# **Chapter 13 – Errors, Warnings and Notes SMKINVEN**

The information available so far provides errors and warnings for SMKINVEN.

#### **Errors**

The **user errors** are listed first, followed by the **internal errors**. Within each group, the errors of each type are listed in alphabetical order.

Internal errors should not be encountered by users under normal circumstances. They are extra internal SMOKE checks to ensure consistency among 2 or more subroutines in the program. Users who modify the Smkinven code are more likely to encounter internal errors, since they may have made a change in one place that caused an inconsistency in another.

- 1. ERROR: Bad format of MOBILE INFORMATION file at line, <Line number>
  - **Problem:** The MCODES file is badly formatted at the line indicated.

**Solution:** Check the format at the specified line number of the 'MCODES' file. The format is provided in Chapter 9.

<sup>2.</sup>ERROR: Cannot determine year from invalid start date, <DATE in YYYYDDD>

**Problem:** The start date indicated (in Julian days) from the gridded input inventory file does not contain a valid year.

**Solution:** Check the value of SDATE3D in the header of the gridded input inventory file, AG. Create a new AG file with a valid year or use the m3edhdr I/O API Tool to insert a valid date into the header. The date can be the first day of the year (e.g., 1996001 is the January 1<sup>st</sup>, 1996)

 $^{3}\cdot$ ERROR: Cannot import gridded mobile or point source data.

**Problem:** Gridded mobile or point source data are not permitted in the Smkinven program. **Solution:** If mobile are point source data are available as a gridded annual inventory file, these must be treated as an area source in Smkinven to be able to import the data. The logical input file name for the file that should be provided is AG.

<sup>4</sup>·ERROR: Could not get description of file <Logical file name>

**Problem:** Smkinven could not access header of the logical file name shown.

**Solution:** Ensure that the logical file name (environment variable) is defined in the run script used to run Smkinven before Smkinven is run. If not, change the script to define the logical file name. If so, the file is probably corrupted. Also, make sure that you have read permission on the file.

5. ERROR: Could not interpret formula for extra pollutant from environment variable, SMKINVEN\_FORMULA: <Extra information>

**Problem:** The formula provided with the SMKINVEN\_FORMULA appears to Smkinven as having extra information past the capabilities of Smkinven to interpret the formula. The extra information is shown as part of the error message.

**Solution:** Check the formula and make corrections. Only 2 inventory pollutants are permitted as part of the formula. The only recognized mathematical operations are addition

and subtraction.

#### 6. ERROR: Could not read < Variable Name > from file AG

**Problem:** The data for the pollutant or activity listed is not available in the file listed. This message may appear only when trying to read from a pre-gridded inventory file (AG file). The variable is in the header, but the data are corrupted some how.

**Solution:** Regenerate the AG file and make sure that the process that creates it (Smkmerge or a custom program) completes successfully.

### <sup>7</sup>·ERROR: Country packet found again at line, <Line Number>, but also at line, <Line Number>

**Problem:** There should only be one country packet in the country, state and county names/codes file, but another one was found.

**Solution:** Remove one of the country packets in the country, state and county names/codes file, COSTCY.

### <sup>8</sup> ERROR: Country, state, and county sections must be present in file

**Problem:** The country, state and county names/codes file is missing one or more of the following sections: /COUNTRY/, /STATE/, or /COUNTY/.

**Solution:** Find out which section is missing from the COSTCY file and add it. Also make sure that the sections are formatted properly, based on the documentation in Chapter 9.

## <sup>9</sup>.ERROR: County packet found again at line <Line Number>, but also at line, <Line Number>

**Problem:** There should only be one county packet in the country, state and county names/codes file, but another one was found.

**Solution:** Remove one of the county packets in the country, state and county names/codes file. COSTCY.

### $^{10}\cdot$ ERROR: Do not recognize SMK\_SOURCE environment variable setting

**Problem:** The SMK\_SOURCE environment variable setting is not set to a valid letter representing a source category.

**Solution:** Check the run script to make sure that the SMK\_SOURCE environment variable is either A, M, or P. The letter B is not a valid value for running Smkinven.

### 11. ERROR: Duplicate records found for

<Source Information>

**Problem:** Duplicate inventory records were found for source(s) listed, and the RAW\_DUP\_CHECK environment variable is set to Y so that duplicate records will cause an error instead of being summed.

**Solution:** Either remove the duplicate records from the inventory file (if indeed they are duplicated emissions) or set the RAW\_DUP\_CHECK option to "N" (if it is okay to sum the emissions from these records. One of these options is required, since SMOKE relies on *unique* source entries, and duplicates indicate that the entries are not unique.

### 12. ERROR: End of file reached unexpectedly. Check format of ASCII inventory file.

**Problem:** The end of the ASCII inventory file was reached unexpectedly. This error can occur only when you are reading in an inventory file that you created previously, which

requires the option IMPORT\_AVEINV\_YN to be set to "N". This option is only valid for point sources.

**Solution:** The ASCII inventory file (PSRC) must have been corrupted and no longer has the same number of sources as the corresponding I/O API inventory file (PNTS). The inventory must be regenerated using Smkinven and the IMPORT\_AVEINV\_YN option set to "N".

### 13. ERROR: End of file reached unexpectedly. Check format of mobile information file.

**Problem:** The end of the Mobile Information file was reached prematurely.

**Solution:** Check the format of the mobile information file, MCODES. Smkinven first determines the number of lines in the file and then reads the file. Nearly the only way that this error can appear is if someone modifies the file while the Smkinven program is running.

### 14. ERROR: Environment settings indicate no files are to be read

**Problem:** Some environmental variables are set incorrectly.

**Solution:** Check to make sure that at least one of the following environmental variables is set to Y: IMPORT\_AVEINV\_YN, DAY\_SPECIFIC\_YN, HOUR\_SPECIFIC\_YN, or IMPORT GRDIOAPI YN.

### 15. ERROR: Error in raw inventory file(s)

**Problem:** There was an error processing the raw inventory file(s). The files were read fine, but Smkinven could not complete process the data into SMOKE inventory formats for some reason.

**Solution:** There should be one or more other error messages with more information pertaining to problems in the raw inventory file. For example, see Error 11.

### 16. ERROR: Error reading raw inventory file < Logical File Name>

**Problem:** There was an error reading the raw inventory file listed in the message..

**Solution:** There should be one or more other error messages with more information pertaining to problems in the raw inventory file. For example, see Error 11.

### $^{17}\cdot$ ERROR: Error reading variable <br/> <br/> Variable Name>, from INVENTORY file

**Problem:** An error occurred while reading variable the variable name shown from the PNTS inventory file. This error can occur only when you are reading in an inventory file that you created previously, which requires the option IMPORT\_AVEINV\_YN to be set to "N". This option is only valid for point sources.

**Solution:** The PNTS file has somehow been corrupted. Smkinven can read the header but the data cannot be read. The most likely cause of this problem is that Smkinven crashed while the file was being created. Regenerate the PNTS file from scratch and make sure Smkinven completes normally. It is recommended that you remove the existing PNTS file before overwriting it.

### <sup>18.</sup>ERROR: File format is not recognized for file, INFILE.

**Problem:** The format of the inventory input file is not recognized. This error occurs only when reading from a list-formatted file. SMOKE cannot determine the format of one or more of the files in the list.

**Solution:** SMOKE usually can figure out a file format, but sometimes has problems. The easiest and quickest way to ensure that SMOKE knows the format of the file you are providing is to insert a #IDA, #EMS-95, or #EPS2 header into the first line of the first file

listed in the list-formatted input file. Chapter 9 documents these header entries in the section on the inventory input files.

<sup>19</sup> ERROR: Input data contains country/state code <State Name> but it is not found in state/county codes file.

**Problem:** The country, state and county code from an inventory input file is not found in the country, state and county names/codes file.

**Solution:** Check the code listed to make sure that it is correct in the inventory. If correct, add the state name to the COSTCY file. If not correct, replace entries in the inventory file with the correct state code.

<sup>20.</sup> ERROR: In SMOKE list-formatted inventory file, <File Name>, could not determine format of file listed at line', J

**Problem:** The format of the inventory input file is not recognized. This error occurs only when reading from a list-formatted file. SMOKE cannot determine the format of one or more of the files in the list.

**Solution:** SMOKE usually can figure out a file format, but sometimes has problems. The easiest and quickest way to ensure that SMOKE knows the format of the file you are providing is to insert a #IDA, #EMS-95, or #EPS2 header into the first line of the first file listed in the list-formatted input file. Chapter 9 documents these header entries in the section on the inventory input files.

<sup>21</sup>·ERROR: In SMOKE list-formatted inventory file, <File Name>, previous file was <Format 1> format, but file at line <Line Number> is <Format 2> format.'

**Problem:** The files listed in the SMOKE list-formatted inventory input file (ARINV, MBINV, or PTINV) have different inventory formats. While SMOKE does support several formats (IDA, EMS-95, and EPS2), users may not combine different formats in the same Smkinven run.

**Solution:** (1) Change the format of one or more of the files that are inconsistent. The Models-3 SMOKE Tool has some capabilities to reformat inventory files (and this capability requires SAS).

- (2) Process each format as a separate inventory through SMOKE. This might require having 2 "area" inventories, if two different formats are used for importing area source emissions. Combine the model-ready files at the end of SMOKE processing using the Mrggrid program.
- <sup>22</sup>·ERROR: I/O Error, <Error Number> reading stack replacements file at line, <Line Number>

**Problem:** There was an error reading the stack replacements file at the listed line. **Solution:** Make sure that the stack replacements file is properly formatted as described in Chapter 9. The Error Number provided depends on the platform and it is the "READ" error from the Fortran compiler on the platform of interest. Please consult the compiler documentation for the platform on which you are running.

23. ERROR: Missing data for <Pollutant> for source: <Source Information>

**Problem:** There are missing emissions for the pollutant shown for the listed source. This is only an error when the RAW\_SRC\_CHECK environment variable is set to "Y" in the script that runs Smkinven. Please not that the length of this list of sources is controlled by the

SMK\_MAXERROR option.

**Solution:** (1) Check the inventory input file (ARINV, MBINV, PTINV, or the components of a list file) for missing emissions for the source(s) listed. Put in 0. if the emissions should not be missing.

- (2) Change the RAW\_SRC\_CHECK environment variable to "N" in the script that runs Smkinven. This is only appropriate if it is okay to have missing emissions values in the inventory (for example, a source has information for VOC but no other pollutants. With this setting, SMOKE will set all missing emissions to zero.
- <sup>24</sup>·ERROR: Missing data for some sources is not allowed because the environment variable RAW\_SRC\_CHECK was set to N.

**Problem:** Since the environment variable RAW\_SRC\_CHECK is set to "N", missing data for sources is not allowed. This message will be accompanied by a list of sources (see error 23).

**Solution:** Either fix the missing data or change the environment variable to Y.

<sup>25</sup>·ERROR: No variables found in gridded input file.

**Problem:** The gridded input inventory file, AG, does not contain any variables. **Solution:** Check gridded file and fix. The file may have been corrupted. It can be regenerated by the Smkmerge program or by a user-prepared program to generate this file.

<sup>26.</sup>ERROR: Number of pollutant records <Number>, Memory allocated : <Limit> Insufficient memory allocated for codes/names file

**Problem:** Smkinven allocated a certain amount of memory for the pollutants and activities input files (SIPOLS and ACTVNAMS) and the files had more information when Smkinven tried to read the files.

**Solution:** This error can happen when the file is being edited while the program is running. Rerun Smkinven and make sure no on is editing the SIPOLS or ACTVNAMS files. This problem may indicate the program is having a problem internally with memory integrity, which should only happen if there has been an improper change or if there is a program bug.

<sup>27</sup>·ERROR: Problem at line <Line Number> of <Logical File Name> . Could not open file: <Physical File Name>

**Problem:** The raw inventory input file shown in the error cannot be found by the program. **Solution:** Check the list-formatted file shown (with the logical file name) to make sure the correct file name is listed for at the line number given. **Make sure that the path for this file is absolutely correct. Problems with the path can include:** 

- a. Backslashes instead of slashes (or vice versa)
- b. Incorrect directory structure listed (using a file from another persons computer will most likely not work, unless you have the same directory structure)
- c. Type-o in path or file name
- <sup>28</sup> ERROR: Problem at line <Line Number> of <Logical File Name>. EMS-95 files must be in groups of five.

**Problem:** The EMS-95 input files listed in the SMOKE list-formatted input file (given by the logical file name in the error) are not correctly grouped.

**Solution:** This error should happen for point sources only, for which EMS-95 format includes 5 separate files for the annual inventory. The files must be in the alphabetical order

by state: device, emissions, facility, point, and stack. Check the input file (listed by logical file name in the error) and change it so that the inputs are in groups of five in the proper order. EMS-95 inputs are usually separated by state, and this approach will run faster in Smkinven.

# <sup>29</sup>·ERROR: Problem at line <Line Number> of <Logical File Name>. INVYEAR packet can be used only once for each group of five EMS-95 files.

**Problem:** There are too many INVYEAR packets for the EMS-95 input files, listed in the SMOKE list-formatted input file (shown by logical file name in the error) at the line number indicated.

**Solution:** Remove any extra INVYEAR packets from the input file, FNAME. Make sure that the inputs are in groups of five, as described with error 28.

#### 30. ERROR: Problem found in country, state, county file

**Problem:** A problem occurred while reading the country, state and county file.

**Solution:** Check the format of the country, state and county file, COSTCY. This error message should be preceded by another error message with more detail.

#### 31. ERROR: Problem processing formulas

**Problem:** An error occurred while processing the formula set by the SMKINVEN FORMULA..

**Solution:** Check the variable formulas. This error message should be preceded by another error message with more detail. Please refer to the documentation on the allowed content of the SMKINVEN\_FORMULA setting.

### <sup>32</sup>·ERROR: Problem reading gridded inventory file

**Problem:** An error occurred while reading the gridded inventory input file.

**Solution:** Check the status and location of the gridded inventory input file. This error message should be preceded by another error message with more detail.

### 33. ERROR: Problem reading mobile information file

**Problem:** There was an either a formatting error or read error the MOBILE INFORMATION file, MCODES.

**Solution:** Check the status and location of the mobile information file, MCODES. This error message should be preceded by another error message with more detail. Make sure that you have read permission on the file specified.

### <sup>34</sup>.ERROR: Problem writing SCC file

**Problem:** An error occurred while writing the SCC file.

**Solution:** Check the Assigns file and/or run script to make sure it is giving a valid name and location for the SCC file, either ASCC, MSCC or PSCC. The most common problem is that the directory path does not exist. If this is the problem, you must create the directory needed (the mkdir command in UNIX). Make sure that you have write permission on the path and/or file specified.

### 35. ERROR: SMOKE ASCII inventory file has been corrupted at source ID <Source ID number>

**Problem:** The SMOKE ASCII inventory file, PSRC, is causing an error at the listed source.

This error can only happen for point sources when the IMPORT\_AVEINV\_YN option is set to "Y".

**Solution:** The ASCII inventory file (PSRC) must have been corrupted. You can attempt to manual correct the file if the formatting error is obvious. Otherwise, the inventory must be regenerated using Smkinven and the IMPORT\_AVEINV\_YN option set to "N".

### <sup>36</sup>.ERROR: Some requested counties not found in county names file:

**Problem:** The counties read are less than the number requested by the calling program. **Solution:** Check the country, state and counties file, COSTCY, for any missing states. This error is only likely to occur when the COSTCY has been modified while it is being read. This problem may indicate the program is having a problem internally with memory integrity, which should only happen if there has been an improper change or if there is a program bug.

### <sup>37</sup>·ERROR: State packet found again at line <Line Number> but also at line <Line Number 2>

**Problem:** There should only be one state packet in the country, state and county names/codes file, but another one was found.

**Solution:** Remove one of the state packets in the country, state and county names/codes file, COSTCY.

# $^{38}\cdot$ ERROR: Time step needs to be 87600000 or 240000 HHMMSS to determine temporal approach

**Problem:** Time step in the gridded input inventory file is not one of the recognized values. **Solution:** Check the gridded input inventory file and correct it if needed. This file can be generated by the Smkmerge program. The time step in the header can be changed using the m3edhdr I/O API utility.

### <sup>39</sup>·ERROR: Variable <Variable Name> from formula was not found in emissions inputs

**Problem:** The variable shown in the error message from a formula specified by the SMKINVEN\_FORMULA option was not found in the emissions inventory data.

**Solution:** Change the script used to run Smkinven to contain the correct variable names or to not use any formula.

### 40. ERROR: Error writing output file < Logical File Name >

**Problem:** An error occured while writing the output I/O API inventory file (logical file name given in the error, defaults are AREA, MOBL, and PNTS)

**Solution:** (1) If Smkinven is being run to overwrite an existing file, manually delete that file before running Smkinven and try again.

- (2) Check the Assigns file and/or script used to run Smkinven to ensure that the logical file name had been set to a valid path. Make sure that the full path of the file exists.
- (3) Make sure that you have permission to write to the specified path.

#### 41. ERROR writing temporal x-ref file

**Problem:** An error occured while writing the temporal cross-reference file, PTREF\_ALT. This error can only happen when importing EMS-95 point sources.

**Solution:** (1) Check the assigns file to make sure it is giving a valid name and path for the temporal cross-reference file, PTREF ALT.

- (2) Make sure that you have permission to write to the specified path.
- 42. ERROR: I/O error, IOS, reading country, state, & county names file at line, IREC'

**Problem:** An error was encountered when reading the country, state and county names/codes file.

**Solution:** Check the location of the country, state and county names/codes file, COSTCY, to make sure it is where the script is looking for it.

43. ERROR: I/O error, IOS, reading MOBILE INFORMATION file at line, I'

**Problem:** There was an error reading the MOBILE INFORMATION file at the specified line number.

**Solution:** Check the location of the mobile information file, MCODES, to make sure it is where the script is looking for it

#### <sup>44</sup>·INTERNAL ERROR: Actual count of state codes in error

**Problem:** State code(s) from the input file were not found in the country, state, and county names/codes file.**Solution:** See Error 19.

45. INTERNAL ERROR: Actual number of hour sources, NPDSRC= <Number> Dimensioned number, MXPDSRC = <Number> . Fix by ensuring ALL period-specific sources in the file for any day or hour have entries for at the same day or hour.

**Problem:** While reading day- or hour-specific data, Smkinven could not allocate enough memory.

**Solution:** Smkinven allocates memory for these data by finding the maximum number of sources *for any one day or hour*. To fix the problem, create a list of **ALL** day- or hourspecific sources and add this list to the input file for a single day or hour, and put in zero emissions for sources that do not actually have emissions on that day or hour. Only one pollutant need be list this way for the fix to work.

<sup>46</sup>·INTERNAL ERROR: Do not know about sorting type <Sorting type> in program SRCMEM

**Problem:** The sorting type is invalid in the subroutine SRCMEM.

**Solution:** One of the programs is calling SRCMEM with the incorrect sorting type. Sorting type should be either SORTED or UNSORTED.

 $^{47}\cdot$ INTERNAL ERROR: Do not know about source category <Source Category Name> in program SRCMEM.

**Problem:** The source category is incorrect in the call to the SRCMEM subroutine.

**Solution:** One of the programs is calling SRCMEM with the incorrect source category. Source category should one of the following: AREA, MOBILE, or POINT.

48. INTERNAL ERROR: Do not know type <Type Name> in <Program>

**Problem:** The type is not known by either the GENPDOUT or GENPDINFO subroutines. **Solution:** Check the calls to the subroutines GENPDOUT and GENPDINFO in Smkinven and make sure that the TYPNAM argument is set to either day or hour.

<sup>49</sup>·INTERNAL ERROR: Program RDINVCHR, does not know about variable <a href="Variable">Variable</a> Name>

**Problem:** There is an unknown variable (as listed) in the I/O API or ASCII inventory input files (ASCII: ASRC, MSRC, or PSRC; I/O API: AREA, MOBL, or PNTS), detected in the program RDINVCHR.

**Solution:** Make sure the call to the RDINVCHR subroutine lists only valid variables as defined by the MODSOURCE module.

<sup>50.</sup>INTERNAL ERROR: Program RDINVCHR found unread variable <Variable Name> NOTE: ASCII inventory file is not opened.

**Problem:** The program RDINVCHR was requested by the calling subroutine a variable to read from the inventory file that is not in the I/O API inventory file, but the ASCII inventory file has not been previouly (before RDINVCHR) opened by the program.

**Solution:** Modify calling program or subroutine to open the ASCII inventory file before calling RDINVCHR and make sure that the list of request source characteristics passed to RDINVCHR are valid as defined in the MODSOURC module.

#### Warnings

<sup>1</sup>·WARNING: Applying default time zone, <Time zone>, to country/state/county code: <Country, State, and County code>

**Problem:** A time zone was not specified for the country, state and county code listed in the message.

**Solution:** If the region code is in your inventory, check to make sure the country, state and county code is correct and check the COSTCY file to make sure it has a time zone specified for the above code. If you do not know the time zone, you can probably find it on the internet somewhere. If the code is not in your inventory, this warning will not affect your results in any way.

<sup>2.</sup>WARNING: Blank, alphabetic, or 0 data code at line <Line Number> in code/names file. Skipping record.

**Problem:** Invalid values in the pollutant or activity names/codes file, the record will be skipped.

**Solution:** Check the pollutant or activity code/name at the line number indicated in both the SIPOLS or ACTVNAMS. Change the file to remove the warning. This warning will ultimately result in an error if the pollutant at the line number mentioned is in your inventory.

<sup>3</sup>.WARNING: Boiler requested, but is not present in ASCII inventory file

**Problem:** A request is being made to process the Boiler ID from the ASCII inventory file, but it is not present in the file.

**Solution:** If the boiler ID is not necessary, then nothing should be done. The boiler ID is used only when importing CEM data. It is used as the first way to try to match the inventory data with the CEM data. If the match fails then the stack ID is tried, so the boiler information is not essential. The boiler ID is only going to be written to the ASCII inventory file from IDA format (the only one that supports a separate field for boiler ID).

<sup>4.</sup> WARNING: Duplicate code <Code Number> at line <Line Number> in codes/names file. Skipping record.

**Problem:** There is more than one pollutant with the same code in the SIPOLS and/or ACTVNAMS files, so the second one will be skipped.

**Solution:** Change the code numbers in the SIPOLS and/or ACTVNAMS files to be unique across all pollutants and activities.

<sup>5.</sup>WARNING: Duplicate name <Pollutant or activity variable name> at line <Line Number> in codes/names file. Skipping record.

**Problem:** There is more than one pollutant with a certain name, so the second one will be skipped.

**Solution:** Change the pollutan names in the SIPOLS and/or ACTVNAMS files to be unique across all pollutants and activities. This is especially important if the pollutant mentioned is actually in the inventory and you are using EPS2 input files.

6. WARNING: Duplicate records found for: <Source Inventory>

**Problem:** Duplicate records were found for the listed sources. Note that the number of times

this warning will be written is limited by the SMK\_MAXWARNING setting.

**Solution:** If duplicate records in the invnetory are acceptable to the user, then SMOKE will add the emissions from these records. If not, then the duplicates should be corrected by changing the SCCs and/or country/state/county codes so that the records are unique. To turn this warning to an error, set the RAW SRC CHECK option to "Y".

### 7. WARNING: Ignoring HOURLY\_TO\_PROFILE Y value because HOURLY TO DAILY is set to Y

**Problem:** The HOURLY\_TO\_DAILY environment variable overrides the

HOURLY TO PROFILE variable.

**Solution:** If you wish to use HOURLY\_TO\_PROFILE, you must set

HOURLY\_TO\_DAILY to N. For more information on these settings, please refer to Chapter 7 Smkinven documentation.

8. WARNING: Maximum number of pollutants or activities that can be be written to the I/O API file is NDATMAX. This limitation is caused by the I/O API variable limit of 120. WARNING: Resetting total number of output pollutants and activities to <New number>

**Problem:** There are too many output variables. There is a limit on the number of variables in an I/O API file. The total number of output pollutants and activities will be reset to the maximum.

**Solution:** SMOKE will reset the number of variables to the maximum for you. If you want all of the data to be imported, then you must run SMOKE with separate inventory files that each have fewer than the minimum number allowed for each source category. These limits are 19 for area, 54 for mobile, and 15 for point sources.

<sup>9.</sup> WARNING: Name too long for I/O API variable names at line <Line Number>, in pollutant file. Truncating to <New name>.

**Problem:** The variable name in the pollutant file is longer than the I/O API variable length (16 characters) and will be truncated.

**Solution:** Either shorten the variable name in the input file or leave it to SMOKE to truncate the name.

<sup>10.</sup>WARNING: <Number> input data records dropped. This has resulted in the following amounts of lost data (emissions are in tons/year): list of pollutants and how much emissions affected>

**Problem:** Lets the user know how many records were dropped and the amount of emissions lost. Messages about why the records were dropped should be included with previous messages.

**Solution:** This just lets the user know how many records were dropped. If the amount of emissions is not acceptable, then fix the problems with the inventory mentioned earlier in the program run log..

### 11. WARNING: Negative annual data reset to zero for:

<Source Information>

**Problem:** Negative annual data was found for the source listed and was reset to zero. Negative inventory data can be used to indicate missing data.

**Solution:** Either check data for listed source in raw input file, or let SMOKE reset it to zero.

### 12. WARNING: Negative seasonal data reset to zero for: <Source Information>

**Problem:** Negative seasonal data was found at listed site and was reset to zero. Negative inventory data can be used to indicate missing data.

**Solution:** Either check data for listed source in raw input file, or let SMOKE reset it to zero.

### 13. WARNING: Only the first layer out of <Number of layers>, will be imported

**Problem:** There is more than one layer in the gridded input inventory file, AG, so only first layer will be imported since Smkinven cannot import multiple layers.

**Solution:** SMOKE only allows one layer to be read in from a gridded input inventory file. Either redo the file or let SMOKE only import the first layer.

### <sup>14</sup>·WARNING: Only the first time step out of <Number of time steps>, will be imported

**Problem:** There is more than one time step in the gridded input inventory file, AG, so only first time step will be imported since Smkinve cannot import multiple time steps for pregridded data.

**Solution:** SMOKE only allows one time step to be read in from a gridded input inventory file. Either redo the file or let SMOKE only import the first time step.

### 15. WARNING: ORIS ID requested, but is not present in ASCII inventory file

**Problem:** A request is being make to process the DOE plant ID from the ASCII inventory file, but it is not present in the file.

**Solution:** The ORIS ID is used only when importing CEM data. It is used to try to match the inventory data with the CEM data. The ORIS ID is only going to be written to the ASCII inventory file from IDA format (the only one that supports a separate field for boiler ID). CEM data can be used only with IDA inventory format.

### <sup>16.</sup>WARNING: Resetting negative value of <Variable Name> from <Formula Result> to 0. for source:

#### <Source information>

**Problem:** The variable being computed with SMKINVE\_FORMULA has a negative value of as shown, and will be reset to zero for the listed source.

**Solution:** If the negative value has a large magnitude, there might be a problem with the inventory. Check the values of the pollutant being used to compute the new variable. If the negative value has a small magnitude, then most likely the warning can be ignored. For example, if the formala is PMC = PM10 - PM2\_5 results in a small negative number, then it is likely because the PM10 value is composed entirely of PM2\_5, but there was roundoff error encountered when preparing the PM10 data.

### <sup>17</sup>·WARNING: Time zone not set in header or variable list. Assuming time zone 0 (GMT) for data.

**Problem:** Time zone is not set in the header of the gridded input inventory file and it is not in the variable list. It will be set to 0 (GMT).

**Solution:** Either recreate the gridded input inventory file so that it includes the time zone, or SMOKE will use GMT.

 $^{18}\cdot$ WARNING: Units too long for I/O API units at line <Line Number> in pollutant file.

#### **Truncating to <New units>**

**Problem:** The units in the pollutant file is longer than the I/O API units length and

Smkinven will truncate it to 16 characters.

**Solution:** Either shorten the units in the input file or leave it to SMOKE to truncate the name