



United States
Environmental Protection
Agency

Office Of Air Quality
Planning And Standards
Research Triangle Park, NC 27711

EPA-454/C-98-002
Volume IX, No. 2
Spring 1998

Table of Contents

EIIP Subcommittee Looks to Revamp SCC Codes	2
Summer Emission Inventory Workshop Planned	3
New Release of FIRE	3
Windows Version of TANKS	4
Where Have All the Virtual Discussions Gone?	5
It s Spring.... Do You Know Where Your 1996 PEI Is?	6
Emission Factor Development -- A Collective Effort	7
OTAG NOx SIP Call - Emission Inventory Comments and Modifications	9

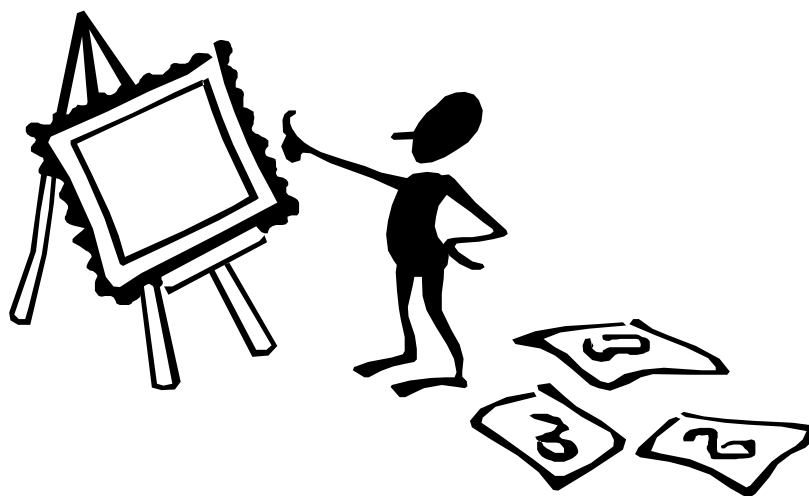
EIIP Subcommittee Looks to Revamp SCC Codes

By
Ron Ryan

The objective of the EIIP Emission Inventory Coding Subcommittee (EICS) is to evaluate a potential major revamping of the Source Classification Codes (SCC) used in air emissions inventories. SCCs are used to prepare and summarize annual emissions data, and they also provide the necessary links to the chemical speciation and temporal allocation tables which allow modeling inventories to be prepared. For point sources, SCCs are currently made up of eight digits divided into four groupings (x-xx-xxx-xx).

Due to the expansion of emission inventories to cover a wider scope of both pollutants and source types, and to the demand to codify an increasing variety of information about a source within the SCC, both the point and area source classification systems have not always provided a good solution to the new demands. The EIC subcommittee will be identifying the types of information that are necessary to an emission inventory and that should be standardized or grouped by a code. The subcommittee will also be identifying the level in an emission inventory system where each type of coded information should reside. Thus, the detailed information embedded in some of the current codes which provides information about the entire facility or emitting equipment - rather than process-level information - could become a separate code specified at a different level in the emissions inventory. The EIC subcommittee is not restricted to addressing just the process-level (SCC) data coding needs, and is therefore identifying data coding needs at the facility, device, and emissions levels as well.

A web page (www.epa.gov/ttn/chief/eiip/eic_sub.htm) has been created to disseminate information on the proposals of the subcommittee, or you can contact Ron Ryan of EPA at (919) 541-4330 or at ryan.ron@epa.gov.





New Release of FIRE

By Ron Ryan

The first Windows version (v6.0) of the Factor Information and Retrieval (FIRE) data system is now available from the FIRE 6.0 Web Page (www.epa.gov/ttn/chief/fire.html). The system runs under Windows 3.1, Windows 95, and Windows NT, and contains EPA's recommended default emission factors for criteria and hazardous air pollutants for cases where better data are not otherwise available.

In addition to the upgrade to Windows, FIRE 6.0 contains emission factors from AP-42, Fifth Edition, through Supplement C. FIRE 6.0 also contains all EPA point and area Source Classification Codes (SCC) through April 8, 1998, and provides a convenient interface to these codes. Please send any comments on the software or corrections to the emission factors to Ron Ryan, ryan.ron@epa.gov, (919) 541-4330.

Summer Emission Inventory Workshop Planned

By Steve Bromberg

The second in a series of summer emission inventory workshops for State and Local air agencies and EPA is scheduled for August 18-19, 1998 in Chapel Hill, North Carolina. The first workshop, held last year in Durham, NC, focused on the 1996 Periodic Emission Inventory (PEI). This year the concentration will be on emerging issues. While the agenda has not been finalized, topics will include PM-2.5, new ozone and PM NAAQS, NOx SIP call, Toxics, and data management. The format for the workshop will be presentations and interactive breakout groups.

As soon as final arrangements have been made with the hotel, preliminary information will be sent to all that attended last year's workshop. Information will also be posted on the EFIG Web page and sent to subscribers of the CHIEF List Server. If you are a State, Local or EPA employee involved in the preparation of air emission inventories, make your plans now to attend this important meeting.



Windows Version of TANKS

By Dennis Beauregard

It doesn't seem very long ago that we were concerned about TANKS 1.0 users who might not yet have the Windows 3.1 operating systems on their PC's. As a result, we decided to continue using the Foxpro programming language for DOS when we developed TANKS 2.0 to provide a tool for DOS and Windows users. Although we were interested in developing TANKS 3.0 as a Windows program, resource constraints precluded what was perceived as an enhancement of the DOS program and we focused on the more substantive improvements. We're now up to TANKS 3.1 and are still using the Foxpro programming language for DOS. What is now forcing the issue is the increasing number of users experiencing problems with installing and operating the current DOS based program on Windows 95 (and to some lesser extent on Windows NT) operating systems.

We continue to be concerned about developing tools for a wide variety of TANKS users and this time the question concerns users who might not have Windows 95 as an operating system. Fortunately, we came up with a solution that should please Windows 3.1 and 95 users. We plan to offer TANKS Version 4.0 in 16 and 32 bit versions and users will have the option of selecting the version preferred during installation of the program. This will allow the Windows 3.1 users to install a 16 bit version compatible with their systems while Windows 95 users will be able to install a 32 bit version and realize the full performance of their operating systems. While that is the plan, should we encounter problems with the technology or funding, we may have to restrict our efforts to developing a 16 bit application and delay developing a 32 bit version of TANKS until some later date (most likely a year or two down the road when most users are operating with Windows 95 or 98).



In the past when we've released new versions of TANKS, we have coordinated updates of Section 7.1 of AP-42 with updates to the program. The concept has always been that TANKS is an extension of Section 7.1 of AP-42 (which has grown to 100 pages) and it should be possible to perform hand calculations using AP-42 that agree with the numbers generated by TANKS. We do not anticipate updating AP-42 this time since the main focus of this effort is to convert TANKS from a DOS program to a Windows program. However, the conversion to Windows has presented an opportunity to include some enhancements to facilitate emission calculations and we will be seeking comments on the new information included in the Beta version of the model which may necessitate minor revisions to Section 7.1 of AP-42 at a later date. A notice will be posted on the CHIEF Web site describing the new information forming the substance of the enhancements and seeking comments regarding the appropriateness of adding this information to TANKS and Section 7.1 of AP-42.

The most significant enhancements will include:

- Incorporation of more newer meteorological data

- Including speciation profiles for crude oils and distillates (this information was generated by the American Petroleum Institute to support the Refinery MACT standard)

- Including a "placeholder" for calculational routines and inputs now under development by the American Petroleum Institute for floating roof landing losses (emissions from the complete emptying and refilling of floating roof tanks)

We will be Beta testing TANKS Version 4.0 early in the summer to ensure that the final product is as error free as possible. If you are interested in participating in the Beta testing of TANKS Version 4.0, please E-mail me at beauregard.dennis@epa.gov. We hope to have the final version of the program available for use later in the summer.

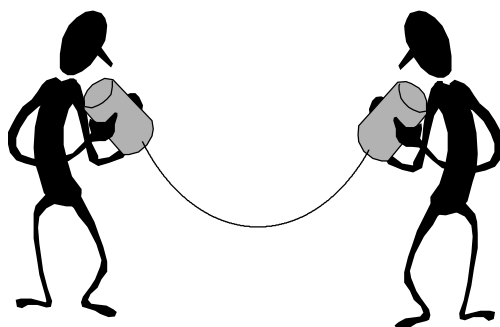
Where Have All the Virtual Discussions Gone?

By Ron Myers

Prior to going to a Web based information delivery system, there was a "Public Messages" area on the CHIEF BBS. The BBS message area was very active with approximately ten to fifteen postings per week. A similar area now exists on the CHIEF Web which we call the "CHIEF Public Forum." However, since we began the Web based forum in August 1997, CHIEF users have posted only 64 messages and responses. Compared to the relative plethora of messages routinely posted to the dial up BBS, I wonder what happened to everybody? Could it be that we have hidden the link and most people don't know that it exists? Perhaps we have done such a good job educating everyone that there are no more questions for people to ask? Or maybe there are sufficient other communication networks for State, local, industry, consultants and Federal environmental organizations to share their questions and solutions that CHIEF users do not need another network.

We would be pleased if the latter were true. However, based upon the number of calls still received by our INFO CHIEF help desk and the technical staff, I know that there are still a lot of questions about estimating emissions. I also know from many of these conversations that people use many valuable approaches to estimate emissions where the tools EPA provides do not address the specific (or general) situation encountered. I also believe that everyone can benefit from the knowledge gained by the experiences of others. We in the EFIG do not have all of the answers on estimating emissions for a facility or regional inventory. Often we learn more from others than we provide.

The primary purpose for the CHIEF FORUM is to provide a mechanism for seeking solutions to emission estimating problems from the emission inventory user community. It is also a central location to document and critique estimation methodologies supported by few if any valid source test data and a repository of emission estimation methods developed by those outside EFIG. These methodologies may range in validity from essentially equivalent to those provided by EFIG to being based upon consensus agreements between different stakeholders. In the previous dial up BBS Public Forum, good experiences and suggestions were presented that I believe made this a valuable



resource for others to consult. It also provided a place for questions which sometimes fueled the formulation of a hypothesis upon which to develop better information. One improvement of the new Web based forum is that postings are no longer automatically deleted after 60 days. This is important since most solutions are valid for much more than a 2 month period.

This is a solicitation for increased usage of this resource. As with the previous "Public Forum," most messages with any linkage to emission factors or inventories will be posted as submitted. Exceptions are those which contain advertisements or inflammatory remarks. I encourage you to make use of this valuable forum.



It's Spring.... Do You Know Where Your 1996 PEI Is? By Lee Tooly

In July of last Summer, the EFIG distributed guidance discussing the preparation and submittal of the 1996 Periodic Emission Inventory (PEI). In that guidance, it was requested that the 1996 PEI data be submitted electronically to EPA in July 1998. The Clean Air Act requires that state and local agencies prepare PEIs every three years for specific ozone and carbon monoxide nonattainment areas. Beginning with the 1990 base year inventory, PEIs should be developed for 1990, 1993, 1996, 1999, etc. The EPA Regional Offices are working with their State/ local agencies to determine the regulatory significance of the 1996 PEI, in each case. The purpose of the PEIs include tracking emissions relative to reasonable further progress (RFP) requirements, e.g., VOC reductions. The 1996 PEI may also be especially important for those areas that opt-in to the transitional nonattainment status under the new ozone NAAQS.

In addition to the guidance distributed last Summer, the EFIG also distributed for each State, their portion of the EPA National Emission Trends (NET) inventory data for 1996. The NET inventory is developed by EFIG and includes data for most criteria pollutants, for each county in a State, e.g., nonattainment area(s), as well as the rest of the State. The State/ local agencies were asked to review and confirm, or correct if necessary, the EPA's national emission inventory data. The EFIG's 1996 NET inventory data was distributed to the State/ local agencies to help initiate the development of their 1996 PEI.

As described in the PEI Guidance, and now updated on the EPA's 1996 PEI Web site, there are several data transfer options available to State/ local agencies for submitting their 1996 PEI data electronically to EPA. The most likely data transfer options at this point in time are: the AIRS/AFS (for point sources only); the EPA's new NET input format; and the NET text overwrite file for the 1996 data as provided by EPA. The EIIP/ EDI standard format is another option, and could continue to be an option for the future if State/ local agencies become familiar and want to use the standardized

Electronic Data Interchange transfer procedure. (Please see the PEI Guidance, Chapters 2-3 and PEI Web site for a more complete description of each data transfer format.)

The EFIG is currently prepared to accept any of the data transfer options as described for the 1996 PEI data submittal. It is anticipated at this time, that most State/ local agencies will submit their point source data by AIRS/ AFS or the NET Input Format, and their area, mobile, and biogenic source data using the NET Input Format. (Please refer to the EPA's 1996 PEI Web site at <http://www.epa.gov/oar/oaqps/efig/ei> for information and updates on the development of the NET Input Format.)



Emission Factor Development -- A Collective Effort By Tom Pace

Uncle Sam Wants You! Well, not really, but we do want your input on emission estimation methodologies. The Emission Factors and Inventory Group (EFIG) in EPA's Office of Air Quality Planning and Standards (OAQPS) recognizes that it can't possibly be "everybody's expert" on each and every industrial process source that emits any of the several hundred pollutants that are regulated by the Clean Air Act. Public involvement in the development of emission estimation methods is essential. Our process for obtaining public input is outlined in Appendix B to the Procedures for Preparing Emission Factor Documents, located on the Internet at <http://www.epa.gov/ttn/chief/program.html>. Most stakeholders interested in air quality have perspectives and information that are potentially useful in the emission factor development process. We must continue to find new ways to tap into this stakeholder knowledge pool at a time when we are all being "overwhelmed by information."

History - Several years ago we began to tap the collective expertise of the stakeholders through various programs, including the Adopt-A-Factor program, partnerships with industry, and later through the Emission Inventory Improvement Program (EIIP). The EIIP is on the Web at <http://www.epa.gov/oar/oaqps/eiip>. We have published massive amounts of information on CD ROMs and on the Internet. Moreover, we are exploring ways to enhance stakeholder involvement in the emission factor development process thru better communication and exchange of information. The Internet is the logical medium to facilitate this process.

Our Web Site - The first step is to ensure that stakeholders know when their expertise is needed. Communication is the key to this, and recent advances in technology have made this communication job easier for all of us! The EFIG has established the Clearing House for Inventories and Emission Factors (CHIEF) Web site to facilitate communication on all aspects of emission factor development for stationary sources of air pollution. It can be found at: <http://www.epa.gov/ttn/chief/>. It includes the "What's New" Web page that is used to alert users to ongoing activities in EFIG. Communication on EFIG projects is also available through the EFIG List server.

Air Toxics Web Site - Another useful Web site is the Unified Air Toxics Web site <http://www.epa.gov/ttn/uatw/>. This site contains a link to EPA Rules and Implementation, a Web page that lists all ongoing MACT activity and contact points, complete with E-mail and phone numbers. The purpose of the MACT program is to develop emission standards for hazardous air pollutants under Section 112 of the Clean Air Act (CAA). This page, and the MACT programs described therein, are not the responsibility of EFIG, but the MACT program (which is managed by the Emission Standards Division (ESD) of OAQPS) does seek public input on emissions and emission estimation techniques for programs under Title III of the CAA. The MACT program encourages public participation early in the project. Additional information on the MACT projects can be found in EPA's Regulatory Agenda, published semiannually in the Federal Register.

FYI Page - One additional information sharing tool that we recently established is a new Web page to act as a repository for information developed by EPA or by outside parties which has undergone limited EPA and external review and which EPA feels is potentially useful, but which is not contained in AP-42. Thus, if neither the EPA nor the States have the resources available to conduct the full public review and comment resolution necessary for inclusion in AP-42, the information may, at EPA's discretion, be made available on the FYI Web page for use with appropriate caution. This Web page may be accessed at <http://www.epa.gov/ttn/chief/fyi.html>.

Related Sites - Information about EPA's mobile source emission models and inventories may be obtained on the Web at the Office of Mobile Sources Web site <http://www.epa.gov/OMSWWW>. Many States also maintain Web sites for emissions-related activities. For example, the California Air Resources Board's site can be located at <http://www.arb.ca.gov/emisinv/eib.htm>.

E-mail Directly to You - The CHIEF List server is an automated E-mail list that users can subscribe to through their own E-mail. Once users have subscribed, they automatically receive any message "broadcast" by the List server to subscribers. Any information placed on the "What's New" page of CHIEF is routinely sent to the List server subscribers. The EFIG uses this method to alert Stakeholders to activities in which they may want to participate. Instructions for subscribing to the CHIEF List server are given below . . . Sign up TODAY!

Send an e-mail message to listserv@unixmail.rtpnc.epa.gov

In the body of your E-mail message, type:
subscribe CHIEF your-first-and-last-name



Not On-line? - EFIG recognizes that there are some Stakeholders that are not yet "on-line." Thus, we encourage other organizations that write newsletters (e.g., STAPPA/ALAPCO, CARB, trade associations) to include information from the "What's New" page and List server in their newsletters as well. Draft items for public review can be sent by mail upon request if you do not have Internet access. Call INFO CHIEF HELP DESK at (919) 541-5285 if you have any questions.

A Note of Caution About Emission Factors - The AP-42 carries no regulatory stature and users are encouraged to seek out more accurate or more locally specific alternatives. The basis of each factor should be evaluated by the user to ensure that its use is appropriate for a given facility. The CHIEF Web site includes many of these alternative information sources [e.g., the Factor Information and Retrieval System (FIRE), the FYI page mentioned above, Locating and Estimating (L & E) documents]. Also, the use of material balances, Continuous Emissions Monitoring (CEM) or stack tests at similar facilities may be more appropriate.

OTAG NO_x SIP Call - Emission Inventory Comments and Modifications

By Gregory Stella



In the Friday, November 7, 1997 issue of the Federal Register (FR Vol. 62, No. 216, pg. 60318), EPA proposed rulemaking (NPR) for the *Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone*. This proposed rulemaking is to require certain States to submit State implementation plans (SIP) measures to ensure that emission reductions are achieved as needed to mitigate transport of ozone (smog) pollution and one of its precursors – emissions of oxides of nitrogen (NO_x) – across State boundaries in the eastern half of the United States. The notice proposed to find that the transport of ozone from certain States in the OTAG region significantly contributes to nonattainment of the ozone National ambient air quality standards (NAAQS) in downwind States. Additionally, EPA proposed the appropriate levels of NO_x emissions that each of the affected States will be required to achieve. A 120-day comment period was established to receive comments concerning all aspects of this proposed rulemaking and during this period over 350 comments were submitted, many dealing with potential modifications to the emissions inventory.

The emission inventories have and will be used to develop modeling of air quality, determine cost / benefit analyses, and establish the emission budgets for each of the 23 jurisdictions currently covered by the SIP Call. In a major coordinated effort with the Office of Mobile Sources (OMS), the Acid Rain Division (ARD), and various State and Regional air pollution offices, the Emissions, Monitoring, and Analysis Division (EMAD) has been reviewing, assessing, and addressing comments as submitted to the Air and Radiation Docket and Information Center. Comments were received for both the 1995/96 and 2007 base inventory files and covered all aspects and categories of the inventory. Each comment was reviewed and after the appropriate office assessed the validity of the information provided, it was included or excluded from the revised inventories.

OTAG's daily and seasonal NO_x emission inventories (<http://www.iceis.mcnc.org/OTAGDC/>) were used as the basis for comment and modification. These inventories have since been supplemented with accepted comments as submitted to the docket by March 9 and are planned to be used for the final State-level budget determination. Examples of comments include changes as small as updating existing control efficiency or boiler capacity information at specific sources to changes as large as complete replacement of State inventories.

The evolution of this SIP Call inventory has been an intensive and collective effort of many government and private organizations over a number of projects for a number of years. And through endeavors like these, EPA is able to develop programs that would meet both the Agency and the States' needs .

For additional information concerning the OTAG SIP Call inventory modifications, please contact Gregory Stella at (919)541-3649 or at stella.greg@epa.gov.



The *CHIEF* Newsletter
Volume IX, No. 2
Spring 1998

The CHIEF Newsletter is produced quarterly by the Emission Factor and Inventory Group; Emissions, Monitoring, and Analysis Division; of EPA's Office of Air Quality Planning and Standards. Its purpose is to enhance communication within the emission factor and inventory community by providing new and useful information and by allowing for the exchange of information between and among its readers. Comments on the Newsletter and articles for inclusion in it are welcome and should be directed to Emission Factor and Inventory Group (MD-14), US EPA, Research Triangle Park, NC 27711; telephone (919) 541-5285.

The contents of The CHIEF Newsletter do not necessarily reflect the views and policies of the Agency, neither does the mention of trade names or commercial products constitute endorsement or recommendation for use.