

**WRAP Policy
Fire Tracking Systems
DRAFT
October 31, 2002**

**Reviewer Comment
Compiled December 17, 2002**

Introduction

The Fire Tracking Systems Task Team works under the auspices of the Fire Emissions Joint Forum (FEJF) of the Western Regional Air Partnership (WRAP). The FEJF is responsible for preparing technical and policy tools for the WRAP to assist states and tribes in the WRAP region in the implementation of the Regional Haze Rule. The WRAP Policy on Fire Tracking Systems (WRAP FTS Policy) has been under development and review by the FEJF since April 2002.

The Fire Tracking Systems Task Team has conducted an outreach process to solicit broader comment on the draft FTS Policy document to support final recommendations of the FEJF to the WRAP. The outreach process was designed to be inclusive of stakeholders who have participated in or expressed interest in the work of the FEJF. An e-mail message was then distributed to the inclusive list of stakeholders soliciting reviewers' official comment between November 4th and 15th, 2002 on the draft WRAP FTS Policy dated October 31, 2002. This process was approved by the WRAP's Initiatives Oversight Committee in lieu of public workshops due to the timeframe of the WRAP approval process.

The Fire Tracking Systems Task Team sent out review materials to approximately 300 stakeholders and has received comments from 10 individuals and their respective groups. All reviewer comments have been compiled into the single document that follows. These comments are the basis for the final revision of the draft WRAP FTS Policy dated December 9, 2002 that the FEJF will consider for approval on December 19, 2002.

The draft FTS Policy document that was used by reviewers and to which their section, page and line numbers refer, and the revised WRAP FTS Policy (12.09.02) based on the comments, are available at the Fire Tracking Systems webpage under FEJF Task Teams at www.wrapair.org.

Compiled December 17, 2002			FTS Reviewer Comment	
Section #	Page #	Line #	Comment/Suggested Wording	Reviewer /Cite
General			Good work. Provides sufficient direction and flexibility to guide development of an FTS sensitive to account an administrative jurisdiction's needs	Ron Klein
General			Natural vs. Anthropogenic. This will still be a source of discussion as the exact split between the two must still be determined for any given prescribed fire.	Dan Ely and Sarah Gallup
General			Agriculture. The policy indicates that a state should have a tracking system for all known fire activity from all sources, including agriculture. The policy acknowledges that a state's ability to do so may require legislative or other governmental changes. In a section about data collection methods, the policy indicates that "indirect" methods may be used in some cases (e.g., remote sensing). The Division may want to see how far it can push the indirect estimation approach, which it could do now based on qualitative methods. This may not be acceptable to EPA.	Dan Ely and Sarah Gallup
General			All Pollutants. The policy calls for the system to track ALL emissions of visibility impairing pollutants annually. For some fuel types, emission factors for particular pollutants have not been made available for public use or simply don't exist. Obviously, these factors will need to be in-place fairly soon.	Dan Ely and Sarah Gallup
General			Use the WRAP's Inventory. The policy indicates that a state may utilize the WRAP's regional inventory as their emission inventory mechanism. This could be (?) one way out of the 'track agricultural fire emissions problem.' The Division could continue to do its own fire inventory for prescribed fire and utilize the WRAP's products to fill-in the gaps. Another area for exploration!	Dan Ely and Sarah Gallup
General			Temporal Resolution. Consistent with IMPROVE, tracking is desired especially for the best and worst 20% of days. Therefore, the inventory is recommended to have one-day spatial resolution. While any other resolution would probably create even greater problems, there is likely to be significant unreliability for large fires in determining how many acres burned on which day. Two examples may illustrate. Mapping acres on large wildfires when they are expanding and when emissions are likely to be highest is generally done by helicopter. Flights are minimized to reduce safety exposure, and it is	Dan Ely and Sarah Gallup

			common for none or only part of a fire's perimeter to be flown and mapped on a single day. Daily acreage growth estimates can therefore be coarse. On large prescribed fires, mapping is more likely to be ground-based. Even so, a fire may creep or even run for several days between mapping visits. The large fires are a small portion of the total number of fires, but are likely to be major contributors to total emissions. Probably awareness of this data weakness is the best one can expect at least in the short run.	
General			<p>Definition of Agriculture. The document's definition of agriculture differs from that in the Colorado Air Quality Control Commission's Regulation 9. If one agency is to administer both the inventory and permits, at some point a single definition may be preferred.</p> <ul style="list-style-type: none"> ○ Regulation 9 revolves around the <u>goal</u> of the fire treatment. <ul style="list-style-type: none"> ▪ Agricultural Open Burning - The open burning of cover vegetation for the purpose of preparing the soil for crop production, weed control, maintenance of water conveyance structures related to agricultural operations, and other agricultural cultivation purposes. ○ WRAP emissions inventory draft policy revolves around the <u>land's use</u>. <ul style="list-style-type: none"> ▪ Agricultural fire/burning - any fire ignited by management actions to meet specific objectives (i.e., managed to achieve resource benefits) on agricultural land. ▪ Agricultural land - Agricultural land includes croplands, pasture, and other lands on which crops or livestock are produced. Rangeland will be included with wildland for the purposes of the Fire Emissions Joint Forum Work. 	Dan Ely and Sarah Gallup
General			Good start on this. The policy should be done once to cover both the RH Rule and the PM NAAQS needs. There will only be one database.	Tom Pace
General			Quality assurance is mentioned briefly, but what is really needed are data quality objectives for each item in the database. The data quality needs for a particular data item can vary depending on e.g., fire size & proximity to class one areas, "low capacity" airsheds, or an urban interface situation. Asking for the same level of specificity (for e.g. fuel type & loading) for all fires can create an unnecessarily high data collection hurdle for a lot of small fires, few of which are of any consequence individually (but are	Tom Pace

			important collectively and could best characterized with more general data). "Important" fires should warrant an on-site visit, but we can't afford to ask for that for all fires. What we've been suggesting is a concept where a default database is acceptable for e.g. fuel loading for the many small fires, but to use a "best available data" approach for the "important fires".	
General			For once I am taking a position that “less is better” when it comes to a policy. Only because I see all kinds of problems in trying to set up a tracking system in remote areas where there is little burning and no current smoke management or other program in place that can easily collect this info. As an example, for ag burning in the middle of remote eastern Oregon, I envision farmers being very reluctant to provide any info on their burning – fire districts or other locals unwilling to help collect info – resource issues being raised – and the perception issue of “why is big government seeking this info”, etc. Bottom line seems to be what benefit do we get out of setting up a tracking system in such areas anyway? Why not only focus on areas where burning is concentrated, and where the emissions could make a difference in terms of contributing to regional haze?	Brian Finneran
General			ODEQ in the past compiled annual EI for burning in these remote areas by contacting ag extension agents and getting their estimates of burning activity, or making other very rough assumptions on how much burning takes place, emission factors, fuel consumption, etc. Very rough. Would this approach still be acceptable under the Fire Tracking Policy?	Brian Finneran
1	1	305	A blanket requirement for 308 states to track the 7 essential elements for each fire for all fire types on an annual basis goes far beyond what section 308 requires. While it would be great to have that level of data, it is not clear why it is necessary. I don't believe the level of effort is commensurate with the significance of the impacts in every case nor would it improve our ability to respond any sooner to changes in visibility. For the most part, prescribed fire and agricultural burning do not vary so much year-to-year that annual fire-by-fire emission inventories are necessary. Wildfire does vary tremendously from year-to-year and is well tracked already. It would make more sense that the policy allow states the flexibility to conduct emission inventories according to the schedule they already are required to follow by the EPA (every 3 years). Unless some statistics can be produced showing why it would be essential to have annual fire-by-fire emission inventories, this policy statement is unjustifiable for 308 states.	Diane Riley
	2	3	There are also three tribal vacancies that must be filled. Without including this, it gives a misperception to the reader that the states naturally outnumber the tribes on the Board	Bob Gruenig
2.3	2	30	Where in the preamble is the tracking required as stated?	Diane Riley

	3	8-16	It might also be important to mention that tribes can also adopt “reasonably severable elements” of an air program this indicating that tribes can adopt portions of a 309 TIP unlike the states that must implement every measure under a 309 SIP	Bob Gruenig
2.3.1	3	38	Where in Section 309 are fire emission projections required?	Diane Riley
	4	39	Tribes should likely be included as well	Bob Gruenig
3.2	5		Need to qualify that some fires are excluded from this policy as was done in the AEG Policy on page 6: “The WRAP AEG Policy specifically does not apply to Native American cultural non-vegetative burning for traditional, religious, or ceremonial purposes (e.g., cremation, sweat lodge fires). Nor does it apply to open burning activities on residential, commercial, or industrial property (e.g., backyard burning, garbage incineration, residential wood combustion, construction debris). However, states/tribes may choose to consider the impacts of these fire sources when developing their regional haze implementation plans.”	Diane Riley
3.2.1.	6	10	I was unaware that the FEJF was putting together specific guidance on “data collection” at a later date. This should be discussed by the small FTS workgroup to make sure we are all on the same wavelength.	Darla Potter
3.2.2.	6	17-18	These lines have inconsistent formatting compared to other quotations in the Policy. The formatting needs to be a 0.5” indentation on the left and the right.	Darla Potter
3.2.2	6	36	The rule does not require clean air corridors emission inventories to be compiled annually. From the WRAP Policy on Clean Air Corridors, final draft dated October 18, 2002: “ <i>At a minimum, using the most recent state emission inventories available, the TOC should produce a report for each five-year implementation plan revision on the current and projected emissions in the clean air corridor and in areas outside the corridor and compare these emissions to the 1996 baseline.</i> ” (page 1) “ <i>... the WRAP finds no requirement under 40 CFR 51.309(d)(3)(iv) for further visibility impact analysis or additional emission reduction measures until at least the next SIP revision (2008).</i> ” (page 1) “The tracking described above is intended to ensure that any unexpected changes	Diane Riley

			are identified. This tracking would coincide with the periodic SIP revisions required in 2008, 2013, and 2018. States and tribes already prepare inventories at least every three years to meet federal requirements and will prepare detailed inventories annually for sources of sulfur dioxide of 100 tons per year or greater for compliance with the stationary source provisions of §309.” (page 4)	
3.2.2	6	36-39	Does this statement apply only to those Tribes participating in the WRAP or for all Tribes? If for all Tribes how is this information going to be collected & How will the info get to the WRAP for inclusion into annual reports?	Lewis McLeod
3.2.3	8	1-3	Don't these sources contribute to area source for tracking purposes?	Lewis McLeod
3.3.	8	34	Delete the word “further”. The word further makes it sound like there already is guidance, which there is not, and the FEJF will be providing additional guidance.	Darla Potter
3.3	9	7-17	This paragraph should be moved to under Policy Statement A. The de minimis concept is not only applicable to the 7 essential elements, it is applicable to tracking fire emissions in general. This concept is going to be critical for some states and should not be buried here.	Diane Riley
3.3.1.	9	23	Footnote 30. How is this footnote relevant to the sentence?	Darla Potter
3.3.4	9	38-39	Depending upon the size of burn and fuel characteristics there may be multiple fuel types which need to be taken into account for estimating emissions. Suggest that the sentence be reworded as follows: “ It is crucial to provide the predominant fuel or cover type (s) that are burned”	Ron Klein
3.5	All	11	Similar to the first comment above, one-year and five-year projections on an annual basis goes way beyond the 308 requirements and I question the value.	Diane Riley
3.5	11	11-13	Section 309 requires that implementation plans document that fire programs within the State “evaluate and address the degree visibility impairment from smoke in their planning and application”. Section 3.5 of the FTS implies that the implementation plans will provide the details on how to evaluate and address the visibility impairment from smoke. In fact, the fire programs are responsible for determining how to evaluate and address visibility impairment and the implementation plans will document the approach that is used by the fire programs.	Frances Bernards
3.5	11	34-39	This paragraph needs some editing. I don't understand the first sentence. What is required by the rule? What is respectively? And why not state five year projections	Diane Riley

			would be submitted every five years rather than "... quinquennially versus annually for one-year projected estimates."?	
3.5	11	37	Suggest substituting "every five years" for quinquennially for sake of plain english	Ron Klein
3.5.	11	39	Delete the word "further". The word further makes it sound like there already is guidance, which there is not, and we will be providing additional guidance.	Darla Potter
Appendix B	19	16-19	In the process of revising the document and eliminating much of the discussion on the essential components, this website reference became obsolete and should be deleted.	Darla Potter
Appendix C 1.	20	5	Delete the word "further". The word further makes it sound like there already is guidance, which there is not, and we will be providing additional guidance.	Darla Potter
Appendix C	20	9	How is a multi-day fire reported? Also, may want to explicitly specify date format MM/DD/YYYY, etc.	Patrick Gaffney
Appendix C	20	15	Burn location of the nearest mile is probably adequate for most situations, but higher resolution should be encouraged and supported where available. Again, what data format is expected? Latitude/longitude, Section Range Township. Should the centroid of the fire be identified, or the ignition location?	Patrick Gaffney
Appendix C	20	22	Are emission factors available for various pile dimensions? If not, it may not be necessary to ask for that information.	Frances Bernards
Appendix C	20	24	May want to provide a pre-specified pick-list of fuel types to ensure consistency of reporting. If this is not done, it can create small inconsistencies in spelling and formatting which makes summarizing and analyzing data more difficult.	Patrick Gaffney
Appendix C	20	33	Provide a table of default fuel loadings for when site-specific information is not explicitly available.	Patrick Gaffney
App C, 1.5	20	35-37	Clarify last sentence "... unless fuel consumption data are also provided (see next section.)"	Diane Riley
App C, 1.6	20	45	Insert "... the <u>Type of Burn for the predominant ...</u> "	Diane Riley
Appendix C	21	10	Ultimately, it will be worthwhile to provide default emission factor parameters as a table, or a preferred emissions model (such as FOFEM) for estimating emissions.	Patrick Gaffney
App C, 2.1	21	18	Rename this section "Daily Tracking of Jurisdictional Coordination"	Diane Riley
Appendix C 2.2.	22	14	Should Consume be footnoted as it was in the AEG Policy?	Darla Potter

Appendix C 3.1.	23	12- 13	Line 12 is the end of the 2 nd paragraph in this section and line 13 is the start of the 3 rd paragraph in this section. Insert a blank line between lines 12 and 13 to distinguish between the two paragraphs.	Darla Potter
Appendix C	23	25	Also may want to mention tools that help assign vegetation types based upon burn location. Tools may also be created to generate burn emissions based upon the burn location and size. For concept, see: http://www.gisc.berkeley.edu/~jscar/emissions/	Patrick Gaffney

WRAP FTS Policy Reviewer List

Affiliation	Name	Email	Received Draft Policy	Returned Comment
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