

Detailed Instructions for Application Forms

Introduction

This paragraph is the most important part of the document. If you are a new permittee [please call us](#). We want to talk with every new permittee. We'd prefer to hear from you even if you are drafting paperwork for your boss' signature.

Here's why. Unless we have already reviewed your project(s), initially we will probably want to discuss the fire and not focus exclusively on the paper trail. Second, the paperwork can be involved. Working through it alone the first time invites a big waste of time.

Application Forms Overview

It is our intention that most people will not need this very detailed document. The [hover hints](#) within the application alone are sufficient for most burns. If you're not sure this document is what you need, read the next page or two and/or skim the headers.

Most of this document is guidance (recommendations). The [target audience](#) is a land management agency employee or similar person who has never prepared an application for a Colorado smoke management permit and who is apt to work with multiple smoke permits over time. It makes the following assumptions:

- Fire terminology is familiar.
- Your prior involvement with managing smoke on the ground ranges from some to a whole lot.
- You have the opportunity if you wish to discuss permits with coworkers or others who already know the paperwork.

Examples are a Fire Management Officer who recently moved to Colorado or an employee whose career development now includes applying for permits.

If you don't have the background to fit the assumptions, we recommend that rather than diving into this document you [call us](#) and/or fill out a [partly-prepopulated pile application](#) instead.

If this document is what you are looking for, there are headers to help you focus. After some general notes, the topics are arranged in the approximate order that they appear on the forms.

General Notes

A permit must be approved as indicated by an APCD signature and assignment of a number on a smoke permit before any burning may start. If you aren't sure whether your burn even needs a smoke permit, including whether it may be eligible for a simpler open burn permit, start with

the [outdoor burning main page](#) or the [open burning FAQ](#) on Colorado's smoke website.

Permit conditions are based largely on the information in the application. The burn's description as shown on the permit is binding. For example, the number of acres indicated and fuel loadings you put on the application are outer limits on the permit. So are firm but volunteered statements in the application, such as planned public outreach or mop up. Finally, all conditions are part of the permit. Failure to comply with any permit condition may result in enforcement.

Background Philosophy

For many years we at APCD have chosen to recognize that most permittees who are professional land managers or wildland firefighters are knowledgeable and responsible with respect to smoke. You also know your fuels, publics, and projects better than we ever will.

Like so many other aspects of wildland fire, Colorado's smoke permits reflect our mutual experiences as a community. What you do with respect to smoke affects the fire community as a whole.

One consequence of our working confidence is that you have the option to define then request the smoke permit conditions that are best for your burn. Another is that standard conditions, which are designed for fire professionals, assume some degree of experience-based recognition of unusual smoke circumstances on a particular day - and consequent self-restraint. Conditions are less restrictive than they would otherwise be.

Please do not abuse that trust. If you have doubts about what APCD's premise of earned trust is worth to your peers, ask around. Our premise is that in every respect, you will recognize, **request, and use only leeway that is responsible**.

While permits do give a professional burn boss some room to "hang yourself," permits also are designed to prohibit most smoke decisions that are almost certain to have bad outcomes. We try to save field discretion for the permit variables that cannot reasonably be defined and/or accurately described in advance. Whether piles are sufficiently cured for efficient combustion is an example. An especially important element of field discretion is the smoke equivalent of the typical last go/no go question. For the fire, 'can this burn be implemented safely and meet objectives?' For smoke, 'does the smoke situation as a whole feel right even after all the permit constraints are met individually?'

No permit condition may be ignored or 'adjusted' in the field. Similar to using a burn plan, a burn boss does not have the option to unilaterally change a permit condition because something else seems better at the time.

Even in mutual good faith, APCD staff may sometimes not concur with you about what permit conditions are necessary. If we do not agree that the conditions you request are adequately protective of air quality, we almost always call you to discuss it before finalizing the permit.

Application Procedures Overview

To start applying for a smoke management permit, choose the appropriate version of the application forms. The [forms](#) are available electronically. There are different [application forms for broadcast](#) and for [piles](#). The first parts of the two forms are nearly identical, so initially they have the same following instructions. There also are supplemental [forms for non-standard applications](#), or requests for smoke permit conditions specially tailored for an atypical project. Non-standard supplemental forms are addressed below as well.

[Instructions and notes that apply to all burns come first. Notes that apply only to special situations are indented in this document. Subtopics are underlined to facilitate skimming.]

Tweak the application format as needed in order to send APCD the information you believe we need. Add rows for more receptors, duplicate the fuel load section for units with substantially different fuel types, insert a photo, etc.

If a project involves both broadcast and pile burning in the same location, complete two permit applications. For Colorado smoke permit purposes, broadcast burns include all projects whose fuels are burned where they fell (or were felled), including jackpot burning.

To finish, send the completed application using a method and address listed below the signature block on the form. Email is strongly preferred, including because we return most permits electronically. Attach .pdfs, .jpgs, or .docs as needed, such as for required or optional maps, optional photos, etc.

What happens after you send in an application? By regulation we have up to 30 days to review an application after it is complete. (For a few non-standard permits, public comment on proposed conditions may extend that schedule another 2-3 months.) Often review takes less than a week. But please don't count on it.

As part of our review process, we often end up phoning or sending you email with a question or three. Once that is cleared up we add conditions to the application, sign and date it, and assign a permit number. We email it back to you as the completed permit, or if necessary, mail or fax it.

By state law the smoke program must recover its costs through fees. Most agencies are billed annually. Agencies or landowners who are new permittees may pay [fees](#) up front or be billed.

For procedural instructions about using a permit, please see both project-specific and general conditions in your permit including their hyperlinks, or [contact us](#).

Application Forms Line by Line

Burn Name

You pick the burn's name. If you use the same name for the permit as you will use for spot weather requests, tracking will be simpler for both of us.

Sometimes a permit is for only part of a project or covers more than one project. In either case, the project name and the permit name may differ. If so, please try to choose names that will minimize confusion including among your coworkers.

If you are a private landowner, your name or the name of your property works well.

Please keep names short and simple.

Occasionally two permittees each ask for permits for projects with the same name. Then we add a word or two to the name to help us keep the pair straight, and we tell you.

Maximum Total Piles for Year (piles)

If you have dozens to thousands of piles, please do not spend time to count each one just to make the permit count precise! The annual total is a maximum, an outer limit. Suggestion: Estimate average piles per acre and add 10-20%. You probably know from experience how often yet more piles appear as lighters work through an area.

Then keep a running tally of piles burned on the permit during the year. If you approach the permit's annual ceiling and have piles left to burn, [call us](#) about a permit amendment. That kind of amendment typically isn't a big deal. And it's simpler for us and usually also you if we amend a permit rather than issue a second permit for additional similar piles (or acres) in the same project.

Maximum Total Annual Acres (broadcast only)

Record the area encompassed within the most likely fire perimeter.

Total project size and maximum daily acreage are critical to the permitting process. Approval of the projects is based on air quality impacts that reflect the proposed size. Exceeding them is grounds for enforcement.

If in doubt, estimate a little high.

Do not reduce total or daily acres because you expect a mosaic. Count all the area within the black perimeter. We use perimeter because only that is readily verifiable. Note in the emission reduction techniques section the percent of area you expect will remain unburned, and discuss it further in the notes if needed.

If you have a large MMA (maximum manageable area, secondary area, or comparable Term du Jour) and think it's likely you'll burn at least some of it, it's going to be more difficult to specify the day's acres. If you think there is significant likelihood you may burn secondary area, note that in the application and/or [call us](#). Also talk to us if you'll be 'guerilla burning' without pre-defined unit boundaries.

If during a burn day it becomes apparent you will burn more than your daily acres for any reason, call us promptly (the phone numbers are in the permit) or assign someone else connected with the burn call us. If you burn more secondary area than you expect, include the additional acres on Form E, daily accomplishment. Add an explanatory note if the total is over the permit amount.

If an overage is self-reported, we try to be flexible and also to evaluate if the situation appears habitual or represents gross misuse of daily acre limits. Unless it does, we are unlikely to take strong enforcement action. Less than 10% over is unlikely to be a serious problem. We do not mean for the provision for 10% over daily acres to create leeway to exceed daily acres within intended units, however, and may need to curtail flexibility if that becomes an effect.

Escaped fires are unlikely to result in significant enforcement, especially if they are formally converted. For one thing, you're probably already getting too much negative reinforcement! More generally, our intent is to require good decision-making about smoke. We recognize that bad outcomes with fire can sometimes result from and despite good decisions.

Burn Year

Permits are good for (the remainder of) one calendar year.

If you want a permit right away for both the current year and next year, make a copy of the completed application, change the burn year on the copy, and send in both. They end up in different files in our office.

Renewal?

If the project already has a permit in one calendar year, first review its application portion carefully for possible changes.

If all that needs to change is the year, either (1) send us an email saying so and that you want a renewal or (2) resubmit an application. We prefer the emailed one-liner since that's actually easier for us to process.

If you are renewing last year's permit but need to make some changes,

- (1) do not retype everything onto the latest version of the application form. We make minor tweaks to our forms fairly frequently. Except for some unusual situations, the old forms still work fine. Permits take enough time as it is. Don't make it worse for yourself.
- (2) If you have the electronic version of your permit that we sent back to you with conditions and a permit number on it also, it is a convenience to us if you start from that version, not the application you sent in when you requested the permit. Feel free to request that we email you the old permit.
- (3) It also makes our job easier if you mark changes from last year's application with a word processor's track changes, and/or point them out in the narrative or your cover email.

If a full year has already elapsed since the project had an active permit, we may still be able to treat it as a renewal. If the most recent previous permit is three years old or more, fill out a new application. Chances are that the forms, fuel loads, or something else will have changed enough to matter for the paperwork by then.

We start issuing a year's permits as soon as we receive applications. Usually that's in the August or September before the permit year starts. We are most likely to have a backlog in late December or early January.

Allocation of Split Bill

If all of the land to be burned has a single owner or management agency and that is who will pay the permit fee, ignore the split billing blocks.

We are willing to split up a permit's [fees](#) among two or more parties. Usually but not necessarily, this is for burns that cross jurisdictional boundaries. Let us know you want a split bill by filling out the billing blocks on the application. Also fill them out for any burn with multiple administrative IDs even if one of them will pay the full amount.

As long as all affected parties agree, we don't care how you decided who pays what percent.

Administrative Unit ID(s)

Land management agencies each have a 3-letter [abbreviation](#).

If the burn is on private land, put 'PVT.'

If the public agency responsible for the burn does not have its own smoke permit abbreviation, use 'LCL.'

For burns that cross ownership boundaries, list all owners or agencies. While most permit numbers begin with the agency abbreviation, permit numbers for multiple agencies start with 'MUL.'

If the government agency for which you work is burning on behalf of another agency or on private land, use your own agency ID but also write in the landowner's name. This situation usually involves state-owned land.

Regardless of the agency or person to whom the permit is issued, ultimately a landowner or agency's line officer is responsible for what happens on their land in relation to smoke and permit compliance. If there are questions or appears to be a problem, however, our initial questions and contact typically are with the burn boss.

Contact Person's Information

The contact person is who you want us to call or email if we need clarification or more information about the application or the permit's [annual report](#). For private land this could be, for example, the landowner, Colorado Division of Fire Prevention and Control, a contracted NWCG-qualified burn boss, or a ranch manager.

If relevant, it's good to put down two names, especially if you are doing the paperwork but still want your boss' name on the permit. Include yours too, please.

Landowner's Name

If the contact person (burn boss) is not the landowner or an employee of the agency that owns or manages the land where burning is planned, indicate the landowner in this section.

For any Colorado State Forest Service (CSFS) or Colorado Division of Fire Prevention and Control (DFPC) project please complete this section.

Own or manage 10,000 acres

Entities that manage or own 10,000 acres or more in Colorado and generate at least 10 tons of particulate matter a year from prescribed fire are in Colorado's prescribed fire "big league." As "[significant users](#)" of wildland fire they are subject to additional requirements established in the state law and implemented through the Colorado Air Pollution Control Commission's [Regulation 9](#). We don't ask whether government agencies manage at least 10,000 acres of land because most who burn have already met significant user requirements, and we notice and talk with any others as needed.

Street Address of Project

One of the reasons we include this block is if the private landowner's address is a post office box. Don't bother trying to manufacture addresses for projects in big blocks of public land.

Lat/Long or TRS

Indicate the Township, Range, and Section(s) (TRS) or latitude and longitude of the planned burn. If you have both, TRS works a little better with our maps.

For latitude/longitude, choose a place near the center of the project. We have to use decimal degrees but we'll convert whatever format you send if needed.

If you use TRS, include all sections where any burning may occur.

Rarely, a project is so large that it is impractical to list every section. If so, give only townships and ranges. If it's that big, please send unit maps.

County

If the burn is in more than one county, list them all.

Minimum Elevation

For burns in the central Front Range, there are special constraints that reflect the area's compounded air pollution problems. The affected counties are Adams, Arapaho, Boulder, Broomfield, Denver, Douglas and Jefferson. In winter in those counties, rules related to smoke permits vary depending on the project's elevation. One way is that in the relevant areas, requirements about hours when winter burning may occur apply only below 7,000'. Each permit's conditions spell out the details of any restrictions.

The Front Range's area of highest concern for ozone, on the other hand, applies at all elevations. The reason is that particulate and ozone pollution meteorology differs.

If your burn is both above and below 7,000' and can be segmented, usually pile projects, then the relevant portions of the burn may have different particulate alert restrictions. In the notes section, describe what geographic feature or unit separation will be clear to burn-day staff to separate out parts of the burn above 7,000' without an altimeter.

Are some piles more than a mile from others? (piles only)

On large projects groups of piles at least a mile apart may be burned simultaneously as if each set were a separate project. An additional permit condition for concurrent operations within a project is that day's weather must be such that the plumes do not intersect within the distance range that the smoke is visible. Concurrent operations are not allowed if the dispersion is forecasted to be poor all day and the only weather attribute that allows for burning is minimum windspeed.

If you indicate that the project's spread is more than a mile and concurrent operations would create an option for more piles per day to be burned than otherwise, we will include a permit condition to that effect. Otherwise we won't.

Smoke Receptors

Smoke sensitive receptors are anywhere you don't want heavy smoke and that it might go. This section of the application helps us visualize the burn, a key part of APCD's review. It does not directly establish any permit conditions.

To identify receptors think big-scale, at least several miles out from even a small pile burn. In general, list at least the community or subdivision closest to the project.

Don't omit receptors from this list because they are in a direction you will be constraining for wind direction. The receptor list addresses potential smoke impacts, not likely ones. But do pay particular attention to receptors that are downdrainage as well as those most likely to be downwind.

Individual ranches, isolated small groups of homes, or areas of special use cabins may be but are not required to be listed as receptors even if they are very close. They are taken into account in distance to an occupied home.

If a much larger community is farther than the receptor listed for that direction but is still within 25 miles, it is good to include.

Beyond these suggestions, there is judgment involved and we may edit your choices.

You may include or not include roads, airports, and other transportation features. APCD does not review potential smoke impacts on transportation, so in that sense we don't need to know. (The burn boss is responsible.) However, these features may influence how you manage smoke, so it may help us understand your application if you list them anyway. Also, a transportation feature may serve to label groups of homes or other place where people live or gather and that belong on the receptor list. An airport with commercial flights near a burn is likely to meet the latter test.

Selecting receptors is a bit more complicated in urban areas where there are many communities in any direction. It is not critical to record each one, because of the way receptors are used in

permitting. Either we already know an area well, or during the review process we look on a map to learn more about each burn's surroundings. If there is high potential for impacts in a direction, that will be reflected in the outreach you describe on the application and in permit conditions such as wind direction constraints. The mitigations may be applied to all potentially affected communities in the same direction, or sometimes only those within an approximate distance.

If a burn is large or has units that are spread out, distances to each receptor may vary within the project. Record the distance from the fire edge closest to each receptor.

The home of a smoke-sensitive individual, such as a person with respiratory illness, is a critical concern when managing a project's smoke. It is not necessary to list it as a receptor, however, since each known sensitive person must be addressed individually. If there are key considerations specific to this burn about known or likely smoke-sensitive individuals, describe them in the notes.

Colorado is so developed that we have yet to see or imagine a project that has no receptors at all. Even if you believe the burn's smoke won't even be detectable in the nearest community, list it. Doing so helps document just how far away it is.

Miles to Nearest Occupied Home and Mitigated Distance

Usually air miles to nearest home is straightforward. The measuring tool we use most is Google Earth.

The [worksheets](#) explain when a residence may be considered to be unoccupied or mitigated. In that case or if you have made contact with every neighbor as far as a specified distance as described in the worksheet footnotes, fill out both actual and mitigated distances.

Management Use/Type of Project

Multiple project purposes are likely to apply to one project. Brief descriptions of the categories and some examples follow.

- Ecosystem Management
Projects to reduce fuels that have accumulated naturally, generally in the interest of ecosystem health. Example: a burn whose purpose is resource-based or is being used to mimic a historic fire cycle.
- Logging Slash Reduction
Projects to reduce or dispose of slash generated during logging activities, including pre-commercial thins.
- Hazard Fuel Mitigation
Treatment of fuels generated while taking actions to reduce the risk of uncontrollable wildfire or otherwise prepare for wildfire suppression. Examples: piles created while removing the lower limbs of trees and trimming back fuels near structures; residue from construction of a fuel break or in preparation for broadcast burning; limbing up at the edge of public land.
- Site Prep

Preparation for site revegetation. Example: Reducing duff and litter to support seeding or replanting.

- Wildlife

Projects to improve habitat, including forage, for wild animals

- Pest Control

Projects to reduce insects or non-native vegetation. Example: burning dead tops before spraying thistles

- Insect / Beetle Kill Removal

Projects to dispose of trees that have been killed by insects or disease

- Range Improvement

Projects that will encourage forage production for domestic livestock

- Other

Briefly describe any purpose of the project that does not fit in any other category.

Emission Reduction Techniques

There used to be options to take credit for burning piles rather than broadcast to increase combustion efficiency, for burning at fair or better ventilation, and for wind direction constraints. Since all these good practices are evident either from permit conditions and/or other parts of the application, they are no longer on the emissions reduction techniques list. We still recognize you deserve credit, and when it is relevant for APCD to share information about good practices used by people who burn, those techniques still are included.

Brief Description of Fuels

Here write out how you would describe the fuels to a fellow burn boss in a casual conversation. You are helping us to visualize your burn. Examples:

- 10-year-old dilapidated hand piles
- Boom-delimber slash and cull piled in place with no landing clean-up debris
- P/J with some loose jackpots, and minimal grass or other understory
- 3' sage, to 6' in draws but no pine stringers
- Buffalograss [You may note cow pies if you wish.]

Especially for a major project with potential for significant smoke impacts, feel free to send a photo or two.

Construction method(s) (piles only)

If needed please see the [pile worksheet](#) for more detailed definitions of each category.

Pile Dimensions (piles only)

How can you be sufficiently accurate? Pace off a couple typical piles if you are reasonably confident ($\pm 15\%$) about pacing. Or use a tape measure, or get help from someone who is sure of their stride. Estimate height visually. Comparing a pile's height to that of a person standing next to it can help. When best guesses are involved, err on the high side.

Once burning starts, pacing or measuring the dimensions of a couple footprints can be surprisingly revealing. If needed, request that the current year's permit be amended. Or make minor corrections when the permit is renewed for another year.

Pile volume is an average, and not the size of the largest pile. If some piles have more than twice the average volume, please describe the range.

Avg. Ft³ per pile (piles only)

Please take into account pile rounding rather than simply multiplying dimensions. There is a simple [spreadsheet](#) for a range of piles shapes. It is derived from a USFS research publication, PNW-GTR-364. The spreadsheet is linked also from the application form.

If you aren't sure how to figure volume or don't want to, leave the volume block empty. We'll calculate it for you. You are welcome to suggest a shape, too; see the pictures in the spreadsheet listed above.

[CONSUME](#) includes a module that makes the same calculations using the same formulas. Choose the 'Pile Information' tab, then the red button for 'Create/Edit Pile.' To see more pile shape options, click on the pile drawing

We can no longer find a working link to [PNW's on-line calculator](#). But if you find and want to use it, the calculations and baseline results are identical to the spreadsheet linked above. For smoke permits use the geometric volume, not the "corrected" volume. We're none too sure the latter is more accurate, and even if it is, it would be worse to have some permits calculated this way and others not. If you'd like to discuss our more detailed evaluation of the calculator's "corrected volume" please contact us.

1000 hr(+) fuel as % of Volume (piles only)

We know of no photo series to help in estimating percent volume of heavies in piles, so make your best estimate. Especially if you aren't sure, we welcome photos of typical piles within the project - or of labeled outliers.

Method(s) Used to Estimate Fuel Loads (broadcast only)

Fuel loads are an important and binding part of the application. They must be specific for the project being permitted. Getting fuel data may require an extra trip to the field and other work. The bigger the project and the higher its smoke risk, the more concerned we are to have accurate fuel load data.

Some [fuel photo series](#) are linked from our website, or use any other you think fits.

You also may use transects. However, they are more work than a fuel photo series, and in Colorado's sparse fuels, usually less accurate. See the smoke [program's manual](#) for more details about estimating fuel loads, including numbers of transects and one way to estimate depth of unevenly distributed litter and duff.

Duff and litter cannot be estimated accurately from photos. Use your familiarity with the burn site. Compared to other fuel components, their depth is especially variable at small spatial

scales. That’s worth considering if you eyeball or measure some sample locations within a project.

Do not simply use a standardized set of numbers, perhaps from a fuel model. The FBPS models focus on fine fuels, critical for the uses for which those models were created but not the part of the fuel profile that’s typically most important for smoke. Relying on them to establish fuel loads for smoke purposes is likely to mislead you because each has a different focus. The NFDRS fuel models are better for smoke, but still too generalized for permit purposes.

Site Fuel Load (broadcast only)

The following table gives required fuel load accuracy by component.

| Fuel Component | Minimum Accuracy |
|------------------------------|------------------|
| Duff depth | ± ½” |
| Litter depth | ± ¼” |
| Grass & forbs | ± 1 ton/acre |
| Woody shrub | ± 1 t/a |
| 1-hr wood (< ¼” diam.) | ± 1 t/a |
| 10-hr wood (¼ - 1”) | ± 1 t/a |
| 100-hr wood (1-3”) | ± 1 t/a |
| 1000(+) hr wood (>3”) | ± 2 t/a |
| % Rotten for 1000(+) hr wood | ± 25 % |

Ignition Method(s) (broadcast only)

We want to take into account the possibility that aerial ignition can generate more lift than hand lighting. We realize it doesn’t always. Also, we give end time extra attention for aerial ignition.

Wind Direction

Standard permit conditions for nearly all broadcast and some pile categories include limiting wind directions to protect nearby receptors. The [worksheets](#) give details.

Because National Weather Service forecasts are precise only to the second compass letter, so are we.

For the smallest size category of piles, permit conditions may allow wind direction to be constrained in the field rather than fixing transport directions in the permit. There are three reasons. First, the relevant plume height may be quite low, while forecasted transport wind direction usually reflects a thicker atmospheric layer. Also because the relevant wind is often lower, wind direction may be especially variable during a day or within a project area. Second, smoke from these projects generally is light and brief, so midday mistakes usually have less impact than with other piles. Third, many projects cover enough ground near homes that the appropriate directional constraint for one

portion of the project is different than what's needed in another portion. The last characteristic may allow you to burn on more days by choosing which piles to burn based in part on wind direction.

From a technical enforcement perspective, wind directions on the permit must be consistent with the forecasted transport wind direction. Forecasted 'transport wind' refers to average speed and direction from ground level to the mixing height at a certain time.

Passing beyond enforceable minimums and into the realm of good judgment, it is especially pertinent to piles that wind direction be reasonable at the altitude that carries the plume to the distance range where the plume passes homes. Far enough from the fire, that is the mixing height. But for nearby receptors the relevant wind height may vary by unit, time of day, etc. If you believe that eye-level wind rather than transport is the important direction for smoke on this project, ask that the permit conditions be for that height. If you also want the permit to be based on observed rather than forecasted eye-level wind direction, include additional protective mitigations.

Conditions Category

Designating conditions category is optional for burns with standard conditions. For details about conditions categories, see non-standard burns below.

Public Outreach

How will people the smoke may reach know that you plan burn, and how could they contact you far enough ahead of time if they want to discuss smoke-related concerns? For ideas, look in the public outreach section of the [pre-populated pile application](#). Keep in mind that a few people with health sensitivities to smoke may react at concentrations too low to smell, so outreach should extend well away from the project and farther than you expect smoke to be visible overhead.

In evaluating public outreach, we ask 'Would this work for a person with health sensitivity to smoke who will need an individual phone call before ignition starts?' Fortunately there are few such people. But we figure if the outreach works for them, it works for the rest of us. We assume that a person with health sensitivities or their care assistant is reasonably alert, so what you are expected to provide is readily-available and public information. A seasonal press release is one example. Public notification made only a day or two before ignition on a project starts doesn't meet the test, but neither is it necessary for the outreach to include exact burn dates.

Smoke Contingency

Describe what the burn boss will assign people to do if the smoke is unexpectedly awful. Like an escaped fire contingency plan, this section isn't about what anyone expects will happen. It describes what the burn boss will do if the unexpected happens. It may help to picture the thickest, worst smoke you can imagine coming from the burn, multiply that density or duration by some large number, and ask yourself 'what would we do then?'

We review smoke contingency plans for a couple characteristics.

1. Most importantly, does the plan seem feasible? Is it really likely to be possible and safe to do what you say is planned? Will a pile burn in the cold of winter really have a functional engine present? Please don't say the group will complete 100% mop up of a large understory burn between mid-afternoon and sunset.
2. Second, is the plan specific? Too often we read contingencies that say some version of 'we'll do our best to put it out and/or finish off the burn quickly, circumstances depending.' While that may be true, it isn't much of a plan. Does the unit have internal roads or trails, prepared or otherwise, for example?

Occasionally once a test fire stage is past, there's no sound way to stop the fire other than to complete ignition as originally planned. Some but not all aerial ignition in brush is an example. Just as the helicopter sat down for the last time, the plume took a hard right and sank into Steamboat Springs. Consider again the thought exercise described above. If the smoke is bad enough, you'd try *something*. At the very worst you might advise people either door-to-door or via media what to expect overnight, contact County Health and the hospitals, and do some investigating so we can learn from the experience for next time. If that's all that can be done, say so and describe your planned particulars.

Notes

Notes are intended for any and all relevant information that doesn't fit elsewhere. Examples:

- If this is a maintenance burn, when was the area last burned?
- Were piles burned within the broadcast unit in preparation, which may or may not have reduced the fuel load significantly.
- What happened with smoke when the same area was burned before?
- Do you want a pre-burn site visit and/or do you think this is a burn it is especially important for us to watch and photograph? Do *you* intend to document the smoke and send us the data?
- If it isn't already clear, what actually are the key smoke concerns for the project?
- Do you plan to burn mostly small units but are requesting a high daily limit for one large unit or for above-average flexibility?
- Is fuel load especially variable within this project?
- Do you plan on making ample use of Maximum Manageable Area flexibility, which would make daily estimates of acres to burn less certain than usual?

As a way to decide to include, note anything about the project you'd want to know in our shoes that the application doesn't already portray.

Applicant Signature

We take your signature as an affirmation that you consider your request to be not only true but also responsible. (There's that word again.) We take that seriously.

A typed name instead of a hand-written signature works as long as we receive the application from a government email account or emailed from a private permittee with whom APCD has a multi-year relationship.

Non-Standard Conditions Supplemental Forms

For most aspects of the forms for non-standard conditions, see [Guidance for Non-Standard Permits](#). Notes about three data blocks follow.

Conditions Category (piles)

The project's permit condition category corresponds to and is defined in the pile [worksheet](#). Terms with specific definitions that are given on the worksheet include 'minimum wind speed,' 'snowing,' 'waves,' and others. Definitions used in conditions are repeated in footnotes on the permit.

Conditions Category (broadcast)

Please refer to the broadcast [worksheet](#). Smoke fuel category is one indicator of a project's potential to create smoke impacts. The fuel category is less an evaluation of expected smoke than of the worst-case possibility.

The categories are specifically and numerically defined. They don't represent your opinion about how well a project fits the labels we've assigned to the categories.

If the fuel in various burn units within the project is so different that it falls into two smoke fuel categories (or perhaps for other relevant reasons), you may want different permit conditions for each unit or for groups of units. We will need a map of units that displays what we are all considering. If it's the loads that differ, send detailed load information for each (group of) units. To provide more than one set of fuel load data, add to or reformat either the application or the non-standard supplement in any way you like.

1000-hour Fuel Moisture Minimum and Method (broadcast only)

In choosing a method, we generally recommend 'calculated from the nearest RAWS' because it is so much easier. Sampled can be more representative of the burn site, but in order to be accurate it must be derived from peeled and elevated sample logs that have been in place for at least three months. Calculated values often run a couple points drier than sampled heavy fuel moistures. We take that into account when reviewing your proposed conditions.

Related Documents

Links to forms:

| Pile Burn | Broadcast Burn |
|--|---|
| pile worksheet | broadcast worksheet |
| pile application | broadcast application |
| pile non-standard supplement | broadcast non-standard supplement |

Basic instructions are embedded in the forms as hover hints and should suffice for most burns. The [hints are available also as a .pdf](#).

[Guidance for Non-Standard Permits](#). For experienced burn bosses working with especially complex projects

Finally, as always, feel free to [contact us](#).