewed as being important to prepare forest lands for reforestation, for the removal of undesirable competing vegetation, for promoting nutrient cycling, and the control or elimination of forest pathogens.

To ensure maximum benefits and protection of society, proper training for those who use prescribed burning is necessary. Proper training is defined and discussed in Section Three.

As the population of the state grows and more pressure is placed on natural resources, more lawsuits are likely to occur from prescribed burning activities. These liability issues may inhibit the use of prescribed burning. A chilling effect on prescribed burning could occur. This act forthrightly states that its purpose is to authorize and promote the continued use of prescribed burning, but it also promotes its future use for ecological, silvicultural, and wildlife management purposes.

Section Three: "As used in this section unless the context requires otherwise:

(a) 'Prescribed burning' means controlled application of fire to naturally occurring vegetative fuels for ecological, silvicultural and wildlife management purposes under specified environmental conditions and the following of appropriate precautionary measures which cause the fire to be confined to a predetermined area and accomplishes the planned land management objectives.

(b) 'Certified prescribed burn manager' means an individual or county forester who successfully completes the certification program approved by the Mississippi Forestry Commission.

(c) 'Prescription' means a written plan for starting and controlling a prescribed burn to accomplish the ecological, silvicultural and wildlife management objectives."

### COMMENTS:

Now, everyone knows what prescribed burning means! This easily understood definition of prescribed burning clarifies the type of activities within which prescribed burning falls.

The Mississippi Forestry Commission has established a certification program for individuals desiring to become a “certified prescribed burn manager.” The requirements to attain certification prescribed burn manager status are as follows:

1. An individual must successfully complete all components of the Prescribed Burning Short Course sponsored by the Department of Forestry at Mississippi State University.

or

An individual must successfully complete a training course or courses comparable to the short course and pass a final exam developed for the short course. The qualifications of the instructors, the subject matter presented and the time allotted to each subject must be reviewed and approved by the Mississippi Forestry Commission.

2. Any individual who has successfully completed the prescribed burning short course presented in 1987 or later session will be considered a certified prescribed burn manager upon the March 1, 1993 effective date of the Mississippi Prescribed Burning Act. Individuals who successfully completed the short course prior to 1987 will be considered a certified prescribed burn manager if they complete or have completed training on smoke management (which included a screening system on managing smoke) and provide documentation of such training to the Forestry Commission.

or

Any individual that has successfully completed a training course prior to the March 1, 1993 effective date of the Prescribed Burning Act which the Forestry Commission approves as being comparable to the currently required short course.<sup>2</sup>

All materials for certification by means other than the MSU Prescribed Burning short course should be submitted to the Chief, Forest Protection Division of the Mississippi Forestry Commission.

Under the authority of the Act, the Mississippi Forestry Commission has promulgated guidelines for the prescribed burn prescription. The minimum requirements for information that a prescribed burn prescription will contain are as follows:

1. Personal information to include:
  - a. Name of property owner
  - b. Owner’s mailing address
  - c. Owner’s phone number
  - d. Same information (above) on the individual preparing the plan and/or executing the burn.
  - e. Date prescription was prepared

2. Stand Description to include:
  - a. County in which site is located
  - b. Location to 40#, section, township and range
  - c. Number of acres to be burned
  - d. Type and size of overstory
  - e. Type and size of understory
  - f. Fuel type
  - g. Topography
3. Management objective of the burn
4. Pre-burn information to include:
  - a. Estimate of needed manpower and equipment
  - b. Firing techniques to be used
  - c. List of areas around site that could be adversely impacted by smoke from the burn.\*  
\*As delineated by the smoke management screening system contained in "Voluntary Smoke Management Guidelines for Mississippi," a Mississippi Forestry Commission publication, or "A Guide to Prescribed Fire in Southern forests," U.S. Forest Service Technical Publication R8-TP11.
5. Range of Desired Weather to include:
  - a. Surface wind speed and direction
  - b. Minimum and maximum relative humidity
  - c. Maximum temperature
  - d. Transport windspeed
  - e. Mixing height
  - f. Stagnation Index

The above information must be prepared before carrying out a prescribed burn and the date must be documented by having the plan notarized prior to the day of the burn.

In addition, the Mississippi Forestry Commission guidelines require that on the day of the burn the following information must be recorded on the written prescriptions:

1. Burning permit number and
2. Time of the day the permit is in effect.<sup>3</sup>

The above criteria for certification of prescribed burn managers and the minimum requirements for information that a prescribed burn prescription will contain are mandatory and carry the force of law behind them.

Section Four. “(1) No property owner or his agent, conducting a prescribed burn pursuant to the requirements of this section, shall be liable for damage or injury caused by fire or resulting smoke unless negligence is proven.

(2) Prescribed burning conducted under the provisions of this section shall:

(a) Be accomplished only when at least one certified prescribed burn manager is supervising the burn or burns that are being conducted;

(b) Require that a written prescription be prepared and notarized prior to prescribed burning;

(c) Require that a burning permit be obtained from the Mississippi Forestry Commission; and

(d) Be considered in the public interest and shall not constitute a public or private nuisance when conducted according to state air pollution statutes and rules applicable to prescribed burning.

(3) The Mississippi Forestry Commission shall have the authority to promulgate rules for the certification of prescribed burn managers and guidelines for prescribed burn prescription.

(4) Nothing in this section shall be construed to limit the civil or criminal liability as provided in Section 97-17-13 and Section 95-5-25, Mississippi Code of 1972.”

#### COMMENTS:

Section 4 (1) emphatically establishes simple negligence as a basis for liability in prescribed burning activities in Mississippi. This new law conforms with the Mississippi trespass by firing woods statute (Section 95-5-25) which provides:

“If any person shall set on fire any lands of another, or shall wantonly, negligently, or carelessly allow any fire to get into the lands of another, he shall be liable to the person injured thereby, not only for the injury to or destruction of building, fences, and the like, but for the burning and injury of trees, timber, and grass, and damage to the range as well; and shall moreover be liable to a penalty of \$150 in favor of the owner.”<sup>4</sup>

#### NEGLIGENCE

The individual who engages in prescribed burning operations is held to the legal standard of the reasonable prudent person. If a person acts as a reasonable prudent person would act under the circumstances, then that person is not negligent and will not be held pecuniarily liable for his actions. However, if the conduct of a person falls below that of the reasonable prudent person standard, then that person is negligent and is liable to the injured party for the injuries or damages directly resulting from such negligence. In determining what conduct is or is not negligent, the nature of the conduct with all surrounding facts and circumstances must be analyzed. The jury, as the ultimate finder of fact, will decide whether or not the conduct is negligent. The jury will determine the reasonableness of the conduct in relation to all of the surrounding circumstances. Said another way, an individual is not negligent if that person has exercised ordinary care and caution in his conduct. It is often difficult to determine whether the conduct is negligent.



### Mississippi Negligence Cases

The number of Mississippi cases on prescribed burning is small. However, the few cases which have been decided offer some guidance.

In the case of Wofford vs. Johnson<sup>5</sup>, Holliday, an employee of the defendant Johnson, pushed up several piles of brush with a bulldozer and set one pile on fire at about 3:00 p.m. on March 23, 1964. The pile was approximately 30 feet in diameter and about 152 feet from the woods on Johnson's land. The burning pile and woods were separated by a stretch of green rye grass. The fire was not checked that night. The next morning Holliday observed Johnson's woods burning but made no effort to control the fire. Johnson was informed of the fire but made no effort to control it. The fire spread to Wofford's property where it burned over 682 acres causing extensive damage. The weather conditions for that time of the year were very dry.

The court, finding for the plaintiff Wofford, held that when an owner of property or his employees sets a fire on his own property for a lawful purpose, he is not liable for damage caused by the spread of the fire to the property of another unless he is negligent in starting or controlling the fire. The court found that the measure of diligence required was ordinary care. Ordinary care was defined as such care, caution and diligence as a prudent and reasonable man would exercise under the circumstances to prevent damage to others. Such care must be used in setting the fire and in keeping it or preventing its spread. The duty of ordinary care is commensurate with the danger reasonably to be anticipated and is dependent on the circumstances in the particular case.<sup>6</sup>

In Robinson vs. Turfit<sup>7</sup>, the court stated that the gist of fire trespass was negligence. In determining what action is negligence, the court held that many factors had to be considered. Some of these factors include: conditions and circumstances surrounding the guarding of fire to prevent its spread, the number and magnitude of the fires, the condition of the soil and the amount of litter, the state of the weather, the direction and force of the wind, and the relative situation and exposure of the property of the plaintiff<sup>8</sup>. Other factors to consider would be the type of fuel in the fire, the number of firefighters available, the experience and level of training of the firefighters, and the type and amount of equipment available for controlling the fire.

In Wilson vs. Yazoo and M.V.R.Co., the court held that in addition to actual damages caused by the negligence of the defendant, the plaintiff was also entitled to recover the statutory penalty of \$150.<sup>9</sup>

The new law on prescribed burning reaffirms that the standard for liability in Mississippi for prescribed burning activities is negligence. The burden of proving negligence on part of the prescribed burner rests with the plaintiff to prove his case by the preponderance of the evidence. The new law specifically states that nothing in it shall be construed to limit the civil liability of Section 95-5-25, Mississippi Code Annotated (1972 as amended).

## GROSSLY NEGLIGENT BURNING ACTIVITIES

The Mississippi statute states:

“....provided, however, if any person recklessly or with gross negligence causes fire to be communicated to any woods, meadow, marsh, field or prairie, not his own, he shall be guilty of a misdemeanor and shall, on conviction, be fined not less than \$20, nor more than \$500, or imprisoned in the county jail not more than three months, or both, in the discretion of the court<sup>10</sup>.

Gross negligence is the lack of even slight care. Here, the conduct of the individual falls far below the conduct of the reasonable prudent person. Said another way, gross negligence is the intentional failure to perform a manifest duty in reckless disregard of the consequences affecting the life, health or property of another.

One found grossly negligent in conducting his prescribed burning activities may be held liable for damages caused by his gross negligence. That person would also be subject to criminal prosecution for the same acts of gross negligence. The new law specifically states that nothing in it is to be construed to limit the civil or criminal liability of Section 97-17-13, Mississippi Code Annotated (1972 as amended).

## LEGAL RELATIONSHIP BETWEEN EMPLOYER AND EMPLOYEE

The prescribed burner must be aware that sometimes acts of his employees or agents may subject him to vicarious liability. Vicarious liability is the liability of one individual, without any wrongful conduct on his part, for the wrong committed by another. Under the doctrine of “respondeat superior,” the employer is liable for the negligent acts of his employee, if such negligent acts occurred while the employee was acting within the scope of his employment. An employee is a person employed to render services to an employer. The employer retains the right to control the employee in the method and way of rendering services.

The essential feature of the employer/employee relationship is that the employer has the right to control the physical activities of the employee, as well as the manner of accomplishment of the employment duties. Scope of employment means the work the employee is engaged in is the type he was hired to perform during the hours he was hired to perform it in. Thus, the landowner, whose agents or employees are negligent in conducting prescribed burning, may be held vicariously liable for the negligent acts of his employees, if such agents or employees were acting within the scope of their employment when the negligence occurred.<sup>11</sup>

Gloster Lumber Company vs. Wilkerson<sup>12</sup> illustrates the doctrine of “respondeat superior” and its application to prescribed burning. In this case, employees of Gloster Lumber Company were burning off a tract of land. The fire crossed over onto the land of the plaintiff and burned over 50 acres. The employees of Gloster Lumber Company were found negligent in their control of the fire, and as a consequence the employer, Gloster Lumber Company, was held vicariously liable for the damages caused by their negligence. The negligent employees were also held liable.

It should also be noted that an employer cannot protect himself from liability by imposing safety rules on his employees or by giving his employees specific and detailed orders to proceed with their work in a careful manner. “Respondeat Superior” goes beyond negligent torts. The employer may be held liable for intentional torts of the employee when the intentional torts are reasonably connected with the employment and are within the scope of employment.

### THE INDEPENDENT CONTRACTOR

An employee is distinguished from an independent contractor in that, although the independent contractor works for the employer, the employer has no right to control the contractor in the method, way, or mode of accomplishing and completing the work. The independent contractor contracts with the employer regarding the results to be accomplished - not regarding the manner or procedure for accomplishing and completing the work. The independent contractor is usually paid a negotiated, lump sum for the entire job, while the employee is normally paid a wage. Although the completed job must meet certain specifications, the method of performance is entirely within the discretion of the contractor. The independent contractor usually possesses a higher degree of skill or expertise that the normal employee does not have. The independent contractor usually owns his own business and uses his own tools, while the employee generally depends on the employer to furnish these items.

The purpose for distinguishing between the employee and the independent contractor is because the doctrine of “respondeat superior” applies to the employee but not the contractor. The employer will generally not be held liable for negligent wrongs of an independent contractor unless ultra-hazardous activities are conducted. The Mississippi courts have not defined prescribed burning as an ultra-hazardous activity. However, the Supreme Court of Florida in Madison vs. Midvett<sup>13</sup> held prescribed burning to be an inherently dangerous activity and ruled that the employer (landowner) was vicariously liable for a burning contractor’s negligence. The court said that setting a fire clearly is a dangerous agency because it possesses an inherently dangerous propensity.

The standard established by the new Mississippi law sets forth negligence as the measuring stick for liability. By so doing, prescribed burning was not classified as an ultra-hazardous activity. The wording of the statute in Section 4 (1), “No property owner or his agent....” may or may not do away with the employee-independent contractor distinction. The answer to this question may be revealed through subsequent court decisions interpreting that portion of the new statute.

## MANDATORY REQUIREMENTS

Four requirements are dictated by the new statute in Section 4 (2):

1. At least one certified prescribed burn manager must supervise the burn or burns being conducted;
2. A notarized, written prescription must be prepared before the prescribed burning takes place;
3. A burning permit must be obtained from the Mississippi Forestry Commission; and
4. The prescribed burning must be in the public interest, not be a public or private nuisance, and be conducted in conformity with applicable state air pollution statutes and rules.

These four requirements are mandatory and must be closely followed by the prescribed burner. Failure to follow them invites a lawsuit based on negligence “*per se*.” Negligence “*per se*” is conduct which may be declared and treated as negligent conduct without any further argument or proof regarding the surrounding circumstances because there is a violation of a law or statute. One must be very careful to follow the requirements of the statute here. Failure to do so will make a lawsuit more difficult to defend.

Section Five. “This act shall take effect and be in force from and after March 1, 1993.”

## C. CONCLUSION

The new Mississippi statute on prescribed burning activities is welcomed by the forestry community. The act recognizes prescribed burning as an important property right and land management tool that greatly benefits society, the environment, and the economy of the state. Significant biological diversity is preserved by prescribed burning. The standards for prescribed burners are elevated with the certification requirement. This provision should place all the prescribed burners in the state on approximately the same competency level. This certification, coupled with the written, notarized prescription, should foster a higher degree of professionalism. Most importantly, prescribed burners now know that so long as they conduct prescribed burns in conformity with the requirements of the law, they will not be held liable for damage or injury caused by fire or resulting smoke unless negligence is proven.

The new law has clarified the liability issue and several other areas. It remains to be seen how the courts will treat independent contractors in relation to the “*respondeat superior*” doctrine. However, this new law brings with it the added responsibility of knowing what the law says and closely following it.

## ENDNOTES

1. Section 49-19-307, Mississippi Code Annotated (1972 as amended).
2. Letter dated February 18, 1993 from Mr. James L. Sledge, Jr., State Forester for Mississippi.
3. Id.
4. Section 95-5-25, Mississippi Code Annotated (1972 as amended).
5. 250 Miss. 1(1964).
6. Id. at 4.
7. 192 Miss. 160 (1942).
8. Id. at 165.
9. 192 Miss. 424 (1942).
10. Section 97-17-13, Mississippi Code Annotated (1972 as amended).
11. Legal Aspects of Prescribed Burning, Forest Resources Management Technical Note, MTN-9F, Cooperative Extension Service, Mississippi State University, June 1989.
12. 118 Miss. 289 (1918).
13. 541 So2d 1315 (1989).

13 Montana Federal Reports

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MONTANA  
GREAT FALLS DIVISION

---

HUGHES & SONS CATTLE CO., a                    )  
corporation; G. C. TUCKER HUGHES;  
JANE C. HUGHES; G. C. TUCKER                )  
HUGHES, on behalf of and as next  
friend of RYAN J. HUGHES and                )  
SCOTT D. HUGHES, Minors,

Plaintiffs,                                        )

NO. CV-91-131-GF

vs.    )

THE UNITED STATES OF AMERICA,            )

Defendant.                                        )

FINDINGS OF FACT  
AND  
CONCLUSIONS OF LAW

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The above-entitled action, prosecuted under the Federal Tort Claims Act, 28 U.S.C. §§ 1346(b), 2671-2680, came on for trial before the court, the Honorable Paul G. Hatfield presiding, sitting without a Jury, on the 23rd day of June, 1992. Mr. Alexander Blewett III appeared as counsel on behalf of all named plaintiffs, and Mr. Robert J. Brooks appeared as counsel for the defendant, United States of America. The court, having heard and considered the testimony and evidence presented by the respective parties, enters the present findings of fact and conclusions of law in satisfaction of Fed.R.Civ.P. 52(a).

## FINDINGS OF FACT

Based upon the testimony and evidence presented, I find it true that:

1. Hughes & Sons Cattle Co., one of the plaintiffs herein, is a Montana corporation. Plaintiff, G. C. Tucker Hughes, is the president of Hughes & Sons Cattle Co., and resides on a ranch 14 miles south of Stanford, Montana, with his wife Jane C. Hughes, and their two minor sons, Ryan J. Hughes and Scott D. Hughes.

2. Defendant United States of America operates the United States Forest Service as part of the Department of Agriculture.

3. In October, 1990, the Forest Service prepared and implemented a burning plan for the Levis and Clark National Forest, Judith Ranger District. At the time, the Judith Ranger District was experiencing one of its driest falls ever. According to the Billings Weather service, September, 1990, was the driest September on record. In addition, the area received no significant precipitation in October, and the precipitation was below normal for November.

4. On November 6, 1990, the Forest Service set fire to approximately 10 slash piles in cutting block six of the Bear Park timber sale area, Judith Ranger District, approximately 20 miles south of Stanford. Shortly thereafter, the slash fires spread into nearby timber due to the extremely dry conditions and changing weather. As a result, the Forest Service began "mopping up" operations in the area. The mopup work continued intermittently from November 6 through November 23, 1990.

5. On November 12, 1990, a fire, hereinafter referred to as "Fire A", was found burning in a slash pile in cutting block six near the Sage Creek road. Forest Service personnel extinguished Fire A and, thereafter, continued mopup operations on the fire from November 12 until November 23, 1990.

6. On November 19, 1990, another fire, hereinafter referred to as "Fire B", was found burning in a slash pile approximately 45 feet northeast of the location of "Fire A." Forest Service personnel extinguished Fire B.

7. On November 22, 1990, at approximately 5:00 a.m., a hunter, Guy Halvorson, came upon a small fire approximately 25 feet north of the location of Fire B and approximately 14 feet from Sage Crook Road. Halvorson stomped out the fire and buried the fuel remnants of the fire in a shallow pit.

8. On November 23, 1990, Forest Service personnel observed fire activity in the area where Fire B had originally been located. The Forest Service personnel subsequently worked on suppressing and mopping up the fire activity. Despite the presence of strong winds in the area, the Forest Service personnel left the area at approximately 3:00 p.m. on the afternoon of November 23, 1990.

9. Approximately six hours later, high winds fanned embers that had apparently been smoldering in the area where Halvorson had buried the fuel remnants. The embers were fanned into flame and subsequently spread to ignite an adjacent forested area, resulting in the forest fire denominated the Turkey Fire.

10. At approximately 9:30 p.m., three hunters, Ronald Halvorson, Milo Halvorson, and Carl Kananen, observed a large glow coming from the direction of cutting block six. From their vehicle parked on Sage Creek road, the three men watched as the fire advanced upslope (eastward) from a spot alongside the road--and near the spot where Guy Halvorson had buried the fuel remnants of the fire the previous morning.

11. Kananen reported the fire on his mobile phone to the Grass Range 911 operator. Kananen testified the wind was so strong that it had blown several trees over.

12. The fire burned approximately midway up the slope when the extremely high winds caught it and drove the fire to the northeast into the tree line at the far end of cutting block six. By approximately 10:00 p.m., the fire had burned across cutting block six, with the high winds causing it to grow quickly in intensity.

13. The Turkey Fire spread to the plaintiffs' property causing damage, the extent of which remains to be determined in subsequent proceedings before this court.

14. The Forest Service had the capability, through the use of infra-red heat detection devices, "wet water" and other fire suppressants, and dozer equipment, to suppress the fires in cutting block six.

15. Nevertheless, the Forest Service made the decision from November 12, 1990, through November 23, 1990, to deliberately allow the burning of the excess forest material contained in cutting block six.



The following conclusions of law, insofar as they may be considered findings of fact, are so found by this court to be true in all respects.

### Conclusions of Law

1. This court has jurisdiction of both the subject matter and parties to this action pursuant to the Federal Tort Claims Act, 28 U.S.C. § 1346(b), 2671-2680. Consequently, the liability of the United States of America for the purported negligent acts of the United States Forest Service, Department of Agriculture, is determined under the law of the State of Montana, in the same manner and to the same extent as it would be determined for a private individual under that same law. 28 U.S.C. § 2674.

2. Every person is responsible for injury to the person of another, caused by his negligence. Mont. Code Ann. § 27-1-701 (1989).

3. Negligence is the failure to use reasonable care. Negligence may consist of action or inaction. A person is negligent if he fails to act as an ordinarily careful person would act under the circumstances. *Wheeler v. City of Bozeman*, 232 Mont. 433, 757 P.2d 345 (1988).

4. Mont. Code Ann. § 50-63-103 (1991) provides:

Any person who shall upon any land within this state, whether on his own or on another's land, set or leave any fire that shall spread and damage or destroy property of any kind not his own shall be liable for all damages caused thereby, and any owner of property damaged or destroyed by such fire may maintain a civil suit for the purpose of recovering such damages. Any person who shall upon any land within this state, whether on his own or on another's land, set or leave any fire which threatens to spread and damage or destroy property shall be liable for all costs and expenses incurred by the State of Montana, by any forestry association, or by any person extinguishing or preventing the spread of such fire.

5. Mont. Code Ann. § 76-13-122 (1991) provides:

A person to whom a written permit is issued to set or ignite a fire within forest lands during the forest protection season shall comply strictly with the permit. The person who fails to comply with the permit, leaves the fire unattended, leaves the fire before it is totally extinguished, or negligently allows the fire to spread from or beyond the burning area defined by the permit is guilty of a misdemeanor. The department shall prescribe the form and substance of such permit.

6. In a negligence action, a plaintiff must prove four elements: (1) existence of a duty; (2) breach of the duty; (3) causation; and (4) damages. Kitchen Krafters v. Eastside Bank, 242 Mont. 155, 789 P.2d 567, 574 (1990), citing, Thornock v. State, 229 Mont. 67, 745 P.2d 324 (1987).

7. A statutory infraction may amount to negligence per se if plaintiff establishes (1) the defendant violated a statute in question; (2) the statute was enacted to protect a specific class of persons; and (3) plaintiff is a member of that class; plaintiff's injury is of the sort the statute was enacted to prevent; and (4) the statute was intended to regulate members of defendant's class. VanLuchene v. State, 797 P.2d 932 (Mont. 1990).

8. In the instant action, the court concludes the United States violated Mont. Code Ann. § 50-63-103 and 76-13-122, and, as a result, was negligent per se.

9. The court further concludes the United States was negligent in setting fire to the slash piles on November 6, 1990, without (a) considering the weather forecasts, which predicted warning temperatures and high, gusting winds or (b) performing any fuel moisture content analysis or energy release component analysis. In addition, the court concludes the United States was negligent in failing to use sufficient personnel and equipment to suppress the dozer slash pile fires in cutting block six.

10. Liability in a negligence action attaches if the plaintiff can establish (1) that the defendant's acts were a cause in fact of injuries; and (2) that the injury is the direct or indirect result, proximately caused by the negligent act. Kiger v. State, 245 Mont. 457, 802 P.2d 1248, 1250 (1990).

11. Causation is normally established by applying the "but-for" test. Kitchen Krafters, supra, 789 P.2d at 574. Under the "but-for" test, causation in fact is established simply by proving that the plaintiff's injury would not have occurred "but-for" the defendant's illegal conduct. Id.

12. In the present action, the court concludes the negligence of the United States was a "cause-in-fact" of the Turkey Fire and the resultant destruction of plaintiffs' property (see Kitchen Krafters, supra, 789 P.2d at 574).

13. To establish the existence of proximate cause, it must be shown that the consequences of the defendant's wrongful acts were reasonably foreseeable. Davis v. Church of Jesus Christ of LDS, 244 Mont. 61, 796 P.2d 181, 186 (1990). "(P)roximate cause is one which in a natural and continuous sequence, unbroken by any new, independent cause, produces injury . . . ." Id., quoting, Young v. Flathead County, 232 Mont. 274, 757 P.2d 772 (1988). "New and independent causes" which are not foreseeable, are generally regarded as superseding events which break the chain of causation and absolve the defendant of liability. Id.; quoting, Kitchen Krafters, supra, 789 P.2d at 576.

14. Under Montana law, where the negligent conduct of an actor creates a condition of danger, he is not relieved of responsibility for damage caused to another merely because the injury also involved the later misconduct of a third party. See Giles v. Flint Valley Forest Products, 179 Mont. 382, 588 P.2d 535 (1979). Restated, an intervening cause does not relieve an actor from liability for his negligent acts where the intervening cause is one which the defendant might reasonably anticipate under the circumstances. Bissett v. DMI, Inc., 220 Mont. 153, 717 P.2d 545 (1986).

15. “By definition, a superseding, intervening event is an unforeseeable event that occurs after the defendant’s original act of negligence. Its presence will generally serve to cut off liability on the part of the defendant.” Sizemore v. Montana Power Co., 246 Mont. 37, 803 P.2d 629 (1990), citing, Kitchen Krafters, Inc. v. Eastside Bank of Montana, 242 Mont. 155, 789 P.2d 567 (1990). Consequently, the foreseeability analysis “requires the trier of fact to determine whether the consequences of a defendant’s actions were reasonably foreseeable.” Id. at 635-36.

16. In the present action, the court concludes the United States’ negligence was a proximate cause of the Turkey Fire.

17. The court further concludes the United States has failed to establish, by a preponderance of the evidence, that any of the fires in cutting block six were set by arson.

18. Nevertheless, even if the fires in cutting block six were the result of arson, the act of arson would not be a superseding cause of the Turkey Fire so as to be the sole proximate cause of the plaintiffs’ injuries. The United States possessed the means and capability to completely extinguish the fires in cutting block six yet chose to allow them to burn under its supervision.

19. The government’s decision to allow the fires to burn necessarily involved a matter of discretion. However, the conduct of a government agency or employee is not immune from scrutiny as a “discretionary function” simply because it involves an element of choice -- “it must be a choice rooted in social, economic or political policy.” Arizona Maintenance Co. v. United States, 864 F.2d 1497, 1504 (9<sup>th</sup> Cir. 1989).

20. If, in the exercise of its discretion, the government determines to undertake the provision of a particular service, it may be held liable under the “Good Samaritan” doctrine if (1) the government induces reliance upon the service and (2) by negligently performing the service creates a condition of danger (see Brown v. United States, 790 F.2d 199 (1<sup>st</sup> Cir. 1986), cert. denied, 479 U.S. 1058 (1987); Berkovitz v. United States, 486 U.S. 531, 538 n.3 (1988); Kennewick Irrigation District v. United States, 880 F.2d 1018, 1024-25 (9<sup>th</sup> Cir. 1989). Montana recognizes the “Good Samaritan” doctrine of negligence (see Love v. United States, 915 F.2d 1242, 1248 (9<sup>th</sup> Cir. 1989).

21. The United States has moved the court to dismiss plaintiffs’ complaint, pursuant to Fed. R. Civ. P. 12 (b) (1), asserting the court lacks subject matter jurisdiction over the present controversy because plaintiffs’ claims fall within the discretionary function exception to the FTCA, 28 U.S.C. § 2680(a). The court is unpersuaded by the government’s argument in support of its motion, and hereby DENIES the same.

22. In this court’s opinion, the United States is subject to suit under the FTCA for the damage to plaintiffs’ property under the “Good Samaritan” doctrine of negligence (see Indian Towing Co. v. United States, 350 U.S. 61, 64-65 (1955); Love, 915 F.2d at 1248). Once the Forest Service exercised its discretion to burn the slash piles, it was obligated to use due care to make certain the fires stayed contained. Furthermore, it cannot be disputed that the Forest Service engendered reliance upon its fire suppression expertise on Forest Service lands and, as a result, was obligated to use reasonable care in suppressing the fires in cutting block six.

## Prescribed Fire Implementation, RX-301

### Unit 4 – Prescribed Fire Plan Evaluation and Pre-Burn Preparation

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Demonstrate the ability to review and validate a prescribed fire plan.
2. Describe on and off-site preparation considerations that need to be conducted prior to implementing a prescribed fire.



## I. TECHNICAL REVIEW AND VALIDATION

As a prescribed fire burn boss, it is your responsibility to be very familiar with and understand the prescribed fire plan. Take time to validate the prescribed fire plan even though it may have been previously technically reviewed.

Use the Technical Reviewer Checklist as a guide when reviewing and evaluating the burn plan.

- Ensure all required elements are included in the prescribed fire plan.
- Evaluate the risk and complexity analysis.
- Use local experts to gain further insight into specific burn plan.
- Ensure all elements are satisfactory.
- If you disagree with the way the plan is written, work with staff to resolve issues.
- An RXB3 is allowed to function as a prescribed fire plan preparer for a low complexity plan, but not as a technical reviewer.

Can the prescribed fire burn boss and the technical reviewer (signatory) be the same person?

Can the preparer of the prescribed fire plan and the technical reviewer be the same person?

When the prescribed fire plan has been approved and signed, what changes can the prescribed fire burn boss make to the plan?

## II. ON AND OFF-SITE PRE-BURN CONSIDERATIONS

Pre-burn considerations may be located and possibly repeated in several sections or elements of the prescribed fire plan. It is the RXBs responsibility to ensure all actions identified in the plan are satisfactorily completed prior to implementation.

Prescribed fire plan elements that require pre-burn actions:

### A. Funding

- Set up a system to track costs (this may be required in the project file).

### B. Prescription

- Conduct on-site visit to validate burn is in prescription.
- Gather fuel samples and weather observations.

### C. Scheduling

- Set burn start date(s).

### D. Pre-burn Considerations and Weather

- Obtain spot weather forecast prior to burn.
- Assure all on and off-site considerations addressed in this element are complete. This may include line preparation, signage, etc.
- This section may summarize tasks that are repeated in other burn plan elements.

### E. Briefing

- Briefing schedule; prepare Incident Action Plan (IAP) (optional)

F. Organization and Equipment

- Assign qualified personnel to overhead positions; order resources, equipment, and supplies.

G. Public and Personnel Safety, Medical

- Implement mitigations for identified safety hazards.
- Pre-plan medical emergency evacuation locations.

H. Test Fire

- Identify location.

I. Ignition (type) and Holding

- Discuss and fine-tune plan with burn overhead (get everybody on the same page).

J. Contingency

- Verify resource availability with dispatch centers.

K. Smoke Management

- Implement compliance and mitigation procedures with local air regulating agencies.
- Ensure that prescribed fires which receive a National Ambient Air Quality Standards (NAAQS) Notice of Violation (NOV) are reviewed according to established guidelines.

L. Monitoring

- Ensure pre-burn monitoring is completed.

**EXERCISE: Site Evaluation and Technical Review**





## B: TECHNICAL REVIEWER CHECKLIST

PREScribed FIRE PLAN ELEMENTS:	S /U	COMMENTS
1. Signature page		
2. GO/NO-GO Checklists		
3. Complexity Analysis Summary		
4. Description of the Prescribed Fire Area		
5. Objectives		
6. Funding		
7. Prescription		
8. Scheduling		
9. Pre-burn Considerations and Weather		
10. Briefing		
11. Organization and Equipment		
12. Communication		
13. Public and Personnel Safety, Medical		
14. Test Fire		
15. Ignition Plan		
16. Holding Plan		
17. Contingency Plan		
18. Wildfire Conversion		
19. Smoke Management and Air Quality		
20. Monitoring		
21. Post-burn Activities		
Appendix A: Maps		
Appendix C: Complexity Analysis		
Appendix D: Agency specific job hazard analysis		
Appendix E: Fire Prediction Modeling Runs or Empirical Evidence		
Other		

S = Satisfactory

U = Unsatisfactory

Recommended for Approval: \_\_\_\_\_ Not Recommended for Approval: \_\_\_\_\_

\_\_\_\_\_  
 Technical Reviewer                      Qualification and currency (Y/N)                      Date

☐ Approval is recommended subject to the completion of all requirements listed in the comments section, or on the Prescribed Fire Plan.



### **Method 1: Local Burn Plan (actual live burn)**

1. The instructor will brief you on the local issues and political concerns related to the implementation of the prescribed fire.
2. In your group, use the tasks in the Technical Reviewer Checklist (page 4.7) as a guide to review the prescribed fire plan.
3. Complete the technical reviewer checklist for the local prescribed fire plan.
4. Upon arrival at the burn site, do a pre-burn recon, hazard analysis, and risk management. Develop a list of items to be completed before the day of the burn.
5. Pre-burn planning meeting:

Groups will conduct an informal pre-burn operation meeting to discuss all tasks that need to be completed prior to the day of the burn. Address all necessary issues and details such as risk hazard mitigation, ordering resources, coordination with smoke management, setting briefing time and location, test fire ignition location, last minute unit preparation, notifications, IAPs, etc.

6. Pre-burn planning presentations:

Each group will be assigned elements of the prescribed burn plan and give a 10-minute presentation to the class that includes a brief explanation of their assigned elements, special issues that need to be addressed, and tasks that need to be completed prior to the day of the burn.

<u>Group #</u>	<u>Elements</u>
_____	Physical Description, Objectives, Funding, Complexity Analysis
_____	Prescription, Scheduling, Pre-Burn Considerations
_____	Organization and Equipment, Communication, Public and Personnel Safety
_____	Test Fire, Ignition Plan, Holding Plan, Briefing, Smoke Management
_____	Contingency Plan, Wildfire Conversion, Monitoring, Post-Burn Activities

7. Complete the Agency Administrator Go/No-Go Pre-Ignition Approval Checklist on page 4.11.
8. An AAR of the day's activities will be conducted with the entire class.

**Project Name:** \_\_\_\_\_

**Unit Name:** \_\_\_\_\_

**ELEMENT 2: AGENCY ADMINISTRATOR PRE-IGNITION APPROVAL  
CHECKLIST**

Instructions: The Agency Administrator's Pre-Ignition Approval is the intermediate planning review process (i.e. between the Prescribed Fire Complexity Rating System Guide and Go/No-Go Checklist) that should be completed before a prescribed fire can be implemented. The Agency Administrator's Pre-Ignition Approval evaluates whether compliance requirements, Prescribed Fire Plan elements, and internal and external notifications have been or will be completed and expresses the Agency Administrator's intent to implement the Prescribed Fire Plan. If ignition of the prescribed fire is not initiated prior to expiration date determined by the Agency Administrator, a new approval will be required.

YES	NO	KEY ELEMENT QUESTIONS
		Is the Prescribed Fire Plan up to date? <i>Hints: amendments, seasonality.</i>
		Will all compliance requirements be completed? <i>Hints: cultural, threatened and endangered species, smoke management, NEPA.</i>
		Is risk management in place and the residual risk acceptable? <i>Hints: Prescribed Fire Complexity Rating Guide completed with rational and mitigation measures identified and documented?</i>
		Will all elements of the Prescribed Fire Plan be met? <i>Hints: Preparation work, mitigation, weather, organization, prescription, contingency resources</i>
		Will all internal and external notifications and media releases be completed? <i>Hints: Preparedness level restrictions</i>
		Will key agency staff be fully briefed and understand prescribed fire implementation?
		Are there any other extenuating circumstances that would preclude the successful implementation of the plan?
		Have you determined if and when you are to be notified that contingency actions are being taken? Will this be communicated to the Burn Boss?
		Other:

Recommended by: \_\_\_\_\_ Date: \_\_\_\_\_  
FMO/Prescribed Fire Burn Boss

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Agency Administrator

Approval expires (date): \_\_\_\_\_

## **Method 2: Local Burn Plan (paper-based, no live burn)**

This method will be used if weather conditions are unfavorable or conducting a live burn is not possible. We will use the same instructions and forms used for Method 1.

### **Method 3: Virginia's Prescribed Fire Plan (paper-based, book example)**

1. The instructor will deliver a staff briefing to the class.
2. In your group, use the RXB position task book to review the prescribed fire plan.
3. Complete the Technical Reviewer Checklist (page 4.15) for the prescribed burn plan. When finished, we will review and discuss, and address any concerns with the prescribed burn plan.
4. As you view each PowerPoint, identify and discuss hazard analysis and do a risk mitigation for the project area. Develop a list of items to be completed before the day of the burn.
5. Pre-burn planning meeting:

Each group will conduct an informal pre-burn operation meeting to discuss all tasks that need to be completed prior to the day of the burn. Address all necessary issues and details such as risk hazard mitigation, ordering resources, coordination with smoke management, setting briefing time and location, test fire ignition location, last minute unit preparation, notifications, IAPs, etc.



6. Pre-burn planning presentations:

Each group will be assigned elements of the prescribed burn plan and give a 10-minute presentation to the class that includes a brief explanation of their assigned elements, special issues that need to be addressed, and tasks that need to be completed prior to the day of the burn. All group members should participate.

The presentation should demonstrate a good understanding of the project and its complexity. The presentation should match the audience.

<u>Group #</u>	<u>Topics</u>
_____	Physical Description, Objectives, Funding, Complexity Analysis
_____	Prescription, Scheduling, Pre-Burn Considerations
_____	Organization and Equipment, Communication, Public and Personnel Safety
_____	Test Fire, Ignition Plan, Holding Plan, Briefing, Smoke Management
_____	Contingency Plan, Wildfire Conversion, Monitoring, Post-Burn Activities

7. Complete the Agency Administrator Go/No-Go Pre-Ignition Approval Checklist on page 4.16.
8. An AAR of the day's activities will be conducted with the entire class.

## B: TECHNICAL REVIEWER CHECKLIST

PREScribed FIRE PLAN ELEMENTS:	S /U	COMMENTS
1. Signature page		
2. GO/NO-GO Checklists		
3. Complexity Analysis Summary		
4. Description of the Prescribed Fire Area		
5. Objectives		
6. Funding		
7. Prescription		
8. Scheduling		
9. Pre-burn Considerations and Weather		
10. Briefing		
11. Organization and Equipment		
12. Communication		
13. Public and Personnel Safety, Medical		
14. Test Fire		
15. Ignition Plan		
16. Holding Plan		
17. Contingency Plan		
18. Wildfire Conversion		
19. Smoke Management and Air Quality		
20. Monitoring		
21. Post-burn Activities		
Appendix A: Maps		
Appendix C: Complexity Analysis		
Appendix D: Agency specific job hazard analysis		
Appendix E: Fire Prediction Modeling Runs or Empirical Evidence		
Other		

S = Satisfactory

U = Unsatisfactory

Recommended for Approval: \_\_\_\_\_ Not Recommended for Approval: \_\_\_\_\_

\_\_\_\_\_  
 Technical Reviewer                      Qualification and currency (Y/N)                      Date

☐ Approval is recommended subject to the completion of all requirements listed in the comments section, or on the Prescribed Fire Plan.

## ELEMENT 2: AGENCY ADMINISTRATOR GO/NO-GO PRE-IGNITION APPROVAL CHECKLIST

Instructions: The Agency Administrator's GO/NO-GO Pre-Ignition Approval is the intermediate planning review process (i.e. between the Prescribed Fire Complexity Rating System Guide and Go/No-Go Checklist) that should be completed before a prescribed fire can be implemented. The Agency Administrator's Go/No-Go Pre-Ignition Approval evaluates whether compliance requirements, Prescribed Fire Plan elements, and internal and external notifications have been or will be completed and expresses the Agency Administrator's intent to implement the Prescribed Fire Plan. If ignition of the prescribed fire is not initiated prior to expiration date determined by the Agency Administrator, a new approval will be required.

YES	NO	KEY ELEMENT QUESTIONS
		Is the Prescribed Fire Plan up to date? <i>Hints: amendments, seasonality.</i>
		Will all compliance requirements be completed? <i>Hints: cultural, threatened and endangered species, smoke management, NEPA.</i>
		Is risk management in place and the residual risk acceptable? <i>Hints: Prescribed Fire Complexity Rating Guide completed with rational and mitigation measures identified and documented?</i>
		Will all elements of the Prescribed Fire Plan be met? <i>Hints: Preparation work, mitigation, weather, organization, prescription, contingency resources</i>
		Will all internal and external notifications and media releases be completed? <i>Hints: Preparedness level restrictions</i>
		Will key agency staff be fully briefed and understand prescribed fire implementation?
		Are there any other extenuating circumstances that would preclude the successful implementation of the plan?
		Have you determined if and when you are to be notified that contingency actions are being taken? Will this be communicated to the Burn Boss?
		Other:

Recommended by: \_\_\_\_\_ Date: \_\_\_\_\_  
FMO/Prescribed Fire Burn Boss

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Agency Administrator

Approval expires (date): \_\_\_\_\_

## Prescribed Fire Implementation, RX-301

### Unit 5 – Pre-Burn Operations

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Identify the required elements of a prescribed fire briefing.
2. Describe the importance of utilizing the Prescribed Fire Go/No-Go Checklist.
3. Identify test fire provisions and describe their purpose.



## I. BRIEFING ELEMENTS

Ten briefing elements are required in the prescribed fire plan.

Additional briefing elements may be added to account for issues such as aerial ignition. The format and topics covered are different than the format found in the IRPG.

The RXB is responsible for addressing every item identified in the prescribed fire plan briefing element and ensuring all assigned personnel receive a briefing.

### A. Burn Organization and Assignments

- Chain of command.
- Overhead positions and assigned personnel.

### B. Burn Objectives and Prescription

- Identifies the purpose of the burn.
- High and low limits for the environmental and fire behavior parameters (trigger points).
- Separate prescriptions must be clearly identified and addressed (blacklining, aerial, etc.).

### C. Description of the Prescribed Fire Area

- Use a good briefing map.
- Address areas of special concern (critical holding points, high value areas, smoke receptors).
- Review size and division assignments.
- Cover the burn area and project boundary as necessary.

D. Expected Weather and Fire Behavior

- Use spot weather or general forecast.
- Brief analysis of how weather and other factors may affect fire behavior.
- Relate current and expected weather and fire behavior to the prescription.

E. Communications

- Address special concerns (dead areas, repeater tones).
- Identify tactical, command, and air-to-ground frequencies.

F. Ignition Plan

- Proposed firing methods, techniques, sequences.
- Safety issues.
- Coordination with holding and other resources.

G. Holding Plan

- Resource assignments.
- Holding, mop up, and patrol procedures.
- Critical holding points.

#### H. Contingency Plan and Assignments

- Identify trigger points to initiate contingency plan.
- Briefly explain contingency plan operations.

#### I. Wildfire Conversion

- Who declares? How will it be communicated to assigned resources?
- Who will be the incident commander?
- Explain strategies and tactics.

#### J. Safety and Medical Plan

- Identify safety concerns and mitigations.
- Specify emergency medical procedures.

### II. THE IMPORTANCE OF UTILIZING THE PRESCRIBED FIRE GO/NO-GO CHECKLIST

Why is the Prescribed Fire Go/No-Go Checklist important?

- Critical decisionmaking tool.
- Required prior to implementing test fire.
- Concurrence with overhead positions recommended.
- A separate daily Go/No-Go checklist is required for each active day of ignition.



### III. TEST FIRE

#### A. Test Fire Requirements

Provisions for the test fire should be outlined in the prescribed fire plan. It is the responsibility of the RXB to:

- Ensure all identified criteria are met and the results are recorded.
- Ensure all pre-burn considerations are done, and assigned burn personnel and equipment are in place and notified prior to beginning test fire.

#### B. Required Factors

- Controllable
- Representative location

#### C. Purpose of the Test Fire

- Verify fire behavior characteristics
  - Allow test fire to burn for an adequate amount of time to observe actual fire behavior characteristics.
  - Factor in future forecasted conditions.
- Verify smoke dispersion
- Verify attainment of objectives

#### D. Multiple Day Projects

Evaluation of current active fire behavior in lieu of a test fire may provide a comparative basis for continuing and must be documented. If in doubt, initiate a separate test fire and evaluate results.

## ELEMENT 2: PRESCRIBED FIRE GO/NO-GO CHECKLIST

A. Has the burn unit experienced unusual drought conditions or does it contain above normal fuel loadings which were not considered in the prescription development? If <u>NO</u> proceed with checklist below, if <u>YES</u> go to item B.	YES	NO
B. Has the prescribed fire plan been reviewed and an amendment and technical review been completed; or has it been determined that no amendment is necessary? If <u>YES</u> to <u>any</u> , proceed with checklist below, if <u>NO</u> , STOP.		

YES	NO	QUESTIONS
		Are ALL pre-burn prescription parameters met?
		Are ALL smoke management specifications met?
		Has ALL required current and projected fire weather forecast been obtained and are they favorable?
		Are ALL planned operations personnel and equipment on-site, available, and operational?
		Has the availability of ALL contingency resources been checked and are they available?
		Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones?
		Have all the pre-burn considerations identified in the Prescribed Fire Plan been completed or addressed?
		Have ALL the required notifications been made?
		Are ALL permits and clearances obtained?
		In your opinion, can the burn be carried out according to the Prescribed Fire Plan and will it meet the planned objective?

**If all the questions were answered "YES" proceed with a test fire. Document the current conditions, location, and results**

\_\_\_\_\_  
Burn Boss

\_\_\_\_\_  
Date



## Prescribed Fire Implementation, RX-301

### Unit 6 – Daily Operations

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Describe key elements in supervising the ignition, holding, monitoring and patrol operations.
2. Describe the importance of documenting monitoring and fire effects as they relate to prescribed fire objectives.
3. Given various prescribed fire scenarios, practice decisionmaking skills during daily operations.



Now that ignition operations have started, what do you, as a prescribed fire burn boss, need to do?

## I. SUPERVISING DAILY OPERATIONS

Effective management demands ongoing attention to all information being input.

Situation awareness is an unconscious process. Yet situational awareness can be enhanced through constant focus and attention.

It is learning to pay attention to personal observations and communication cues coming from team members and other elements in the local and incident environment.

As a burn boss you manage the operation. You are responsible for overseeing ignition, holding, mopup, and patrol phases. All of this can be happening simultaneously.

Burn bosses are constantly coordinating, evaluating, and adjusting throughout the daily operational period.

### A. Coordinating

1. Maintain and utilize chain of command.
2. Ensure lines of communication are fluid.
3. On and off site coordination with cooperators, air regulators, weather forecasters, dispatch centers, etc.
4. Allowing personnel to do their job.

B. Evaluating

1. Compare actual outcomes to the desired or expected outcomes.
2. Observe and listen to burn operations (ignition, holding, etc.) and analyze progress to determine if the plan is being followed and expectations are being met.

C. Adjusting

1. Maintain accordance with the prescribed fire plan through active and continual decisionmaking.
2. Modify operations to achieve expected or desired outcomes.

II. THE IMPORTANCE OF DOCUMENTING MONITORING AND FIRE EFFECTS AS THEY RELATE TO PRESCRIBED FIRE OBJECTIVES

A. RX Fire Objectives

Prescribed fire objectives are clear, concise, and measurable.

B. Fire Effects

Fire effects result from the measurable observation(s) of the firing pattern, flame length, fire intensity, and fire duration combination on the target vegetation and soil.

C. Monitoring

Monitoring is the collection and analysis of onsite observations and/or measurements which evaluate changes in conditions and progress towards meeting the prescribed fire plan objectives.

Monitoring is an ongoing process which must continue into subsequent post-burn years, as many fire effects are not immediately apparent.

- D. Follow documentation requirements as stated in the prescribed fire plan.

What monitoring requirements are specified in the prescribed fire plan used in the Unit 4 exercise?

How do these requirements relate to the prescribed fire plan objectives?

What are the responsibilities of the Prescribed Fire Burn Boss?





## Decisionmaking Scenarios

### Scenario 1:

You are the burn boss on a one-day, moderate complexity (Type 2), 25-acre burn. Fuels are primarily grass with pockets of brush mixed in. The topography is steep (40%) and the burning needs to go slowly. About halfway through the burn, the holding boss gets called away for a family emergency. Due to continuous fuels, there is nowhere to stop the burning. An active edge is backing through the entire unit.

The remaining resources are relatively inexperienced and no one is qualified to supervise the holders. Other than the firing boss, only two squad bosses (FFT1's) are amongst the firefighters. One is inexperienced, but overconfident; the other has more experience, but is a quiet individual who is not comfortable being in charge. Earlier you saw the holding boss correct a few of their decisions and you have little confidence in either of their abilities. At the bottom of the unit are some research plots. Several scientists have traveled far to collect data from this burn. Because it took months to coordinate this whole operation, the Agency Administrator insisted at the morning briefing that you complete the burn before dark so the data can be collected.

The overconfident FFT1 is insisting on taking over the holding and has already started issuing random and contradictory orders. To compound the situation, the firing boss didn't get word to hold up the burning and is bringing fire towards an unbuffered line where there are no holders. At this time you receive word that the lunches you ordered just showed up and people are hungry. You see a half dozen researchers wandering around the unit below the fire. This is directly against your original orders at the briefing that non-qualified personnel stay out of the burn area. Some of the researchers don't have personal protective equipment, let alone fire shelters. There is general confusion throughout the entire burn and you feel you are losing control of the incident. Everyone is talking over the radio at once as you watch the holding boss drive off. The nearest qualified holding boss is over an hour away, so by the time he would arrive, the situation would be a moot point.

1. How many different situations are confronting the burn boss simultaneously in this scenario?
2. How would you prioritize which situation to deal with immediately?
3. What did you consider and what is the logic behind your decision?
4. What specific actions would you take?
5. What do you say to the overconfident squad boss?
6. How do you tactfully handle the researchers when you are obviously overtaxed and probably frustrated?

## Scenario 2:

You are assigned to be the burn boss of a small but moderately complex (Type 2) timber burn unit. The complexity is primarily based on heavy fuels and the time of year the burn must be executed to meet consumption objectives. Fuels are on the dry end of the prescription and you have reservations about burning under the present conditions. However, the FMO and Agency Administrator are under intense pressure to achieve target acres and you agree to take the assignment against your better wishes.

The burning has progressed well until an unexpected drop in humidity forces you to hold up in the middle of the unit. Holders are picking up numerous small spots and are scrambling to hold on to the burn. At this time, your dispatch office calls and informs you of a wildfire that was just reported locally and is threatening structures. The dispatcher anxiously asks you to release all the resources you can. A smoke column from the wildfire can be seen developing in the direction of the local community. This happens to be where several of the burn personnel live, including yourself.

You know if you release any resources, you may lose your burn. Despite there being no significant values at risk outside the unit, an escape could result in a large project fire under the current conditions. This would be a political disaster for your home unit and potentially to your career. You also know you are tying up the majority of the resources in the area. If you don't release any resources and the wildfire burns up some homes, this would also be a political disaster for your home unit and your career. There is a lot of anxiety among burn personnel with some borderline panic due to concern for their property and families.

Radio traffic indicates the holders have found another spot fire that they "think" they can handle. You hear on another radio channel that evacuations have begun in the local community. There are minimal resources on the wildfire and help is on the way, but it will be at least 45 minutes before significant resources arrive. Your own resources are within 30 minutes of the wildfire. Everyone is talking to you at once and volunteering a plan on how the situation should be handled.

1. Do you release any of your resources to the wildfire?
2. What did you consider and what is the logic behind your decision?
3. How would you defend your actions one way or another at the inevitable board of investigation?
4. If one of the burn personnel came to you in a panic and demanded to be released immediately to protect their home, what would your response be?
5. What type of information would you be documenting at this time?

### Scenario 3:

You are the fuels specialist on a unit which does not do a lot of burning. For the past several years there has been a prescribed fire on the books that for one reason or another has never been completed. This year, you and your boss (the local FMO) are under pressure to complete the project. Your district has invested a lot of time and money into prepping and re-prepping the burn unit year after year. The burn will provide significant resource benefit to several sensitive plant species.

In addition, there is a radio tower to be protected at the high point of the unit. Interest level is very high from both your Agency Administrator and other division staff. The regional office is also very supportive and there is an expectation that the burn will finally be accomplished this year.

Burn unit specifications:

- Fuel type: timber
- Complexity: moderate
- Size: 110 acres
- Aspect: predominantly north facing
- Time of year: mid-October

The prescribed fire plan calls for the site to receive up to one-half inch of rain prior to any lighting. This occurred a week before the scheduled ignition and the fuel moistures are well within prescription. A “perfect” burn window has been forecasted for both weather and smoke dispersal.

Because your unit does not do a lot of burning, combined with the sensitive plant species and radio tower, the burn plan conservatively calls for numerous resources to be on site. Additionally, the burn is in a remote location and will require multi-day logistical support. Despite being supported at all levels, the burn has come under scrutiny for its high costs. Both you and the FMO are concerned about the cost which has increased the pressure to show some accomplishment for the money being spent. You are the burn boss for the project.

The day of the burn, all the resources and associated logistical support are assembled on scene. You give a thorough briefing, everything is a go, and everyone is very enthusiastic. The test burn at the high point shows the fire behavior is perfect for meeting objectives and is controllable. As the firing teams continue with ignition down the north aspect, the fire behavior decreases under the shaded canopy and you are right on the edge of truly meeting the burn objectives. One team reports that “everything is going out.”

1. Do you continue burning under these circumstances?
2. If you decide to postpone, how will you explain to your boss and the regional office about all the money you spent with nothing to show for it?
3. If you decide to continue, how will you explain to the other resource staff if the burn doesn't meet objectives?
4. What could have been done to avoid this situation from occurring?
5. What is the risk of burning timber under too moist conditions?

6. What is the risk in repeatedly postponing a burn to wait for the “perfect” window?
7. How does the lateness of the year factor into pressure to meet burn targets?
8. What if the circumstances were reversed and the fire behavior was too hot?



Scenario 4:

The burn prescription of a 50-acre timber unit for which you are the burn boss is as follows:

<b>Weather/Fuels</b>	<b>Fuel Models 8, 9, 10</b>
Temperature (degrees F°)	45 – 75°
Relative Humidity (%)	25 – 60%
Mid-Flame Wind Speed (mph)	0 – 10
Wind Direction	Any
1-hour Fuel Moisture (%)	4 – 12%
10-hour Fuel Moisture (%)	5 – 13%
100-hour Fuel Moisture (%)	6 – 14%
1000-hour Fuel Moisture (%)	10 – 20%
Live Woody Fuel Moisture (%)	80 – 150%

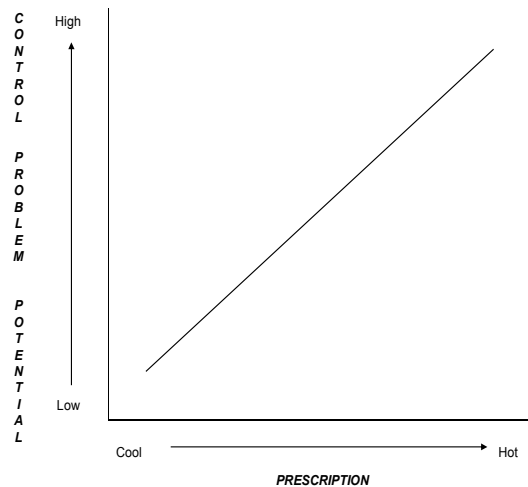
It is late autumn in the Western United States. Fuels are at their normal seasonal dryness but still comfortably within prescription. Weather forecasts are favorable for completing the one-day burn. Just before the test burn, the fire monitor takes the current weather observations and all parameters are within prescription except for the temperature, which is 39°.

1. Do you ignite the burn even though you would be violating interagency policy by burning out of prescription?
2. If you agreed to proceed with the burn and later there was a serious injury, what do you think your liability would be during the subsequent investigation for burning out of prescription?

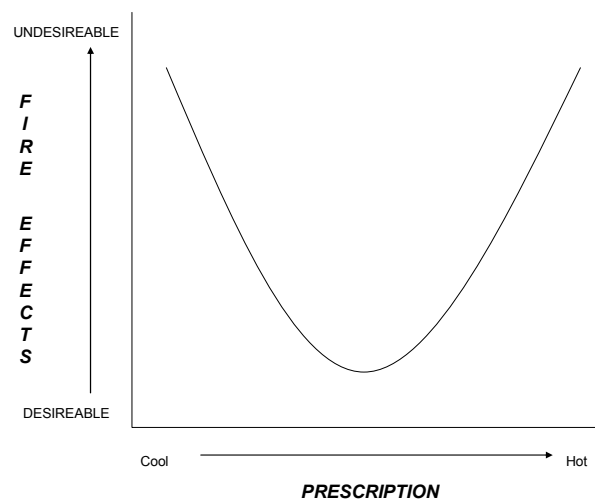
After consulting with the local FMO and Agency Administrator, you all agree that to meet targets, it's acceptable in this case to burn out of prescription on the cool end with temperature. You successfully complete your test burn and are satisfied with the results. Less than 30 minutes later you are informed that the humidity dropped to 24%. You are now simultaneously out of prescription on both the hot and cold ends. The fire behavior is a backing fire with 4- to 8-inch flame lengths; fire effects are meeting your objectives and there are no control problems.

3. When you are out of prescription on both the hot and cold ends simultaneously, do they cancel each other out?
4. Do you continue to ignite the burn unit under this scenario?
5. What other options do you have as a burn boss? Which option would you choose and why?
6. What are two primary parameters to consider in regards to developing and implementing burn prescriptions?

7. Consider the following two generalized graphs. The graph below shows the relationship between prescription and control problems is fairly consistent regardless of fuel type. The hotter it is, the more control problems one is likely to have.



While the curve on the graph below may generally be a consistent concept, it may in fact shift around depending on desired objectives. Therefore, it becomes important that burn bosses see the relationship between their prescription and fire effects (burn objectives).



The bottom line is that burn bosses must know when to burn hot and when to burn cool to meet specific objectives. They must ultimately develop their prescriptions accordingly.

- What are some options a burn boss has when the prescription is exceeded?
  
- What are some options a burn boss has when the prescription is exceeded?
  - Holding up ignition and allowing the fire to back through the unit until conditions return to favorable.
  - Continue to ignite if the unit is almost finished and it is justifiable.
  - Putting in a check line and waiting.
  - Full suppression.
  
- One strong gust of wind does not necessarily put a burn out of prescription. A burn boss must continually validate that a parameter is out of prescription. This can include:
  - Having another psychrometer compare a humidity reading.
  - Setting trigger points on when to take more frequent observations.
  - Having their dispatch office contact the weather service to get an update on the spot forecast.
  
- Under some circumstances it may be possible and desirable to get the prescription amended by the approving agency administrator.
  
- It's important to have prescription discussions with the FMO and/or agency administrator before a situation develops out in the field. For example, some managers may be comfortable burning out of prescription on the cool end as long as objectives are being met.

- If a monitor reports a sustained wind that is out of prescription at the top of a burn unit, but ignition is currently taking place several hundred feet lower on the hill where winds are calm, is the burn out of prescription?
- Should the burn boss terminate the burn?
- To be out of prescription, does an entire burn unit need to be out or only a portion of the unit?

## Prescribed Fire Implementation, RX-301

### Unit 7 – Contingency Operations, Wildfire Conversion, and Declared Wildfire Review

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Describe the difference between the contingency plan and wildfire conversion.
2. Describe the circumstances and actions needed to safely implement the contingency plan.
3. Describe the actions to be taken when a prescribed fire is declared a wildfire.
4. Describe the declared wildfire review process.



## I. CONTINGENCY PLANS VS. WILDFIRE CONVERSION

There can often be confusion between the contingency plan and wildfire conversion.

They are addressed in different sections of the prescribed fire plan and are two distinctively separate actions.

### A. Contingency Plan

- Is a contingency plan a required element of the prescribed fire plan?
- If the contingency plan is activated, is the project still a prescribed fire?
- Contingency plan is activated by personnel on the burn site (burn boss, firing boss, or holding boss).
- Activation of the contingency plan does not reflect failure.
- Contingency actions can be implemented at any point during project implementation.
- Don't need to order contingency resources to implement contingency actions.
- Contingency plan can have a timeline (if contingency resources are ordered, actions must be successful by end of next burning period).
- Personnel must meet prescribed fire qualifications commensurate with assigned duties.
- Resources may be on or off site as required by the prescribed fire plan.



## B. Wildfire Conversion

- Wildfire conversion is part of the prescribed fire plan.
- When the conversion has been declared, the project is no longer a prescribed fire – it is a wildfire.
- If there is a wildfire conversion, the project cannot be reverted back to a prescribed fire.
- Declaration should only be made by the person(s) identified in the prescribed fire plan.
- Personnel must meet wildland fire qualifications commensurate with assigned duties.

## II. CIRCUMSTANCES AND ACTIONS NEEDED TO SAFELY IMPLEMENT THE CONTINGENCY PLAN

### A. Circumstances

Not meeting, exceeding, or threatening to exceed the following:

- Project or unit boundary
- Objectives
- Prescription parameters
- Minimum implementation organization
- Smoke impacts
- Other prescribed fire plan elements

B. Actions

- Safety (do conditions warrant the safe implementation of the plan for personnel, public, and values at risk?)
- Maintain chain of command and span of control.
- Adjust operations accordingly to support contingency plan (adjust/stop ignition, order additional resources, reallocate resources?)

III. ACTIONS TO BE TAKEN WHEN A PRESCRIBED FIRE IS DECLARED A WILDFIRE

A. Circumstances

- Contingency actions have failed or are likely to fail and cannot be mitigated by the end of the next burning period by any listed contingency resources.
- The fire has spread outside the project boundary, or is likely to do so, cannot be contained by the end of the next burning period.
- A prescribed fire can be converted to a wildfire for reasons other than an escape.
- Agency specific reasons

B. Actions

- Safety (LCES)
- Chain of command and span of control
- Wildfire declaration (specify who declares)
- IC and overhead assignment

- Notifications (dispatch, Agency Administrator, FMO, adjacent landowners, etc.)
- Extended attack actions and opportunities to aid in suppression efforts.

C. Additional items for the IC (burn boss) to consider:

- Ordering of additional resources
- Request a fire investigator
- Request a fire information officer (media interviews)
- Accident investigation
- Secure the scene (area of escape)
- Development of a WFSA or agency appropriate documentation

#### IV. THE DECLARED WILDFIRE REVIEW PROCESS

All prescribed fires declared a wildfire will have an investigative review initiated by the Agency Administrator.

This is where your adherence to the prescribed fire plan and accuracy of documentation will be thoroughly examined.

A. Elements of the Review Process

- Determine if the prescribed fire plan was adequate for the project and complied with agency policy and guidance related to prescribe fire planning and implementation.
- Determine if the prescription, actions, and procedures set forth in the prescribed fire plan were followed.
- Describe and document factual information pertaining to review.

- Determine if overall policy, guidance, and procedures relating to prescribed fire operations are adequate.
- Determine the level of awareness and the understanding of the personnel involved, in regard to procedures and guidance.
- Determine if all assigned personnel were properly qualified for and operating in their assigned positions.
- Determine if overhead were acting in more than one position simultaneously.

#### B. Elements of the Final Report

- An analysis of seasonal severity, weather events, and on-site condition leading up to the wildfire declaration.
- An analysis of the actions taken leading up to the wildfire declaration for consistency with the prescribed fire plan.
- An analysis of the prescribed fire plan for consistency with policy.
- An analysis of the prescribed fire prescription and associated environmental parameters.
- A review of the approving Agency Administrator's qualifications, experience, and involvement.
- A review of the qualification and experience of key personnel involved.
- A summary of causal agents contributing to the wildfire declaration.

### **EXERCISE: Contingency Operations and Wildfire Conversion (pages 7.9 – 7.18)**



## **Contingency Operations and Wildfire Conversion**

### Scenario 1

Date: July 15  
Place: Southwest Colorado  
Fuels: Pinyon-juniper, sagebrush, cheatgrass  
Burn size: 500 acres

It is day two of a three-day burn. The operation the day before went well with a blackline accomplished around the entire north end of the burn. The objective for the current day is to continue blacklining the flanks of the burn, while beginning to fire the interior. Briefing is scheduled for 1000.

At 0930, you (the Burn Boss) are notified by dispatch that one of your Type 3 engines will be delayed due to a mechanical problem. Their expected time of arrival will not be until the following day. You consult the burn plan and determine that you still have the necessary amount of resources required in the plan.

You give the briefing as planned to the rest of the resources. Before the test burn, both your firing boss and holding supervisor tell you they are not comfortable igniting the unit without the missing Type 3 engine. Despite your own comfort level with the situation, you respect both of their judgments. Unfortunately, delaying ignition for one day means you will probably not be able to finish the burn.

After the third day you will lose most of your resources to prior commitments. Due to the time of year, there is also pressure from the local FMO and Agency Administrator to complete the burn as scheduled. Having a partially burned unit will be unacceptable. You have a good three-day burn window for both weather and smoke; after which conditions start deteriorating.

After stating your case for why you feel the burn could continue, the firing boss and holding supervisor both remain very uncomfortable with proceeding. At this point you have reached an impasse.

1. Other than directly ordering the burn to proceed against the wishes of your overhead, is there another way to come up with a compromise where the burn could still be completed and their concerns mitigated?
2. What would you do if the contingency resource was able to show up, but must still be able to maintain delayed wildfire response availability?

## Scenario 2

Date: September 22  
Place: Bakersfield, California  
Fuels: Grass  
Topography: Rolling foothills, < 2,000 foot elevation, slopes averaging 20%  
Size: 250 acres  
Resources: 2 – Type 3 Engines  
2 – Type 6 Patrol Engines  
1 – Water Tender (3,000 gallons)  
1 – 20-person Type 2 handcrew  
1 – Firing Boss  
1 – Holding Supervisor (TFLD qualified)

You are the Burn Boss for this one-day burn which is surrounded by roads. The time is 1800 and operations are winding down as the burn is almost complete. At 1818, the Holding Supervisor reports a slopover making a rapid run upslope. He reports that the slopover is probably going to “go over the hill.” Fuels are continuous grass and the slopover is heading away from any structures or improvements. The rest of the burn perimeter is secure and will require only an engine patrol.

Despite being tired from working all day, your resources begin forming an anchor point. The plan is to work the flanks with direct attack using two of the engines and the handcrew. The water tender still has all its water and can support the hoselays.

You request a sizeup from the holding supervisor and receive the following information:

The slopover is 5 acres and spreading faster than what the crews will be able to keep up with. Current weather observations: temperature is 78°, RH is 27%, winds out of the west at 5-7 miles per hour. The fire is spreading east into a roadless (non-wilderness) area and being pushed by a wind and slope alignment. The Holding Boss estimates the fire will continue to spread due to continuous fuels regardless of wind and topography. Despite conditions turning favorable with nighttime coming on, he states he will need additional resources to pick up the slopover. He has no estimated time of containment.



These are the contingency resources listed in your burn plan:

- 1 – Type 2 Helicopter (now unavailable due to the approaching darkness)
- 2 – Type 3 Engines (one- and two-hour response times respectively)
- 1 – Type 2 Dozer (two hours response time)

All resources were available when you started the burn and you were not informed of any being committed to other incidents.

1. What does the interagency policy say about when a prescribed burn must be converted to a wildfire?
  
  
  
  
  
  
  
  
  
  
2. Do you automatically convert the burn to a wildfire at this time? Explain your answer.
  
  
  
  
  
  
  
  
  
  
3. Do you order your contingency resources? Explain your answer.

After discussing the situation with your Holding Supervisor, you call dispatch around 1830 and order the contingency resources (minus the helicopter). Dispatch informs you that the resources are available, but being after hours, there may be some delay getting them to you. Dispatch estimates all additional resources should be on scene by around 2100 hours.

The Duty Officer is contacted and informs you she is comfortable with you retaining control of the incident due to your qualifications. She says she will be available by phone and you both agree on times for future updates.

4. Now that you ordered your contingency resources, does this mean you must now convert the burn to a wildfire?
  
5. If you had decided to order additional resources than what is listed in the contingency plan, does that mean the burn must be converted to a wildfire?

By 2230, the dozer finally arrives on scene and you now have your full complement of contingency resources. The original burn unit is in patrol status and is pretty much out. Despite a slackening of the winds and cooler nighttime conditions, the slopover is continuing to burn actively by responding to topography in the rolling hills. The exact size is unknown. There is still no estimated time of containment.

6. After four hours of control actions and still no estimated time of containment, does this mean you must now convert the burn to a wildfire?

The slopover is contained by 0500. Size is estimated to be between 100-150 acres. The dozer was able to work much of the perimeter except due to resource damage concerns where the fire crossed a riparian area. The engine crews married up and formed a short handcrew and, combined with the Type 2 handcrew, were able to contain the rest of the slopover with a handline.

Most of the perimeter is quiet; most of the remaining heat is within the riparian area which will smoke for a few days unless mopped up. After the excitement of the control action, you realize that your resources are exhausted and need to be released. You have yet to order a day shift. You contact dispatch and order two Type 3 engines and one Type 2 handcrew with a time needed of 0800.

7. With the size of the slopover being greater than 100 acres, and now that you have ordered additional resources for day shift, does this mean you must now convert the burn to a wildfire?
8. What other issues, policy and otherwise, should you have been concerned with throughout the slopover?
9. If at some point during the slopover, had you decided to convert the burn to a wildfire, what other specific actions would you need to have taken? What other policy document would offer you guidance in addition to the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide?
10. By working your resources through the night in this scenario you exceeded the work/rest ratio. Does this mean you should have converted the burn to a wildfire? How would you justify this to your Duty Officer?

### Scenario 3

You are the Burn Boss of a timber burn in October during the second operational period. At 1256 a spot fire was detected several hundred yards off the burn perimeter. You immediately ordered your contingency resources. By 1412, you estimate the on-site and contingency resources will be unable to contain the spot fire by the end of the next burning period.

1. What actions should you take at this time?

With concurrence of the Agency Administrator you converted the burn to a wildfire. At that time you ordered additional resources; by 1600 all of the resources had arrived and were engaged on the fire. You also ordered an ICT3 who won't be able to transition with you until the following morning. Because this is now being considered an initial attack, you have permission to continue working through the night. Everything up until now has been done with continued concurrence with the Duty Officer and Agency Administrator.

The escaped fire has burned into the wildland urban interface. One residence has been confirmed destroyed and two more are reportedly threatened. Resources on hand are adequate and believe they can save these residences. They are optimistic in having the fire contained by the next morning.

One firefighter slipped down a steep slope and is currently being assessed for a possible medevac. Preliminary reports indicate the firefighter has a broken leg. Firefighters are scouting the area suitable for helispot construction.

The current time is 1653. The Structure Group Supervisor just reported by radio that the media has arrived and is starting to ask questions.

2. What do you consider to be your highest incident priority?
  
  
  
  
  
  
  
  
  
  
3. What specific actions do you take regarding your highest incident priority?

You arrive at the interface area and are immediately confronted by angry homeowners. This catches you off guard as you thought the area had been evacuated. The homeowners are demanding your agency take responsibility and some are asking how they will be compensated for their lost property. The atmosphere is emotionally charged.

4. What is your response to the homeowners? Can you accept responsibility for your agency?

After talking to the homeowners you tie in with the Structure Group Supervisor. He is currently talking to the media with the cameras rolling. You overhear what he is saying and it is completely erroneous and bordering on inappropriate. The reporters are writing furiously on their note pads as he is talking.

5. What is your response to this situation?

After seeing you, the Structure Group Supervisor says, "There's the Burn Boss now, you should ask him." Almost immediately there are cameras rolling on you and you are being asked pointed questions about the burn operation. Some specific questions are: What led to this "disaster"? Why did this happen? Why did your agency light this burn in the first place? Who is responsible? How could this have been avoided? How can your agency guarantee this type of catastrophe won't happen again?

6. What will your response be to the reporters?

At 1903 an additional spot fire is reported. It is said to be making a major run and appears that much of your fireline has been lost. You no longer have enough resources to manage the situation. It is also becoming clear to you that the escape has become more complex than a Type 3 incident. You notify dispatch and consult with your Duty Officer and agree to order an Incident Management Team. You are now managing the incident in the interim until you are relieved in the morning either by the new ICT3 or the actual team.

7. What are your primary concerns at this time?
8. What ICS forms could you prepare to facilitate a smooth transfer to an IMT?
9. What are some other general items you should include in a transition packet and briefing to an IMT?
10. What other agency or unit specific procedures would you have to follow during this escape and transition to an IMT?
11. How can you as the Burn Boss be prepared for the inevitable declared wildfire review?

## Prescribed Fire Implementation, RX-301

### Unit 8 – Post-Burn Activities and Documentation

#### OBJECTIVES:

Upon completion of this unit, students will be able to:

1. Describe the post-burn activities that must be completed by the prescribed fire burn boss.
2. List the required components of post-burn documentation folder.





## I. POST-BURN ACTIVITIES

Post-burn activities are paramount to a successful prescribed fire program. The burn boss should ensure that post-burn activities are completed and documented.

### A. After Action Review

- What was planned?
- What actually happened?
- Why did it happen?
- What can we do next time?

### B. Post-Burn Report

A summary of how the burn went and how well it met short-term burn objectives.

This can be in the form of a unit log, narrative, or chronological report.

### C. Other Activities

- Safety mitigation measures
- Rehabilitation
- Declaring a prescribed fire out

## II. POST-BURN DOCUMENTATION

Project files should be as complete and organized as possible. They are legal documents that will need to be accessed in the event of an investigation or review.

There is also historic value as a source of empirical evidence for further land management actions.

### A. Required Documents

1. Prescribed fire plan
2. Monitoring data
  - Weather observations
  - Fire behavior
  - Fire effects
  - Smoke dispersal observations
3. Weather forecasts
4. Notifications
5. Documented prescribed fire organization
6. Agreements related to implementation
7. Prescribed Fire Go/No-Go Checklists
8. Revalidation of the agency administrator pre-ignition approval checklist
9. Agency specific reports (Fire Report or ICS 209)

B. Optional Documents

1. After Action Review
2. Incident Action Plan, Unit Logs
3. Press releases
4. Actual ignition patterns and sequences used
5. Smoke management information
  - Air Quality Notice of Violation (NOV) Reviews
6. Agency individual fire occurrence form
7. Detailed post-burn report
8. NEPA documentation
9. Permits
10. Project cost summary

As an RXB, what dictates your responsibility for the contents of the project file?

