GULF POWER COMPANY

2013 TRANSMISSION VEGETATION MANAGEMENT PROGRAM FOR FAC-003-1 APPLICABLE TRANSMISSION LINES

EFFECTIVE: January 1, 2013

_____ _____

Transmission Manager **Date**

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APPLICABILITY

This program applies to all Vegetation Management activities on Gulf Power Company Transmission rights-of-way associated with lines governed by NERC standard FAC-003.1, known as the National Standard for Transmission Vegetation Management. It applies to all lines rated at 200 KV or greater plus any lower voltage lines designated as critical by the SERC Reliability Corporation.

A. Introduction

1. **Title:** **Transmission Vegetation Management Program**

2. **Number:** FAC-003-1

3. **Purpose:** To improve the reliability of the electric transmission systems by preventing outages from vegetation located on transmission rights-of-way (ROW) and minimizing outages from vegetation located adjacent to ROW, maintaining clearances between transmission lines and vegetation on and along transmission ROW, and reporting vegetation-related outages of the transmission systems to the respective Regional Reliability Organizations (RRO) and the North American Electric Reliability Council (NERC).

4. **Applicability:**
   - 4.1. Transmission Owner.
   - 4.2. Regional Reliability Organization.
   - 4.3. This standard shall apply to all transmission lines operated at 200 kV and above and to any lower voltage lines designated by the RRO as critical to the reliability of the electric system in the region.

5. **Effective Dates:**
   - 5.1. One calendar year from the date of adoption by the NERC Board of Trustees for Requirements 1 and 2.
   - 5.2. Sixty calendar days from the date of adoption by the NERC Board of Trustees for Requirements 3 and 4.

B. Requirements

R1. The Transmission Owner shall prepare, and keep current, a formal transmission vegetation management program (TVMP). The TVMP shall include the Transmission Owner's objectives, practices, approved procedures, and work specifications[1].

R1.1. The TVMP shall define a schedule for and the type (aerial, ground) of ROW vegetation inspections. This schedule should be flexible enough to adjust for changing conditions. The inspection schedule shall be based on the anticipated growth of vegetation and any other environmental or operational factors that could impact the relationship of vegetation to the Transmission Owner's transmission lines.

R1.2. The Transmission Owner, in the TVMP, shall identify and document clearances between vegetation and any overhead, ungrounded supply conductors, taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, and the effects of wind velocities on conductor sway. Specifically, the Transmission Owner shall establish clearances to be achieved at the time of vegetation management work identified herein as Clearance 1, and shall also establish and maintain a set of clearances identified herein as Clearance 2 to prevent flashover between vegetation and overhead ungrounded supply conductors.

R1.2.1. Clearance 1 — The Transmission Owner shall determine and document appropriate clearance distances to be achieved at the time of transmission vegetation management work based upon local conditions and the expected time frame in which the Transmission Owner plans to return for future

[1] ANSI A300, Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices, while not a requirement of this standard, is considered to be an industry best practice.

vegetation management work. Local conditions may include, but are not limited to: operating voltage, appropriate vegetation management techniques, fire risk, reasonably anticipated tree and conductor movement, species types and growth rates, species failure characteristics, local climate and rainfall patterns, line terrain and elevation, location of the vegetation within the span, and worker approach distance requirements. Clearance 1 distances shall be greater than those defined by Clearance 2 below.

R1.2.2. Clearance 2 — The Transmission Owner shall determine and document specific radial clearances to be maintained between vegetation and conductors under all rated electrical operating conditions. These minimum clearance distances are necessary to prevent flashover between vegetation and conductors and will vary due to such factors as altitude and operating voltage. These Transmission Owner-specific minimum clearance distances shall be no less than those set forth in the Institute of Electrical and Electronics Engineers (IEEE) Standard 516-2003 (*Guide for Maintenance Methods on Energized Power Lines*) and as specified in its Section 4.2.2.3, Minimum Air Insulation Distances without Tools in the Air Gap.

R1.2.2.1 Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5, IEEE 516-2003, phase-to-ground distances, with appropriate altitude correction factors applied.

R1.2.2.2 Where transmission system transient overvoltage factors are known, clearances shall be derived from Table 7, IEEE 516-2003, phase-to-phase voltages, with appropriate altitude correction factors applied.

R1.3. All personnel directly involved in the design and implementation of the TVMP shall hold appropriate qualifications and training, as defined by the Transmission Owner, to perform their duties.

R1.4. Each Transmission Owner shall develop mitigation measures to achieve sufficient clearances for the protection of the transmission facilities when it identifies locations on the ROW where the Transmission Owner is restricted from attaining the clearances specified in Requirement 1.2.1.

R1.5. Each Transmission Owner shall establish and document a process for the immediate communication of vegetation conditions that present an imminent threat of a transmission line outage. This is so that action (temporary reduction in line rating, switching line out of service, etc.) may be taken until the threat is relieved.

R2. The Transmission Owner shall create and implement an annual plan for vegetation management work to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to adjust to changing conditions, taking into consideration anticipated growth of vegetation and all other environmental factors that may have an impact on the reliability of the transmission systems. Adjustments to the plan shall be documented as they occur. The plan should take into consideration the time required to obtain permissions or permits from landowners or regulatory authorities. Each Transmission Owner shall have systems and procedures for documenting and tracking the planned vegetation management work and ensuring that the vegetation management work was completed according to work specifications.

R3. The Transmission Owner shall report quarterly to its RRO, or the RRO's designee, sustained transmission line outages determined by the Transmission Owner to have been caused by vegetation.

R3.1. Multiple sustained outages on an individual line, if caused by the same vegetation, shall be reported as one outage regardless of the actual number of outages within a 24-hour period.

R3.2. The Transmission Owner is not required to report to the RRO, or the RRO's designee, certain sustained transmission line outages caused by vegetation: (1) Vegetation-related outages that result from vegetation falling into lines from outside the ROW that result from natural disasters shall not be considered reportable (examples of disasters that could create non-reportable outages include, but are not limited to, earthquakes, fires, tornados, hurricanes, landslides, wind shear, major storms as defined either by the Transmission Owner or an applicable regulatory body, ice storms, and floods), and (2) Vegetation-related outages due to human or animal activity shall not be considered reportable (examples of human or animal activity that could cause a non-reportable outage include, but are not limited to, logging, animal severing tree, vehicle contact with tree, arboricultural activities or horticultural or agricultural activities, or removal or digging of vegetation).

R3.3. The outage information provided by the Transmission Owner to the RRO, or the RRO's designee, shall include at a minimum: the name of the circuit(s) outaged, the date, time and duration of the outage; a description of the cause of the outage; other pertinent comments; and any countermeasures taken by the Transmission Owner.

R3.4. An outage shall be categorized as one of the following:

R3.4.1. Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW;

R3.4.2. Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW;

R3.4.3. Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the ROW.

R4. The RRO shall report the outage information provided to it by Transmission Owner's, as required by Requirement 3, quarterly to NERC, as well as any actions taken by the RRO as a result of any of the reported outages.

C. Measures

M1. The Transmission Owner has a documented TVMP, as identified in Requirement 1.

M1.1. The Transmission Owner has documentation that the Transmission Owner performed the vegetation inspections as identified in Requirement 1.1.

M1.2. The Transmission Owner has documentation that describes the clearances identified in Requirement 1.2.

M1.3. The Transmission Owner has documentation that the personnel directly involved in the design and implementation of the Transmission Owner's TVMP hold the qualifications identified by the Transmission Owner as required in Requirement 1.3.

M1.4. The Transmission Owner has documentation that it has identified any areas not meeting the Transmission Owner's standard for vegetation management and any mitigating measures the Transmission Owner has taken to address these deficiencies as identified in Requirement 1.4.

M1.5. The Transmission Owner has a documented process for the immediate communication of imminent threats by vegetation as identified in Requirement 1.5.

M2. The Transmission Owner has documentation that the Transmission Owner implemented the work plan identified in Requirement 2.

M3. The Transmission Owner has documentation that it has supplied quarterly outage reports to the RRO, or the RRO's designee, as identified in Requirement 3.

M4. The RRO has documentation that it provided quarterly outage reports to NERC as identified in Requirement 4.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

RRO

NERC

1.2. Compliance Monitoring Period and Reset

One calendar Year

1.3. Data Retention

Five Years

1.4. Additional Compliance Information

The Transmission Owner shall demonstrate compliance through self-certification submitted to the compliance monitor (RRO) annually that it meets the requirements of NERC Reliability Standard FAC-003-1. The compliance monitor shall conduct an on-site audit every five years or more frequently as deemed appropriate by the compliance monitor to review documentation related to Reliability Standard FAC-003-1. Field audits of ROW vegetation conditions may be conducted if determined to be necessary by the compliance monitor.

2. Levels of Non-Compliance

2.1. Level 1:

2.1.1. The TVMP was incomplete in one of the requirements specified in any subpart of Requirement 1, or;

2.1.2. Documentation of the annual work plan, as specified in Requirement 2, was incomplete when presented to the Compliance Monitor during an on-site audit, or;

2.1.3. The RRO provided an outage report to NERC that was incomplete and did not contain the information required in Requirement 4.

2.2. Level 2:

2.2.1. The TVMP was incomplete in two of the requirements specified in any subpart of Requirement 1, or;

2.2.2. The Transmission Owner was unable to certify during its annual self-certification that it fully implemented its annual work plan, or documented deviations from, as specified in Requirement 2.

2.2.3. The Transmission Owner reported one Category 2 transmission vegetation-related outage in a calendar year.

2.3. Level 3:

2.3.1. The Transmission Owner reported one Category 1 or multiple Category 2 transmission vegetation-related outages in a calendar year, or;

2.3.2. The Transmission Owner did not maintain a set of clearances (Clearance 2), as defined in Requirement 1.2.2, to prevent flashover between vegetation and overhead ungrounded supply conductors, or;

2.3.3. The TVMP was incomplete in three of the requirements specified in any subpart of Requirement 1.

2.4. Level 4:

2.4.1. The Transmission Owner reported more than one Category 1 transmission vegetation-related outage in a calendar year, or;

2.4.2. The TVMP was incomplete in four or more of the requirements specified in any subpart of Requirement 1.

E. Regional Differences

None Identified.

Version History

Version	Date	Action	Change Tracking
Version 1	TBA	1. Added "Standard Development Roadmap." 2. Changed "60" to "Sixty" in section A, 5.2. 3. Added "Proposed Effective Date: April 7, 2006" to footer. 4. Added "Draft 3: November 17, 2005" to footer.	01/20/06

GULF POWER COMPANY TRANSMISSION

VEGETATION MANAGEMENT PROGRAM DESCRIPTION

OBJECTIVES

Gulf Power Company manages vegetation on its transmission rights-of-way to ensure public safety and reliability of its transmission system through the use of integrated vegetation management (IVM). IVM is a process that balances the use of mechanical, chemical, cultural, and biological treatments to establish and maintain a vegetative cover type that is compatible with the environment, economically feasible, and socially acceptable. Gulf Power Company's vegetation management program is designed to control the vegetation growing on the ground floor as well as along the sides and adjacent to the right-of-way.

For the purpose of vegetation management, the right-of-way is defined as the cleared corridor that has historically been maintained. The cleared corridor may or may not include the entire easement width. Trees and vegetation growing outside the cleared corridor are considered to be off the right-of-way

FLOOR MAINTENANCE

The ground floor is maintained by encouraging the establishment of low growing native vegetation while discouraging the growth of tall growing species which can interfere with electrical conductors. Vegetation that is incompatible with a transmission right-of-way is cut or sprayed to prevent it from encroaching on electrical conductors. Site conditions, species composition, environmental concerns, and line configuration are considered to determine the scope of work necessary and control methods that will be utilized.

Generally, the stem count on the right-of-way is initially reduced through a broadcast application of herbicides. Subsequent applications target individual stems utilizing back pack applications. Stems that are incompatible with a transmission right-of-way are treated while low growing species that will not endanger the line are left untreated. This allows native vegetation to become established on the right-of-way thus creating a habitat that is beneficial to wildlife while retarding the future establishment of tall-growing stems that may endanger the power lines.

Mechanical mowing is utilized to control vegetation on the right-of-way when necessary to re-define right-of-way boundaries, re-establish access to company facilities, or provide immediate height reduction of vegetation.

The frequency of floor management activities is dependent on past management activities, line configuration, soil type, species composition and other factors. Since the goal of IVM is to create a vegetative cover type that is compatible with a right-of-way, the time between treatments may be extended once a satisfactory cover type has been established.

SIDE MAINTENANCE

The sides of the right-of-way are maintained primarily through mechanical means, although chemical means is used on occasion. This work is highly influenced by easement rights, right-of-way width, and placement of the line on the right-of-way. Side maintenance is achieved through the use of side trimming, danger tree removal, or a combination of these practices.

Limbs which grow into the right-of-way from adjacent trees may be removed, or in some cases, chemically treated. If possible, trees will be pruned to redirect future growth away from the transmission facility by utilizing practices identified in the ANSI A300 Pruning Standard.

Trees growing adjacent to the right-of-way which endanger the transmission facility because they are dead, dying, diseased, leaning, or have obvious physical defects are topped or cut at ground level to ensure they cannot endanger the transmission facility.

The frequency of side maintenance treatments varies depending on a number of factors, including but not limited to, right-of-way width, species composition, soil types, line configuration, and past management activities.

CLEARANCE REQUIREMENTS

GENERAL

In order to ensure public safety and reliability of the transmission system, an adequate distance between ungrounded transmission supply conductors and vegetation shall be maintained. These clearances shall consider transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, the effects of wind velocities on conductor sway, and growth rates of vegetation.

Clearances shall be defined as:

Clearance 1 – The minimum radial distance between vegetation and conductors that will be obtained at the time work is performed.
Clearance 2 – The minimum radial distance that will be maintained between vegetation and conductors under all rated electrical operating conditions.

CLEARANCE 1

The clearance between vegetation and conductors shall be maximized to the greatest extent possible when work is performed. In order to ensure the greatest possible clearance has been obtained, all ground floor vegetation will be cut to ground level or sprayed and side vegetation shall be cut to the right-of-way edge.

Minimum Clearance 1 distances are shown in Table 1

CLEARANCE 2

FAC-003-1 states the minimum allowable clearance between vegetation and ungrounded supply conductors shall be no less than those set forth in the Institute of Electrical and Electronics Engineers (IEEE) Standard 516-2003 (Guide for Maintenance Methods on Energized Power Lines) and as specified in Table 7, IEEE 516-2003, phase-to-phase voltages.

Minimum Clearance 2 distances are shown in Table 1.

Table 1. – Minimum clearances between vegetation and transmission conductors

Voltage	Clearance 1 (feet)	Clearance 2 (feet)
230 KV	13.97	3.97
500 KV	20.07	10.07

If Clearance 1 cannot be obtained at the time work is performed at specific locations, mitigation plans will be documented to ensure Clearance 2 is maintained at all times.

MITIGATION PLANS

GENERAL

Lines that have the potential of requiring mitigation plans have been identified by Gulf Power Company Transmission Line Design. Each line has been analyzed by modeling wind loads and span length to determine the locations where blowout or sag could potentially violate Clearance 1. These locations will be evaluated in the field by a qualified person. Based on the findings of the field evaluation, a schedule for re-inspection and/or corrective action will be documented and maintained.

Gulf Power Company may develop mitigation plans based on other local conditions or circumstances. All mitigation plans will be documented and attached to the Company's Annual Work Plan.

RIGHT-OF-WAY INSPECTION

FREQUENCY & METHODS

As a minimum, one annual inspection shall be completed on all applicable lines. This inspection may not begin earlier than June 1 of the current year and must be completed prior to May 31 of the following year. Additional inspections may be scheduled any time conditions change due to environmental or operational factors.

The inspection may be performed from the air or by ground. All discrepancies noted from aerial inspections must be evaluated on the ground to determine the necessary extent of corrective action. The type of inspections performed will be documented on the annual work plan.

All discrepancies will be documented so corrective action can be scheduled in a timely manner. If the inspection identifies an Imminent Hazard, immediate action shall be taken in accordance with Gulf Power Company's Imminent Hazard Communication Process.

INSPECTION ELEMENTS

Inspections shall look for, but are not limited to, the following elements:

- Tall brush which would violate the minimum clearance requirements before the end of the upcoming growing season
- Vines growing on structures or down guys which would violate the minimum clearance requirements prior to the end of the upcoming growing season
- Dead, dying, diseased, obviously defective, or leaning trees growing on or adjacent to the right-of-way which would endanger the line if they were to fall
- Limbs encroaching from the right-of-way sides which would violate the minimum clearance requirements prior to the end of the upcoming growing season
- Any mitigation issues identified by the Company

Inspections shall be forward looking and shall take into account future growth of vegetation, combined movement of vegetation and conductors under adverse weather conditions, sagging of conductors at elevated temperatures, and other pertinent factors.

CORRECTIVE ACTION

All vegetative discrepancies identified by the inspection shall be documented and corrective work will be completed before May 31 of each calendar year.

DOCUMENTATION

Documentation of the completed inspections and corrective actions will be maintained as part of the Annual Work Plan. The Company will report the monthly progress of their annual inspection on the Vegetation Management NERC Status Report all inspections and associated corrective action shall be completed no later than May 31 of each year.

COMMUNICATION OF IMMINENT THREATS

DEFINITION

An imminent threat is defined as any vegetation condition that has a high potential to cause a transmission line outage or operation if left uncorrected. Examples of imminent threats would include, but are not limited to, trees in the process of failing that will contact a conductor or tall brush that has grown into the conductor sag zone. If there is uncertainty as to whether or not the situation poses an imminent threat, err to the side of caution and report the situation.

COMMUNICATION PROCESS

Any time an imminent threat is observed, the following actions shall be taken immediately:

1. Notify the appropriate Gulf Power Company transmission vegetation management representative immediately. **Do not leave a message**. Contact must be established with one of the individuals on the contact list. Ensure you are positioned in a safe location and do not leave the site until you are released by a transmission vegetation management representative or Gulf Power System Control.

2. If a Gulf Power Company transmission vegetation management representative cannot be contacted, call directly to Gulf Power System Control and follow their instructions.

3. Immediately upon receiving notification that an imminent threat has been identified, the Gulf Power Company transmission vegetation management representative shall contact the Gulf Power System Control and provide the name of the line and location of the threat. The appropriate corrective action shall be determined through discussion with Gulf Power System Control and the on- site observer in the field.

4. Appropriate action shall be taken immediately to protect public safety and system reliability. Possible actions include, but are not limited to:

    a. **PERMANENT REMOVAL OF THE THREAT** – The preferred course of action is the immediate and permanent removal of the threat. If permanent removal can be accomplished safely, the Gulf Power Company transmission vegetation management representative will advise the Gulf Power System Control of the timeline for removing the threat. The Gulf Power transmission vegetation management representative shall also notify the Gulf Power System Control when work begins and immediately upon completion of work in the field.

b. **TEMPORARY MITIGATION OF THE THREAT** – If system conditions are such that the line is critical and/or the threat cannot be permanently removed at that time without further risk to the grid due to line loading conditions, unavailability of equipment or manpower, etc., the threat may be temporarily mitigated as follows:

   i. **Remove the Line From Service** - If Gulf Power System Control advises the line can be taken out of service until the threat is removed, the Gulf Power Company transmission vegetation management representative will schedule corrective action to permanently remove the threat at a later date. Gulf Power System Control will establish a deadline for completing the corrective action based on system loading requirements and the Gulf Power Company transmission vegetation management representative will schedule all work in accordance with the deadline established by Gulf Power System Control. Once corrective action has been completed, the Gulf Power Company transmission vegetation management representative will notify Gulf Power System Control so the line can be returned to service.

   ii. **Alter Line Loading** – If system conditions permit, Gulf Power System Control may alter line loading to facilitate completion of corrective action in the field and minimize the threat to the system. The threat shall be permanently removed as soon as possible and Gulf Power System Control will be notified when corrective action has been completed.

   iii. **Temporary Field Modifications** - If Gulf Power System Control cannot alter line loading or take the line out of service, field modifications may be made to temporarily remove the immediate risk. These field modifications may include actions such as roping off or bracing trees to eliminate further movement, removal of top limbs to reduce top loading, etc. Gulf Power System Control will be notified when mitigation has been completed and the Gulf Power Company transmission vegetation management representative will schedule permanent corrective action in accordance with a deadline established by Gulf Power System Control. Gulf Power System Control will be notified when final work begins and immediately upon completion of the work.

5. This process and the company contact list will be provided to all transmission vegetation contractor personnel who will be working on Gulf Power Company's Transmission System. It will be the responsibility of Gulf Power Company transmission vegetation management employees to ensure contract personnel understand this process and have copies of updated phone numbers for all Gulf Power transmission vegetation management personnel and Gulf Power System Control.

WORK SPECIFICATIONS AND PRACTICES

Transmission Right-of-Way Re-Clearing Specifications

GENERAL

The cutting of brush on transmission line rights-of-way is performed to ensure system reliability, public safety, and for ease of access in inspection, restoration, or maintenance efforts. It also serves as a reminder to property owners of the presence of a right-of-way across their property and the Company's legal rights associated with the easement.

The scope of this work may range from the cutting of any and all vegetation on the right-of-way to the cutting of specific stems that may pose a threat to line reliability before the next scheduled treatment or vegetation management activity.

A Gulf Power transmission vegetation management representative will assess the condition of the right-of-way and review future planned activities to determine the scope of brush cutting that is necessary.

PREFERRED METHODS

The preferred method of brush cutting will depend on the scope of work. Rotary mowing equipment will be the preferred method for the complete cutting of all brush on the right-of-way. Hand cutting will be the preferred method in areas too wet to allow the use of low ground pressure rotary mowing equipment or where the scope of work calls for the selective removal of specific stems or the complete cutting of small areas of the right-of-way.

SPECIFICATIONS

1. **Communications**
   At all times when performing the Services, Contractor's crews must make every effort to minimize misunderstandings with and to minimize inconvenience to the property owners and customers.

2. **Special Notices**
   The Company may post utility pole signs to alert contractors to potential customer concerns arising from previous tree pruning, damage claims, easement issues, etc. These signs, flanking the address, are eight-inch green equilateral triangles with identifying numbers inside the triangles (see Appendix A). At all times, Contractor's personnel must be on the lookout for these signs and must contact the Company Inspector before proceeding with any further Services where a sign is posted.

3. **Entrance and Exit of R-O-W**
   Contractor should make reasonable efforts to notify the property owner before entering or exiting the right-of-way. All gates must be left open or closed, as they were found.

4. **Equipment**
   Contractor must use mechanical mowers wherever possible.

5. **Re-Clearing Area**
   Company's rights-of-way must be re-cleared to either: (a) the specified right-of-way width; or (b) to the established large tree line, as the Company Inspector designates (the **"Re-Clearing Area"**).

6. **Scope of Re-Clearing**
   In the Re-clearing Area, Contractor must cut all trees, bushes, high tree stumps, vines, briars, cane, tall grass, etc., (collectively, **"Brush"**). All Brush must be cut close to the ground. No stumps may be left over four inches high. Vines and any other interfering vegetation shall be cut from all guys, poles, structures, and any other apparatus identified by the Company. Contractor must not cut any, cultivated crops, or ornamental shrubs, except under specific instructions from the Company Inspector.

7. **Brush Removal**
   All Brush must be removed from cultivated fields, pastures, creeks, lakes, ditches and road rights-of-way. Plants known to be toxic to livestock must be removed immediately.

8. **Hand-Cut Brush**
   Any Brush cut by hand, which is larger than two and one-half inches in diameter, must be cut with chain saws as flush to the ground as possible. In residential areas, all Brush must be cut flush so that sharp ends are not left exposed.

9. **No Mow Zone**
   A **"No Mow Zone"** of ten feet radius is required around all transmission line structures and guy wires. No tractors, mowers or other equipment may encroach within the No Mow Zone. The No Mow Zone area must be hand cut and treated with a herbicide approved by the Company Inspector.

10. **Tree Limbs**
    Any tree limb up to six feet high that overhangs the right-of-way must be removed. In residential areas, these limbs must be cut flush so that sharp ends are not left exposed.

11. **Fallen Trees**
    In any area that can be re-cleared using mechanical mowers, any tree or portion of a tree that has fallen onto the right-of-way must be de-limbed and cut into sections of five feet or less to promote rapid decay. The debris must not impede access up and down the right-of-way.

12. Wet Conditions

Contractor must use extreme caution when mowing in wet areas in order to prevent ruts. If an area is wet Contractor must hand cut all Brush or utilize low ground pressure tracked vehicles to avoid leaving ruts.

13. Erosion Control

Water diversion terraces and other erosion control construction shall not be damaged during re-clearing operations.

14. Damaged Facilities

Contractor's personnel must always be on the lookout for damaged Company facilities when performing Services. If Contractor encounters or causes a cut guy wire, broken pole or any other abnormal situation that could cause an outage or may constitute a safety hazard, Contractor's personnel must implement the Company's Imminent Threat Procedure.

15. Identification of Potential Problems

Contractor's personnel must also be on the lookout for and notify the Company Inspector of any potential problem that could endanger the transmission line now or in the future. These problems include, but are not limited to trees on the right-of-way that will reach a mature height specified by the Company Inspector, no access due to a fence, danger trees or power line / structure problems.

16. Trash

All Contractor-generated trash, including cups, cans, bottles, lunch wrappings, oil containers, etc. must be removed from the right-of-way and properly disposed of. Burying trash on the right-of-way is not permitted.

17. Schedule

Reclearing, once started, must continue without interruption until completed, unless approved otherwise by the Company Inspector.

18. Record Keeping

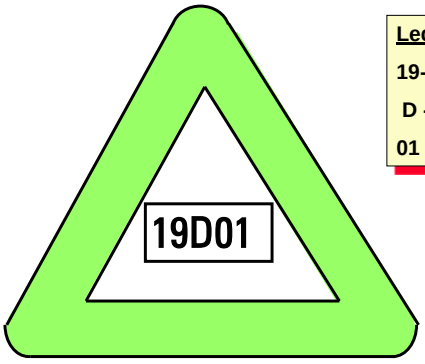
Crew timesheets must clearly state the section of right-of-way for which the charges apply, including the right-of-way name and beginning and ending structure numbers.

19. Substation Entry

If substation entry by a Contractor crew is required in connection with the Services, all crew personnel must receive Company approved Substation Entry Training prior to entering a substation.

APPENDIX A

Pole Sign Numbering



Legend:

19- Area Designation

D - Distribution

01 - First one put up

Transmission Side Trimming Specifications

GENERAL

Side trimming is performed to prevent tree limbs from encroaching on electrical conductors from the sides of the right-of-way.

The scope of work may range from the systematic pruning of every tree along the right-of-way edge to the selective pruning of specific trees which threaten to encroach within the minimum clearances established for the line.

A Gulf Power transmission vegetation management representative will assess the condition of the right-of-way and future planned activities to determine the scope of side trimming that is necessary.

PREFERRED METHODS

Mechanical side trimmers are preferred in rural areas where access and topography allow. Aerial lifts may be utilized in urban areas where trees have higher value and provide aesthetic benefit to the surrounding areas. Manual work, or climbing, should be limited to areas inaccessible to mechanized equipment.

SPECIFICATIONS

1. **Communications**
   At all times when performing the Services, Contractor's crews must make every effort to deal courteously with all property owners, customers and the public to lessen the possibility of misunderstandings and to minimize inconvenience to the property owners and customers.

2. **Special Notices**
   The Company may post utility pole signs to alert contractors to potential customer concerns arising from previous tree pruning, damage claims, easement issues, etc. These signs, flanking the address, are eight-inch green equilateral triangles with identifying numbers inside the triangles (see Appendix A). At all times, Contractor's personnel must be on the lookout for these signs and must contact the Company Inspector before proceeding with any further Services where a sign is posted.

3. **Entrance and Exit of R-O-W**
   Contractor must make reasonable efforts to get permission from the property owner to enter and exit along rights-of way. All gates must be left open or closed, as they were found.

4. **Side Trimming Criteria**
   Contractor must side trim both sides of the right-of-way (unless otherwise directed) to the specified right-of-way edge or tree-line. Encroaching trees smaller than 10 inches in diameter at breast height ("DBH"), must be cut down.

   All tree limbs encroaching on the right-of-way must be removed to the imaginary vertical line of the specified right-of-way edge, except under specific instructions from the Company Inspector.

5. **Stumps**
   All hardwood stumps will be treated with an approved herbicide as directed by the Company Inspector.

6. **Danger Trees**
   If Contractor finds any trees adjacent to the right-of-way that are dead, diseased, dying, leaning or otherwise threatening the operation of Company's electrical system (**"Danger Trees"**), Contractor must refer to, and proceed as directed by, the Transmission Danger Tree Removal Specifications.

7. **Brush and Debris**
   - **Brush.** Contractor must chip or remove all brush from yards, pastures or maintained areas. All pathways, driveways, ditches, creeks, culverts, fences, lakes and road rights-of-way must be left clear of cut brush. No brush or part of any tree may be left in standing timber.
   - **Toxic Plants.** Debris from plants that are known to be toxic to livestock must be removed from the right-of-way immediately.
   - **Pine Limbs.** Cut pine limbs must not be left within three feet of any standing pine tree.
   - **Wood Chips, Logs & Limbs.** Wood too large to chip must be left in firewood length and stacked at the Work Site unless other arrangements are made with the property owner. Wood chips, logs and limbs (**"Wood Residue"**) should remain at the Work Site whenever possible. Wood Residue must not be dumped on the right-of-way. If the Wood Residue cannot remain at the Work Site, it must be removed by the end of the workday (unless approved otherwise by the Company Inspector). Contractor is responsible for disposal of all Wood Residues. No Wood Residues may be sold or removed by Contractor or Contractor personnel to sell unless approved by the Company. If approved in advance by the Company Inspector, Company will reimburse Contractor for costs associated with disposal of Wood Residue in city, county, or private landfills.

8. **Damaged Facilities**
   Contractor's personnel must always be on the lookout for damaged Company facilities when performing Services. If Contractor encounters or causes a cut guy wire, broken pole or any other abnormal situation that could cause an outage or may constitute a safety hazard, Contractor's personnel must call the Company Inspector and their Contractor Supervisor immediately.

9. Trash

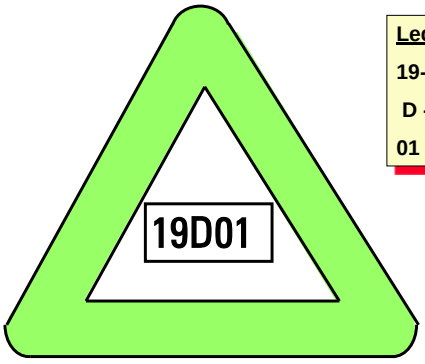
Contractor must leave the right-of-way and adjacent properties clean and free of trash and litter. All Contractor generated trash, including cups, cans, bottles, lunch wrappings, oil containers, etc. must be removed from the right-of-way and properly disposed of. Burying trash on the right-of-way is not permitted.

10. Substation Entry

If substation entry by a Contractor crew is required in connection with the Services, all crew personnel must receive Company approved Substation Entry Training prior to entering a substation.

APPENDIX A

Pole Sign Numbering



Legend:

19- Area Designation

D - Distribution

01 - First one put up

Transmission Danger Tree Removal Specifications

GENERAL

As a normal course of business, there will be times when it is prudent to remove off right-of-way trees which have the potential to damage the Company's facilities. The legal right to remove trees growing outside the right-of-way boundaries is determined by State law and right-of-way easements.

The scope of work may range from the systematic patrol and removal or topping of all danger trees or the removal or topping of a specific tree reported on a trouble ticket.

A Gulf Power transmission vegetation management representative will assess the condition of the right-of-way through the use of field inspections and patrol reports to determine the scope of danger tree work that is necessary.

PREFERRED METHODS

Danger trees should be removed using the most cost effective method depending on location of the tree.

Where removal is not the preferred option, mechanical tree trimmers can be used in conjunction with side trimming to top trees.

Tree removal should be accomplished using aerial lifts where access is not limited. Manual climbing crews should be utilized as a last option in areas where access prevents the use of aerial lifts or mechanical tree trimmers.

SPECIFICATIONS

1. **Communications**
   At all times when performing the Services, Contractor's crews must make every effort to deal courteously with all property owners, customers and the public to lessen the possibility of misunderstandings and to minimize inconvenience to the property owners and customers.

2. **Special Notices**
   The Company may post utility pole signs to alert contractors to potential customer concerns arising from previous tree pruning, damage claims, easement issues, etc. These signs, flanking the address, are eight-inch green equilateral triangles with identifying numbers inside the triangles (see Appendix A). At all times, Contractor's personnel must be on the lookout for these signs and must contact the Company Inspector before proceeding with any further Services where a sign is posted.

3. **Entrance and Exit of R-O-W**

Contractor must make reasonable efforts to get permission from the property owner to enter and exit along rights-of way. All gates must be left open or closed, as they were found.

4. **Danger Trees**
   Danger trees are defined by State:
   Alabama - Any tree, living or dead, which could pass within 5 ft. of the conductor if it were to fall.
   Florida - Trees adjacent to the right-of-way that are dead, diseased, dying, leaning or otherwise threatening the operation of Company's electrical system
   Georgia - Trees adjacent to the right-of-way that are dead, diseased, dying, leaning or otherwise threatening the operation of Company's electrical system
   Mississippi - Any tree, living or dead, which could pass within 5 ft. of the conductor if it were to fall.

   Trees defined by the Company will be cut at ground level or topped to a height that ensures the tree will not fall in to the line. Limbs and logs greater than 6 inches in diameter may be cut into five-foot sections to promote rapid decay. The debris must not impede access up and down the right-of-way. Trees that have been recently burned must be noted and reported to the Company Inspector so that they can be observed at a later date to determine if they will cause a problem to the line.

5. **Danger Tree Records**
   Contractor must keep accurate records of all Danger Tree Services as directed by the Company Inspector. The records must include, without limitation, number of trees cut, date(s) cut, adjacent transmission structure number and Company transmission line number.

6. **Use of Winch**
   Contractor must not, in any instance or for any reason, winch any type of equipment to a transmission line structure or guy wire. If winching to a tree must occur, a tree strap **MUST** be used by Contractor at all times. In no case will the Contractor winch to a tree if the tree poses a risk to the line by becoming unstable or up-rooting.

7. **Stumps**
   Contractor must leave no stump taller than four inches in height. Any live hardwood stump must be treated with a herbicide approved by the Company Inspector.

8. **Brush and Debris**
   Fallen Trees / Limbs - Any tree or portion of a tree that has fallen onto the right-of-way must be de-limbed and cut into sections not to exceed five feet.
   Brush - Contractor must chip or remove all brush from yards, pastures or maintained areas. If no chipper is available, Contractor must notify the Company Inspector, prior to performing any Services to obtain instructions on how to proceed. All pathways, driveways, ditches, creeks, culverts, fences, cultivated

fields, pastures, lakes and road rights-of-way must be left clear of cut brush. **No brush or part of any tree may be left in standing timber.**

Pine Limbs - Cut pine limbs must not be left within three feet of any standing pine tree.

Wood Chips, Logs & Limbs - Wood chips, logs and limbs (**"Wood Residue"**) should remain at the Work Site whenever possible. Wood Residue must not be dumped on the right-of-way. If the Wood Residue cannot remain at the Work Site, Contractor is responsible for its disposal and it must be removed by the end of the workday (unless approved otherwise by the Company Inspector). No Wood Residues may be sold or removed by Contractor or Contractor personnel for the purpose of sale unless approved by the Company. If approved in advance by the Company Inspector, Company Inspector will reimburse Contractor for costs associated with disposal of Wood Residue in city, county, or private landfills.

9. Damaged Facilities

Contractor's personnel must always be on the lookout for damaged Company facilities when performing Services. If Contractor encounters or causes a cut guy wire, broken pole or any other abnormal situation that could cause an outage or may constitute a safety hazard, Contractor's personnel must notify the Company Inspector and their Contractor supervisor immediately.

10. Identification of Access / Potential Problems

Contractor's personnel must notify the Company Inspector of any right-of-way access problems that are found. Contractor's personnel must also be on the lookout for, and notify the Forester of, specific locations that have not been observed for Danger Trees because of access problems (i.e. fences, inaccessible gates, creeks, lakes, ditches, customer problems, etc.)

11. Trash

Contractor must leave the right-of-way and adjacent properties clean and free of trash and litter. All Contractor-generated trash, including cups, cans, bottles, lunch wrappings, oil containers, etc. must be removed from the right-of-way and properly disposed of. Burying trash on the right-of-way is not permitted.

12. Schedule

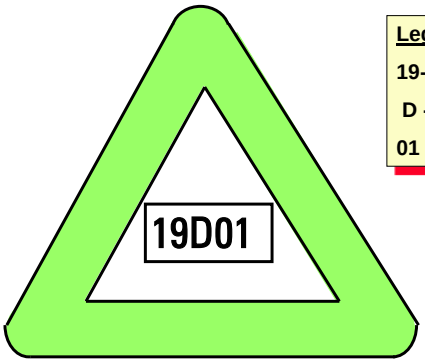
A Danger Tree Project, once started, must continue without interruption until completed, unless approved otherwise by the Company Inspector.

13. Substation Entry

If substation entry by a Contractor crew is required in connection with the Services, all crew personnel must receive Company approved Substation Entry Training prior to entering a substation.

APPENDIX A

Pole Sign Numbering



Legend:

19- Area Designation

D - Distribution

01 - First one put up

Transmission Right-of-Way Herbicide Application Specifications

GENERAL

Herbicides are applied to control vegetation that has the potential to interfere with electrical conductors or transmission structures and equipment.

SCOPE

The scope of this work may range from the treatment of any and all vegetation on the right-of-way to the treatment of specific stems that may be pose a threat to line reliability on selected segments of the right-of-way before the next scheduled treatment or vegetation management activity.

A Gulf Power transmission vegetation management representative will assess the condition of the right-of-way and future planned activities to determine the scope of herbicide application that is necessary.

PREFERRED METHODS

The method and techniques of application shall be determined by a Gulf Power transmission vegetation management representative through field evaluation of the right-of-way to determine adjacent land use patterns, plant species, brush density, and soil and topographical characteristics of the area.

SPECIFICATIONS

1. **Communications**
   At all times when performing the Services, Contractor's crews must make every effort to deal courteously with all property owners, customers and the public to lessen the possibility of misunderstandings and to minimize inconvenience to the property owners and customers.

2. **Special Notices**
   The Company may post utility pole signs to alert contractors to potential customer concerns arising from previous tree pruning, damage claims, easement issues, etc. These signs, flanking the address, are eight-inch green equilateral triangles with identifying numbers inside the triangles (see Appendix A). At all times, Contractor's personnel must be on the lookout for these signs and must contact the Company Inspector before proceeding with any further Services where a sign is posted.

3. **Entrance and Exit of R-O-W**
   Contractor must make reasonable efforts to get permission from the property owner to enter and exit along rights-of way. All gates must be left open or closed, as they were found.

4. **License**
   Before performing Services, Contractor must provide to Company a copy of its Commercial Pesticide Applicator's License, evidencing compliance with all state requirements. Contractor shall also have on the job site all labels and MSDS sheets for any herbicides on the job site.

5. **Herbicides Provided**
   Herbicides will either be provided by the Company or the Contractor, as directed by the Company when the project is assigned. Any herbicides provided by the contractor must be pre-approved by the Company Inspector. Contractor will be reimbursed for the cost of herbicides and adjuvants plus any applicable sales tax. The Miscellaneous Service Adder will not apply.

6. **Spray Equipment**
   Contractor must supply all spray equipment and all Services must be performed with equipment designed for right-of-way spraying. All equipment must be capable of providing accurate mixing of herbicide formulations and all metering equipment must be accurately calibrated for proper herbicide application rates. Labeled rates must be adhered to and all mixing and application must be in accordance with the manufacturer's recommendations. Spray solutions must also be properly agitated in accordance with the manufacturer's recommendations.

7. **Damage to Non-Target Vegetation**
   Contractor must use caution when working near shrubbery, crops, food plots, pastures or other improved areas on or adjacent to the right-of-way and will be liable for any damage done to non-target vegetation that resulted from Contractor's negligence or improper application.

8. **Weather Conditions**
   Under no circumstances may spraying be performed when the wind velocity is such that Contractor cannot keep the spray within the confines of the right-of-way. Contractor assumes complete responsibility for keeping the herbicide spray mixture within the confines of the right-of-way. Further, no spraying may be performed in rainy weather. Weather conditions and weather phenomena must be monitored by Contractor all times while conducting spray operations. Any plant, brush, or section of line sprayed improperly due to weather conditions shall be sprayed again at Contractor's expense.

9. **Toxic Plants**
   Plants that are known to be toxic to livestock must be cut at ground level and removed immediately from pastures. The remaining stumps must be treated with an approved herbicide.

10. **Pesticide Application Records**
    Contractor must maintain a complete Pesticide Application Record for all Services and provide a copy of the weekly application records pertaining to completed Services to Company with each invoice.

11. Spills and Accidents

Contractor must notify immediately the Company Inspector of any chemical spill or accident. Each Contractor crew must have immediately available the necessary cleanup material for a spill and be trained to perform the cleanup, which cleanup must be performed immediately and in accordance with all Legal Requirements.

12. Trash

Contractor must leave the right-of-way and adjacent properties clean and free of trash and litter. All Contractor-generated trash, including cups, cans, bottles, lunch wrappings, oil containers, herbicide containers, etc. must be removed from the right-of-way and properly disposed of. Burying trash on the right-of-way is not permitted. All herbicide containers shall be rinsed and disposed of in accordance with the manufacturer's label instructions.

13. Damaged Facilities

Contractor's personnel must always be on the lookout for damaged Company facilities when performing Services. If Contractor encounters or causes a cut guy wire, broken pole or any other abnormal situation that could cause an outage or may constitute a safety hazard, Contractor's personnel must call the Company Inspector and their Contractor Supervisor immediately.

14. Brush Controlled

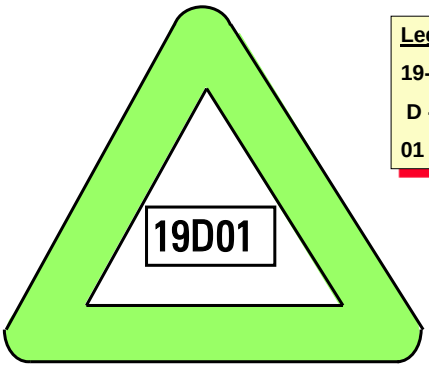
Contractor shall ensure 100% coverage of target species and 95% kill. Vegetation impeding access to gates and switches are to be sprayed on transmission and distribution rights of way.

15. Re-Application

Any misses, skips, streaks, or section of Right-of-Way treated improperly must be re-treated at Contractor's expense, including the cost of all herbicide used for the re-treatment.

APPENDIX A

Pole Sign Numbering



Legend:

19- Area Designation

D - Distribution

01 - First one put up

EMPLOYEE QUALIFICATIONS

LINE CLEARANCE SPECIALIST / FORESTRY SPECIALIST

(All employees working as vegetation managers will meet the following qualifications)

Minimum qualifications:

- Bachelors degree in Forestry or related field, or 2 year technical degree with 2 years experience, or 5 years experience in utility vegetation management
- Must be familiar with proper herbicide use and techniques
- Knowledge of Integrated Vegetation Management practices
- Familiarity with ANSI Z-133, A-300
- Knowledge of potential impact of vegetation on electrical systems
- Must obtain State Pesticide License within 12 months
- Must become certified arborist within two years

TEAM LEADER / FORESTRY SPECIALIST STAFF

(Individual responsible for certifying the TVMP must meet the following requirements)

Minimum qualifications:

- Bachelors degree in Forestry or related field with 3 years utility vegetation management experience, or 7 years of experience in utility vegetation management with increasing levels of responsibility
- Comprehensive knowledge of proper herbicide use and techniques
- Comprehensive knowledge of Integrated Vegetation Management practices
- Knowledge of ANSI Z-133, ANSI A-300, and NERC Standard FAC-003-1.
- Understanding of electrical transmission and distribution systems
- Must be a Certified Arborist

OUTAGE REPORTING

All vegetation caused outages on applicable lines shall be investigated by a Gulf Power Company transmission vegetation management representative in the field.

The investigator will complete a Vegetation Caused Outage Investigation Form and submit the completed form to the Company's management for review. If it is determined the outage is a Category 1 or Category 2 outage, every effort shall be made to ensure the event is reported to the Regional Entity within 48 hours.

The Gulf Power Company transmission vegetation management representative will report the final finding to Gulf Power System Control to ensure the appropriate cause code has been assigned to the outage.

After final Company review, the completed outage investigation form shall be posted to the Transmission Vegetation Management folder on the shared drive.

ANNUAL WORK PLANS

At the beginning of each calendar year, Gulf Power Company will develop an annual work plan for all applicable lines. Each work plan shall include all scheduled inspections, vegetation management activities, and mitigation plans. A copy of the work plan will be posted on the Transmission Vegetation Management shared drive.

The work plan shall be flexible enough to adapt to changing conditions and all adjustments to the work plan shall be documented as they occur. The Company will update work plan performance monthly on the Vegetation Management NERC Status Report.

TVMP History

Date	Paragraph or Section	Action
02/06/2009	Side Maintenance Section	Deleted “In some cases, Alabama Power Company has the legal right to manage green healthy trees growing adjacent to the right-of-way. While these trees do not pose an imminent threat to the safety or reliability of the line, the Company may opt to manage these trees in certain cases to minimize the potential for future service interruptions caused by falling trees. Trees meeting the legal criteria of the easement in question may be reduced to a suitable height or cut at ground level to maximize reliability of the line.”
02/06/2009	Side Maintenance section	Deleted “The frequency of treatments may range from six months to 8 years.”
02/06/2009	Clearance Requirements	Revised Clearance 2 requirements to reflect new clearances based off of known transmission system transient over-voltage factor.
02/06/2009	Mitigation Plans	Changed “will be” to “have been” or “has been.”
02/06/2009	Mitigation Plans	Added “Each Operating Company may develop mitigation plans based on other local conditions or circumstances. All mitigation plans will be documented and attached to the Operating Company’s Annual Work Plan.”
02/06/2009	Frequency & Methods of Right-of-Way Inspection	Deleted opening paragraph “As a minimum, one inspection shall be completed on all applicable lines between each growing season. This inspection may not begin earlier than September of each year and must be completed prior to May 31 of each calendar year” to new paragraph which reads “
02/06/2009	Frequency & Methods of Right-of-Way Inspection	Added new opening paragraph “As a minimum, one annual inspection shall be completed on all applicable lines. This inspection may not begin earlier than September of the current year and must be completed prior to May 31 of the following year. Additional inspections may be scheduled any time conditions change due to environmental or operational factors.”
02/06/2009	Frequency & Methods of Right-of-Way Inspection	Added “The type of inspections performed will be documented on the annual work plan.”
02/06/2009	Documentation of Right-of-Way Inspection	Replaced language “on file at” with “as part of the annual work Plan” in Documentation paragraph of Right-of-Way Inspection Section.
02/06/2009	Communication of Imminent Threats	Changed the word “hazard” to “imminent threat.”
02/06/2009	Work Specifications	Added “”…and in compliance with all applicable federal, State, and local environmental rules and regulations” to Brush Cutting Section

02/06/2009	Employee Qualifications	Deleted duplicate qualification “Comprehensive knowledge of herbicides and their use.”
02/06/2009	Outage Reporting	Changed “Forester” to “Forestry.”
02/06/2009	Outage Reporting	Added” If it is determined the outage is a Category 1 or Category 2 outage, every effort shall be made to ensure the event is reported to the Regional Entity within 48 hours.”
02/06/2009	Outage Reporting	Deleted image Outage Reporting Form so changes to the form would not result in change to TVMP.
02/06/2009	Annual Work Plans	Added “Each work plan shall include all scheduled inspections, vegetation management activities, and mitigation plans.”
02/06/2009	Annual Work Plans	Changed “Transmission Vegetation Management Scorecard” to “Transmission Vegetation Management NERC Status Report.”
02/06/2009	Annual Work Plans	Deleted screen shot picture of NERC Status Report
07/15/2009	Clearance Requirements	. Revised Clearance 2 requirements to remove rounding of numeral values
01/21/2011	Floor Maintenance	Deleted “for a number of years” from last sentence of last paragraph.
01/21/2011	Clearance Requirements	Removed verbiage stating clearance distances in Table 1 allowed an additional buffer above that required by IEEE Standard 516-2003.
01/21/2011	Right of Way Inspection	.Changed the earliest allowable begin date for annual inspections from September to June 1 of each year.
01/21/2011	Work Specifications and Practices	Replaced all specifications with revised, more detailed, specifications.
01/24/2012	Danger Tree Specification	Removed Danger Tree definition from General Section of specifications. Changed title of paragraph 4 of specification from Danger Trees to Danger Tree Definition
01/24/2012	Employee Qualifications	Removed Forestry Technician qualifications since these employees are not involved in TVMP design and implementation. Changed years of required experience for Line Clearing /Forestry Specialist and Team Leader/Forestry specialist Staff.
1/31/2012	Program Description and Mitigation Plans	Minor edits to correct grammar.