



Instructions for Submitting Fire Activity Data for Wild and Prescribed Fires

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Instructions for Submitting Fire Activity Data for Wild and Prescribed Fires

U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards
Air Quality Assessment Division
Research Triangle Park, NC

For the 2014 National Emissions Inventory (NEI) effort, we are actively seeking activity data on wildland fire (wild and prescribed fires). The use of state and local data greatly improves the accuracy of the wildland fire NEI. This document describes the data elements and formats requested. NOTE: We will also accept cropland ag burning activity data for comparison to what has been seen via satellite. Submitting ag activity for this comparison **does not** constitute a submission to EIS for nonpoint. Please remember that, new for 2014, ag burning activity data is now required for nonpoint. This document describes the data elements and formats requested for wildland fire activity data submittals.

Primary Fire Data

The most important information we are seeking is fire activity data in a comma separated value (CSV) file with one record for each fire. The columns requested for this CSV file are described in Table 1.

Table 1. List of required and optional columns in primary fire data for the 2014 NEI.

| Name | Units | Description | Notes |
|------------|---------------------|---|---|
| Latitude | Decimal degrees | Best estimate of latitude of fire | This could be the centroid or starting point of the fire. If location is an estimate (such as county centroid or TRS), please note that in metadata. |
| longitude | Decimal degrees | Best estimate of longitude of fire | Same as latitude |
| area | Acres | Final size of the fire | This is preferably the "blackened acres" rather than the total perimeter. |
| start_date | Date as YYYYMMDD | First detection date of fire | |
| end_date | Date as YYYYMMDD | Last date fire was active | OPTIONAL |
| type | WF, RX, or AG | Primary fire type | Types are wildfire (WF), prescribed burn (RX), or cropland agricultural (AG). Rangeland burns are considered RX. |
| fccs | FCCS Fuelbed number | Fuels as described by a standard FCCS fuelbed | OPTIONAL – See http://www.landfire.gov/NationalProductDescriptions25.php for a list of valid fuelbed numbers. |
| duff_depth | Inches | Depth of belowground fuels consumed | OPTIONAL – Belowground fuels, such as duff or peat, represent large uncertainty in emission estimates. Especially for larger fires, an estimate of the consumption depth of belowground fuels is helpful. |

Notes on Table 1.

- If perimeter information is available for wildland fires, we would prefer polygon input as Shapefiles in place of CSV. Please include the elements in Table 1 in the Shapefile attribute table.
- The column names, units, and formats described in Table 1 are preferred. Providing your data in this format will ensure that maximum time can be spent on interacting with agencies submitting the data and improving the quality of results. However, we understand that this may present difficulties for some agencies, so you may provide data that differs in format. If so, please provide details in metadata.
- If your jurisdiction undertakes significant pile burning, pile burns should be treated separately (see Table 2 below).

Pile Burn Data

Pile burning will be treated separately in this year’s NEI. Emissions from piles will be estimated using the methods for hand piles in the Consume pile burn calculator.¹ If your jurisdiction has information on pile burns, we can use it as described in Table 2. The data requested for pile burns should also be provided in a CSV file, with one record for each group of piles.

Table 2. List of required and optional columns for pile burns

| Name | Units | Description | Notes |
|-------------|------------------|---------------------------------------|--|
| latitude | Decimal degrees | Best estimate of latitude of piles | This is the centroid of the pile group. If location is an estimate (such as county centroid or TRS), please note that in metadata. |
| longitude | Decimal degrees | Best estimate of longitude of piles | Same as latitude |
| count | number | Number of piles in this group | Piles are typically created in groups with similar features. There should be one row for each group of piles. |
| start_date | Date as YYYYMMDD | First date of burn for this group | |
| end_date | Date as YYYYMMDD | Last date group was active | OPTIONAL |
| pile_volume | m ³ | Volume of a single pile in this group | This volume is of the total pile, including air pockets. |

¹ http://depts.washington.edu/nwfire/piles/support/pile_documentation.php

| | | | |
|------------------|------------------------------|---|---|
| pile_composition | conifer or shrub_hardwood | Primary composition of the piled fuels in this group | OPTIONAL – pile loading follows one of two equations depending on if the pile is primarily conifer or either shrubs or hardwoods. |
|------------------|------------------------------|---|---|

Metadata

In addition to per fire (and pile group) information, we request additional information on the data itself to ensure that it is used appropriately. This information can be provided as a separate text file or Word document and includes the following:

- Jurisdictional coverage: does this data cover your entire state or jurisdiction? Are there areas not included (e.g., military bases, federal lands, parks, etc.)?
- Size coverage: what fire sizes are required to be reported in this database? (e.g., all fires 10 acres or larger).
- Completeness: is this dataset complete accounting of all wildland fires and pile burns for the jurisdiction covered?
- Wildfire season: when did the wildfire season for your jurisdiction begin and end in 2014?
- Other notes: Please tell us anything that you think will help us use your data effectively.

PeatFires

As part of the discussion at the Fires Summit hosted by EPA in November 2014, smoldering emissions from peatfires (burning of organic soils) were identified as being significant and under-reported/under-evaluated in parts of the US leading to high uncertainty in the emissions from these types of fires. In addition to the other information requested as part of this note to better estimate emissions from wild land fires, we also request submitters to clearly identify, where possible, these organic soils as part of the fuels that burn, so that it allows for a better estimation of emissions from these types of fires as opposed to fires based on surface fuels.

Where to Send

Data can be sent via email to Tesh Rao (EPA, fires2014@epa.gov). If the files are too big for email, contact us and we'll figure out a different solution. Questions can be sent to Sim Larkin (USFS, larkin@fs.fed.us) and Sean Raffuse (STI, sraffuse@sonomatech.com), with a cc to Tesh Rao from EPA at email fires2014@epa.gov. We expect this fire activity data collection process to begin as soon as this note is posted and last until May 15, 2015 (as noted in our "2014 NEI Plan" which can be found at: http://www.epa.gov/ttn/chief/net/2014nei_files/2014_nei_plan.pdf) Should anyone require time beyond 5/15/2015 to submit their WLF activity data, please send an email to Tesh Rao at the above email address and we can discuss the situation further.

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