

Air



Emissions Inventory System/Area Source (EIS/AS) Test Run Series Documentation

**Emissions Inventory System/
Area Source (EIS/AS)
Test Run Series
Documentation**

by

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TABLE OF CONTENTS

LIST OF FIGURES	v
ACKNOWLEDGEMENT	viii
INTRODUCTION	1
EIS/AS TESTS	
1. Create and Print the Emission Factor File	2
2. Create the Initial Master File Using NEDS Transactions . . .	19
3. Update the Master File Using EIS/AS Transactions	45
4. Produce a Formatted Dump of the Master File	84
5. Update the Master File Using EIS/AS Transactions	89
6. Submit Annual Report in NEDS Format	101
7. Retrieve a Standard Answer File Using the COBOL Language and Produce a Detailed Report of the Answer File	108
8. Submit Annual Report in EIS/AS Format.	134
9. Generate Internal Transactions and Update the Master File. .	137
10. Retrieve a Batched Answer File and Produce a Formatted Dump of the Answer File.	146
EIS/AS AD HOC TESTS	
11. Generate All Non-Abortive Error Messages of the Emission Factor File Edit-Maintenance Program	152
12. Generate all Non-Abortive Error Messages of the Master File Transaction Edit Program.	157
13. Generate All Non-Abortive Error Messages of the NEDS to EIS/AS Master File Transaction Conversion-Edit Program . . .	164
14. Execute the Master File Emission Factor Transaction Generator Program and Store the Generated Transactions . . .	170

15.	Exercise All Options of the Master File Internal Transaction Emission Factor Insertion Program.	173
16.	Execute a COBOL Retrieval and Produce a Formatted Dump of the Answer File.	177
17.	Execute an EIS/AS Retrieval and Produce a Detailed Report of the Answer File	187
18.	Produce a Quick Look Report for County Data.	196
19.	Produce a Quick Look Report for Particulate Emissions. . . .	226
20.	Produce a Quick Look Pollutant Summary Report for the Criteria Pollutants	234
21.	Produce a Quick Look Pollutant Summary Report for Six Pollutants	241
22.	Execute the Retrieval Package and Produce a Quick Look Report from the Answer File	247
23.	Execute the Retrieval Package and Produce a Batched Answer File and a Detailed Report of the File	256
24.	Create the Official NADB Emission Factor File and Produce a Detailed Report	262
APPENDIX A: Cross-Reference of Tests, Procedures, and Programs . . .		267

LIST OF FIGURES

<u>Figure Number</u>	<u>Title</u>	<u>Page Number</u>
AST1-1	Emission Factor File Transaction Format.	6
AST1-2	Emission Factor File Transaction Load Sheet.	10
AST1-3	Run Stream	11
AST1-4	Sample Output.	12
AST2-1	NEDS Area Source Transaction Formats	25
AST2-2	Option Card Format	35
AST2-3	Run Stream	36
AST2-4	Sample Output.	37
AST3-1	EIS/AS Master File Transaction Formats	48
AST3-2	EIS/AS Master File Transaction Load Sheets	66
AST3-3	Run Stream	71
AST3-4	Sample Output.	72
AST4-1	Run Stream	86
AST4-2	Sample Output.	87
AST5-1	Run Stream	91
AST5-2	Sample Output.	93
AST6-1	Run Stream	103
AST6-2	Sample Output.	104
AST7-1	EIS/AS Retrieval Control Card	111
AST7-2	Definition of EIS/AS Retrieval Control Card Fields . . .	112
AST7-3	Valid Retrieval Data Names	114

<u>Figure Number</u>	<u>Title</u>	<u>Page Number</u>
AST7-4	EIS/AS Retrieval Language Specification Fields	122
AST7-5	Definitions of EIS/AS Retrieval Language Specification Fields	123
AST7-6	Retrieval Specification Load Sheets.	125
AST7-7	Run Stream	127
AST7-8	Sample Output.	129
AST8-1	Run Stream	135
AST8-2	Sample Output.	136
AST9-1	Run Stream	139
AST9-2	Sample Output.	140
AST10-1	Run Stream	148
AST10-2	Sample Output.	149
AST11-1	Run Stream	153
AST11-2	Sample Output.	154
AST12-1	Run Stream	158
AST12-2	Sample Output.	159
AST13-1	Run Stream	165
AST13-2	Sample Output.	166
AST14-1	Run Stream	171
AST14-2	Sample Output.	172
AST15-1	Run Stream	174
AST15-2	Sample Output.	175
AST16-1	Run Stream	179
AST16-2	Sample Output.	181
AST17-1	Run Stream	189

<u>Figure Number</u>	<u>Title</u>	<u>Page Number</u>
AST17-2	Sample Output.	190
AST18-1	Quick Look Control Card Formats	198
AST18-2	Quick Look Control Card Field Descriptions	206
AST18-3	Data Element Abbreviations and Lengths	210
AST18-4	EIS/AS Quick Look Retrieval Load Sheet	218
AST18-5	Run Stream	219
AST18-6	Sample Output.	220
AST19-1	Run Stream	227
AST19-2	Sample Output.	228
AST20-1	Run Stream	236
AST20-2	Sample Output.	237
AST21-1	Run Stream	242
AST21-2	Sample Output.	243
AST22-1	Run Stream	251
AST22-2	Sample Output.	252
AST23-1	Run Stream	258
AST23-2	Sample Output.	259
AST24-1	Run Stream	263
AST24-2	Sample Output.	264

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INTRODUCTION

The purpose of this manual is to document the EIS/AS test run series released by the Environmental Protection Agency, as part of the EIS/AS installation package. The test run series is divided into two major areas: basic test runs and ad hoc test runs. The basic test runs exercise each program in EIS/AS at least once and provide the user with a means of determining whether or not the installation of EIS/AS has been successful.

The ad hoc test runs further exercise the capabilities of the EIS/AS programs. The ad hoc test runs also provide the user with examples of how various combinations of EIS/AS programs may be used to generate certain reports or to accomplish special tasks. Any programs added to the original EIS/AS system are exercised by ad hoc test runs.

The EIS/AS User's Guide should be used as a reference in conjunction with this manual. Appendix A of this manual provides a cross-reference of test, procedures, and programs.

EIS/AS Test 1

Create and Print the Emission Factor File

In this test run, an initial EIS/AS emission factor file is created using the cataloged procedure ECEME10 which executes CSREFTR (EC0010), the emission factor file transaction sort program; and CEMEFACT (EC0020), the emission factor file edit-maintenance program. A detailed report of the emission factor file is printed by using the cataloged procedure ECRPE10 which executes CRPEFACT (EC0150), the emission factor file detailed report program.

CSREFTR (EC0010) sorts the emission factor file transactions (see Figure AST1-1 for the transaction formats) into the sequence required by CEMEFACT (EC0020). The fields of each transaction are sorted in the following order:

<u>Columns</u>	<u>Description</u>	<u>Sort Order</u>
1 - 2	State Code	Ascending
3 - 6	County Code	Ascending
7 - 11	Geographic Suballocation Number	Ascending
12 - 14	Category Number	Ascending
15 - 16	Category Disaggregate Number	Ascending
17	Emission Factor Origin	Ascending
18	Source Type	Ascending
19 - 23	Pollutant ID	Ascending
80	Action Code	*
79	Card Type	Ascending
24 - 28	Emission Factor Date	Ascending

A header record is generated by CSREFTR (EC0010) which appears as the first transaction but has no action code or card number. All emission factor file transactions must be sorted by CSREFTR (EC0010) before they can be used to create the emission factor file.

*Sort sequence is D (delete), A (add), C (change).

CEMEFAC (EC0020) edits emission factor file transactions and updates the EIS/AS emission factor file using those transactions which pass the edit criteria. The input emission factor file transactions can consist of three types: type 1, type 2, and type 3. Refer to Figure AST1-1 for the emission factor file transaction formats and to Figure AST1-2 for the emission factor file transaction load sheet.

A category record can be added to the emission factor file by processing a category-1 (type 1) add transaction or by processing both category-1 and a category-2 (type 2) add transaction for the desired category. Note that a category-2 add transaction is not valid unless it is preceded by a category-1 add transaction with the same key information. An existing category record can be changed by processing a category-1 change transaction and/or a category-2 change transaction. An existing category record can be deleted from the emission factor file by processing a category-1 delete transaction. A category-1 delete transaction also deletes all of the pollutant records associated with the category record.

A pollutant record can be added to the emission factor file by processing a pollutant (type 3) add transaction; however, the corresponding category record must exist in the emission factor file. If it does not, it must be added prior to adding the pollutant record. This may be accomplished in the same run since the emission factor file transaction sort program, CSREFTR (EC0010), sorts the transactions so that pollutant transactions follow their associated category transactions. An existing pollutant record can be changed by processing a pollutant change transaction. An existing pollutant record can be deleted from the emission factor file by processing a pollutant delete transaction. Each pollutant delete transaction deletes a single pollutant record from the emission factor file.

When the emission factor file is updated, the control date in the header record is updated using the date specified by the user on the option card. This header will also contain the date of the previous update run as well as a generation number which begins at 1 and is incremented by 1 during each update run.

There are three option fields on the option card. The first option field occurs in columns 1 through 5 and contains the control date in the Julian form YYDDD, where YY is the year and DDD is the day of the year. This date will replace the control date in the emission factor file header record, and therefore, it should be the current date of the run. If this field is either blank or not numeric, program execution will be terminated. The second option field occurs in columns 7 through 11. The option word FLAGW must be entered in this field for warning messages to be printed in the diagnostic report. If this field is blank, or if it is specified incorrectly, no warning messages will be printed. The third option field occurs in columns 13 through 16. The option word LIST must be entered in this field for the listings of the input emission factor file, the output emission factor file, and the emission factor file transactions to be produced. If this field is blank, or if it is specified incorrectly, no files will be listed.

CRPEFAC (EC0150) produces a detailed report of the EIS/AS emission factor file. This report is organized so that printed beneath each emission factor category record are the pollutant records subordinate to it. Headings are generated at the top of each page for both the emission factor category and pollutant records.

The run stream for this test run contains the JCL needed to create an EIS/AS emission factor file and produce a detailed report of this file. This run stream is shown in Figure AST1-3. It does not show all the input emission factor file transactions in the run stream, but does show the necessary JCL. The sample output produced by this procedure is shown in Figure AST1-4.

First, the run stream executes the cataloged procedure ECEME10 to create the emission factor file. Since this test run creates the initial EIS/AS emission factor file, there is obviously not an input emission factor file to be accessed. This is why the old emission factor file ECSOLEF must be a dummy file in the UPDATE step. Through the use of a substitutable parameter, the new emission factor file is named ECEMFL1. The user must supply the DD (data definition) information for the option card file in the UPDATE step and for the input emission factor file transaction file in the SORT step. The options specified in the UPDATE step of this test run are 80004, FLAGW, and LIST.

Next, the cataloged procedure ECRPE10 is executed to produce a detailed report. A substitutable parameter is used to specify ECEMFL1 as the input emission factor file.

Header Record

<u>Record Position</u>	<u>Field Length</u>	<u>Description</u>
1 - 23	23	All Zeros
24 - 80	57	Filler

(Page 1 of 4)

Figure AST1-1. Emission Factor File Transaction Format

Type 1 Transaction

<u>Record Position</u>	<u>Field Length</u>	<u>Description</u>
1 - 2	2	State
3 - 6	4	County
7 - 11	5	Suballocation
12 - 14	3	Category
15 - 16	2	Disaggregation
17 - 23	7	Filler
24 - 25	2	Year
26 - 28	3	Day
29	1	Nitrogen Flag
30	1	Sulfur Flag
31	1	Ash Flag
32 - 34	3	Nitrogen Content
35 - 37	3	Sulfur Content
38 - 40	3	Ash Content
41 - 65	25	Category Description
66 - 78	13	Filler
79	1	Card Number (1)
80	1	Action Code

(Page 2 of 4)

Figure AST1-1 - continued. Emission Factor File Transaction Format

Type 2 Transaction

<u>Record Position</u>	<u>Field Length</u>	<u>Description</u>
1 - 2	2	State
3 - 6	4	County
7 - 11	5	Suballocation
12 - 14	3	Category
15 - 16	2	Disaggregation
17 - 23	7	Filler
24 - 25	2	Year
26 - 28	3	Day
29 - 48	20	County Name
49 - 78	30	Filler
79	1	Card Number (2)
80	1	Action Code

(Page 3 of 4)

Figure AST1-1 - continued. Emission Factor File Transaction Format

Type 3 Transaction

<u>Record Position</u>	<u>Field Length</u>	<u>Description</u>
1 - 2	2	State
3 - 6	4	County
7 - 11	5	Suballocation
12 - 14	3	Category
15 - 16	2	Disaggregation
17	1	Emission Factor Origin
18	1	Emission Factor Source
19 - 23	5	Pollutant ID
24 - 25	2	Year
26 - 28	3	Day
29 - 38	10	Emission Factor
39	1	Confidence Level
40 - 54	15	Pollutant Name
55 - 64	10	Pollutant Specific Data
65 - 78	14	Filler
79	1	Card Number (3)
80	1	Action Code

(Page 4 of 4)

Figure AST1-1 - continued. Emission Factor File Transaction Format

[illegible]

10

```

//ASTEST01 JOB      (ACCOUNTING INFO)
//*
//*   CREATE AND PRINT THE EMISSION FACTOR FILE
//*
//TEST01A EXEC FCLEME10,
//      NEWEMF=FCFMFL1
//*
//*   CREATE THE INITIAL EMISSION FACTOR FILE
//*
//SUR1.INP01 DD *
000000000000100      7A174      RESIDENT ANTHRACITE COAL      1A
000000000000100F 11101800500000010000 SUSPENDED PART.      3A
000000000000100F 421017A1790000090000 CARBON MONOXIDE      3A
000000000000100F 42401800500000038000 SULFUR DIOXIDE      3A
000000000000100F 42602800500000030000 N OXIDES      3A
000000000000100F 43101800500000002500 TOTAL HY CARBON      3A
000000000000200      7A179      RESIDENT BITUMINOUS COAL      1A
000000000000200F 111017A17900000020000 SUSPENDED PART.      3A
000000000000200F 42101800500000090000 CARBON MONOXIDE      3A
000000000000200F 42401800500000038000 SULFUR DIOXIDE      3A
000000000000200F 42602800500000030000 N OXIDES      3A
000000000000200F 431017A17900000020000 TOTAL HY CARBON      3A
000000000000300      7A174      RESIDENT DISTILLATE OIL      1A
000000000000300F 11101800500000002500 SUSPENDED PART.      3A
000000000000300F 42101800500000005000 CARBON MONOXIDE      3A
000000000000300F 42401800500000014000 SULFUR DIOXIDE      3A
000000000000300F 42602800500000018000 N OXIDES      3A
000000000000300F 43101800500000001000 TOTAL HY CARBON      3A
000000000000400      7A179      RESIDENTIAL RESIDUAL OIL      1A
000000000000400F 111018005000000016000 SUSPENDED PART.      3A
000000000000400F 42101800500000005000 CARBON MONOXIDE      3A
000000000000400F 424018005000000159000 SULFUR DIOXIDE      3A
000000000000400F 42602800500000018000 N OXIDES      3A
000000000000400F 43101800500000001000 TOTAL HY CARBON      3A
000000000000500      7A179      RESIDENTIAL NATURAL GAS      1A
000000000000500F 111017A1790000010000 SUSPENDED PART.      3A
000000000000500F 421018005000000020000 CARBON MONOXIDE      3A
000000000000500F 424018005000000006000 SULFUR DIOXIDE      3A
000000000000500F 426028005000000000000 N OXIDES      3A
000000000000500F 431018005000000008000 TOTAL HY CARBON      3A
000000000000600      7A174      RESIDENTIAL WOOD      1A
000000000000600F 111017A17400000025000 SUSPENDED PART.      3A
000000000000600F 421018005000000150000 CARBON MONOXIDE      3A
000000000000600F 424018005000000005000 SULFUR DIOXIDE      3A
000000000000600F 426028005000000010000 N OXIDES      3A

```

(Remainder of transactions omitted)

```

//UPDATE.ECSOLEF DD DUMMY
//UPDATE.OUTPUTS DD *
R0004 FLAG=LIST
// EXEC ELCPPE10,
//      FCMFL1=FCFMFL1
//*
//*   PRINT THE EMISSION FACTOR FILE CREATED IN STEP A
//*

```

Figure AST1-3. Run Stream

PROGRAM NAME: CSREFTR (EC0010)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS:	919
NUMBER OF OUTPUT TRANSACTIONS:	920

Figure AST1-4. Sample Output

(Page 1 of 7)

PROGRAM NAME: CEMEFAC (FC0020)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

CONTROL DATE IS 80004, ERROR OPTION IS FLAGW , LIST OPTION IS LIST

0000000000000000	79295	1D	*** CEMEFAC 022 ERROR - DELETE SPECIFIED FOR NONEXISTENT EIS/AS EMP RECORD - CARD REJECTED
0000000000000000	79299	1D	*** CEMEFAC 022 ERROR - DELETE SPECIFIED FOR NONEXISTENT EIS/AS EMP RECORD - CARD REJECTED
00000000000000300	79295	1A	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED
000000000000300S11110179295000000111	TSP.	TCNS/SQ. MI	3A
	*** CEMEFAC 037 ERROR - COLUMN 17, EF ORIGIN MUST BE F FOR NEDS CATEGORY - CARD REJECTED		
00000000000003600	78179	1A	HVY DUTY GAS VEH RURAL RD
	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED		
00000000000003700	78179	1A	HVY DUTY GAS VEH SUB' RD
	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED		
00000000000003800	78179	1A	HVY DUTY GAS VEH URBAN RD
	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED		
00000000000004000	78179	1A	HVY DUTY DIESEL VEH LACRD
	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED		
00000000000004400	78179	1A	OFF HIGHWAY DIESEL VEH
	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED		
00000000000004500	78179	1A	RAILROAD LOCOMOTIVES
	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED		
00000000000004600	78179	1A	MILITARY AIRCRAFT LTD'S
	*** CEMEFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED		
00000000000004700	78179	1A	CIVIL AIRCRAFT LTD'S

Figure AST1-4 - continued. Sample Output

13

(Page 2 of 7)

EIS/AS EMISSION FACTOR FILE EDIT-MAINTENANCE PROGRAM - DIAGNOSTIC REPORT

PAGE 8

2201220003527

79295NSA000000000CAT. DESCRIPTION

4A

*** CEMEFAC 017 ERROR - COLUMN 79, CARD TYPE INVALID - CARD REJECTED
 *** CEMEFAC 011 ERROR - COLUMN 12, CATEGORY NOT NUMERIC - CARD REJECTED
 *** CEMEFAC 023 ERROR - COLUMN 15, DISAGGREGATION NOT NUMERIC - CARD REJECTED

9999999999999999

79295

1C

*** CEMEFAC 005 ERROR - COLUMN 1, STATE INVALID - CARD REJECTED

NUMBER OF TRANSACTIONS READ:	920
NUMBER OF ERRORS DETECTED:	118
NUMBER OF WARNINGS DETECTED:	0
NUMBER OF TRANSACTIONS REJECTED:	102
NUMBER OF EMISSION FACTOR FILE RECORDS READ:	0
NUMBER OF EMISSION FACTOR FILE RECORDS WRITTEN:	682

PROGRAM NAME: CEMEFAC (EC0020)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

Figure AST1-4 - continued. Sample Output

(Page 3 of 7)

(Page 4 of 7)

PROGRAM NAME: CRPEFAC (EC0150)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

EMISSION FACTOR FILE RECORD COUNT:	682
NUMBER OF CATEGORIES IN LIST:	94
NUMBER OF POLLUTANT ENTRIES IN LIST:	587
FEDERAL POLLUTANT ENTRIES:	320
STATE POLLUTANT ENTRIES:	133
LOCAL POLLUTANT ENTRIES:	134
NUMBER OF ERRORS:	0
NUMBER OF PAGES IN REPORT:	19

Figure AST1-4 - continued. Sample Output

(Page 6 of 7)

EIS/AS EMISSION FACTOR FILE DETAILED REPORT

PAGE 11

STATE	COUNTY CODE NAME	SUBALLOC NUMBER	DISAG #	CATEGORY NUMBER	DESCRIPTION	CAT DATE YY DDD	FLAGS/CONTENTS NIT SUL	X'S ASH	

		EMF DATE YY DDD	POLLUTANT ID NAME		ORIG	SOURCE	EMISSION FACTOR	CONF LEVEL	POLLUTANT SPEC DATA

00	0000	00000	00	061	MANAGED BURNING-PRESERVE	78 179			
		78 179	11101	SUSPENDED PART.	FEDERAL		17.000	0	
		80 050	42101	CARBON MONOXIDE	FEDERAL		140.000	0	
		80 050	42401	SULFUR DIOXIDE	FEDERAL		0.150	0	
		80 050	42602	N OXIDES	FEDERAL		4.000	0	
		80 050	43101	TOTAL HY CARBON	FEDERAL		24.000	0	
00	0000	00000	00	062	AGRICULTURE FIELD BURNING	78 179			
		78 179	11101	SUSPENDED PART.	FEDERAL		17.000	0	
		80 050	42101	CARBON MONOXIDE	FEDERAL		100.000	0	
		80 050	42401	SULFUR DIOXIDE	FEDERAL		0.000	0	
		80 050	42602	N OXIDES	FEDERAL		2.000	0	
		80 050	43101	TOTAL HY CARBON	FEDERAL		20.000	0	
00	0000	00000	00	063	FROST CNTRL-ORCHARD HEATR	78 179			
		78 179	11101	SUSPENDED PART.	FEDERAL		0.200	0	
		78 179	42101	CARBON MONOXIDE	FEDERAL		22.000	0	
		80 050	42401	SULFUR DIOXIDE	FEDERAL		0.100	0	
		80 050	42602	N OXIDES	FEDERAL		0.000	0	
		80 050	43101	TOTAL HY CARBON	FEDERAL		43.000	0	
00	0000	00000	00	064	STRUCTURAL FIRES	78 179			
		80 050	11101	SUSPENDED PART.	FEDERAL		143.000	0	
		80 050	42101	CARBON MONOXIDE	FEDERAL		582.000	0	
		80 050	42401	SULFUR DIOXIDE	FEDERAL		0.400	0	
		80 050	42602	N OXIDES	FEDERAL		17.000	0	
		80 050	43101	TOTAL HY CARBON	FEDERAL		107.000	0	
06	1280 ANY-NAME	00000	00	000	RESIDENT ANTHRACITE COAL	79 297	N/.010	S/20.0	A/ 3.0
		79 299	11101	PARTICULATES	STATE		1.000	0	
		79 310	42101	CARBON MONOXIDE	STATE		0.100	0	
		79 310	42401	SULFUR DIOXIDE	STATE		0.100	0	
		79 310	42602	NITROGEN OXIDES	STATE		0.200	0	
		79 310	43101	HYDROCARBONS	STATE		0.020	0	
		79 299	11101	PARTICULATES	LOCAL		12.000	0	
		79 296	42101	CARBON MONOXIDE	LOCAL		0.000	0	
		79 296	42401	SULFUR DIOXIDE	LOCAL		0.000	0	
		79 296	42602	NITROGEN OXIDES	LOCAL		0.000	0	
		79 296	43101	HYDROCARBONS	LOCAL		0.000	0	
06	1280 ANY-NAME	00000	00	002	RESIDENT BITUMINOUS COAL	79 297	N/.100		A/ 4.0
		79 299	11101	PARTICULATES	STATE		2.000	0	
		79 310	42101	CARBON MONOXIDE	STATE		0.575	0	

Figure ASTI-4 - continued. Sample Output

(Page 7 of 7)

EIS/AS Test 2

Create the Initial Master File Using NEDS Transactions

In this test run, the initial EIS/AS master file is created from NEDS transactions using the cataloged procedure ECFMM20 which executes CCENETR (EC0030), the NEDS to EIS/AS master file transaction conversion-edit program; CSRINTR (EC0050), the master file internal transaction sort program; CMSEFIN (EC0060), the master file internal transaction emission factor insertion program; and CFMMSTR (EC0070), the master file maintenance program.

CCENETR (EC0030) edits the input NEDS area source transactions and converts those that pass the edit criteria into EIS/AS internal transactions. The input NEDS area source transactions include the A1 thru A7 cards. Refer to Figure AST2-1 for the transaction formats.

Description, category, and NEDS comment internal transactions are generated from the NEDS transactions. A NEDS A1 add transaction will generate the description transactions used to build a county description record in the master file. A NEDS A6 add transaction will add a NEDS A6 comment record to the master file. A NEDS A7 or any category field on the NEDS A1 thru A5 cards will generate the category transactions necessary to add the category to the master file. Note that the county description record must exist before category or comment records are added for the county. Internal transactions produced in CCENETR (EC0030) will have a geographic suballocation number of zero (that is, only county records). Category transactions for categories 001-064 will be generated for those categories passing edit criteria; the category disaggregation number will be zero.

All NEDS transactions are edited for valid state, county, AQCR, action code, A-type card, and card number. If any of these fields are in error, the transaction will be rejected, and no EIS/AS internal transactions will be created from that NEDS transaction. An invalid value in any other NEDS field will result in that field being rejected, but other fields on that transaction will be accepted if valid.

The options in this program are used to determine if the year field in the NEDS A1 transaction is valid, if the warning messages are to appear in the diagnostic report, and if the input NEDS transactions and output internal transactions should be printed. A two-digit year must be specified in card columns 1 and 2 of the option card in order to edit the year field in the NEDS A1 transaction (the NEDS A1 year must not be greater than the option card year). If the warning messages are to be printed in the diagnostic report, the word FLAGW must appear in card columns 4 through 8; or, the warning-level messages will be suppressed. In order for the input NEDS transactions and output internal transactions to be printed, the word LIST must appear in card columns 10 through 13 of the option card; otherwise, the listings will not be printed. A valid option card must be present in the run stream; failure to enter the option card will cause program execution to be terminated prematurely.

CSRINTR (EC0050) sorts the master file internal transactions into the sequence required by CMSEFIN (EC0060) and CFMMSTR (EC0070). All master file internal transactions must be sorted by CSRINTR (EC0050) before they can be used to create (or update) the EIS/AS master file. A header record is generated by CSRINTR (EC0050) which appears as the first transaction but has no action code or card number.

CMSEFIN (EC0060) inserts emission factor information from the EIS/AS emission factor file into the category-2 and category-5 internal transactions. The information to be inserted, as well as the conditions for insertion, are specified on the option card.

In order to insert the information, CMSEFIN (EC0060) matches category-2 transactions to category records in the emission factor file and category-5 transactions to pollutant records. For category-2 transactions, a matching state- or local-origin record is sought; if one is not found, a matching federal-origin record is sought. Since category-5 records contain a character to indicate federal, state, or local origin, a matching record of that specified origin is sought.

If a matching emission factor file record is found for an internal transaction, the information in that record is inserted into the appropriate fields of the transaction. No changes are made to any of the other input internal transactions.

The user can specify by means of an option card the transaction fields for insertion and can specify whether or not data from the emission factor file should override (i.e., replace) existing data in any of those fields. The user can also specify whether or not emission factor file data must satisfy date criteria and whether or not warning messages should be printed. All options are specified in fixed fields on the option card. See Figure AST2-2 for the format of the option card.

A transaction field is specified for insertion by coding its identifier and an 'I' in the appropriate option card field. The valid fields for insertion and their identifiers are as follows:

<u>Field</u>	<u>Identifier</u>
Nitrogen Content	NIT
Sulfur Content	SUL
Ash Content	ASH
Emission Factor	EMISSION
Confidence Level	CONF
Pollutant-Specific Data	SPEC

If no valid fields are specified for insertion, the emission factor and confidence level fields are assumed as defaults.

If a valid transaction field has been specified for insertion, that field must be blank for any data to be inserted. If the user desires to insert data into a field regardless of its content, he can specify an override for that field by coding an 'O' in the appropriate option card field. If an override is specified for a particular field, any data in that field will be replaced with data from the matching emission factor file record.

Date criteria can be established for insertions by coding a date identifier and a date value. For nitrogen, sulfur, and ash content, the date identifier is 'CDAT' (category record date); for emission factor, confidence level, and pollutant-specific data, the date identifier is 'PDAT' (pollutant record date). The date value is expressed as a Julian date; that is, as a 5-character number, the first two digits of which represent the year and the last three, the day within the year. No insertion will be made into a field if the date of the matching emission factor file record is prior to the date specified for that field. If no date criteria are specified, insertions into the specified fields will be made regardless of the dates of the emission factor file records.

If 'FLAGW' is coded in the warning message suppression field of the option card, all warning messages will be printed in the diagnostic report; if 'NOFLAGW' is coded, no warning messages will be printed. If this field is left blank or improperly coded, NOFLAGW is assumed.

CFMMSTR (EC0070) creates and maintains the EIS/AS master file which is a variable-length, sequential file. This file contains three types of records: description, category, and comment.

The description record contains general descriptive information pertaining to a geographic area. This geographic area may be either a county or a smaller area denoted by a nonzero geographic suballocation number. A county description record must be present before any other records can be accepted for that county; i.e., suballocation description, category, and comment records. Also a description record (county or suballocation) must be present before any category records (including category disaggregation records) or comment records can be accepted for that geographic area.

Category records contain emission information for a geographic area and are subordinate to the description record for that area. There can be up to 999 category records for each geographic area: category records 001-064 are used for the NEDS categories; 065-998 are used for user-defined categories, and category 999 is generated by CFMMSTR (EC0070). In addition, each category

can be disaggregated with a separate record describing each disaggregation. The category 999 record contains a summary of emissions for all the category records with a disaggregation number of zero.

The comment records are used to include additional information for both geographic areas (county and/or suballocation description records) and categories (both category and disaggregation). There can only be one NEDS comment record for a county description record; all other EIS/AS records can have up to 999 comment records. Comment records will only be added if there is a record in the master file (description or category) with matching key information, including state, county, geographic suballocation number, category number, and category disaggregation number.

The options in CFMMSTR (EC0070) are used to determine if the warning messages are to be printed in the diagnostic report and if the listings of the input and output master file and of the internal transactions should be produced. A two-digit year may be specified in card columns 1 and 2. A value of FLAGW in card columns 4 through 8 will allow the warning messages to be printed. Otherwise, no warning messages will be printed. Similarly, a value of LIST in card columns 10 through 13 will produce all the listings. Otherwise, the listings will not be produced.

The run stream for this test run contains the JCL necessary for creating an EIS/AS master file from NEDS area source transactions. This run stream is shown in Figure AST2-3. It does not show all the input NEDS transactions in the run stream, but does show the necessary JCL.

The cataloged procedure executed by this run stream is ECFMM20. For the CONVERT step, the user must supply the DD (data definition) information for the option card file and the input NEDS transaction file. The options specified in the CONVERT step are 80, FLAGW and LIST. The user must also supply the DD information for the option card file in the INSERT step. In this step of the test run the options specified are: NOFLAGW, NIT IO, SUL IO, ASH IO, EMISSION IO, CONF IO, and SPEC IO. Since this test run creates the

initial EIS/AS master file , there is obviously not an input master file to be accessed. This is why the old master file ECSOLMF must be a dummy file in the UPDATE step. Also, the options specified in the UPDATE step are 80, FLAGW and LIST. Through the use of substitutable parameters, the emission factor file is specified as ECEMFL1 (created in Test 1) and the new master file is named ECMSTR1. Refer to Figure AST2-4 for the sample output produced by this run stream.

NEDS A1 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 11	2	Numeric	Year of Record
12 - 16	5	Numeric	SIP Estimate - TSP
17 - 20	4	Numeric	SIP Estimate - SO ₂
21 - 24	4	Numeric	SIP Estimate - NO _x
25 - 29	5	Numeric	SIP Estimate - HC
30 - 34	5	Numeric	SIP Estimate - CO
35 - 36	2	Numeric	Sulfur Content - Anthracite Coal
37 - 38	2	Numeric	Sulfur Content - Bituminous Coal
39 - 40	2	Numeric	Sulfur Content - Distillate Oil
41 - 42	2	Numeric	Sulfur Content - Residual Oil
43 - 45	3	Numeric	Ash Content - Anthracite Coal
46 - 48	3	Numeric	Ash Content - Bituminous Coal
49 - 53	5	Numeric	Residential Fuel - Anthracite Coal

(Page 1 of 10)

Figure AST2-1. NEDS Area Source Transaction Formats

NEDS A1 Transaction (continued)

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
54 - 59	6	Numeric	Residential Fuel - Bituminous Coal
60 - 64	5	Numeric	Residential Fuel - Distillate Oil
65 - 68	4	Numeric	Residential Fuel - Residual Oil
69 - 73	5	Numeric	Residential Fuel - Natural Gas
74 - 77	4	Numeric	Residential Fuel - Wood
78	1	Alphabetic	Action Code
79	1	Alphabetic	'A' (Area Source)
80	1	Numeric	'1' (Card Number)

(Page 2 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A2 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Commercial Fuel - Anthracite Coal
15 - 19	5	Numeric	Commercial Fuel - Bituminous Coal
20 - 24	5	Numeric	Commercial Fuel - Distillate Oil
25 - 29	5	Numeric	Commercial Fuel - Residual Oil
30 - 33	4	Numeric	Commercial Fuel - Natural Gas
34 - 35	2	Numeric	Commercial Fuel - Wood
36 - 41	6	Numeric	Industrial Fuel - Anthracite Coal
42 - 47	6	Numeric	Industrial Fuel - Bituminous Coal
48 - 51	4	Numeric	Industrial Fuel - Coke
52 - 56	5	Numeric	Industrial Fuel - Distillate Oil

(Page 3 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A2 Transaction (continued)

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
57 - 61	5	Numeric	Industrial Fuel - Residual Oil
62 - 66	5	Numeric	Industrial Fuel - Natural Gas
67 - 69	3	Numeric	Industrial Fuel - Wood
70 - 73	4	Numeric	Industrial Fuel - Process Gas
74 - 77	4	Blank	Unused
78	1	Alphabetic	Action Code
79	1	Alphabetic	'A' (Area Source)
80	1	Numeric	'2' (Card Number)

(Page 4 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A3 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 15	6	Numeric	On Site Incineration - Residential
16 - 20	5	Numeric	On Site Incineration - Industrial
21 - 24	4	Numeric	On Site Incineration - Commercial
25 - 30	6	Numeric	Open Burning - Residential
31 - 36	6	Numeric	Open Burning - Industrial
37 - 41	5	Numeric	Open Burning - Commercial
42 - 48	7	Numeric	Gasoline Fuel - Light Vehicle
49 - 54	6	Numeric	Gasoline Fuel - Heavy Vehicle
55 - 60	6	Numeric	Gasoline Fuel - Off Highway
61 - 66	6	Numeric	Diesel Fuel - Heavy Vehicle
67 - 71	5	Numeric	Diesel Fuel - Off Highway
72 - 76	5	Numeric	Diesel Fuel - Rail Locomotive
77	1	Numeric	Population Code
78	1	Alphabetic	Action Code
79	1	Alphabetic	'A' (Area Source)
80	1	Numeric	'3' (Card Number)

(Page 5 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A4 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 13	4	Numeric	Aircraft - Military
14 - 19	6	Numeric	Aircraft - Civil
20 - 24	5	Numeric	Aircraft - Commercial
25 - 28	4	Numeric	Vessels - Coal
29 - 32	4	Numeric	Vessels - Diesel Oil
33 - 37	5	Numeric	Vessels - Residual Oil
38 - 41	4	Numeric	Vessels - Gasoline
42 - 47	6	Numeric	Evaporation - Solvent Purchased
48 - 52	5	Numeric	Evaporation - Gasoline Marketed
53 - 58	6	Numeric	Measured Vehicle Miles - Limited Access Road
59 - 64	6	Numeric	Measured Vehicle Miles - Rural Road
65 - 70	6	Numeric	Measured Vehicle Miles - Suburban Road
71 - 77	7	Numeric	Measured Vehicle Miles - Urban Road
78	1	Alphabetic	Action Code
79	1	Alphabetic	'A' (Area Source)
80	1	Numeric	'4' (Card Number)

(Page 6 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A5 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 16	7	Numeric	Dirt Roads Traveled
17 - 21	5	Numeric	Dirt Air Strips
22 - 27	6	Numeric	Construction Acres
28 - 32	5	Numeric	Miscellaneous Wind Erosion
33 - 37	5	Numeric	Land Tilling
38 - 44	7	Numeric	Forest Wildfires - Acres Burned
45 - 47	3	Numeric	Forest Wildfires - Tons per Acre Burned
48 - 53	6	Numeric	Managed Burning - Acres Burned
54 - 56	3	Numeric	Managed Burning - Tons per Acre Burned
57 - 62	6	Numeric	Agricultural Field Burning - Acres Burned
63 - 65	3	Numeric	Agricultural Field Burning - Tons per Acre Burned
66 - 69	4	Numeric	Frost Control - Orchard Heaters Operating
70 - 72	3	Numeric	Frost Control - Days Fired

(Page 7 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A5 Transaction (continued)

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
73 - 77	5	Numeric	Structure Fires
78	1	Alphabetic	Action Code
79	1	Alphabetic	'A' (Area Source)
80	1	Numeric	'5' (Card Number)

(Page 8 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A6 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 77	68	Alphanumeric	Comments
78	1	Alphabetic	Action Code
79	1	Alphabetic	'A' (Area Source)
80	1	Numeric	'6' (Card Number)

(Page 9 of 10)

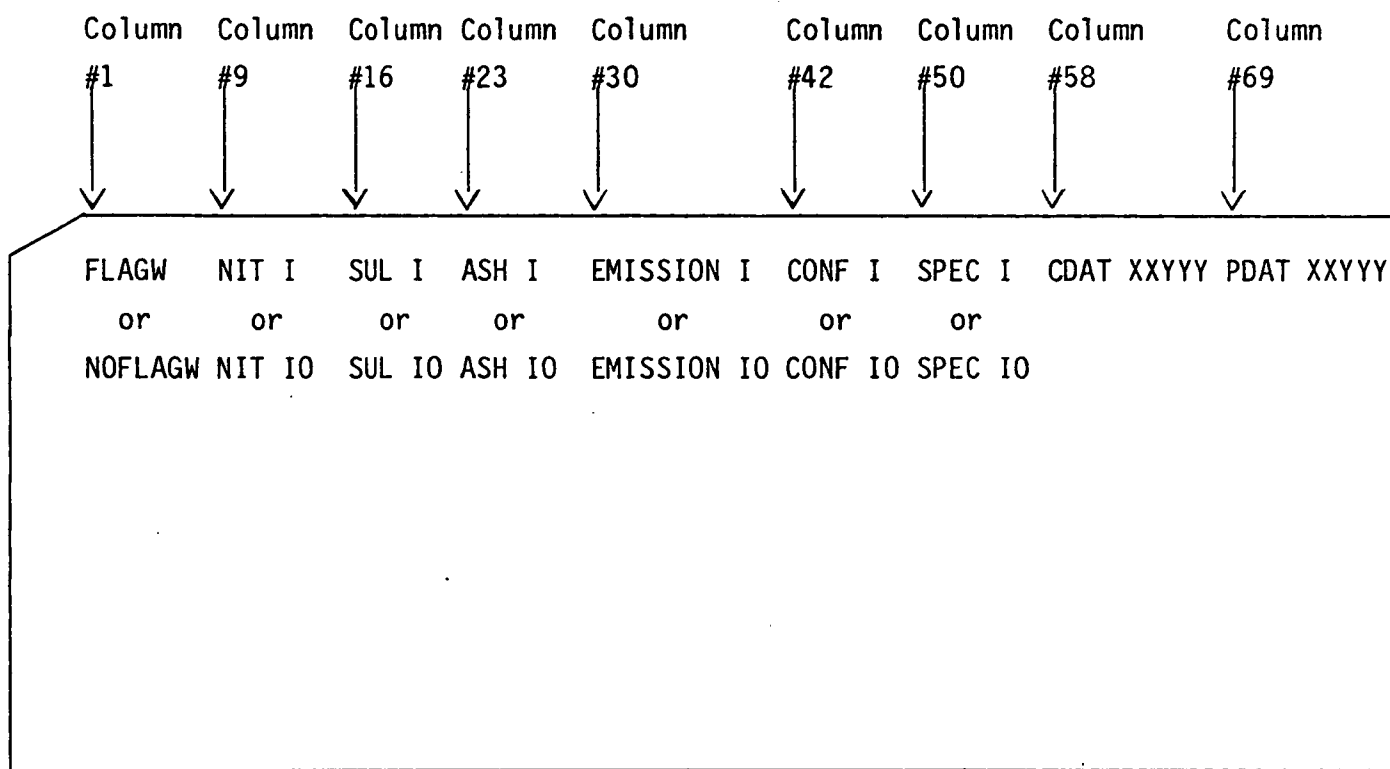
Figure AST2-1 - continued. NEDS Area Source Transaction Formats

NEDS A7 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 11	2	Numeric	Year of Record
12 - 13	2	Numeric	Source Code
14 - 19	6	Numeric	Emission Estimate - TSP
20 - 24	5	Numeric	Emission Estimate - SO ₂
25 - 30	6	Numeric	Emission Estimate - NO _x
31 - 36	6	Numeric	Emission Estimate - HC
37 - 43	7	Numeric	Emission Estimate - CO
44 - 77	34	Alphanumeric	Comment
78	1	Alphabetic	Action Code
79	1	Alphabetic	'A' (Area Source)
80	1	Numeric	'7' (Card Number)

(Page 10 of 10)

Figure AST2-1 - continued. NEDS Area Source Transaction Formats



- Note: 1. XX denotes the year; YYY the Julian date
2. Each field must contain one of the possible values indicated for it or be blank.

Figure AST2-2. Option Card Format

```

//ASTEST02 JOB      (ACOUNTING INFO)
/**
/**  CREATE THE INITIAL MASTER FILE USING NEDS TRANSACTIONS.
/**
//TLES102A EXFC ECFMM20,
//      FMFCF11=FCFML1,
//      NEWMSTR=FCMSTR1
/**
/**  USE NEDS TRANSACTIONS TO CREATE THE ORIGINAL MASTER FILE
/**
//CONVERT.INPUT DD *
1478400747500197000300100001500055063803110930930000100010100137      00042      AA1
147840074      0000300023000310012      000037      000110003000007      AA2
147840074000947      000567100081000065200062600001001216AA3
147840074      000365      026700052500089      003098      0005303AA4
1478400740000005      0000870009900224      012      00052AA5
147840074WAHASH      AA6
14784007480050003000002000015000025000040000A7 EMISSION RECORDED      AA7
14784007480340003000002000015000025000040000A7 EMISSION RECORDED      AA7
14784007480010003000002000015000025000040000A7 EMISSION RECORDED      AA7
14784007480490003000002000015000025000040000A7 EMISSION RECORDED      AA7
14784007480050003000002000015000025000040000A7 EMISSION RECORDED      AA7
14786006575011380007002200023000980638031109309300001000081001A3      00096      AA1
147860065      00004000340000450025      000281      000620017000023      AA2
147860065001467      00120480017210011840015A600003003145AA3
147860065      000767      006600056700207      009113      0006651AA4
1478600650000030      0001670028500649      012      00060AA5
147860065WARREN      AA6
14786006580270003000002100015102025000120000A7 EMISSION RECORDED      AA7
14786006580140003000002100015102025000120000A7 EMISSION RECORDED      AA7
14786006580640003000002100015102025000120000A7 EMISSION RECORDED      AA7
1480400747500540000300140001800067063803110930930000100010300044      00089      AA1
148040074      0000300026000340031      000059      000140005000004      AA2
148040074001228      000933100119000103000110700003001094AA3
148040074      000475      00062700164      007986      0004302AA4
1480400740000014      0000130031200605      012      00067AA5
148040074WAYNE      AA6
14804007480190003000002200015172525900160000A7 EMISSION RECORDED      AA7
14804007480280003000002200015170525000100000A7 EMISSION RECORDED      AA7
14804007480440003000001200011170527000102000A7 EMISSION RECORDED      AA7
14804007480510003000001200011170527000102000A7 EMISSION RECORDED      AA7

```

(Remainder of transactions omitted)

```

//CONVERT.OPTIONS DD *
RO FLAG* LIST
//INSERT.OPTIONS DD *
NOFLAG* HIT TO SUL TO ASH TO EMISSION TO CONF TO SPEC TO
//UPDATE.ECSOLMF DD DUMMY,DCR=RLKSTZF=1327
//UPDATE.OPTIONS DD *
RO FLAG* LIST

```

Figure AST2-3. Run Stream

NEUS TO EIS/AS CONVERSION-EDIT PROGRAM DIAGNOSTIC REPORT

PAGE

PROGRAM NAME: CCENETH (EC0030)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

CONTROL DATE IS 80 , ERROR OPTION IS FLAGW , LIST OPTION IS LIST

\4840007480050003000002000015000025000040000A7 EMISSION RECORDED AA7
 BE
 *** CCENETH OBS ERROR - COLUMN 01 - INVALID STATE-TRANSACTION REJECTED

NEUS TO EIS/AS CONVERSION-EDIT PROGRAM DIAGNOSTIC REPORT

PAGE 2

NUMBER OF NEUS TRANSACTIONS READ:	69
NUMBER OF ERRORS DETECTED:	1
NUMBER OF ABORTS DETECTED:	0
NUMBER OF CONDITIONALS DETECTED:	0
NUMBER OF INTERNAL TRANSACTIONS WRITTEN:	2,089

Figure AST2-4. Sample Jutput

(Page 1 of 8)

NEWS AREA SOURCE TRANSACTION LISTING

PAGE

```

1478400747500197000300100001500055063803110930930000100010100137 00042 AA1
147840074 0000300023000310012 000037 000110003000007 AA2
147840074000947 000567100081000065200082600001001216AA3
147840074 000365 026700052500089 003098 0005303AA4
1478400740000005 0000670009900224 012 00052AA5
147840074WABASH AA6
14784007480050003000002000015000025000040000A7 EMISSION RECORDED AA7
14784007480340003000002000015000025000040000A7 EMISSION RECORDED AA7
14784007480010003000002000015000025000040000A7 EMISSION RECORDED AA7
14784007480490003000002000015000025000040000A7 EMISSION RECORDED AA7
14784007480050003000002000015000025000040000A7 EMISSION RECORDED AA7
14786006575011360007002200023000098063803110930930000100008100183 00096 AA1
147860065 0000400034000450025 000281 000620017000023 AA2
147860065001467 001204800172100118400158600003003145AA3
147860065 000767 006600056700207 009113 0008651AA4
1478600650000030 0001670028500649 012 00080AA5
147860065WAKKEN AA6
14786006580220003000002100015102025000120000A7 EMISSION RECORDED AA7
14786006580140003000002100015102025000120000A7 EMISSION RECORDED AA7
14786006580640003000002100015102025000120000A7 EMISSION RECORDED AA7
148040074750054000003001400018000067063803110930930000100010300044 00069 AA1
148040074 0000300026000340031 000059 000190005000004 AA2
148040074001228 000633100119000103000110700003001094AA3
148040074 000475 00062700104 007986 0004302AA4
1480400740000014 0000130031200605 012 00067AA5
148040074WAYNE AA6
14804007480190003000002200015172525900160000A7 EMISSION RECORDED AA7
14804007480280003000000200015170525000100000A7 EMISSION RECORDED AA7
14804007480440003000001200011170522000102000A7 EMISSION RECORDED AA7
14804007480510003000001200011170522000102000A7 EMISSION RECORDED AA7
4206801987501300060009002400022900 100218 091 00000500099 000130089AA1
420680198 00011 0001 00008 00001 AA2
420680198 00027000000100025001172200034100116600148000011000131AA3
420680198 000584 057500078900273 AA4
4206801980015840 114000 0000457009002870003 AA5
420680198 AA6
42068019880040003000041200015170527000102900A7 EMISSION RECORDED AA7
42068019880130003000041200015170507000102000A7 EMISSION RECORDED AA7
42068019880370003000041200015170507000102000A7 EMISSION RECORDED AA7
4213801987501600070073002000003500 100218 091 00001300273 000280052AA1
421380198 0001600001000020019 00035 00007 AA2
421380198 00023300000200024002196300063900119900202400011000182AA3
421380198 000511 007600170000218 AA4
4213801980019404 152000 0000207009009405003 AA5
421380198 AA6
42138019880330003000041200010170507000102000A7 EMISSION RECORDED AA7

```

Figure AST2-4 - continued. Sample Output

(Page 2 of 8)

EIS/AS INTERNAL TRANSACTION LISTING

PAGE

147840	0000000000000011CG07475		
147840	0000000000000071CG07411101PARTICULATES	U	42602NITROGEN OXIDESU
147840	0000000000000071CG07442401SULFUR DIOXIDE	U	43101HYDROCARBONS U
147840	0000000000000071CG07442101CARBON MONOXIDEU		
147840	0000000000000051CG07400197000300100001S00055		
147840	0000000000000031CG074		06380311093093
147840	0000000100100011CA074RESIDENT ANTHRACITE COAL		000000001
147840	0000000100100051CA07411101	F	PARTICULATES
147840	0000000100100051CA07442602	F	NITROGEN OXIDES
147840	0000000100100051CA07442401	F	SULFUR DIOXIDE
147840	0000000100100051CA07443101	F	HYDROCARBONS
147840	0000000100100051CA07442101	F	CARBON MONOXIDE
147840	0000000200100011CA074RESIDENT BITUMINOUS COAL		000000101
147840	0000000200100051CA07411101	F	PARTICULATES
147840	0000000200100051CA07442602	F	NITROGEN OXIDES
147840	0000000200100051CA07442401	F	SULFUR DIOXIDE
147840	0000000200100051CA07443101	F	HYDROCARBONS
147840	0000000200100051CA07442101	F	CARBON MONOXIDE
147840	0000000300100011CA074RESIDENT DISTILLATE OIL		000000137
147840	0000000300100051CA07411101	F	PARTICULATES
147840	0000000300100051CA07442602	F	NITROGEN OXIDES
147840	0000000300100051CA07442401	F	SULFUR DIOXIDE
147840	0000000300100051CA07443101	F	HYDROCARBONS
147840	0000000300100051CA07442101	F	CARBON MONOXIDE
147840	0000000500100011CA074RESIDENTIAL NATURAL GAS		000000042
147840	0000000500100051CA07411101	F	PARTICULATES
147840	0000000500100051CA07442602	F	NITROGEN OXIDES
147840	0000000500100051CA07442401	F	SULFUR DIOXIDE
147840	0000000500100051CA07443101	F	HYDROCARBONS
147840	0000000500100051CA07442101	F	CARBON MONOXIDE
147840	0000000800100011CA074COMM-INST BITUMINOUS COAL		000000003
147840	0000000800100051CA07411101	F	PARTICULATES
147840	0000000800100051CA07442602	F	NITROGEN OXIDES
147840	0000000800100051CA07442401	F	SULFUR DIOXIDE
147840	0000000800100051CA07443101	F	HYDROCARBONS
147840	0000000800100051CA07442101	F	CARBON MONOXIDE
147840	0000000900100011CA074COMM-INST DISTILLATE OIL		000000023
147840	0000000900100051CA07411101	F	PARTICULATES
147840	0000000900100051CA07442602	F	NITROGEN OXIDES
147840	0000000900100051CA07442401	F	SULFUR DIOXIDE
147840	0000000900100051CA07443101	F	HYDROCARBONS
147840	0000000900100051CA07442101	F	CARBON MONOXIDE
147840	0000001000100011CA074COMM-INST RESIDUAL OIL		000000031
147840	0000001000100051CA07411101	F	PARTICULATES
147840	0000001000100051CA07442602	F	NITROGEN OXIDES
147840	0000001000100051CA07442401	F	SULFUR DIOXIDE

Figure AST2-4 - continued. Sample Output

(Page 3 of 8)

PROGRAM NAME: CSHINIR (EC0050)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS READ:	2,089
NUMBER OF TRANSACTIONS WRITTEN:	2,090

Figure AST2-4 - continued. Sample Output

(Page 4 of 8)

EMISSION FACTOR INSERTION PROGRAM

PAGE 1

PROGRAM NAME: CMSEFIN (EC0060)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: NOFLAGW

FIELDS SELECTED FOR INSERTIONS: NIT SUL ASH EMISSION CONF SPEC

FIELDS TO BE OVERRIDDEN: NIT SUL ASH EMISSION CONF SPEC

NITROGEN	I	O	SULFUR	I	O	ASH	I	O	EMISSION FACTOR	I	O	CONF LEVEL	I	O	SPEC DATA	I	O	DATE	CATEGORY	N	POLLUTANT	N
----------	---	---	--------	---	---	-----	---	---	-----------------	---	---	------------	---	---	-----------	---	---	------	----------	---	-----------	---

*** CMSEFIN 009 CONDITIONAL - EMISSION FACTOR FILE CONTAINS FEDERAL CATEGORY RECORDS FOR CATEGORIES OTHER THAN 1-64

NUMBER OF INPUT TRANSACTIONS:	2,090
NUMBER OF EMISSION FACTOR RECORDS READ:	387
NUMBER OF STATE AND LOCAL INSERTIONS MADE:	0
NUMBER OF FEDERAL INSERTIONS MADE:	1,685
NUMBER OF OUTPUT TRANSACTIONS:	2,090

PROGRAM NAME: CFMMSIR (EC0070)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

CONTROL DATE IS 80 , ERROR OPTION IS FLAGW , LIST OPTION IS LIST

NUMBER OF INPUT TRANSACTIONS READ:	2,090
NUMBER OF DISASTERS DETECTED:	0
NUMBER OF ABORTS DETECTED:	0
NUMBER OF ERRORS DETECTED:	0
NUMBER OF CONDITIONALS DETECTED:	0
NUMBER OF WARNINGS DETECTED:	0
NUMBER OF TRANSACTIONS REJECTED:	0
NUMBER OF AREA SOURCE FILE RECORDS READ IN:	0
NUMBER OF AREA SOURCE FILE RECORDS WRITTEN OUT:	349

Figure AST2-4 - continued. Sample Output

(Page 6 of 8)

[illegible]

147840	0000000000000000565074CG75	
147840	0000000000020000136074 NNAHASH	
147840	000000010010000604074CARESIDENT ANTHRACITE CUAL	000000001
147840	000000020010000604074CARESIDENT BITUMINOUS CUAL	000000101
147840	000000030010000604074CARESIDENT DISTILLATE OIL	000000137
147840	000000050010000604074CARESIDENT NATURAL GAS	000000042
147840	000000080010000604074CACUMM-INST BITUMINOUS COAL	000000003
147840	000000090010000604074CACUMM-INST DISTILLATE OIL	000000023
147840	000000100010000604074CACUMM-INST RESIDUAL OIL	000000031
147840	000000110010000604074CACUMM-INST NATURAL GAS	000000012
147840	000000140010000604074CAINDUSTRY BITUMINOUS COAL	000000037
147840	000000160010000604074CAINDUSTRIAL DISTILLATE OIL	000000011
147840	000000170010000604074CAINDUSTRIAL RESIDUAL OIL	000000030
147840	000000180010000604074CAINDUSTRIAL NATURAL GAS	000000007
147840	000000210010000604074CARES. ON-SITE INCINERATION	0000000947
147840	000000270010000604074CALT DUTY GAS VEH LM ACC RD	
147840	000000280010000604074CALT DUTY GAS VEH RURAL RD	
147840	000000290010000604074CALT DUTY GAS VEH SUBURB RD	
147840	000000300010000604074CALT DUTY GAS VEH URBAN RD	
147840	000000310010000604074CAMED DUTY GAS VEH LM AC RD	
147840	000000320010000604074CAMED DUTY GAS VEH RURAL RD	
147840	000000330010000604074CAMED DUTY GAS VEH SUBUR RD	
147840	000000340010000604074CAMED DUTY GAS VEH URBAN RD	
147840	000000350010000604074CAHVV DUTY GAS VEH LM AC RD	
147840	000000360010000604074CAHVV DUTY GAS VEH RURAL RD	
147840	000000370010000604074CAHVV DUTY GAS VEH SUBUR RD	
147840	000000380010000604074CAHVV DUTY GAS VEH URBAN RD	
147840	000000390010000604074CAUFF HIGHWAY GAS VEHICLES	0000000652
147840	000000400010000604074CAHVV DUTY DIESEL VEH LACRD	
147840	000000410010000604074CAHVV DUTY DIESEL VEH RURRD	
147840	000000420010000604074CAHVV DUTY DIESEL VEH SUBRD	
147840	000000430010000604074CAHVV DUTY DIESEL VEH URBRD	
147840	000000440010000604074CAUFF HIGHWAY DIESEL VEH	000000001
147840	000000450010000604074CARAILROAD LCOMOTIVES	000000121
147840	000000470010000604074CACIVIL AIRCRAFT LTU'S	000000365
147840	000000490010000604074CA	
147840	000000520010000604074CAGASULINE VESSELS	000000267
147840	000000530010000604074CASULVENT PURCHASED	000000525
147840	000000540010000604074CAGASULINE MARKETED	000000089
147840	000000550010000604074CAUNPAVED ROAD TRAVEL	000000005
147840	000000570010000604074CACONSTRUCTION	000000087
147840	000000580010000604074CAMISC WIND EROSION	000000099
147840	000000590010000604074CALAND TILLING	000000224
147840	000000600010000604074CAFOREST WILD FIRES	00000012
147840	000000640010000604074CASTRUCTURAL FIRES	000000052
147860	0000000000000000565065CG75	
147860	0000000000020000136065 NNAHREN	

Figure AST2-4 - continued. Sample Output

(Page 8 of 8)

EIS/AS Test 3

Update the Master File Using EIS/AS Transactions

In this test run, the EIS/AS master file created in Test 2 is updated with EIS/AS transactions using the cataloged procedure ECEMM10 which executes CEDMSTR (EC0040), the master file transaction edit program; CSRINTR (EC0050), the master file internal transaction sort program; CMSEFIN (EC0060), the master file internal transaction emission factor insertion program; and CFMMSTR (EC0070), the master file maintenance program.

CEDMSTR (EC0040) edits EIS/AS master file transactions and converts those that pass the edit criteria into internal transactions.

There are four types of input EIS/AS master file transactions: description, category, NEDS comment, and EIS/AS comment. See Figure AST3-1 for the EIS/AS master file transaction formats and Figure AST3-2 for the master file transaction load sheets. Description transactions are used to add, change, or delete description records for counties or suballocations of counties. Category transactions are used to add, change, or delete aggregate or disaggregate category records for counties or suballocations of counties. EIS/AS comment transactions are used to add, change, or delete EIS/AS comment records.

To add a description record (either county or suballocation) to the master file, the user enters at least one of the seven description transactions. Note that a county description record must be present in the input transaction file or input master file before any other records (including the suballocation description record) will be accepted for that county. A category record (or category disaggregation record) can be added by entering at least one of the five category transactions, provided that a description record is present in the input transaction file or input master file for the same geographic area. In order to add a comment record, the user enters one or more of the EIS/AS comment transactions. However, comment

records will only be added if there is a record in the master file (description or category) with matching key information, including state, county, geographic suballocation number, category number, and category disaggregation number.

To change a non-key field in a master file record, the user enters the appropriate transaction; i.e., a description 1 through 7, category 1 through 5, NEDS comment or EIS/AS comment transaction, with the same key information as the master file record to be changed. Also, this transaction must have an action code of 'C' and contain the new information for the field to be changed. If these requirements are met, the non-blank, non-key fields of the transaction will replace the corresponding fields in the master file record. A change transaction with an asterisk in the first position of an optional (or non-key) field will cause that field in the master file to be flagged for deletion and change the first character in the field to an asterisk.

Similarly, the deletion of a master file record requires that the user enter a transaction with the same key information as the master file record to be deleted. However, the transaction must also have an action code of 'D' and the remaining fields should contain blanks. It should be noted that the records are flagged for deletion as a result of this test run but are not actually deleted. When a record is flagged for deletion, all its subordinate records are also flagged for deletion.

The options in this program are used to determine if the year in the description 1 transaction is valid, if the warning messages are to be printed in the diagnostic report, and if the input EIS/AS transactions and the output internal transactions should be printed. A two-digit year must be specified in card columns 1 and 2 of the option card in order to edit the year field in the description 1 transaction (the year on the transaction must not be greater than the year on the option card). If the warning messages are to be printed in the diagnostic report, the word FLAGW must appear in card columns 4 through 8. If the FLAGW option is not specified, the default, NOFLAGW, will be in

effect and the warning messages will not be printed. In order for the input transactions and the output internal transactions to be printed, the word LIST must appear in card columns 12 through 15 of the option card; otherwise, the default, NOLIST, will be in effect and the listings will not be produced.

The programs CSRINTR (EC0050), CMSEFIN (EC0060) and CFMMSTR (EC0070) were used in Test 2 to create an EIS/AS master file from NEDS area source transactions. For a description of these programs refer to Test 2.

The run stream for this test run contains the JCL necessary for updating the EIS/AS master file. This run stream is shown in Figure AST3-3. It does not show all the input master file transactions in the run stream, but it does show the necessary JCL.

The cataloged procedure executed by this run stream is ECEMM10. Through the use of substitutable parameters, the input emission factor file is specified as ECEMFL1 (created in Test 1), the input master file is specified as ECMSTR1 (created in Test 2), and the updated master file is named ECMSTR2. For the EDIT step, the user must supply the DD (data definition) information for the option card file and the input EIS/AS master file transaction file. The options specified for the EDIT step are 80, FLAGW, and LIST. Also, the user must supply the DD information for the option card file in the INSERT step and the option card file in the UPDATE step. The options specified for the INSERT step in this test run are: FLAGW, NIT I, SUL I, ASH I, EMISSION I, CONF I, SPEC I, CDAT 77001, and PDAT 77001. The options specified for the UPDATE step are 80 and FLAGW. Figure AST3-4 shows the sample output produced by this run stream.

Category 1 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 17	3	Numeric	Category Number
18 - 19	2	Numeric	Category Disaggregation Number
20 - 44	25	Alphanumeric	Category Description
45 - 46	2	Numeric	Year of Information
47 - 55	9	Numeric	Process Rate
56 - 62	7	Numeric	Category Adjustment Value
63 - 64	2	Numeric	Units Code
65 - 76	12	Alphanumeric	Units Code Description
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	Disaggregation Type
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 1 of 18)

Figure AST3-1. EIS/AS Master File Transaction Formats

Category 2 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 17	3	Numeric	Category Number
18 - 19	2	Numeric	Category Disaggregation Number
20	1	Alphabetic	Uniform Monthly Thruput
21 - 22	2	Numeric	Thruput for January
23 - 24	2	Numeric	Thruput for February
25 - 26	2	Numeric	Thruput for March
27 - 28	2	Numeric	Thruput for April
29 - 30	2	Numeric	Thruput for May
31 - 32	2	Numeric	Thruput for June
33 - 34	2	Numeric	Thruput for July
35 - 36	2	Numeric	Thruput for August
37 - 38	2	Numeric	Thruput for September
39 - 40	2	Numeric	Thruput for October
41 - 42	2	Numeric	Thruput for November
43 - 44	2	Numeric	Thruput for December
45 - 46	2	Numeric	Hours Per Day
47	1	Numeric	Days Per Week
48 - 49	2	Numeric	Weeks Per Year
50 - 53	4*	Numeric	Thruput Ratio

*A one-digit decimal position is assumed; e.g., 21.2 would be coded as '0212'.

(Page 2 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Category 2 Transaction (continued)

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
54 - 63	10 [*]	Numeric	Maximum Hourly Thruput
64	1	Numeric	Data Confidence Rating
65 - 67	3 ^{**}	Numeric	Nitrogen Percentage
68 - 69	2 ^{***}	Numeric	Sulfur Percentage
70 - 72	3 ^{****}	Numeric	Ash Percentage
73 - 76	4	Alphanumeric	Heat Content
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	Disaggregation Type
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

*A three-digit decimal position is assumed; e.g., 350.0 would be coded as '0000350000'.

**A three-digit decimal position is assumed; e.g., 0.02 would be coded as '020'.

***A one-digit decimal position is assumed; e.g., 1.3 would be coded as '13'.

****A one-digit decimal position is assumed; e.g., 7.3 would be coded as '073'.

(Page 3 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Category 3 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 17	3	Numeric	Category Number
18 - 19	2	Numeric	Category Disaggregation Number
20	1	Alphabetic	Uniform Hourly Thruput
21 - 22	2	Numeric	Thruput for Hour Beginning 0000
23 - 24	2	Numeric	Thruput for Hour Beginning 0100
25 - 26	2	Numeric	Thruput for Hour Beginning 0200
27 - 28	2	Numeric	Thruput for Hour Beginning 0300
29 - 30	2	Numeric	Thruput for Hour Beginning 0400
31 - 32	2	Numeric	Thruput for Hour Beginning 0500
33 - 34	2	Numeric	Thruput for Hour Beginning 0600
35 - 36	2	Numeric	Thruput for Hour Beginning 0700
37 - 38	2	Numeric	Thruput for Hour Beginning 0800
39 - 40	2	Numeric	Thruput for Hour Beginning 0900
41 - 42	2	Numeric	Thruput for Hour Beginning 1000
43 - 44	2	Numeric	Thruput for Hour Beginning 1100
45 - 46	2	Numeric	Thruput for Hour Beginning 1200
47 - 48	2	Numeric	Thruput for Hour Beginning 1300
49 - 50	2	Numeric	Thruput for Hour Beginning 1400
51 - 52	2	Numeric	Thruput for Hour Beginning 1500

(Page 4 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Category 3 Transaction (continued)

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
53 - 54	2	Numeric	Thruput for Hour Beginning 1600
55 - 56	2	Numeric	Thruput for Hour Beginning 1700
57 - 58	2	Numeric	Thruput for Hour Beginning 1800
59 - 60	2	Numeric	Thruput for Hour Beginning 1900
61 - 62	2	Numeric	Thruput for Hour Beginning 2000
63 - 64	2	Numeric	Thruput for Hour Beginning 2100
65 - 66	2	Numeric	Thruput for Hour Beginning 2200
67 - 68	2	Numeric	Thruput for Hour Beginning 2300
69 - 76	8		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	Disaggregation Type
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 5 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Category 4 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 17	3	Numeric	Category Number
18 - 19	2	Numeric	Category Disaggregation Number
20 - 53	34	Alphanumeric	NEDS A7 Comment
54	1	Alphanumeric	Information Source Code
55 - 74	20	Alphanumeric	Information Source Narrative
75 - 76	2		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	Disaggregation Type
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 6 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Category 5 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 17	3	Numeric	Category Number
18 - 19	2	Numeric	Category Disaggregation Number
20 - 24	5	Numeric	Pollutant ID
25 - 34	10*	Numeric	Emission Factor
35	1	Numeric	Emission Factor Confidence Rating
36	1	Alphabetic	Emission Factor Origin
37	1	Alphanumeric	Emission Factor Source Code
38 - 47	10	Alphanumeric	Pollutant-Specific Data
48 - 54	7	Numeric	NEDS A7 Emission
55 - 69	15	Alphanumeric	Pollutant Name
70 - 76	7		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	Disaggregation Type
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

*A three-digit decimal position is assumed; e.g., 10.35 would be coded as '0000010350'.

(Page 7 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 1 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 16	2	Numeric	Year
17 - 19	3	Numeric	Day
20 - 22	3	Numeric	Air Basin
23 - 26	4	Numeric	SMSA
27 - 46	20	Alphanumeric	Area Name
47 - 66	20	Alphanumeric	Major Activity
67 - 70	4	Alphanumeric	Associated Plant ID
71 - 72	2	Numeric	SIP Base Year
73 - 74	2	Numeric	Projected Year
75 - 76	2	Numeric	Rural Population Percentage
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	G Code
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 8 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 2 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 22	8	Numeric	Population
23 - 76	54	Alphanumeric	AQCR Name
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	G Code
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 9 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 3 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 16	2	Numeric	Suballocation Technique Code
17 - 36	20	Alphanumeric	Suballocation Technique Description
37 - 39	3	Numeric	Defined Area Code
40 - 41	2*	Numeric	Sulfur Content - Anthracite Coal
42 - 43	2*	Numeric	Sulfur Content - Bituminous Coal
44 - 45	2*	Numeric	Sulfur Content - Distillate Oil
46 - 47	2*	Numeric	Sulfur Content - Residual Oil
48 - 50	3**	Numeric	Ash Content - Anthracite Coal
51 - 53	3**	Numeric	Ash Content - Bituminous Coal
54 - 55	2	Numeric	UTM Zone 1

*A one-digit decimal position is assumed; e.g., 1.5 would be coded as '15'.

**A one-digit decimal position is assumed; e.g., 7.3 would be coded as '073'.

(Page 10 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 3 Transaction (continued)

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
56 - 59	4*	Numeric	UTM Horizontal 1
60 - 64	5**	Numeric	UTM Vertical 1
65 - 66	2	Numeric	UTM Zone 2
67 - 70	4*	Numeric	UTM Horizontal 2
71 - 75	5**	Numeric	UTM Vertical 2
76	1		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	G Code
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

*A one-digit decimal position is assumed; e.g., 67.0 would be coded as '0670'.

**A one-digit decimal position is assumed; e.g., 4762.4 would be coded as '47624'.

(Page 11 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 4 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 16	2	Numeric	UTM Zone 3
17 - 20	4*	Numeric	UTM Horizontal 3
21 - 25	5**	Numeric	UTM Vertical 3
26 - 27	2	Numeric	UTM Zone 4
28 - 31	4*	Numeric	UTM Horizontal 4
32 - 36	5**	Numeric	UTM Vertical 4
37 - 38	2	Numeric	UTM Zone 5
39 - 42	4*	Numeric	UTM Horizontal 5
43 - 47	5**	Numeric	UTM Vertical 5
48 - 49	2	Numeric	UTM Zone 6
50 - 53	4*	Numeric	UTM Horizontal 6
54 - 58	5**	Numeric	UTM Vertical 6
59	1	Alphanumeric	Source Type
60 - 66	7***	Numeric	Length or Area

*A one-digit decimal position is assumed; e.g., 67.0 would be coded as '0670'.

**A one-digit decimal position is assumed; e.g., 4762.4 would be coded as '47624'.

***A two-digit decimal position is assumed; e.g., 193.4 would be coded as '0019340'.

(Page 12 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 4 Transaction (continued)

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
67 - 68	2	Numeric	Length or Area Units Code
69 - 76	8		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	G Code
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 13 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 5 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 19	5	Numeric	SIP Estimate for TSP
20 - 23	4	Numeric	SIP Estimate for SO ₂
24 - 27	4	Numeric	SIP Estimate for NO _x
28 - 32	5	Numeric	SIP Estimate for HC
33 - 37	5	Numeric	SIP Estimate for CO
38 - 76	39		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	G Code
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 14 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 6 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15	1	Numeric	Subcard Number
16	1	Numeric	Population Code
17 - 23	7	Numeric	Gas Fuel for Light Vehicles
24 - 29	6	Numeric	Gas Fuel for Heavy Vehicles
30 - 35	6	Numeric	Diesel Fuel for Heavy Vehicles
36 - 41	6	Numeric	Vehicle Miles for Limited Access Roads
42 - 47	6	Numeric	Vehicle Miles for Rural Roads
48 - 53	6	Numeric	Vehicle Miles for Suburban Roads
54 - 60	7	Numeric	Vehicle Miles for Urban Roads
61 - 76	16		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	G Code
79	1	Numeric	Card Type
80	1	Alphabetic	Action Code

(Page 15 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

Description 7 Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 19	5	Numeric	Pollutant ID
20 - 34	15	Alphanumeric	Pollutant Name
35	1	Alphabetic	Attainment Status
36 - 41	6	Alphanumeric	AQMA Number
42	1		Unused
43 - 69	27		Repeat Columns 15-41
70 - 76	7		Unused
77	1	Alphabetic	Suballocation Type
78	1	Alphabetic	G Code
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 16 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

NEDS Comment Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 77	68	Alphanumeric	NEDS A6 Comment
78	1	Alphabetic	N Code
79	1	Numeric	Card Type
80	1	Alphabetic	Action Code

(Page 17 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

EIS/AS Comment Transaction

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	State
3 - 6	4	Numeric	County
7 - 9	3	Numeric	AQCR
10 - 14	5	Numeric	Geographic Suballocation Number
15 - 17	3	Numeric	Category Number
18 - 19	2	Numeric	Category Disaggregation Number
20 - 22	3	Numeric	Line Number
23 - 72	50	Alphanumeric	Half Comment
73 - 77	5		Unused
78	1	Alphabetic	R Code
79	1	Numeric	Card Number
80	1	Alphabetic	Action Code

(Page 18 of 18)

Figure AST3-1 - continued. EIS/AS Master File Transaction Formats

AGENCY _____

**EMISSIONS INVENTORY SYSTEM/AREA SOURCE (EIS/AS)
COMPREHENSIVE DATA HANDLING SYSTEM (CDHS)
DESCRIPTION TRANSACTIONS 1-6**

BY _____

DATE _____

PAGE ____ OF ____

STATE	COUNTY	AQCR	SUBALLOC NBR
1	3	7	10

DATE		AIR					ASSOC	SIP						
YR	DAY	BASIN	SMSA	GEOGRAPHIC NAME		MAJOR ACTIVITY		PLANT ID	BASE	PROJ	%	C/	N	ACTION
15	17	20	23	27			67	71	73	75	77	78	79	80
													G	1

POPULATION	AQCR NAME	C/ S	N B R	A C T I O N
15	23	77	78	79
			G	2

SUB TECH	SUBALLOCATION TECHNIQUE DESCRIPTION	DEF AREA CODE	SULFUR CONTENTS				ASH CONTENTS		UTM COORDINATES						C/ S	N B R	A C T I O N	
			ANTH	BITM	DIST	RESID	ANTH	BITUM	ZONE			ZONE						
			COAL	COAL	OIL	OIL	COAL	COAL	1	HORIZ 1	VERT 1	2	HORIZ 2	VERT 2				
15	17	37	40	42	44	46	48	51	54	56	60	65	67	71	77	78	79	80
			▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		G	3	

UTM COORDINATES												SOURCE	LENGTH OF LINE, LINK, OR AREA	LLA UNITS CODE		C/ S	N B R	A C T I O N	
ZONE 3	HORIZ 3	VERT 3	ZONE 4	HORIZ 4	VERT 4	ZONE 5	HORIZ 5	VERT 5	ZONE 6	HORIZ 6	VERT 6								
15	17	21	26	28	32	37	39	43	48	50	54	59	60	67		77	78	79	80
																		G	4

SIP ESTIMATES										C/	N	A	
TSP	SO2	NOX	HC	CO						S	B	C	
15	20	24	28	33	37					77	78	79	80
											G	5	

S U B C D	P O P C D	LIGHT VEHICLE GAS	HEAVY VEHICLE GAS	HEAVY VEHICLE DIESEL	LIMITED ACCESS ROADS/MVM	RURAL ROADS MVM	SUBURBAN ROADS/MVM	URBAN ROADS MVM		C/ S	N B R	A C T I O N		
15	17		24	30	36	42	48	54	60		77	78	79	80

Figure AST3-2.

EIS/AS Master File Transaction Load Sheets

(Page 1 of 5)

AGENCY _____

BY _____
DATE _____
PAGE ____ OF _____

STATE	COUNTY	AQCR	SUBALLOC NBR
1	3	7	10 14

[illegible]

**EMISSIONS INVENTORY SYSTEM/AREA SOURCE (EIS/AS)
COMPREHENSIVE DATA HANDLING SYSTEM (CDHS)
CATEGORY TRANSACTIONS**

STATE	COUNTY	AQCR	SUBALLOC NBR	CATEG NBR	DISAG NBR
1	3	7	10	15	18

CATEGORY DESCRIPTION	YEAR	PROCESS RATE	CATEGORY ADJUSTMENT	UNIT CODE	UNITS CODE DESCRIPTION	C/S	A/D	NBR	ACTION
20	45	47	56	63	65	77	78	79	80

UNIT MONTH	MONTHLY THRUPTUP PERCENTAGE												HRS PER DAY	WKS PER YR	THRUPTUP RATIO	MAXIMUM HOURLY THRUPTUP	CONF	NITRO CONT	SULF CONT	ASH CONT	HEAT CONTENT	C/S	A/D	NBR	ACTION	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC														
20	21	23	25	27	29	31	33	35	37	39	41	43	45	47	48	50	54	64	65	68	70	73	77	78	79	80

UNIT-ZONE	HOURLY THRUPTUP PERCENTAGE																							C/S	A/D	NBR	ACTION	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22					23
20	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	77	78	79	80
																												3

NEDS A7 COMMENT		MOJICOS	SOURCE OF INFORMATION NARRATIVE		C/S	A/D	NBR	ACTION
20		54	55	74	77	78	79	80
				</				

POLLUTANT ID	EMISSION FACTOR	C O N F	O R G	S R C	POLLUTANT SPECIFIC DATA	NEQS A7 EMISSION	POLLUTANT NAME				C/ S	A/ D	N B R	A C T I O N
20	25	35	36	37	38	48	55		69		77	78	79	80
														5
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[illegible]

PROGRAM NAME: CEDMSTR (EC0040)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: CONTROL YEAR 80 FLAGW LIST

061280067000007379	SG1A	REF:	1
BE			
*** CEDMSTR 014 ERROR - SUBCOUNTY WITH ZERO SUBALLOCATION NUMBER, CARD REJECTED			
*** CEDMSTR 030 ERROR - COLUMN 17 - INVALID DAY, REPLACING SPACES			
06128006700000	SG2A	REF:	2
*** CEDMSTR 014 ERROR - SUBCOUNTY WITH ZERO SUBALLOCATION NUMBER, CARD REJECTED			
*** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED			
06128006700000	31012020402303 SG3A	REF:	3
BE BE BE BE E			
*** CEDMSTR 014 ERROR - SUBCOUNTY WITH ZERO SUBALLOCATION NUMBER, CARD REJECTED			
*** CEDMSTR 040 CONDITIONAL - COLUMN 40 - SULFUR-ANTHRACITE COAL OUT OF RANGE			
*** CEDMSTR 044 CONDITIONAL - COLUMN 44 - SULFUR-DISTILLATE OIL OUT OF RANGE			
*** CEDMSTR 048 CONDITIONAL - COLUMN 48 - ASH-ANTHRACITE COAL OUT OF RANGE			
*** CEDMSTR 050 CONDITIONAL - COLUMN 51 - ASH-BITUMINOUS COAL OUT OF RANGE			
06128006700000	SG4A	REF:	4
*** CEDMSTR 014 ERROR - SUBCOUNTY WITH ZERO SUBALLOCATION NUMBER, CARD REJECTED			
*** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED			
06128006700000111111111112222223333	SG5A	REF:	5
*** CEDMSTR 014 ERROR - SUBCOUNTY WITH ZERO SUBALLOCATION NUMBER, CARD REJECTED			
06128006700000 0023450 9500050097500005032150000987501	SG6A	REF:	6
*** CEDMSTR 014 ERROR - SUBCOUNTY WITH ZERO SUBALLOCATION NUMBER, CARD REJECTED			
061280067000001	SG2A	REF:	12
*** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED			
061280067000001	31012020402303 SG3A	REF:	13
BE BE BE BE E			
*** CEDMSTR 040 CONDITIONAL - COLUMN 40 - SULFUR-ANTHRACITE COAL OUT OF RANGE			
*** CEDMSTR 044 CONDITIONAL - COLUMN 44 - SULFUR-DISTILLATE OIL OUT OF RANGE			
*** CEDMSTR 048 CONDITIONAL - COLUMN 48 - ASH-ANTHRACITE COAL OUT OF RANGE			
*** CEDMSTR 050 CONDITIONAL - COLUMN 51 - ASH-BITUMINOUS COAL OUT OF RANGE			
061280067000001	CG4A	REF:	14
*** CEDMSTR 013 ERROR - COUNTY WITH NONZERO SUBALLOCATION NUMBER, CARD REJECTED			
*** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED			
06128006700500	SG1A	REF:	17
BE			
*** CEDMSTR 015 ERROR - COLUMN 15 - INVALID YEAR OF RECORD, CARD REJECTED			

Figure AST3-4. Sample Output

(Page 1 of 12)

EIS/AS TRANSACTION EDIT PROGRAM - DIAGNOSTIC REPORT

PAGE 5

0612800670000100155	0	SD2A	REF:	251
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0612800670000100199	0	SD2A	REF:	254
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0612800670000100199MASTER FILE TEST DATA	S	CD4A	REF:	255
*** CEDMSTR 013 ERROR - COUNTY WITH NONZERO SUBALLOCATION NUMBER, CARD REJECTED				
0612800670050000101MASTERFILE TEST DATA	S	0	REF:	257
*** CEDMSTR 013 ERROR - COUNTY WITH NONZERO SUBALLOCATION NUMBER, CARD REJECTED				
*** CEDMSTR 019 ERROR - AGGREGATE TRANSACTION WITH NONZERO DISAGGREGATE NUMBER, CARD REJECTED				
0612800670050000122	0	SD2A	REF:	258
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0612800670050000170	0	CD2A	REF:	263
*** CEDMSTR 013 ERROR - COUNTY WITH NONZERO SUBALLOCATION NUMBER, CARD REJECTED				
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0612800670061100835	0	SD2A	REF:	266
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0612800679999900199	0	SD2A	REF:	271
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0622380670000002300	0	CA2A	REF:	274
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0622380670000004700	0	CA2A	REF:	283
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
0622380670000006000	0	CA2A	REF:	291
*** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y				
NUMBER OF INPUT TRANSACTIONS: 453				
NUMBER OF VALID TRANSACTIONS: 429				
NUMBER OF REJECTED TRANSACTIONS: 24				
NUMBER OF TRANSACTIONS WRITTEN: 429				
NUMBER OF WARNING MESSAGES: 33				
NUMBER OF CONDITIONAL MESSAGES: 21				
NUMBER OF ERROR MESSAGES: 30				
NUMBER OF ABORT MESSAGES: 0				
NUMBER OF DISASTER MESSAGES: 0				

Figure AST3-4 - continued. Sample Output

(Page 2 of 12)

PROGRAM NAME: CEDMSIR (EC0040)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

Figure AST3-4 - continued. Sample Output

(Page 3 of 12)

EIS/AS INPUT TRANSACTIONS

PAGE

1

061280067000007379		SG1A
06128006700000		SG2A
06128006700000	31012020402303	SG3A
06128006700000		SG4A
0612800670000011111111112222223333		SG5A
06128006700000 0023450 9500050097500005032150000987501		SG6A
0612800670000042101CARBON MONOXIDEU 42401SULFUR DIOXIDE U		CG7A
0612800670000043101HYDROCARBONS U 11101PARTICULATES U		CG7A
0612800670000042602NITROGEN OXIDESU		CG7A
061280067AREA SOURCE TEST - SUME, BUT NOT ALL VALUES OR CATEGORIES		NOA
0612800670000179		SG1A
06128006700001		SG2A
06128006700001	31012020402303	SG3A
06128006700001		CG4A
061280067000011111122222333334444444		SG5A
06128006700001 0012345 9500050097500005032150000987501		SG6A
06128006700500		SG1A
06128006700500		CG2A
06128006700500	22021010505222	SG3A
06128006700500		SG4A
061280067005001111112222233333444444		SG5A
06128006700500		SG6A
0612800670061179		SG1A
06128006700611		SG2A
06128006700611	31012020402303	SG3A
06128006700611		SG4A
06128006700611		SG4A
06128006700611		SG5A
06128006700611		SG6A
0612800679999979		SG1A
06128006799999		SG2A
06128006799999	10102222444333	SG3A
06128006799999		SG4A
061280067999992222244444111110000033		SG5A
06128006799999 1234567		SG6A
0622380670000079		CG1A
06223806700000		CG2A
06223806700000	33221144555666	CG3A
06223806700000		CG4A
06223806700000111113333344444000002222		CG5A
06223806700000 0009876 95000500975000050321000009875012		CG6A
062238067AREA SOURCE TEST - SUME, BUT NOT ALL VALUES OR CATEGORIES		NOA
0612800670000000100RESIDENT ANTHRACITE COAL 790000040123		CA1A
0612800670000000200RESIDENT BITUMINOUS COAL 790000020010		CA1A
0612800670000000300RESIDENT DISTILLATE OIL 790000009750		CA1A
0612800670000000400RESIDENTIAL RESIDUAL OIL 790000008900		CA1A
0612800670000000500RESIDENTIAL NATURAL GAS 790000023550		CA1A
0612800670000000600RESIDENTIAL KUUD 790000000050		CA1A
0612800670000000700CUMM-INST ANTHRACITE COAL 790000023500		CA1A
0612800670000000800CUMM-INST BITUMINOUS COAL 790000034750		CA1A
0612800670000000900CUMM-INST DISTILLATE OIL 790000042100		CA1A
0612800670000001000CUMM-INST RESIDUAL OIL 79000000390		CA1A
0612800670000001100CUMM-INST NATURAL GAS 790000008750		CA1A

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Figure AST3-4 - continued. Sample Output

(Page 4 of 12)

EIS/AS INPUT TRANSACTIONS

PAGE 9

REF:	425
	426
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31001501100876866600110, 20, 30, FURTHER SUBDIVISION LATER	R2A
31001501100876866601CAT 100 DISAG 10	SD1A
31001501100876866601Y	247520013 1087611020034SD2A
31001501100876866601Y	SD3A
31001501100876866601	SD4A
310015011008768666011110100012413985LA	L LOCAL GOVERNMENT
310015011008768666011111400012411985LA	TSP
310015011008768666012230600012411985LA	WINDBLN PART
310015011008768666014210100012433985LA	NITRATES
310015011008768666014210100012433985LA	CO
310015011008768666014240100012013985LA	SU2
310015011008768666014260100012019985LAJ/112-A	NO
310015011008768666014260300012017385LAJ/1188A	NOX
310015011008768666014310200012014485LA	NUMMETH HC
310015011008768666011110300012014495LA	BENZENE ORGNICS
310015011008768666012110100023014495LA	TOTAL DUSTFALLS
310015011008768666012240300023164495LA	ISULFATES
310015011008768666014210200023177495LA	CO2
310015011008768666014240200020007495LA	HYDROGEN SULFIDE
310015011008768666014260200043007495LAS-JJJJ-55	NO2
310015011008768666014350200042007495LAS-JJJ5555	FORMALYHYDE
310015011008768666014310100042227495LAS-JJJ5555	HC
310015011008768666014310100333227495LAS-JJJ5555	HC
310015011008768666014410100000000000LAS	TOTAL OXIDANTS
310015011008768666014420100000000230LA	OXUNE
31001501100876 001AREA IS BOUNDED BY ROUTES 17,35,49, AND 1001A	R1A
31001501100876 002THREE FACTORIES, ONE AIRSTRIP, ONE QUARRY AND	R1A
31001501100876 00215 FARMS INCLUDED, REST IS URBAN	R2A
31001501100876866601001CATEGORY IS BROKEN INTO THREE SUBALLOCATIONS	R1A
3100150110087686660100110, 20, 30, FURTHER SUBDIVISION LATER	R2A

NUMBER OF INPUT TRANSACTIONS:	453
NUMBER OF VALID TRANSACTIONS:	429
NUMBER OF REJECTED TRANSACTIONS:	24

EIS/AS EDITED TRANSACTIONS (INTERNAL TRANSACTION FORMAT)

PAGE 1

REF: 7

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061280 0000000000000071CG06742101CARBON MONOXIDEU 42401SULFUR DIOXIDE U
061280 0000000000000071CG06743101HYDROCARBONS U 11101PARTICULATES U
061280 0000000000000071CG06742602NITROGEN OXIDESU
061280 0000000000200001 N067AREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES
061280 0000100000000011SG06779
061280 0000100000000031SG067 31012020402303
061280 0000100000000051SG067111112222233333444444
061280 0000100000000061SG067 0012345 9500050097500005032150000987501
061280 0050000000000031SG067 22021010505222
061280 0050000000000051SG067111112222233333444444
061280 0061100000000011SG06779
061280 0061100000000031SG067 31012020402303
061280 49999400000000011SG06779
061280 99999000000000031SG067 10102222444333
061280 9999900000000051SG067222224444111110000033
061280 9999900000000061SG067 1234567
062238 0000000000000011CG06779
062238 0000000000000031CG067 33221144555666
062238 0000000000000051CG06711111333334444400002222
062238 0000000000000061CG067 0004876 9500050097500005032100009875012
062238 0000000000200001 N067AREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES
061280 0000000100100011CA067RESIDENT ANTHRACITE COAL 79000040123
061280 0000000200100011CA067RESIDENT BITUMINOUS COAL 79000020010
061280 0000000300100011CA067RESIDENT DISTILLATE OIL 79000009750
061280 0000000400100011CA067RESIDENTIAL RESIDUAL OIL 79000008900
061280 0000000500100011CA067RESIDENTIAL NATURAL GAS 79000023550
061280 0000000600100011CA067RESIDENTIAL WOOD 79000000050
061280 0000000700100011CA067CUMM-INST ANTHRACITE COAL79000023500
061280 0000000800100011CA067CUMM-INST BITUMINOUS COAL79000034750
061280 0000000900100011CA067CUMM-INST DISTILLATE OIL 79000042100
061280 0000001000100011CA067CUMM-INST RESIDUAL OIL 79000000390
061280 0000001100100011CA067CUMM-INST NATURAL GAS 79000008750
061280 0000001200100011CA067CUMM-INST WOOD 79000000005
061280 0000001300100011CA067INDUSTRY ANTHRACITE COAL 79000098750
061280 0000001400100011CA067INDUSTRY BITUMINOUS COAL 79000123400
061280 0000001500100011CA067INDUSTRIAL LUKE 79000009850
061280 0000001600100011CA067INDUSTRIAL DISTILLATE OIL79000021500
061280 0000001700100011CA067INDUSTRIAL RESIDUAL OIL 79000000980
061280 0000001800100011CA067INDUSTRIAL NATURAL GAS 79000056400
061280 0000001900100011CA067INDUSTRIAL WOOD 79000000025
061280 0000002000100011CA067INDUSTRIAL PROCESS GAS 79000002350
061280 0000000100100021CA067Y080809080809080809080809
061280 0000000200100021CA067Y080809080809080809080809
061280 0000000300100021CA067Y080809080809080809080809
061280 0000000400100021CA067Y080809080809080809080809
061280 0000000500100021CA067Y080809080809080809080809
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061280 0000000700100021CA067Y080809080809080809080809
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061280 0000000900100021CA067Y080809080809080809080809
061280 0000001000100021CA067Y080809080809080809080809
061280 0000001100100021CA067Y080809080809080809080809
061280 0000001200100021CA067Y080809080809080809080809
061280 0000001300100021CA067Y080809080809080809080809
061280 0000001400100021CA067Y080809080809080809080809
061280 0000001500100021CA067Y080809080809080809080809
061280 0000001600100021CA067Y080809080809080809080809
061280 0000001700100021CA067Y080809080809080809080809
061280 0000001800100021CA067Y080809080809080809080809
061280 0000001900100021CA067Y080809080809080809080809
061280 0000002000100021CA067Y080809080809080809080809

```

Figure AST3-4 - continued. Sample Output

(Page 6 of 12)

EIS/AS EDITED TRANSACTIONS (INTERNAL TRANSACTION FORMAT)

PAGE 9

310015 0087600000200111 R0111 AREA IS BOUNDED BY ROUTES 17,35,49, AND 1001A
 310015 0087600000200211 R0111 THREE FACTORIES, ONE AIRSTRIP, ONE QUARRY AND
 310015 0087600000200221 R01115 FARMS INCLUDED, REST IS URBAN
 310015 0087686601200111 R0111 CATEGORY IS BROKEN INTO THREE SUBALLOCATIONS
 310015 0087686601200121 R01110, 20, 30, FURTHER SUBDIVISION LATER

REF: 449
 450
 451
 452
 453

NUMBER OF TRANSACTIONS WRITTEN: 429

EIS/AS MASTER FILE INTERNAL TRANSACTION SORT PROGRAM - DIAGNOSTIC REPORT

PAGE

PROGRAM NAME: CSRINTR (EC0050)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS READ: 429
 NUMBER OF TRANSACTIONS WRITTEN: 430

Figure AST3-4 - continued. Sample Output

(Page 7 of 12)

EMISSION FACTOR INSERTION PROGRAM

PAGE

PROGRAM NAME: CMSEFIN (ECON60)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: FLAGW

FIELDS SELECTED FOR INSERTIONS: NIT SUL ASH EMISSION CONF SPEC CDAT 77001 PDAT 77001

FIELDS TO BE OVERRIDDEN: NONE

FLAGW NIT I SUL I ASH I EMISSION I CONF I SPEC I CDAT 77001 PDAT 77001

*** CMSEFIN 022 ERROR - NO VALID OVERRIDES SPECIFIED - NO OVERRIDES ASSUMED

NITROGEN I N SULFUR I N ASH I N EMISSION FACTOR I N CONF LEVEL I N SPEC DATA I N DATE: CATEGORY 77001 POLLUTANT 77001

*** CMSEFIN 009 CONDITIONAL - EMISSION FACTOR FILE CONTAINS FEDERAL CATEGORY RECORDS FOR CATEGORIES OTHER THAN 1-64

061280 0000000100100021CA067Y080809080809080809080809 0
 *** CMSEFIN 011 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 2 TRANS
 061280 0000000100100051CA06711101 05 PARTICULATES
 *** CMSEFIN 017 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 5 TRANS

Figure AST3-4 - continued. Sample Output

(Page 8 of 12)

NITROGEN I N SULFUR I N ASH I N EMISSION FACTOR I N CONF LEVEL I N SPEC DATA I N DATE: CATEGORY 77001 POLLUTANT 77001

310015 0087686666100051SD0114310100333227495LAS-JJJ5555 HC
 *** CMSEFIN 017 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 5 TRANS

310015 0087686666100051SD0114310200012014485LA NUNMETH HC
 *** CMSEFIN 017 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 5 TRANS

310015 0087686666100051SD0114350200042007495LAS-JJJ5555 FORMALYHYDE
 *** CMSEFIN 017 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 5 TRANS

310015 0087686666100051SD0114410100000000000LAS TOTAL OXIDANTS
 *** CMSEFIN 017 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 5 TRANS

310015 0087686666100051SD01144201000000000230LA OXONE
 *** CMSEFIN 017 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 5 TRANS

PROGRAM NAME: CMSEFIN (EC0060)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS: 430
 NUMBER OF EMISSION FACTOR RECORDS READ: 682
 NUMBER OF STATE AND LOCAL INSERTIONS MADE: 150
 NUMBER OF FEDERAL INSERTIONS MADE: 17
 NUMBER OF OUTPUT TRANSACTIONS: 430

PROGRAM NAME: CFMMSTR (EC0070)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

CONTROL DATE IS 80 , ERROR OPTION IS FLAG* , LIST OPTION IS NOLIST

310015	0013500000000071SG01122306NITRATES	U000123 22403SULFATES	A000123
	*** CFMMSTR 016 ERROR - ATTEMPT TO ADD MORE THAN MAX NUMBER OF DESCRIPTION POLLUTANTS		
	*** CFMMSTR 016 ERROR - ATTEMPT TO ADD MORE THAN MAX NUMBER OF DESCRIPTION POLLUTANTS		
310015	0013510010100051SD01144101000000000ULAS	TOTAL OXIDANTS	
	*** CFMMSTR 013 ERROR - ATTEMPT TO ADD MORE THAN MAXIMUM NUMBER OF CATEGORY POLLUTANTS		
310015	0013510010100051SD0114420100000000230LA	OXUNE	
	*** CFMMSTR 013 ERROR - ATTEMPT TO ADD MORE THAN MAXIMUM NUMBER OF CATEGORY POLLUTANTS		
310015	001351001010000000011SDCAT 100 DISAG 10	790012359120001312	Y080809080809080809080809247520013
	*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID		
310015	001351001010000000011SDCAT 100 DISAG 10	790012359120001312	Y080809080809080809080809247520013
	*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID		
310015	001351001010000000011SDCAT 100 DISAG 10	790012359120001312	Y080809080809080809080809247520013
	*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID		
310015	001351001010000000011SDCAT 100 DISAG 10	790012359120001312	Y080809080809080809080809247520013
	*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID		
310015	001351001010000000011SDCAT 100 DISAG 10	790012359120001312	Y080809080809080809080809247520013
	*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID		

EIS/AS MASTER FILE MAINTENANCE PROGRAM - DIAGNOSTIC MESSAGES

PAGE 2

```
310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 001351001010000000011SDCAT 100 DISAG 10 790012359120001312 Y0R0R090R0R090R0R090R0R09247520013
*** CFMMSTR 023 ERROR - OVERFLOW FOR EMISSIONS ESTIMATE - RESULT INVALID

310015 0036700000000071SG0111114WINDRLN PART 0000123 21101TOTAL DUSTFALL A000123
*** CFMMSTR 016 ERROR - ATTEMPT TO ADD MORE THAN MAX NUMBER OF DESCRIPTION POLLUTANTS
*** CFMMSTR 016 ERROR - ATTEMPT TO ADD MORE THAN MAX NUMBER OF DESCRIPTION POLLUTANTS

310015 0036723401100051SD0114410100000000000LAS TOTAL OXIDANTS
*** CFMMSTR 013 ERROR - ATTEMPT TO ADD MORE THAN MAXIMUM NUMBER OF CATEGORY POLLUTANTS

310015 0036723401100051SD0114420100000000230LA OXONE
```

EIS/AS MASTER FILE MAINTENANCE PROGRAM - DIAGNOSTIC MESSAGES

PAGE 8

NUMBER OF INPUT TRANSACTIONS READ:	430
NUMBER OF DISASTERS DETECTED:	0
NUMBER OF ABORTS DETECTED:	0
NUMBER OF ERRORS DETECTED:	78
NUMBER OF CONDITIONALS DETECTED:	0
NUMBER OF WARNINGS DETECTED:	0
NUMBER OF TRANSACTIONS REJECTED:	11
NUMBER OF AREA SOURCE FILE RECORDS READ IN:	349
NUMBER OF AREA SOURCE FILE RECORDS WRITTEN OUT:	417

Figure AST3-4 - continued. Sample Output

(Page 12 of 12)

EIS/AS Test 4

Produce a Formatted Dump of the Master File

In this test run, a formatted dump of the EIS/AS master file output from Test 3 is printed using the cataloged procedure ECRPM30 which executes CRPDUMP (EC0140), the master file formatted dump program.

CRPDUMP (EC0140) produces a formatted dump of the EIS/AS master file; i.e., a listing with identifying headings of all the fields in each master file record, as the record appears in the file. This formatted dump is useful for verifying information contained in a master file and isolating invalid data.

The options in this program are used to specify the number of lines per printed page and the portion of the master file to be dumped. The maximum number of lines per printed page can be specified by the user in card columns 1 and 2 of the option card. This option can reduce the amount of paper used by those who have standard 11 x 14 inch output forms and the ability to print eight lines per inch. The maximum number of lines to be printed per page should be a number between 20 and 80. There are two other user-specified options: the number of records to be skipped before printing the first record to be dumped and the total number of records to be dumped. These two options make it possible for users to inspect specific portions of the master file without having to list the entire file. Columns 3 through 8 are used for coding the number of records to be skipped, and columns 9 through 14 are used for the total number of records to be dumped. If the number of records to be skipped is specified, but the number of records to be dumped is not, all records will be dumped except those that are specified to be skipped. One or more options as well as the entire option card can be omitted. The default options are 55 lines per page, no records skipped, and the entire file dumped.

The run stream for this test run contains the JCL needed for dumping the contents of the master file. This run stream is shown in Figure AST4-1.

The cataloged procedure executed by this run stream is ECRPM30. A substitutable parameter specifies the input master file as ECMSTR2 (created in Test 3). The user must supply the DD (data definition) information for the option card file. The option card is not present in this run stream; therefore, the default options are in effect. Refer to Figure AST4-2 for the sample output produced by this run stream.

```
//ASTEST04 JOB    (ACCOUNTING INFO)
//*
//*   PRODUCE A FORMATTED DUMP OF THE FIS/AS MASTER FILE
//*
//TEST104A FXFC ECRPM30,
//      MSTRFIL=ECMSTR2
//*
//*   GENERATE A DUMP OF THE MASTER FILE CREATED IN TEST 3
//*
```

Figure AST4-1. Run Stream

PROGRAM NAME: CRPDUMP (EC0140)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: 55 LINES PER PAGE; 0 RECORDS SKIPPED; ALL RECORDS TO BE DUMPED

*** CRPDUMP 003 CONDITIONAL - NO VALID LINE SPECIFICATION - DEFAULT OF 55 ASSUMED
*** CRPDUMP 004 CONDITIONAL - NO VALID VALUE SPECIFIED FOR NUMBER OF RECORDS TO BE SKIPPED - DUMP STARTS AT FIRST RECORD
*** CRPDUMP 005 CONDITIONAL - NO VALID VALUE SPECIFIED FOR NUMBER OF RECORDS TO BE DUMPED - ENTIRE FILE DUMPED

NUMBER OF DESCRIPTION RECORDS DUMPED:	18
NUMBER OF CATEGORY RECORDS DUMPED:	379
NUMBER OF COMMENT RECORDS DUMPED:	20
TOTAL NUMBER OF RECORDS READ:	417

Figure AST4-2. Sample Output

(Page 1 of 2)


```

STATE=06 COUNTY=1280 GENG/SURALLC/N=00000 CATEGORY/#=000 DISAGGR/#=00 RECD/TYPE/(KEY)=0 LINE/#=000 BATCH=
AQCR=067 KC/TYPE=CG YR= UY= AIP/RSJN= SMSA= AREA= MJ/ACT= PLT/ID= BSE/YR= PKID/YR=
PURL/POP/2= POPUL= AQCR/NM= SURAL/TECHNO/CD= SUBAL/TECHNO/DESC= DEFND/APEA/CD=
SULFUR/CONTENTS: (ANTHRACITE/COAL= ,BITUMNS/COAL= ,DISTILLT/OIL= ,HFSTD/UTL= ) ASH/CONTENTS: (ANTHRACITE/COAL= ,BITUMNS/COAL= )
#/UTM/COUNKDS=0 1ST: (ZONE= ,HORIZ= ,VERT= ) 2ND: (ZONE= ,HORIZ= ,VERT= ) 3RD: (ZONE= ,HORIZ= ,VERT= )
4TH: (ZONE= ,HORIZ= ,VERT= ) 5TH: (ZONE= ,HORIZ= ,VERT= ) 6TH: (ZONE= ,HORIZ= ,VERT= )
SOURCE/TYPE= LENGTH/AREA= LENGTH/AREA/UNITS/COEF= STP/ESTIMATES: (TSP= , SO2= , NOX= , HC= , CO= )
POP/CODE= VEH: (GAS/LGT= GAS/HEV= DTESL/HFV= ) MVMILES/RDS: (LIM/ACCS= RDR= STH= IRR= )
NEDS/A1/FLG= A EIS/FLGS: (CARD/1= ,CARD/2= ,CARD/3= ,CARD/4= ,CARD/5= ,CARD/6= ) #/PULL=05
** POLL/ID POLL/NAME ATTNMNT/STATUS AQMA/# EIS/FLG/CRD/7 ** POLL/ID POLL/NAME ATTNMNT/STATUS AQMA/# EIS/FLG/CRD/7 **
** 42602 U A ** 43101 HYDROCARBONS U A **
** 11101 PARTICULATES U A ** 42101 CARBON MONOXIDE U A **
** 42401 SULFUR DIOXIDE U A **

```

```

STATE=06 COUNTY=1280 GENG/SURALLC/N=00000 CATEGORY/#=000 DISAGGR/#=00 RECD/TYPE/(KEY)=2 LINE/#=000 BATCH=
AQCR=067 REC/TYPE= N COMMENT=AREA SOURCE TEST - SOME, BUT NOT ALL VALUES UP CATEGORIFS
NEDS/A6/FLG=A EIS/FLG/1= EIS/FLG/2=

```

```

STATE=06 COUNTY=1280 GENG/SURALLC/N=00000 CATEGORY/#=001 DISAGGR/#=00 RECD/TYPE/(KEY)=1 LINE/#=000 BATCH=
AQCR=067 REC/TYPE=CA CATEGORY/DESC=RESIDENT ANTHRACITE COAL YR/OF/INF=74 PRCS/RATE=000040123 CATEGORY/ADJ= UNITS/CD=
UNITS/CD/DESC= UNIFORM/THRUPT=Y MONTHLY/THRUPT/2: (JAN=08,FEB=08,MAR=09,APR=08,MAY=08,JUN=09,JUL=08,AUG=08,SEP=09,OCT=08
NOV=08,DEC=09) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HRLY/THRUPT= DATA/CONFIDENCE/RATING=0
NITRG/2= SULF/2= ASH/2= HEAT/CONT= UNIFORM/HRLY/THRUPT= HRLY/THRUPT/2: (00= , , ,03= , , ,06= , , ,09=
, , ,12= , , ,15= , , ,18= , , ,21= , , ) NEDS/A7/CUMM=MASTER FILE TEST DATA INFO/SOURCE/CODE=S
INFO/SRCE/NARR= EIS/FLG/1=A EIS/FLG/2=A EIS/FLG/3= EIS/FLG/4=A NEDS/FLG=A NEDS/A7/FLG=A #/PULL=07
POLL/ID EMIS/FACTR EF/CNF/RING EF/SRC/CD EF/ORIG POLL/SPC/DATA NEDS/A7/EMIS POLL/NAME EIS/FLG/5 EMIS/EST CNF/RING MX/HRLY/EMS
11101 0 S PARTICULATES A 0000000 0
42101 0 S CARBON MONOXIDE A 0000000 0
42401 0 S SULFUR DIOXIDE A 0000000 0
42602 0 S NITROGEN OXIDES A 0000000 0
43101 0 S HYDROCARBONS A 0000000 0
42269 0 L TOTAL SULFUR A 0000000 0
43201 0 L METHANE A 0000000 0

```

```

STATE=06 COUNTY=1280 GENG/SURALLC/N=00000 CATEGORY/#=002 DISAGGR/#=00 RECD/TYPE/(KEY)=1 LINE/#=000 BATCH=
AQCR=067 REC/TYPE=CA CATEGORY/DESC=RESIDENT BITUMINOUS COAL YR/OF/INF=74 PRCS/RATE=000020010 CATEGORY/ADJ= UNITS/CD=
UNITS/CD/DESC= UNIFORM/THRUPT=Y MONTHLY/THRUPT/2: (JAN=08,FEB=08,MAR=09,APR=08,MAY=08,JUN=09,JUL=08,AUG=08,SEP=09,OCT=08
NOV=08,DEC=09) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HRLY/THRUPT= DATA/CONFIDENCE/RATING=0
NITRG/2= 100 SULF/2= ASH/2=040 HEAT/CONT= UNIFORM/HRLY/THRUPT= HRLY/THRUPT/2: (00= , , ,03= , , ,06= , , ,09=
, , ,12= , , ,15= , , ,18= , , ,21= , , ) NEDS/A7/CUMM=MASTER FILE TEST DATA INFO/SOURCE/CODE=S
INFO/SRCE/NARR= EIS/FLG/1=A EIS/FLG/2=A EIS/FLG/3= EIS/FLG/4=A NEDS/FLG=A NEDS/A7/FLG=A #/PULL=06
POLL/ID EMIS/FACTR EF/CNF/RING EF/SRC/CD EF/ORIG POLL/SPC/DATA NEDS/A7/EMIS POLL/NAME EIS/FLG/5 EMIS/EST CNF/RING MX/HRLY/EMS
11101 0000002000 0 S PARTICULATES A 0000080 0
42101 0000000575 0 S CARBON MONOXIDE A 0000006 0
42401 0000006200 0 S SULFUR DIOXIDE A 0000000 0
42602 0000018600 0 S NITROGEN OXIDES A 0000019 0
43101 0000133000 0 S HYDROCARBONS A 0001331 0
43201 0000066500 0 L METHANE A 0000665 0

```

EIS/AS Test 5

Update the Master File Using EIS/AS Transactions

In this test run, the master file output from Test 3 is updated with EIS/AS transactions using three cataloged procedures. The first procedure is ECEDT10 which executes CEDMSTR (EC0040), the master file transaction edit program. The second procedure is ECMST10 which executes CSRINTR (EC0050), the master file internal transaction sort program; and CMSEFIN (EC0060), the master file internal transaction emission factor insertion program. The third procedure is ECFMM10 which executes CSRINTR (EC0050) and CFMMSTR (EC0070), the master file maintenance program.

This test is similar to Test 3 in that both tests execute the same programs. However, unlike Test 3 which used one cataloged procedure to execute all the programs, this test run uses three procedures. By using separate procedures, the user can edit several different sets of input transactions and then perform a single emission factor insertion and file maintenance on all the edited transactions. This will result in operating cost savings. Refer to Test 3 for a description of CEDMSTR (EC0040) and to Test 2 for a description of CSRINTR (EC0050), CMSEFIN (EC0060) and CFMMSTR (EC0070).

The run stream for this test run contains the JCL needed to update an EIS/AS master file. This run stream is shown in Figure AST5-1. The sample output produced by this run stream is shown in Figure AST5-2.

First, the run stream executes the cataloged procedure ECEDT10. Through the use of substitutable parameters, the output internal transaction file is named ECINTR1. For the EDIT step, the user must supply the DD (data definition) information for the option card file and the input EIS/AS master file transaction file. The options specified in this step are 80 and FLAGW.

Next, the cataloged procedure ECMST10 is executed. Substitutable parameters are used to specify the input emission factor file as ECEMFL1 (created in Test 1), the input internal transaction file as ECINTR1 (created in the previous step), and the output internal transaction file as ECINTR2.

The user must supply the DD information for the option card file in the INSERT step. The options specified for this step are: FLAGW, NIT I, SUL I, ASH I, EMISSION I, CONF I, SPEC I, CDAT 75000, and PDAT 75000.

The last procedure to be executed is ECFMM10. By using substitutable parameters, the input master file is ECMSTR2 (created in Test 3), the input internal transaction file is ECINTR2 (created in the previous step), and the output master file is named ECMSTR3. The DD information for the option card file in the UDPATE step must be specified by the user. In this step the options are 80, FLAGW, and LIST.

```

//ASTEST05 JOB      (ACCOUNTING INFO)
//**
//**  UPDATE THE EIS/AS MASTER FILE USING EIS/AS TRANSACTIONS
//**
//TEST05A EXEC ECEDT10,
//      INTRN=ECINTR1
//**
//**  EDIT THE EIS/AS TRANSACTIONS
//**
//EDIT.INPUT DD *
0612800670061100835                                SD1D
14804007400000                                CG1D
4213801980000000500                                CA1D
147840074000000100N05050585                        125500023      444444023412010034CA2C
147840074000000100001THIS IS COMMENT 1                        K1A
147840074000000100N05050585                        125500023      444444023412010034CA2A
3100150110013510010                                CR1D
061280067                                           N0D

14784007400000000040134213SMITH COUNTY                INDUSTRY                1120788223CG1C
1478400740000001123451234567888512051234578965412235563226123455554      CG1C
14784007400000011011SP-1                            1000123 42101CG1      A00023      CG7C
147840074000000100N05050585                        125500023      444444023412010034CA2A
147840074000000100N2020202020                                CA3C
147860074000000800040134213GEORGE COUNTY                INDUSTRY                1120788223CG1C
147860074000000125013700120345900119                                CG5C
147860074000000 000123400014500201000419000580100001480001578      CG6C
14786007400000011011SP-1                            1000123 42101CG1      A00023      CG7A
147860074000000300002THIS IS COMMENT 1                        K1A
3100150110013510010                                125      23      SD1C
310015011001351001011101      26100      1234                                SD5C
3100150110036723401                                1597      10      SD1C
310015011003672340121101      351111      XXJ-12                                SD5C
310015011003672340143101      1351001      XXJ-12      100                                SD5C
3100150110087686601                                5      100      SD1C
3100150110087686666                                2000      312      SD1C
310015011008768666611101      26100      1234                                SD5C
310015011008768666643101      1351001      XXJ-12      100                                SD5C
42068019800000000040134213GEORGE COUNTY                INDUSTRY                1120788223CG1C
4206801980000000020124000 IS 19ACOUNTY                INDUSTRY                1120788223CG2C
42068019800000015CAASE                                1230102030812514504      CG3A
42068019800000015CAASF                                1230102030812514504      CG3C
42068019800000011114WINDBLN PART      U000451 22403SULFATES      A000241      CG7A
420680198000000100N05050585                        125500023      455554023412010034CA2C
420680198000000100N05050585                        125500023      444444023412010034CA2C
420680198000000100N2020202020                                CA3C
0612800670000073079                                CG1A
//EDIT.OPTIONS DD *
RO FLAG
//TEST05B EXEC ECMST10,
//      FMFCFIL=ECFMFL1,
//      OLDINTR=ECINTR1,
//      NEWINTR=ECINTR2
//**
//**  INSERT EMISSION FACTORS IN THE INTERNAL TRANSACTIONS
//**  CREATED IN STEP A
//**
//INSERT.OPTIONS DD *
FLAGW  NIT I  SUL I  ASH I  EMISSION I  CONF I  SPEC I  CDAT 75000 PDAT 75000
//TEST05C EXEC ECFMM10,
//      OLDMSTR=ECMSTR2,

```

(Page 1 of 2)

Figure AST5-1. Run Stream

```
//      NEWMSIR=ECMSTR3,  
//      INTRTN=FCINTR2  
//  
//*    UPDATE THE MASTER FILE CREATED IN TEST 3 WITH THE  
//*    INTERNAL TRANSACTIONS CREATED IN STEP 8 OF THIS  
//*    TEST  
//  
//UPDATE_OPTIONS DD *  
NO FLAGW LIST
```

(Page 2 of 2)

Figure AST5-1 - continued. Run Stream

PROGRAM NAME: CEDMSTR (EC0040)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: CONTROL YEAR 80 FLAGW NOLIST
 (DEFAULT)

*** CEDMSTR 004 CONDITIONAL - BLANK OR INVALID LIST OPTION, ASSUMING NOLIST

1478400074000000100N05050585 125500023 444444023412010034CA2C REF: 4
 *** CEDMSTR 013 ERROR - COUNTY WITH NONZERO SUBALLOCATION NUMBER, CARD REJECTED

147840074000000100001THIS IS COMMENT 1 R1A REF: 5
 B E

*** CEDMSTR 021 ERROR - COLUMN 20 - LINE NUMBER INVALID, CARD REJECTED

1478400074000000100N05050585 125500023 444444023412010034CA2A REF: 6
 *** CEDMSTR 013 ERROR - COUNTY WITH NONZERO SUBALLOCATION NUMBER, CARD REJECTED

BEB EB E HBB
 *** CEDMSTR 005 ERROR - COLUMN 80 - INVALID ACTION CODE, CARD REJECTED
 *** CEDMSTR 009 ERROR - COLUMN 01 - INVALID STATE CODE, CARD REJECTED
 *** CEDMSTR 010 ERROR - COLUMN 03 - INVALID COUNTY CODE, CARD REJECTED
 *** CEDMSTR 011 ERROR - COLUMN 07 - INVALID AQCR, CARD REJECTED
 *** CEDMSTR 006 ERROR - COLUMN 78 - INVALID, CARD REJECTED
 *** CEDMSTR 008 ERROR - COLUMN 79 - INVALID CARD NUMBER, CARD REJECTED

14784007400000011234512345678885120512345789654122235563226123455554 CG4C REF: 11

BE B EBE B EBE B EBE B EB
 *** CEDMSTR 064 CONDITIONAL - COLUMN 15 - UTM ZONE 3 OUT OF RANGE
 *** CEDMSTR 066 CONDITIONAL - COLUMN 21 - UTM VERTICAL 3 OUT OF RANGE
 *** CEDMSTR 070 CONDITIONAL - COLUMN 26 - UTM ZONE 4 OUT OF RANGE
 *** CEDMSTR 074 CONDITIONAL - COLUMN 32 - UTM VERTICAL 4 OUT OF RANGE
 *** CEDMSTR 076 CONDITIONAL - COLUMN 37 - UTM ZONE 5 OUT OF RANGE
 *** CEDMSTR 080 CONDITIONAL - COLUMN 43 - UTM VERTICAL 5 OUT OF RANGE
 *** CEDMSTR 082 CONDITIONAL - COLUMN 48 - UTM ZONE 6 OUT OF RANGE
 *** CEDMSTR 086 CONDITIONAL - COLUMN 54 - UTM VERTICAL 6 OUT OF RANGE
 *** CEDMSTR 087 ERROR - COLUMN 59 - SOURCE TYPE INVALID, REPLACING SPACE

4206801980000015CAASE 1230102030812514504 CG3A REF: 31

BE
 *** CEDMSTR 052 CONDITIONAL - COLUMN 54 - UTM ZONE 1 OUT OF RANGE

4206801980000015CAASE 1230102030812514504 CG3C REF: 32

BE
 *** CEDMSTR 052 CONDITIONAL - COLUMN 54 - UTM ZONE 1 OUT OF RANGE

EIS/AS TRANSACTION EDIT PROGRAM - DIAGNOSTIC REPORT

PAGE

NUMBER OF INPUT TRANSACTIONS: 37
 NUMBER OF VALID TRANSACTIONS: 33
 NUMBER OF REJECTED TRANSACTIONS: 4
 NUMBER OF TRANSACTIONS WRITTEN: 53
 NUMBER OF WARNING MESSAGES: 0
 NUMBER OF CONDITIONAL MESSAGES: 11
 NUMBER OF ERROR MESSAGES: 10
 NUMBER OF ABORT MESSAGES: 0
 NUMBER OF DISASTER MESSAGES: 0

PROGRAM NAME: CEDMSTR (EC0040)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

EIS/AS MASTER FILE INTERNAL TRANSACTION SORT PROGRAM - DIAGNOSTIC REPORT

PAGE 1

PROGRAM NAME: CSHINTR (EC0050)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS READ: 33
 NUMBER OF TRANSACTIONS WRITTEN: 34

Figure AST5-2 - continued. Sample Output

(Page 2 of 8)

EMISSION FACTOR INSERTION PROGRAM

PAGE 1

PROGRAM NAME: CMSEFIN (EC0000)
 REVISION LEVFL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: FLAGW

FIELDS SELECTED FOR INSERTIONS: NIT SUL ASH EMISSION CONF SPEC CDAT 75000 PDAT 75000

FIELDS TO BE OVERRIDDEN: NONE

FLAGW NIT I SUL I ASH I EMISSION I CONF I SPEC I CDAT 75000 PDAT 75000

*** CMSEFIN 022 ERROR - NO VALID OVERRIDES SPECIFIED - NO OVERRIDES ASSUMED

NITROGEN I N SULFUR I N ASH I N EMISSION FACTOR I N CONF LEVEL I N SPEC DATA I N DATE: CATEGORY 75000 POLLUTANT 75000

*** CMSEFIN 009 CONDITIONAL - EMISSION FACTOR FILE CONTAINS FEDERAL CATEGORY RECORDS FOR CATEGORIES OTHER THAN 1-64

147840 0000000100100021CA074N05050585000000000000000012550002300000444444023412010034
 *** CMSEFIN 011 WARNING - NO MATCHING STATE OR LOCAL EMISSION FACTOR RECORD FOR CATEGORY 2 TRANS
 310015 0013510010100052SD011111010000026100 1234
 *** CMSEFIN 018 ERROR - UNFLAGGED INPUT CATEGORY-5 TRANSACTION

Figure AST5-2 - continued. Sample Output

(Page 3 of 8)

EMISSION FACTOR INSERTION PROGRAM

PAGE

NITROGEN I N SULFUR I N ASH I N EMISSION FACTOR I N CONF LEVEL I N SPEC DATA I N DATE: CATEGORY 75000 POLLUTANT 75000

NUMBER OF INPUT TRANSACTIONS: 34
 NUMBER OF EMISSION FACTOR RECORDS READ: 682
 NUMBER OF STATE AND LOCAL INSERTIONS MADE: 0
 NUMBER OF FEDERAL INSERTIONS MADE: 3
 NUMBER OF OUTPUT TRANSACTIONS: 34

ETS/AS MASTER FILE INTERNAL TRANSACTION SORT PROGRAM - DIAGNOSTIC REPORT

PAGE 1

PROGRAM NAME: CSRINT (EC0050)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS READ: 34
 NUMBER OF TRANSACTIONS WRITTEN: 35

PROGRAM NAME: CFMMSTR (EC0070)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

CONTROL DATE IS 80 , ERROR OPTION IS FLAGW , LIST OPTION IS LIST

147840 0000000100100021CA074N0505058500000000000000001255000230000044444023412010034
 *** CFMMSTR 006 ERROR - ADD TRANSACTION, RECORD ALREADY ON MASTER FILE, CARD REJECTED

147860 00000000000000071CG074111011SP-1 0000123 42101C01 400023
 *** CFMMSTR 015 ERROR - DESCRIPTION POLLUTANT ID ALREADY ON FILE, POLLUTANT REJECTED
 *** CFMMSTR 015 ERROR - DESCRIPTION POLLUTANT ID ALREADY ON FILE, POLLUTANT REJECTED

310015 0013510010200010 R011
 *** CFMMSTR 007 ERROR - TRANSACTION NOT ADD, BUT NO MASTER ON FILE, CARD REJECTED

420680 0000000000000031CG19815CAASE 1230102030812514504
 *** CFMMSTR 006 ERROR - ADD TRANSACTION, RECORD ALREADY ON MASTER FILE, CARD REJECTED

420680 0000000100100022CA198105050585 1255000230000044444023412010034
 *** CFMMSTR 007 ERROR - TRANSACTION NOT ADD, BUT NO MASTER ON FILE, CARD REJECTED

420680 0000000100100022CA198105050585 12550002300000455554023412010034
 *** CFMMSTR 007 ERROR - TRANSACTION NOT ADD, BUT NO MASTER ON FILE, CARD REJECTED

420680 0000000100100032CA1981020202020 12550002300000455554023412010034
 *** CFMMSTR 007 ERROR - TRANSACTION NOT ADD, BUT NO MASTER ON FILE, CARD REJECTED

NUMBER OF INPUT TRANSACTIONS READ:	34
NUMBER OF DISASTERS DETECTED:	0
NUMBER OF ABORTS DETECTED:	0
NUMBER OF ERRORS DETECTED:	8
NUMBER OF CONDITIONALS DETECTED:	0
NUMBER OF WARNINGS DETECTED:	0
NUMBER OF TRANSACTIONS REJECTED:	7
NUMBER OF AREA SOURCE FILE RECORDS READ IN:	417
NUMBER OF AREA SOURCE FILE RECORDS WRITTEN OUT:	420

Figure AST5-2 - continued. Sample Output

061280 00000000000000565067CG
061280 000000000020000136067 NAREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES
061280 000000010010000734067CARESIDENT ANTHRACITE COAL 79000040123 Y080809080809080809080809
061280 000000020010000669067CARESIDENT BITUMINOUS COAL 79000020010 Y080809080809080809080809
061280 000000030010000734067CARESIDENT DISTILLATE OIL 79000009750 Y080809080809080809080809
061280 000000040010000669067CARESIDENT RESIDUAL OIL 79000008900 Y080809080809080809080809
061280 000000050010000669067CARESIDENT NATURAL GAS 79000023550 Y080809080809080809080809
061280 000000060010000734067CARESIDENT WOOD 79000000050 Y080809080809080809080809
061280 000000070010000669067CACUMM-INST ANTHRACITE COAL 79000023500 Y080809080809080809080809
061280 000000080010000669067CACUMM-INST BITUMINOUS COAL 79000034750 Y080809080809080809080809
061280 000000090010000734067CACUMM-INST DISTILLATE OIL 79000042100 Y080809080809080809080809
061280 000000100010000669067CACUMM-INST RESIDUAL OIL 79000000390 Y080809080809080809080809
061280 000000110010000669067CACUMM-INST NATURAL GAS 79000006750 Y080809080809080809080809
061280 000000120010000734067CACUMM-INST WOOD 79000000005 Y080809080809080809080809
061280 000000130010000669067CAINDUSTRY ANTHRACITE COAL 79000098750 Y080809080809080809080809
061280 000000140010000669067CAINDUSTRY BITUMINOUS COAL 79000123400 Y080809080809080809080809
061280 000000150010000734067CAINDUSTRY COKE 790000009850 Y080809080809080809080809
061280 000000160010000669067CAINDUSTRY DISTILLATE OIL 79000021500 Y080809080809080809080809
061280 000000170010000669067CAINDUSTRY RESIDUAL OIL 79000000980 Y080809080809080809080809
061280 000000180010000734067CAINDUSTRY NATURAL GAS 79000056900 Y080809080809080809080809
061280 000000190010000669067CAINDUSTRY WOOD 79000000025 Y080809080809080809080809
061280 000000200010000669067CAINDUSTRY PROCESS GAS 79000002350 Y080809080809080809080809
061280 000009990010000799 CA
061280 000010000000000453067SG79
061280 000010010010000474067SARESIDENT ANTHRACITE COAL 79000059850 Y080809080809080809080809
061280 000010010110000474067SDRESIDENT ANTHRACITE COAL 79000059850 Y080809080809080809080809
061280 000010013510000344067SDRESIDENT ANTHRACITE COAL 79000059850 Y080809080809080809080809
061280 000010019910000344067SDRESIDENT ANTHRACITE COAL 79000059850 Y080809080809080809080809
061280 000019990010000474 CA
061280 005000000000000453067SG
061280 005000010110000344067SDRESIDENT ANTHRACITE COAL 79000059850
061280 005000012210000344067SDRESIDENT ANTHRACITE COAL 79000059850 Y080809080809080809080809
061280 005000017010000344067SDRESIDENT ANTHRACITE COAL 79000059850
061280 005009990010000279 CA
061280 006110000000000453067SG79
061280 006110083510000409067SDCOMM-INST BITUMINOUS COAL 79000034750 Y080809080809080809080809
061280 006119990010000279 CA
061280 999990000000000453067SG79
061280 999990014910000344067SDRESIDENT ANTHRACITE COAL 79000059850 Y080809080809080809080809
061280 999999990010000279 CA
062238 000000000000000453067CG79
062238 000000000020000136067 NAREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES
062238 000000230010000669067CACUMM-INST ON-SITE INCINER 79000002350 Y080809080809080809080809
062238 000000470010000604067CACIVIL AIRCRAFT LTU'S 79000005005 Y080809080809080809080809
062238 000000600010000669067CAFOREST WILD FIRES 79 0000900 Y080809080809080809080809
062238 000009990010000669 CA
147840 000000000000000565074CG75

061280	000000000000000565067CG		
061280	000000000020000130067 N*		
061280	000000010010000734067CAKESIDENT ANTHRACITE COAL	79000040123	Y0R0R090R0R090R0R090R0R09
061280	000000020010000669067CAKESIDENT BITUMINOUS COAL	79000020010	Y0R0R090R0R090R0R090R0R09
061280	000000030010000734067CAKESIDENT DISTILLATE OIL	79000009750	Y0R0R090R0R090R0R090R0R09
061280	000000040010000669067CAKESIDENTIAL RESIDUAL OIL	79000008900	Y0R0R090R0R090R0R090R0R09
061280	000000050010000669067CAKESIDENTIAL NATURAL GAS	79000023550	Y0R0R090R0R090R0R090R0R09
061280	000000060010000734067CAKESIDENTIAL WOOD	79000000050	Y0R0R090R0R090R0R090R0R09
061280	000000070010000669067CACOMM-INST ANTHRACITE COAL	79000023500	Y0R0R090R0R090R0R090R0R09
061280	000000080010000669067CACOMM-INST BITUMINOUS COAL	790000034750	Y0R0R090R0R090R0R090R0R09
061280	000000090010000734067CACOMM-INST DISTILLATE OIL	79000042100	Y0R0R090R0R090R0R090R0R09
061280	000000100010000669067CACOMM-INST RESIDUAL OIL	79000000390	Y0R0R090R0R090R0R090R0R09
061280	000000110010000669067CACOMM-INST NATURAL GAS	79000008750	Y0R0R090R0R090R0R090R0R09
061280	000000120010000734067CACOMM-INST WOOD	79000000005	Y0R0R090R0R090R0R090R0R09
061280	000000130010000669067CAINDUSTRY ANTHRACITE COAL	790000098750	Y0R0R090R0R090R0R090R0R09
061280	000000140010000669067CAINDUSTRY BITUMINOUS COAL	79000123400	Y0R0R090R0R090R0R090R0R09
061280	000000150010000734067CAINDUSTRIAL CUKE	79000000450	Y0R0R090R0R090R0R090R0R09
061280	000000160010000669067CAINDUSTRIAL DISTILLATE OIL	790000021500	Y0R0R090R0R090R0R090R0R09
061280	000000170010000669067CAINDUSTRIAL RESIDUAL OIL	790000000900	Y0R0R090R0R090R0R090R0R09
061280	000000180010000734067CAINDUSTRIAL NATURAL GAS	79000056900	Y0R0R090R0R090R0R090R0R09
061280	000000190010000669067CAINDUSTRIAL WOOD	790000000025	Y0R0R090R0R090R0R090R0R09
061280	000000200010000669067CAINDUSTRIAL PROCESS GAS	790000002350	Y0R0R090R0R090R0R090R0R09
061280	000004990010000799 CA		
061280	0000100000000000453067SG79		
061280	000010010010000474067SARESIDENT ANTHRACITE COAL	79000059850	Y0R0R090R0R090R0R090R0R09
061280	000010010010000474067SPRESIDENT ANTHRACITE COAL	79000059850	Y0R0R090R0R090R0R090R0R09
061280	000010013510000344067SPRESIDENT ANTHRACITE COAL	79000059850	Y0R0R090R0R090R0R090R0R09
061280	000010019910000344067SPRESIDENT ANTHRACITE COAL	79000059850	Y0R0R090R0R090R0R090R0R09
061280	000019990010000474 CA		
061280	0050000000000000453067SG		
061280	005000010110000344067SPRESIDENT ANTHRACITE COAL	79000059850	
061280	005000012210000344067SPRESIDENT ANTHRACITE COAL	79000059850	Y0R0R090R0R090R0R090R0R09
061280	005000017010000344067SPRESIDENT ANTHRACITE COAL	79000059850	
061280	005009990010000344 CA		
061280	0061100000000000453067SG79		
061280	006110083510000409067SDCOMM-INST BITUMINOUS COAL	79*	Y0R0R090R0R090R0R090R0R09
061280	006119990010000344 CA		
061280	9999900000000000453067SG79		
061280	999990019910000344067SPRESIDENT ANTHRACITE COAL	79000059850	Y0R0R090R0R090R0R090R0R09
061280	999999990010000304 CA		
062238	0000000000000000453067CG79		
062238	000000000020000136067 NAREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES		
062238	000000230010000669067CACOMM-INST ON-SITE INCINER	790000002350	Y0R0R090R0R090R0R090R0R09
062238	000000470010000669067CACTVIL AIRCRAFT LIONS	79000005005	Y0R0R090R0R090R0R090R0R09
062238	000000600010000669067CAFOREST WILD FIRES	79 0000900	Y0R0R090R0R090R0R090R0R09
062238	000004990010000669 CA		
147840	000000000000000565074CG000040134213SMITH COUNTY	INDUSTRY	1120788223

EIS/AS Test 6

Submit Annual Report in NEDS Format

In this test run, data from the EIS/AS master file can be submitted to NEDS by generating NEDS area source transactions. The cataloged procedure ECRPM10 is used to execute CRPASNA (EC0120), the annual report program.

CRPASNA (EC0120) generates the annual report from the EIS/AS master file. This report consists of transactions which contain the information in the master file that has been added, changed, or deleted since the last execution of this program. These transactions can be generated in either the NEDS area source transaction format or the EIS/AS internal transaction format.

The option card for CRPASNA (EC0120) provides the user with three options: a transaction option, a warning option, and a list option. The transaction option allows the user to choose which type of transactions are to be generated (NEDS area source or EIS/AS internal transactions). By specifying NEDS in columns 1 through 4 of the option card, the program will generate NEDS area source transactions. In order to generate EIS/AS internal transactions, the user must specify AREA in columns 1 through 4 of the option card. If this field is left blank or if the option is specified incorrectly, program execution will be terminated.

The warning option allows the user to suppress the printing of warning messages. In order to suppress warning messages, the user must code NOFLAGW in columns 6 through 12 of the option card. If this field is left blank or if the option is specified incorrectly, the program will assume a default of NOFLAGW. If the user does not want to suppress warning messages, he must code FLAGW in columns 6 through 10 and leave columns 11 and 12 blank.

The list option allows the user to obtain listings of the input master file, the output master file, and the generated transactions. These listings are useful for confirming that the appropriate data has been submitted to NEDS and for diagnosing potential errors. To obtain listings, the user must code LIST in columns 14 through 17 of the option card and leave columns 18 and 19 blank. To suppress the listings, the user must code NOLIST in columns 14

through 19 of the option card. If this field is left blank or if the option is specified incorrectly, the program will assume a default of NOLIST.

The output EIS/AS master file differs from the input master file in that the status flags have been set to reflect the new submission status of all the records. The output master file might contain fewer records than the input master file since some records may have been deleted.

The output transaction file, whether it be NEDS or EIS/AS internal transactions, contains only data which have been added, changed, or deleted since the last execution of CRPASNA (EP0120). Add transactions are generated when records have been added to the master file. Change transactions are generated when a data field in an existing record has been added, changed, or deleted. If a data field is to be deleted, the change transaction will contain an asterisk in the first position of the corresponding transaction field. Delete transactions are generated when an entire record has been flagged for deletion in the master file.

The run stream for this test run contains the JCL needed for converting data from the EIS/AS master file into NEDS area source transactions for submission to NEDS. This run stream is shown in Figure AST6-1.

The cataloged procedure executed by this run stream is ECRPM10. By using substitutable parameters, the input master file is specified as ECMSTR3 (created in Test 5), the output master file is named ECMSTR4, and the output NEDS transaction file is named ECNEDS1. The user must supply the DD (data definition) information for the option card file in the REPORT step. The options specified in this test run are NEDS, FLAGW, and LIST. Notice that when NEDS transactions are being generated the EIS/AS internal transaction file ECSASTR must be a dummy file in the REPORT step. The sample output produced by this run stream is shown in Figure AST6-2.

```

//ASTEST06 JOB      (ACCOUNTING INFO)
//*
//*  SUBMIT ANNUAL REPORT TO NEDS USING NEDS TRANSACTIONS
//*
//TEST06A EXEC ECRPM10,
//      OLDMSR=ECMSTR3,
//      NEWSR=ECMSTR4,
//      TRANFL1=ECNEDS1
//*
//*  GENERATE NEDS TRANSACTIONS FOR ANNUAL REPORT
//*
//REPORT.ECSASTR DD DUMMY
//REPORT.OPTIONS DD *
NEDS FLAGw LIST

```

Figure AST6-1. Run Stream

PROGRAM NAME: CKPASNA (EC0120)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: NEDS, FLAGW , LIST

INPUT EIS/AS MASTER FILE COUNT:	420
OUTPUT EIS/AS MASTER FILE COUNT:	371
RECORDS DELETED FROM MASTER FILE:	49
NEDS TRANSACTIONS GENERATED:	88
ADD TRANSACTIONS COUNT:	88
CHANGE TRANSACTIONS COUNT:	0
DELETE TRANSACTIONS COUNT:	0
NUMBER OF ERROR MESSAGES:	0
NUMBER OF WARNING MESSAGES:	0
NUMBER OF CONDITIONAL MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0
NUMBER OF DISASTER MESSAGES:	0

Figure AST6-2. Sample Output

104

(Page 1 of 4)

061280	000000000000000565067CG		
061280	000000000020000136067 N*		
061280	000000010010000734067CARESIDENT ANTHRACITE COAL	79000040123	Y080R090R0A090R0R090R0R09
061280	000000020010000669067CARESIDENT BITUMINOUS COAL	79000020010	Y080R090R0A090R0R090R0R09
061280	000000030010000734067CARESIDENT DISTILLATE OIL	79000009750	Y080R090R0A090R0R090R0R09
061280	000000040010000669067CARESIDENT RESIDUAL OIL	79000008900	Y080R090R0A090R0R090R0R09
061280	000000050010000669067CARESIDENT NATURAL GAS	79000023550	Y080R090R0A090R0R090R0R09
061280	000000060010000734067CARESIDENT WOOD	79000000050	Y080R090R0A090R0R090R0R09
061280	000000070010000669067CACOMM-INST ANTHRACITE COAL	79000023500	Y080R090R0A090R0R090R0R09
061280	000000080010000669067CACOMM-INST BITUMINOUS COAL	790000034750	Y080R090R0A090R0R090R0R09
061280	000000090010000734067CACOMM-INST DISTILLATE OIL	790000042100	Y080R090R0A090R0R090R0R09
061280	000000100010000669067CACOMM-INST RESIDUAL OIL	790000000390	Y080R090R0A090R0R090R0R09
061280	000000110010000669067CACOMM-INST NATURAL GAS	790000008750	Y080R090R0A090R0R090R0R09
061280	000000120010000734067CACOMM-INST WOOD	790000000005	Y080R090R0A090R0R090R0R09
061280	000000130010000669067CAINDUSTRY ANTHRACITE COAL	790000098750	Y080R090R0A090R0R090R0R09
061280	000000140010000669067CAINDUSTRY BITUMINOUS COAL	79000123400	Y080R090R0A090R0R090R0R09
061280	000000150010000734067CAINDUSTRIAL CUKE	790000009850	Y080R090R0A090R0R090R0R09
061280	000000160010000669067CAINDUSTRIAL DISTILLATE OIL	790000021500	Y080R090R0A090R0R090R0R09
061280	000000170010000669067CAINDUSTRIAL RESIDUAL OIL	790000000980	Y080R090R0A090R0R090R0R09
061280	000000180010000734067CAINDUSTRIAL NATURAL GAS	790000056900	Y080R090R0A090R0R090R0R09
061280	000000190010000669067CAINDUSTRIAL WOOD	790000000025	Y080R090R0A090R0R090R0R09
061280	000000200010000669067CAINDUSTRIAL PROCESS GAS	790000002350	Y080R090R0A090R0R090R0R09
061280	000009990010000799 CA		
061280	0000100000000000453067SG79		
061280	000010010010000474067SARESIDENT ANTHRACITE COAL	790000059850	Y080R090R0A090R0R090R0R09
061280	000010010110000474067SDRESIDENT ANTHRACITE COAL	790000059850	Y080R090R0A090R0R090R0R09
061280	000010013510000344067SDRESIDENT ANTHRACITE COAL	790000059850	Y080R090R0A090R0R090R0R09
061280	000010019910000344067SDRESIDENT ANTHRACITE COAL	790000059850	Y080R090R0A090R0R090R0R09
061280	000019990010000474 CA		
061280	0050000000000000453067SG		
061280	005000010110000344067SDRESIDENT ANTHRACITE COAL	790000059850	
061280	005000012210000344067SDRESIDENT ANTHRACITE COAL	790000059850	Y080R090R0A090R0R090R0R09
061280	005000017010000344067SDRESIDENT ANTHRACITE COAL	790000059850	
061280	005009990010000344 CA		
061280	0061100000000000453067SG79		
061280	006110083510000409067SDCOMM-INST BITUMINOUS COAL79*	*	Y080R090R0A090R0R090R0R09
061280	006114990010000344 CA		
061280	9999900000000000453067SG79		
061280	999990019410000344067SDRESIDENT ANTHRACITE COAL	790000059850	Y080R090R0A090R0R090R0R09
061280	99999990010000344 CA		
062238	0000000000000000453067CG79		
062238	000000000020000136067 NAREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES		
062238	000000230010000669067CACOMM-INST ON-SITE INCINER	790000002350	Y080R090R0A090R0R090R0R09
062238	000000470010000604067CACIVIL AIRCRAFT LTN'S	790000005005	Y080R090R0A090R0R090R0R09
062238	000000600010000669067CAFOREST WILD FIRES	79 00000900	Y080R090R0A090R0R090R0R09
062238	000009990010000669 CA		
147840	0000000000000000565074CG800040134213SMITH COUNTY	INDUSTRY	1120788223
147840	000000000020000136074 NWABASH		
147840	000000100100006604074CARESIDENT ANTHRACITE COAL	0000000001	
147840	000000020010000604074CARESIDENT BITUMINOUS COAL	0000001001	
147840	000000030010000604074CARESIDENT DISTILLATE OIL	0000001037	
147840	000000050010000604074CARESIDENT NATURAL GAS	0000000942	

Figure AST6-2 - continued. Sample Output

Figure AST6-2 - continued. Sample Output
(Page 3 of 4)
106

061280	00000000000000565067CG				
061280	000000010010000734067CA	RESIDENT ANTHRACITE COAL	79000040123		Y080809080809080809080809
061280	000000020010000669067CA	RESIDENT BITUMINOUS COAL	79000020010		Y080809080809080809080809
061280	000000030010000734067CA	RESIDENT DISTILLATE OIL	79000004750		Y080809080809080809080809
061280	000000040010000669067CA	RESIDENTIAL RESIDUAL OIL	79000008900		Y080809080809080809080809
061280	000000050010000669067CA	RESIDENTIAL NATURAL GAS	79000023550		Y080809080809080809080809
061280	000000060010000734067CA	RESIDENTIAL WOOD	79000000050		Y080809080809080809080809
061280	000000070010000669067CA	COMM-INST ANTHRACITE COAL	79000023500		Y080809080809080809080809
061280	000000080010000669067CA	COMM-INST BITUMINOUS COAL	79000034750		Y080809080809080809080809
061280	000000090010000734067CA	COMM-INST DISTILLATE OIL	79000042100		Y080809080809080809080809
061280	000000100010000669067CA	COMM-INST RESIDUAL OIL	79000000390		Y080809080809080809080809
061280	000000110010000669067CA	COMM-INST NATURAL GAS	790000006750		Y080809080809080809080809
061280	000000120010000734067CA	COMM-INST WOOD	79000000005		Y080809080809080809080809
061280	000000130010000669067CA	INDUSTRY ANTHRACITE COAL	79000098750		Y080809080809080809080809
061280	000000140010000669067CA	INDUSTRY BITUMINOUS COAL	79000123400		Y080809080809080809080809
061280	000000150010000734067CA	INDUSTRIAL CUKE	79000009850		Y080809080809080809080809
061280	000000160010000669067CA	INDUSTRIAL DISTILLATE OIL	79000021500		Y080809080809080809080809
061280	000000170010000669067CA	INDUSTRIAL RESIDUAL OIL	79000000980		Y080809080809080809080809
061280	000000180010000734067CA	INDUSTRIAL NATURAL GAS	79000056900		Y080809080809080809080809
061280	000000190010000669067CA	INDUSTRIAL WOOD	79000000025		Y080809080809080809080809
061280	000000200010000669067CA	INDUSTRIAL PROCESS GAS	79000002350		Y080809080809080809080809
061280	000009990010000799	CA			
061280	000010000000000453067SG79				
061280	000010010010000474067SA	RESIDENT ANTHRACITE COAL	79000059850		Y080809080809080809080809
061280	000010010110000474067SA	RESIDENT ANTHRACITE COAL	79000059850		Y080809080809080809080809
061280	000010013510000344067SA	RESIDENT ANTHRACITE COAL	79000059850		Y080809080809080809080809
061280	000010019910000344067SA	RESIDENT ANTHRACITE COAL	79000059850		Y080809080809080809080809
061280	000019990010000474	CA			
061280	005000000000000453067SG				
061280	005000010110000344067SA	RESIDENT ANTHRACITE COAL	79000059850		
061280	005000012210000344067SA	RESIDENT ANTHRACITE COAL	79000059850		Y080809080809080809080809
061280	005000017010000344067SA	RESIDENT ANTHRACITE COAL	79000059850		
061280	005009990010000344	CA			
061280	006110000000000453067SG79				
061280	006119990010000344	CA			
061280	999990000000000453067SG79				
061280	999990019910000344067SA	RESIDENT ANTHRACITE COAL	79000059850		Y080809080809080809080809
061280	999999990010000344	CA			
062238	000000000000000453067CG79				
062238	00000000020000136067	NAPEA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES			
062238	000000230010000669067CA	COMM-INST UN-SITE INCIDENT	79000002350		Y080809080809080809080809
062238	000000470010000669067CA	CIVIL AIRCRAFT LTGS	79000005005		Y080809080809080809080809
062238	000000600010000669067CA	FOREST WILD FIRES	79 0000900		Y080809080809080809080809
062238	000009990010000669	CA			
147840	000000000000000565074CG	800040134213SMITH COUNTY	INDUSTRY	1120788223	
147840	00000000020000136074	HWABASH			
147840	000000010010000604074CA	RESIDENT ANTHRACITE COAL	000000001		
147840	000000020010000604074CA	RESIDENT BITUMINOUS COAL	000000101		
147840	000000030010000604074CA	RESIDENT DISTILLATE OIL	000000137		
147840	000000050010000604074CA	RESIDENTIAL NATURAL GAS	000000042		
147840	000000080010000604074CA	COMM-INST BITUMINOUS COAL	000000003		
147840	000000090010000604074CA	COMM-INST DISTILLATE OIL	000000023		

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061280067 40123020010097508900235500050AA1
0612800672350034750471000039087500509875012340098502150000980564000252350 AA2
0612800677901 MASTER FILE TEST DATA AA7
0612800677902 MASTER FILE TEST DATA AA7
0612800677903 MASTER FILE TEST DATA AA7
0612800677904 MASTER FILE TEST DATA AA7
0612800677905 MASTER FILE TEST DATA AA7
0612800677906 MASTER FILE TEST DATA AA7
0612800677907 MASTER FILE TEST DATA AA7
0612800677908 MASTER FILE TEST DATA AA7
0612800677909 MASTER FILE TEST DATA AA7
0612800677910 MASTER FILE TEST DATA AA7
0612800677911 MASTER FILE TEST DATA AA7
0612800677912 MASTER FILE TEST DATA AA7
0612800677913 MASTER FILE TEST DATA AA7
0612800677914 MASTER FILE TEST DATA AA7
0612800677915 MASTER FILE TEST DATA AA7
0612800677916 MASTER FILE TEST DATA AA7
0612800677917 MASTER FILE TEST DATA AA7
0612800677918 MASTER FILE TEST DATA AA7
0612800677919 MASTER FILE TEST DATA AA7
0612800677920 MASTER FILE TEST DATA AA7
062238067791111133333444440000222233221144555666 AA1
062238067791111133333444440000222233221144555666 AA1
062238067 2350 0009876 950005 AA3
062238067 005005 0097500005032100009875012AA4
062238067 900 AA5
062238067AREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES AA6
0622380677923 MASTER FILE TEST DATA AA7
0622380677947 MASTER FILE TEST DATA AA7
0622380677960 MASTER FILE TEST DATA AA7
1478400748000197000300100001500055063803110930930000100010100137 00042 AA1
147840074 0000300023000310012 000037 000110003000007 AA2
1478400740000947 000567100081000065200082600001001216AA3
147840074 000365 026700052500089 003098 0005303AA4
1478400740000005 0000870009900224 012 00052AA5
147840074WABASH AA6
147840074 010003000002000015000025000040000A7 EMISSION RECORDED AA7
147840074 4300002000008000062000000000092ESTIMATES USED FOR A7-EMISSIONS AA7
147840074 490003000002000015000025000040000A7 EMISSION RECORDED AA7
1478600748000125013700120345900119063803110930930000100008100183 00096 AA1
147860074 0000400034000450025 000281 000620017000023 AA2
147860074001467 001234000145000118402010000003003140AA3
147860074 000767 0066000567002070419009580100001480001578AA4
1478600740000030 0001670028500649 012 00080AA5
147860074WAKREN AA6
147860074 140003000002100015102025000120000A7 EMISSION RECORDED AA7
147860074 4300001200005000037000000000055ESTIMATES USED FOR A7-EMISSIONS AA7
147860074 640003000002100015102025000120000A7 EMISSION RECORDED AA7
31001501170 AA1
420680198800130006000900240002290001020306125145 00000500099 000130089AA1
420680198 00011 0001 00006 00001 AA2

```

Figure AST6-2 - continued. Sample Output

(Page 4 of 4)

EIS/AS Test 7

Retrieve a Standard Answer File Using the COBOL Language and Produce a Detailed Report of the Answer File

In this test run, a standard answer file is retrieved from the EIS/AS master file using the cataloged procedure ECRTM30. This procedure executes CRTLNPG (EC0090), the retrieval language processor program; the COBOL compiler; the linkage editor; and the generated retrieval program, CRTGENR (EC0100). A detailed report of the answer file is produced by using the cataloged procedure ECRPM20 which executes CRPMSTR (EC0130), the master file detailed report program.

CRTLNGP (EC0090) is the first of two EIS/AS programs used to retrieve data from the EIS/AS master file. The second program is CRTGENR (EC0100), the program generated by CRTLNPG (EC0090).

CRTLNGP (EC0090) uses the retrieval skeleton program CRTSKEL, which is stored in a cataloged source library, and the user-supplied retrieval specification cards to build CRTGENR (EC0100), which is referred to as the generated retrieval program.

The retrieval specification cards consist of retrieval control cards and retrieval request cards. The control cards indicate the beginning and end of the retrieval specifications: a \$\$SELECT card indicates the beginning of the retrieval specifications and a \$\$END card indicates the end of the retrieval specifications. Retrieval request cards follow the \$\$SELECT card and can be written in either the EIS/AS retrieval language or in COBOL. These cards precisely identify the data to be retrieved from the master file. When the EIS/AS retrieval language is used, up to 10 retrievals can be batched in one run, by preceding each retrieval by a \$\$SELECT card and entering a \$\$END card after the last retrieval.

The options allowed for CRTLNPG (EC0090) are entered on the first \$\$SELECT retrieval control card. The options specify whether the requests are written in the EIS/AS retrieval language or in COBOL, and whether or not description, category, or comment records are to be retrieved. The format of

the retrieval control cards is illustrated in Figure AST7-1 and the definitions of the EIS/AS retrieval control card fields are provided in Figure AST7-2.

When the EIS/AS retrieval language is used, the user is allowed to select records from the EIS/AS master file based upon the value of specific fields in the master file records. The data names which can be used for these EIS/AS retrieval language requests are listed in Figure AST7-3. The EIS/AS retrieval language specifications are written in the format described in Figure AST7-4 and Figure AST7-5 provides definitions of the EIS/AS retrieval language specification fields. The EIS/AS retrieval specification load sheets are provided in Figure AST7-6.

If the COBOL language is used, the retrieval request cards are prepared according to COBOL rules for syntax and punctuation. Any retrieval that can be run using the EIS/AS retrieval language can also be run by specifying USER as the language keyword (see Figure AST7-1) and using the COBOL language, but, nothing is gained in these retrievals by using COBOL when the EIS/AS retrieval language can be used. There are some retrievals which cannot be accomplished using the EIS/AS retrieval language. This is when COBOL retrievals become very beneficial. In addition to this test, Test 16 also demonstrates the use of COBOL retrievals.

CRTGENR (EC0100) is produced based on the retrieval specifications entered into CRTLNPG (EC0090). This generated retrieval program must be compiled and link edited before it is executed. When it is executed, it reads the EIS/AS master file and selects those records which satisfy the retrieval specifications that were entered into CRTLNPG (EC0090). The selected records are written to an output file which is referred to as an EIS/AS answer file. This file is only a subset of the master file; any changes made to the answer file during the retrieval process are not reflected in the master file. The answer file has the same format as the EIS/AS master file and may be used as input to any EIS/AS program which uses the master file as input.

This test demonstrates how the user can resubmit data from the EIS/AS master file to NEDS even though the flags in the master file indicate that the data has already been sent to NEDS. The status flags in the answer file

produced by this retrieval have been set to A to indicate that the data has not been sent to NEDS. Now, the answer file can be input to CRPASNA (EC0120) and the annual report can be submitted again (see Test 8).

CRPMSTR (EC0130) produces a detailed report of the EIS/AS master file. Each field in each master file record appears under an identifying heading. This report may be used as a management report or in verifying data in the master file.

The maximum number of lines per printed page can be specified by the user in card columns one and two of the option card. This option can reduce the amount of paper used by those users who have standard 11 x 14 inch output forms and the ability to print eight lines per inch. If no option card is given or the line specification on the option card is not between 20 and 85 a default of 60 lines is used.

The run stream for this test run contains the JCL necessary for retrieving a standard answer file from an EIS/AS master file. This run stream is shown in Figure AST7-7 and the sample output produced by this run stream is shown in Figure AST7-8.

The first cataloged procedure executed by this run stream is ECRTM30. Through the use of substitutable parameters, the input master file is specified as ECMSTR4 (created in Test 6) and the output answer file is named ECMSTR5. Also, note that the output answer file will be cataloged. The user must supply the appropriate DD (data definition) information for the input retrieval specification card file in the GENER step. In this test run, the input retrieval specification cards are used to produce a standard answer file in which all the status flags are A (add).

The next cataloged procedure executed by this run stream is ECRPM20. A substitutable parameter is used to specify ECMSTR5 as the input master file. The user must supply the DD information for the option card file in the LIST step. No option card is provided in this run stream, therefore the default option is in effect.

<u>Record Position</u>	<u>Field Length</u>	<u>Description</u>
1 - 8	8	Card Type
9	1	Unused
10 - 13	4	Language Keyword
14	1	Unused
15	1	Description Selection Field
16	1	Unused
17	1	Category Selection Field
18	1	Unused
19	1	Comment Selection Field
20 - 80	61	Unused

Figure AST7-1. EIS/AS Retrieval Control Card

Card Type: Identifies the type of control card.

Valid Codes: \$\$SELECT - Specifies the beginning of a retrieval request.
\$\$END - Specifies the end of a retrieval request and must
appear alone on the card.

Field Length: 8 characters

Language Keyword: Identifies the type of retrieval language to be used.

Valid Codes: USER - Retrieval specifications will be COBOL language
statements.
blank - Retrieval specifications will be EIS/AS retrieval
language statements.

Field Length: 4 characters

Description Selection Field: Indicates whether or not description records are
to be retrieved.

Valid Codes: 0 - Select description records.
blank - Do not select description records.
0 is the default value used when all three selection fields
are blank.

Field Length: 1 character

Category Selection Field: Indicates whether or not category records are to be
retrieved.

Valid Codes: 1 - Select category records.
blank - Do not select category records.
1 is the default value used when all three selection fields
are blank.

Field Length: 1 character

Comment Record Field: Indicates whether or not comment records are to be retrieved.

Valid Codes: 2 - Select comment records.

blank - Do not select comment records.

Blank is the default value used when all three selection fields are blank.

Field Length: 1 character

(Page 2 of 2)

Figure AST7-2 - continued. Definition of EIS/AS Retrieval Control Card Fields

Valid Data Names for Retrieval - All Records

The following data names can be referenced in either EIS/AS retrieval language specifications or COBOL language specifications:

<u>Data Name</u>	<u>Field Length</u>
AQCR	3
CATEGORY-DISAGGREG-NBR	2
CATEGORY-NUMBER	3
COUNTY	4
GEOG-SUBALLOCATION-NBR	5
LINE-NUMBER	3
RECORD-TYPE	2
RECORD-TYPE-KEY	1
STATE	2

(Page 1 of 8)

Figure AST7-3. Valid Retrieval Data Names

Valid Data Names for Retrieval - Description Record

The following data names from the description record can be referenced in either EIS/AS retrieval language specifications or COBOL language specifications:

<u>Data Name</u>	<u>Field Length</u>	<u>Data Name</u>	<u>Field Length</u>
AIR-BASIN	3	SIP-ESTIMATE-CO	5
ASH-ANTHRACITE-COAL	3	SIP-ESTIMATE-HC	5
ASH-BITUMINOUS-COAL	3	SIP-ESTIMATE-NO _x	4
ASSOC-PLANT-ID	4	SIP-ESTIMATE-SO ₂	4
DAY-CODE	3	SIP-ESTIMATE-TSP	5
DEFINED-AREA-CODE	3	SMSA	4
HEAVY-DUTY-DIESEL	6	SOURCE-TYPE	1
HEAVY-DUTY-VEHICLE	6	SUBALLOC-TECH-CODE	2
LENGTH-AREA	7	SUBURBAN	6
LENGTH-AREA-UNITS-CODE	2	SULFUR-ANTHRACITE-COAL	2
LIGHT-DUTY-VEHICLE	6	SULFUR-BITUMINOUS-COAL	2
LIMITED-ACCESS	6	SULFUR-DISTILLATE-OIL	2
MAJOR-ACTIVITY	20	SULFUR-RESIDUAL-OIL	2
POPULATION	8	URBAN	7
POPULATION-CODE	1	UTM-HORIZONTAL-1	4
PROJECTED-YEAR	2	UTM-HORIZONTAL-2	4
RURAL	6	UTM-HORIZONTAL-3	4
RURAL-POPULATION-PERCENT	2	UTM-HORIZONTAL-4	4
SIP-BASE-YEAR	2	UTM-HORIZONTAL-5	4
		UTM-HORIZONTAL-6	4

(Page 2 of 8)

Figure AST7-3 - continued. Valid Retrieval Data Names

Valid Data Names for Retrieval - Description Record (continued)

<u>Data Name</u>	<u>Field Length</u>	<u>Data Name</u>	<u>Field Length</u>
UTM-VERTICAL-1	5	UTM-ZONE-1	2
UTM-VERTICAL-2	5	UTM-ZONE-2	2
UTM-VERTICAL-3	5	UTM-ZONE-3	2
UTM-VERTICAL-4	5	UTM-ZONE-4	2
UTM-VERTICAL-5	5	UTM-ZONE-5	2
UTM-VERTICAL-6	5	UTM-ZONE-6	2
		YEAR	2

The following names can only be referenced in COBOL language specifications:

AQCR-NAME	NEDS-A1-FLAG
AREA-NAME	NEDS-A3-FLAG
EIS-FLAG-CARD-0-1	NEDS-A4-FLAG
EIS-FLAG-CARD-0-2	SUBALLOC-TECH-DESC
EIS-FLAG-CARD-0-3	
EIS-FLAG-CARD-0-4	
EIS-FLAG-CARD-0-5	
EIS-FLAG-CARD-0-6	

(Page 3 of 8)

Figure AST7-3 - continued. Valid Retrieval Data Names

Valid Data Names for Retrieval - Description Record Repeating Names

The following data names from the repeating section of the description record can be referenced in either EIS/AS retrieval language specifications or COBOL language specifications:

<u>Data Name</u>	<u>Field Length</u>
AQMA-NUMBER	6
ATTAINMENT-STATUS	1
DESC-POLLUTANT-ID	5

The following data names can only be referenced in COBOL language specifications:

DESC-POLLUTANT-NAME
EIS-FLAG-CARD-0-7

(Page 4 of 8)

Figure AST7-3 - continued. Valid Retrieval Data Names

Valid Data Names for Retrieval - Category Record

The following data names from the category record can be referenced in either EIS/AS retrieval language specifications or COBOL language specifications:

<u>Data Name</u>	<u>Field Length</u>	<u>Data Name</u>	<u>Field Length</u>
APRIL-THRUPUT	2	HOUR-11-THRUPUT	2
ASH-PERCENTAGE	3	HOUR-12-THRUPUT	2
AUGUST-THRUPUT	2	HOUR-13-THRUPUT	2
CATEGORY-ADJUST	7	HOUR-14-THRUPUT	2
DATA-CONFIDENCE-RATING	1	HOUR-15-THRUPUT	2
DAYS-PER-WEEK	1	HOUR-16-THRUPUT	2
DECEMBER-THRUPUT	2	HOUR-17-THRUPUT	2
FEBRUARY-THRUPUT	2	HOUR-18-THRUPUT	2
HEAT-CONTENT	4	HOUR-19-THRUPUT	2
HOUR-0-THRUPUT	2	HOUR-20-THRUPUT	2
HOUR-1-THRUPUT	2	HOUR-21-THRUPUT	2
HOUR-2-THRUPUT	2	HOUR-22-THRUPUT	2
HOUR-3-THRUPUT	2	HOUR-23-THRUPUT	2
HOUR-4-THRUPUT	2	HOURS-PER-DAY	2
HOUR-5-THRUPUT	2	INFORMATION-SOURCE-CODE	1
HOUR-6-THRUPUT	2	JANUARY-THRUPUT	2
HOUR-7-THRUPUT	2	JULY-THRUPUT	2
HOUR-8-THRUPUT	2	JUNE-THRUPUT	2
HOUR-9-THRUPUT	2	MARCH-THRUPUT	2
HOUR-10-THRUPUT	2		

(Page 5 of 8)

Figure AST7-3 - continued. Valid Retrieval Data Names

Valid Data Names for Retrieval - Category Record (continued)

<u>Data Name</u>	<u>Field Length</u>	<u>Data Name</u>	<u>Field Length</u>
MAX-HRLY-THRUPUT	10	SULFUR-PERCENTAGE	2
MAY-THRUPUT	2	THRUPUT-RATIO	4
NITROGEN-PERCENTAGE	3	UNIFORM-HOURLY-THRUPUT	1
NOVEMBER-THRUPUT	2	UNIFORM-THRUPUT	1
OCTOBER-THRUPUT	2	UNITS-CODE	2
PROCESS-RATE	9	WEEKS-PER-YEAR	2
SEPTEMBER-THRUPUT	2	YEAR-OF-INFORMATION	2

The following data names can only be referenced in COBOL language specifications:

CATEGORY-DESC	INFORMATION-SOURCE-NARRATIVE
EIS-FLAG-CARD-1-1	NEDS-A7-COMMENT
EIS-FLAG-CARD-1-2	NEDS-A7-FLAG
EIS-FLAG-CARD-1-3	NEDS-FLAG
EIS-FLAG-CARD-1-4	UNITS-CODE-DESCRIPTION

(Page 6 of 8)

Figure AST7-3 - continued. Valid Retrieval Data Names

Valid Data Names for Retrieval - Category Record Repeating Names

The following data names from the repeating section of the category record can be referenced in either EIS/AS retrieval language specifications or COBOL language specifications:

<u>Data Name</u>	<u>Field Length</u>
CAT-POLLUTANT-ID	5
CONFIDENCE-RATING	1
EMF-CONFIDENCE-RATING	1
EMF-ORIGIN	1
EMF-SOURCE-CODE	1
EMISSIONS-ESTIMATE	7
EMISSION-FACTOR	10
MAXIMUM-HOURLY-EMISSION	6
NEDS-A7-EMISSION	7
POLLUTANT-SPECIFIC-DATA	10

The following data names can only be referenced in COBOL language specifications:

CAT-POLLUTANT-NAME
EIS-FLAG-CARD-1-5

Valid Data Names for Retrieval - Comment Record

The following data names from the comment record can be referenced only in COBOL language specifications:

<u>Data Name</u>	<u>Data Name</u>
EIS-FLAG-CARD-2-1	NEDS-COMMENT
EIS-FLAG-CARD-2-2	RIGHT-COMMENT
LEFT-COMMENT	TOTAL-COMMENT
NEDS-A6-FLAG	

(Page 8 of 8)

Figure AST7-3 - continued. Valid Retrieval Data Names

<u>Record Position</u>	<u>Field Length</u>	<u>Description</u>
1 - 31	31	Subject Name
32	1	Unused
33	1	Negation Flag
34	1	Unused
35	1	Relational Operator
36	1	Unused
37 - 67	31	Object Name
68	1	Unused
69 - 71	3	Boolean Operator
72 - 80	9	Unused

Figure AST7-4. EIS/AS Retrieval Language Specification Fields

Subject Name: Specifies the name of the field in the EIS/AS master file record to be compared with the literal or the master file field name specified by the object name.

Valid Codes: Only those fields listed in Figure AST7-3 can be used.
The spelling, including hyphens, must match exactly.

Field Length: 31 characters

Negation Flag: Indicates whether the Boolean NOT condition is in effect.

Valid Codes: N - Boolean NOT is in effect.
blank - Boolean NOT is not in effect.

Field Length: 1 character

Relational Operator: Indicates the relationship to be tested between the subject name and the object name.

Valid Codes: = equal
< less than
> greater than

Field Length: 1 character

Object Name: A literal to be compared against the master file field specified by the subject name, or the name of a master file field to be compared against the master file field specified by the subject name (e.g., subject name = object name).

Valid Codes: If a literal is used, it must be enclosed in quotes.
The length of the literal must be exactly the same as the field length of the data name being compared (see Figure AST7-3). If the name of a field from the master file is used, it must match exactly one of the names listed in Figure AST7-3. However, it must not be enclosed in quotes.

(Page 1 of 2)

Figure AST7-5. Definitions of EIS/AS Retrieval Language
Specification Fields

Field Length: 31 characters

Boolean Operator: Identifies the type of connector used between the relationships specified on two succeeding control cards.

Valid Codes: AND - Indicates that both relationships must be true in order for the entire relationship to be true.

OR - Indicates that if either relationship is true, the entire relationship is true.

blank - Indicates that there is no connector, and therefore, that there is no further specification.

Field Length: 3 characters

(Page 2 of 2)

Figure AST7-5 - continued. Definitions of EIS/AS Retrieval Language Specification Fields

BY _____
DATE _____
PAGE ____ OF _____

		USER KEYWORD		DESC	CAT	COMM
1	8	10	13	15	17	19
SISISIEIEICIT		I I I				

[illegible][illegible][illegible][illegible]

1	5
S I S I E I N I D	

(Page 1 of 2)

Figure AST7-6. Retrieval Specification Load Sheets
125

**EMISSIONS INVENTORY SYSTEM / AREA SOURCE (EIS/AS)
RETRIEVAL SPECIFICATIONS**

PAGE 2

VALID VALUES FOR NEGATION FLAG (NF):		
BLANK, N		
RELATIONAL OPERATOR (RO):		
=EQUAL		
>GREATER THAN		
<LESS THAN		
BOOLEAN OPERATOR (BO):		
AND, OR, BLANK		
TYPE: N = NUMERIC		
A = ALPHANUMERIC		

DATA NAMES VALID FOR ALL RECORDS		
NAME	LENGTH	TYPE
AQCR	3	N
CATEGORY-DISAGGREG-NBR	2	N
CATEGORY-NUMBER	3	N
COUNTY	4	N
GEOG-SUBALLOCATION-NBR	5	N
LINE-NUMBER	3	N
RECORD-TYPE	2	A
RECORD-TYPE-KEY	1	A
STATE	2	N

CATEGORY REPEATING DATA NAMES		
NAME	LENGTH	TYPE
CAT-POLLUTANT-ID	5	N
CONFIDENCE-RATING	1	N
EMF-CONFIDENCE-RATING	1	N
EMF-ORIGIN	1	A
EMF-SOURCE-CODE	1	A
EMISSIONS-ESTIMATE	7	N
EMISSION-FACTOR	10(3)	N
MAXIMUM-HOURLY-EMISSION	SS	N
NEDS-A7-EMISSION	7	N
POLLUTANT-SPECIFIC DATA	10	A

DESCRIPTION REPEATING DATA NAMES		
NAME	LENGTH	TYPE
AQMA-NUMBER	6	A
ATTAINMENT-STATUS	1	A
DESC-POLLUTANT-ID	5	N

CATEGORY RECORD DATA NAMES		
NAME	LENGTH	TYPE
APRIL-THRUPUT	2	N
ASH-PERCENTAGE	3(1)	N
AUGUST-THRUPUT	2	N
CATEGORY-ADJUST	7	N
DATA-CONFIDENCE-RATING	1	N
DAYS-PER-WEEK	1	N
DECEMBER-THRUPUT	2	N
FEBRUARY-THRUPUT	2	N
HEAT-CONTENT	4	N
HOUR-0-THRUPUT	2	N
HOUR-1-THRUPUT	2	N
HOUR-2-THRUPUT	2	N
HOUR-3-THRUPUT	2	N
HOUR-4-THRUPUT	2	N
HOUR-5-THRUPUT	2	N
HOUR-6-THRUPUT	2	N
HOUR-7-THRUPUT	2	N
HOUR-8-THRUPUT	2	N
HOUR-9-THRUPUT	2	N
HOUR-10-THRUPUT	2	N
HOUR-11-THRUPUT	2	N
HOUR-12-THRUPUT	2	N
HOUR-13-THRUPUT	2	N
HOUR-14-THRUPUT	2	N
HOUR-15-THRUPUT	2	N
HOUR-16-THRUPUT	2	N
HOUR-17-THRUPUT	2	N
HOUR-18-THRUPUT	2	N
HOUR-19-THRUPUT	2	N
HOUR-20-THRUPUT	2	N
HOUR-21-THRUPUT	2	N
HOUR-22-THRUPUT	2	N
HOUR-23-THRUPUT	2	N
HOURS-PER-DAY	2	N
INFORMATION-SOURCE-CODE	1	A
JANUARY-THRUPUT	2	N
JULY-THRUPUT	2	N
JUNE-THRUPUT	2	N
MARCH-THRUPUT	2	N
MAX-HRLY-THRUPUT	10	A
MAY-THRUPUT	2	N
NITROGEN-PERCENTAGE	3(3)	N
NOVEMBER-THRUPUT	2	N
OCTOBER-THRUPUT	2	N
PROCESS-RATE	9	N
SEPTEMBER-THRUPUT	2	N
SULFUR-PERCENTAGE	2(1)	N
THRUPUT-RATIO	4(1)	N
UNIFORM-HOURLY-THRUPUT	1	A
UNIFORM-THRUPUT	1	A
UNITS-CODE	2	N
WEEK-PER-YEAR	2	N
YEAR-OF-INFORMATION	2	N

DESCRIPTION RECORD DATA NAMES		
NAME	LENGTH	TYPE
AIR-BASIN	3	N
ASH-ANTHRACITE-COAL	3(1)	N
ASH-BITUMINOUS-COAL	3(1)	N
ASSOC-PLANT-ID	4	N
DAY-CODE	3	N
DEFINED-AREA-CODE	3	N
HEAVY-DUTY-DIESEL	6	N
HEAVY-DUTY-VEHICLE	6	N
LENGTH-AREA	7(2)	N
LENGTH-AREA-UNITS-CODE	2	A
LIGHT-DUTY-VEHICLE	7	N
LIMITED-ACCESS	6	N
MAJOR-ACTIVITY	20	A
POPULATION	8	N
POPULATION-CODE	1	A
PROJECTED-YEAR	2	N
RURAL	6	N
RURAL-POPULATION-PERCENT	2	N
SIP-BASE-YEAR	2	N
SIP-ESTIMATE-CO	5	N
SIP-ESTIMATE-HC	5	N
SIP-ESTIMATE-NOX	4	N
SIP-ESTIMATE-SO2	4	N
SIP-ESTIMATE-TSP	5	N
SMSA	4	A
SOURCE-TYPE	1	A
SUBALLOC-TECH-CODE	2	A
SUBURBAN	6	N
SULFUR-ANTHRACITE-COAL	2(1)	N
SULFUR-BITUMINOUS-COAL	2(1)	N
SULFUR-DISTILLATE-OIL	2(1)	N
SULFUR-RESIDUAL-OIL	2(1)	N
URBAN	7	N
UTM-HORIZONTAL-1	4(1)	N
UTM-HORIZONTAL-2	4(1)	N
UTM-HORIZONTAL-3	4(1)	N
UTM-HORIZONTAL-4	4(1)	N
UTM-HORIZONTAL-5	4(1)	N
UTM-HORIZONTAL-6	4(1)	N
UTM-VERTICAL-1	5(1)	N
UTM-VERTICAL-2	5(1)	N
UTM-VERTICAL-3	5(1)	N
UTM-VERTICAL-4	5(1)	N
UTM-VERTICAL-5	5(1)	N
UTM-VERTICAL-6	5(1)	N
UTM-ZONE-1	2	N
UTM-ZONE-2	2	N
UTM-ZONE-3	2	N
UTM-ZONE-4	2	N
UTM-ZONE-5	2	N
UTM-ZONE-6	2	N
YEAR	2	N

NUMBERS IN PARENTHESES INDICATE ASSUMED DECIMAL POSITIONS

(Page 2 of 2)

Figure AST7-6 - continued. Retrieval Specification Load Sheets

```

//ASTEST07 JOB      (ACCOUNTING INFO)
//*
//*  RETRIEVE A STANDARD ANSWER FILE FROM THE MASTER FILE
//*  AND PRODUCE A DETAILED REPORT OF THE ANSWER FILE
//*
//TEST07A EXEC ECKTM30,
//      DISP='NEW,CATLG,DELETE',
//      MSTRFIL=ECMSTR4,
//      ANSRFIL=FCMSTR5
//*
//*  RETRIEVE RECORDS FROM THE OUTPUT MASTER FILE IN TEST 6;
//*  REPLACE WITH 'A' ALL DATA FLAGS THAT SHOW 'S',
//*  IN ORDER TO RESUBMIT THE MASTER FILE DATA TO NFDS
//*
//GENER. INPUT DD *
$$SELECT USER 0 1 2
      IF RECORD-IS-DESCRIPTION
        PERFORM USER-DESC-PARA THRU USER-DESC-PARA-END
      ELSE
        IF RECORD-IS-CATEGORY
          PERFORM USER-CAT-PARA THRU USER-CAT-PARA-END
        ELSE
          PERFORM USER-COMM-PARA THRU USER-COMM-PARA-END.
          PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END.
          GO TO USER-QUALIFICATION-END.
        USER-DESC-PARA.
          IF NEDS-A1-FLAG EQUAL TO 'S'
            MOVE 'A' TO NFDS-A1-FLAG.
          IF NEDS-A3-FLAG EQUAL TO 'S'
            MOVE 'A' TO NFDS-A3-FLAG.
          IF NEDS-A4-FLAG EQUAL TO 'S'
            MOVE 'A' TO NFDS-A4-FLAG.
          IF FIS-FLAG-CARD-0-1 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-1.
          IF EIS-FLAG-CARD-0-2 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-2.
          IF EIS-FLAG-CARD-0-3 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-3.
          IF EIS-FLAG-CARD-0-4 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-4.
          IF EIS-FLAG-CARD-0-5 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-5.
          IF FIS-FLAG-CARD-0-6 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-6.
          MOVE BINARY-1 TO DESC-SUB.
          PERFORM USER-DESC-REPEAT-PARA
            DFSC-NR-PULL TIMES.
          USER-DESC-PARA-END.
          EXIT.
        USER-DESC-REPEAT-PARA.
          IF EIS-FLAG-CARD-0-7 (DFSC-SUR) EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-7 (DESC-SUB).
          ADD BINARY-1 TO DESC-SUR.
          USER-DESC-REPEAT-PARA-END.
          EXIT.
        USER-CAT-PARA.
          IF NEDS-FLAG EQUAL TO 'S'
            MOVE 'A' TO NEDS-FLAG.
          IF NEDS-A7-FLAG EQUAL TO 'S'
            MOVE 'A' TO NFDS-A7-FLAG.
          IF FIS-FLAG-CARD-1-1 EQUAL TO 'S'

```

(Page 1 of 2)

Figure AST7-7. Run Stream


```

        MOVE 'A' TO EIS-FLAG-CARD-1-1.
        IF EIS-FLAG-CARD-1-2 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-1-2.
        IF EIS-FLAG-CARD-1-3 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-1-3.
        IF EIS-FLAG-CARD-1-4 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-1-4.
        MOVE BINARY-1 TO CAT-SUB.
        PERFORM USER-CAT-REPEAT-PARA
            CAT-MBR-POLL TIMES.
        USER-CAT-PARA-END.
        EXIT.
        USER-CAT-REPEAT-PARA.
            IF EIS-FLAG-CARD-1-5 (CAT-SUB) EQUAL TO 'S'
                MOVE 'A' TO EIS-FLAG-CARD-1-5 (CAT-SUB).
            ADD BINARY-1 TO CAT-SUB.
        USER-CAT-REPEAT-PARA-END.
        EXIT.
        USER-COMM-PARA.
            IF NEDS-A6-FLAG EQUAL TO 'S'
                MOVE 'A' TO NEDS-A6-FLAG.
            IF EIS-FLAG-CARD-2-1 EQUAL TO 'S'
                MOVE 'A' TO EIS-FLAG-CARD-2-1.
            IF EIS-FLAG-CARD-2-2 EQUAL TO 'S'
                MOVE 'A' TO EIS-FLAG-CARD-2-2.
        USER-COMM-PARA-END.
        EXIT.
$SEND
//TEST07R EXEC ECHPM20,
//      MSTRFIL=ECMSTR5
//*
//*  GENERATE A DETAILED REPORT OF THE OUTPUT MASTER
//*  FILE FROM STEP A
//*
//LIST.GPITONS DD *
```

(Page 2 of 2)

Figure AST7-7 - continued. Run Stream

PROGRAM NAME: CRTLNCP (EC0090)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

```

INPUT (CONTROL CARDS):
$$$SELECT USER 0 1 2
    IF RECORD-IS-DESCRIPTION
        PERFORM USER-DESC-PARA THRU USER-DESC-PARA-END
    ELSE
        IF RECORD-IS-CATEGORY
            PERFORM USER-CAT-PARA THRU USER-CAT-PARA-END
        ELSE
            PERFORM USER-COMM-PARA THRU USER-COMM-PARA-END.
            PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END.
            GO TO USER-QUALIFICATION-END.
        USER-DESC-PARA.
        IF NEDS-A1-FLAG EQUAL TO 'S'
            MOVE 'A' TO NEDS-A1-FLAG.
        IF NEDS-A3-FLAG EQUAL TO 'S'
            MOVE 'A' TO NEDS-A3-FLAG.
        IF NEDS-A4-FLAG EQUAL TO 'S'
            MOVE 'A' TO NEDS-A4-FLAG.
        IF EIS-FLAG-CARD-0-1 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-1.
        IF EIS-FLAG-CARD-0-2 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-2.
        IF EIS-FLAG-CARD-0-3 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-3.
        IF EIS-FLAG-CARD-0-4 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-4.
        IF EIS-FLAG-CARD-0-5 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-5.
        IF EIS-FLAG-CARD-0-6 EQUAL TO 'S'
            MOVE 'A' TO EIS-FLAG-CARD-0-6.
        MOVE BINARY-1 TO DESC-SUB.
        PERFORM USER-DESC-REPEAT-PARA
            DESC-NBR-PULL TIMES.
        USER-DESC-PARA-END.
        EXIT.
        USER-DESC-REPEAT-PARA.
        IF EIS-FLAG-CARD-0-7 (DESC-SUB) EQUAL TO 'S'.
            MOVE 'A' TO EIS-FLAG-CARD-0-7 (DESC-SUB).
            ADD BINARY-1 TO DESC-SUB.
        USER-DESC-REPEAT-PARA-END.
        EXIT.
        USER-CAT-PARA.
        IF NEDS-FLAG EQUAL TO 'S'

```

Figure AST7-8. Sample Output

129

(Page 1 of 5)

```

      MOVE 'A' TO NEDS-FLAG.
      IF NEDS-A7-FLAG EQUAL TO 'S'
        MOVE 'A' TO NEDS-A7-FLAG.
      IF EIS-FLAG-CARD-1-1 EQUAL TO 'S'
        MOVE 'A' TO EIS-FLAG-CARD-1-1.
      IF EIS-FLAG-CARD-1-2 EQUAL TO 'S'
        MOVE 'A' TO EIS-FLAG-CARD-1-2.
      IF EIS-FLAG-CARD-1-3 EQUAL TO 'S'
        MOVE 'A' TO EIS-FLAG-CARD-1-3.
      IF EIS-FLAG-CARD-1-4 EQUAL TO 'S'
        MOVE 'A' TO EIS-FLAG-CARD-1-4.
      MOVE BINARY-1 TO CAT-SUB.
      PERFORM USER-CAT-REPEAT-PARA
        CAT-NBR-PULL TIMES.
      USER-CAT-PARA-END.
      EXIT.
      USER-CAT-REPEAT-PARA.
        IF EIS-FLAG-CARD-1-5 (CAT-SUB) EQUAL TO 'S'
          MOVE 'A' TO EIS-FLAG-CARD-1-5 (CAT-SUB).
        ADD BINARY-1 TO CAT-SUB.
      USER-CAT-REPEAT-PARA-END.
      EXIT.
      USER-COMM-PARA.
        IF NEDS-A6-FLAG EQUAL TO 'S'
          MOVE 'A' TO NEDS-A6-FLAG.
        IF EIS-FLAG-CARD-2-1 EQUAL TO 'S'
          MOVE 'A' TO EIS-FLAG-CARD-2-1.
        IF EIS-FLAG-CARD-2-2 EQUAL TO 'S'
          MOVE 'A' TO EIS-FLAG-CARD-2-2.
      USER-COMM-PARA-END.
      EXIT.

```

```

**END

```

NUMBER OF CONTROL CARDS READ:	74
NUMBER OF RETRIEVAL SKELTON RECORDS READ:	837
NUMBER OF RETRIEVAL SOURCE RECORDS WRITTEN:	963
NUMBER OF CONDITIONAL MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0

```

PROGRAM NAME: CRTLNGP (EC0090)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

```

PROGRAM NAME: CRIGENR (EC0100)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF MASTER FILE RECORDS READ: 371
NUMBER OF MASTER FILE RECORDS WRITTEN: 371
NUMBER OF CONDITIONAL MESSAGES: 0
NUMBER OF ABORT MESSAGES: 0

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
DIAGNOSTIC REPORT

PAGE 1

PROGRAM NAME: CRPMSTR (EC0130)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTION IN EFFECT: NO VALID OPTION SPECIFIED, DEFAULT OF 60 LINES PER PAGE ASSUMED

NUMBER OF RECORDS READ: 371
NUMBER OF DESCRIPTION RECORDS: 18
NUMBER OF CATEGORY RECORDS: 334
NUMBER OF COMMENT RECORDS: 19

Figure AST7-8 - continued. Sample Output

(Page 3 of 5)

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
FILE LISTING

PAGE 139

*****													*****												
DESCRIPTION													STATE	COUNTY	AQCR	AQCR NAME		PLANT ID	GEOG SUB #	SMSA	BATCH				
*****													31		0015	011	WESTERN PART OF STATE UU		0195	00367	1257	0			
RECORD TYPE	CATEGORY NUMBER		CATEGORY DISAG #		AIR BASIN	DEFINED AREA CODE	AREA NAME		MAJOR ACTIVITY		SUBALLOCATION TECHNIQUE CODE DESCRIPTION														
SG	000		00		011	123	CADE'S CUVE		FARMING		15 CAASE														
DATE YR/DAY	SIP BASE YEAR		PROJ'D YEAR		SOURCE TYPE	LENGTH AREA	UNITS CD	POP CODE	POPULATION TOTAL		NUMBER COORDINATES		UTM	NUMBER OF POLLUTANTS											
79/303	79		83		A	137.59	12		50	101,234	2			16											
UTM COORDINATES																									
01 HORIZ		VERT		02 HORIZ		VERT		03 HORIZ		VERT		04 HORIZ		VERT		05 HORIZ		VERT		06 HORIZ		VERT			
18		530.0		4310.0		18		535.1		4320.1															
ANTH COAL		SULFUR BITUM COAL		CONTENTS DIST OIL		RESID'L OIL		ASH ANTH COAL		CONTENTS BITUM COAL		GAS FUEL VEHICLES LIGHT		GAS FUEL VEHICLES HEAVY		DIESEL FUEL VEHICLES HEAVY		LIMITED ACCESS ROADS		MOTOR VEHICLE SUB ROADS		MILES URBAN ROADS		URBAN ROADS	

FLAG NEDS A1		EIS 1		FLAGS 2		3		4		5		6		TSP		SO2		NOX		HC		CO			
A		A		A		A		A		A		A		125		137		12		3,459		119			
***		POLLUTANT ID		NAME		ATTAINMENT STATUS		AQMA NUMBER		EIS F 7		***		POLLUTANT ID		NAME		ATTAINMENT STATUS		AQMA NUMBER		EIS F 7		***	
***		11101		TSP		U		000123		A		***		11103		BENZENE ORGNICS		A		000123		A		***	
***		44101		TOTAL OXIDANTS		U		000123		A		***		44201		OXONE		A		000123		A		***	
***		42101		CO		U		000123		A		***		42102		CO2		A		000123		A		***	
***		45102		NONMETH HC		U		000123		A		***		43502		FORMALDEHYDE		A		000123		A		***	
***		22306		NITRATES		U		000123		A		***		22403		SULFATES		A		000123		A		***	
***		42603		NOX		U		000123		A		***		43101		HC		A		000123		A		***	
***		42601		NO		U		000123		A		***		42602		NO2		A		000123		A		***	
***		42401		SO2		U		000123		A		***		42402		HYDROGEN SULFIDE		A		000123		A		***	

COMMENT																									
**RECORD **																									

31		0015		011		00367		000		00		EIS		A		A		A		0					
LINE #		COMMENTS																							
001		AREA IS BOUNDED BY ROUTES 17,35,49, AND 1001A																							
002		THREE FACTORIES, ONE AIRSTRIP, ONE GRAABRY AND 15 FARMS INCLUDED, REST IS URBAN																							

Figure AS17-8 - continued. Sample Output

132

(Page 4 of 5)

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
FILE LISTING

PAGE 140

CATEGORY 234																									

STATE		COUNTY		AUCR		GEOG SUBALLOC #		CATEGORY #		CATEGORY DISAG #		BATCH													
31		0015		011		00367		234		01		0													
RECORD YEAR	RECORD TYPE	CATEGORY DESCRIPTION				CATEGORY ADJUSTMENT		PROCESS RATE		UNITS CODE DESCRIPTION		NORMAL OPERATING HR/D D/WK WK/YR			THRUPUT RATIO										
1979	SD	CAT 100 DISAG 10				10		1597				24	7	52	1.3										
UNIFORM THRUPUT		MONTHLY THRUPUT PERCENTAGES											PERCENTAGES OF			HEAT CONTENT									
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	NITROGEN	SULFUR	ASH									
YES		8	8	9	8	8	9	8	8	9	8	8	9	.036	7.1	10.2	0034								
UNIFORM THRUPUT		HOURLY THRUPUT PERCENTAGES																							
		0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
YES		4	4	4	4	4	5	4	4	4	4	5	4	4	4	4	4	5	4	4	4	4	4	4	5
MAX HRLY THRUPUT		DATA CONF RATING		EIS FLAG				NEDS FLAG		NEDS A7 COMMENT		INFORMATION SOURCE CODE		NUMBER OF POLLUTANTS											
				1 2 3 4								CODE NARRATIVE		16											
		1		A A A A				A		A		L LOCAL GOVERNMENT													
POLLUTANT ID NAME		POLLUTANT SPECIFIC DATA				EMISSION FACTOR		EM FAC CONF RING		EM FAC SOURCE		EM FAC ORIGIN		EMISSIONS ESTIMATES		NEDS A7 EMISSION		MAX HOURLY MAX HOURLY		CONF RING		FLAG EIS 5			
11101 TSP						1,241.398		5		A		L		101,108						3		A			
11103 BENZENE ORGNICS						1,201.449		5		A		L		9,594						3		A			
11114 WINDBLN PART						1,241.198		5		A		L		9,911						3		A			
21101 TOTAL DUSTFALLS		XXJ-12				351.111		5		A		L		2,804						3		A			
22306 NITRATES						1,241.198		5		A		L		9,911						3		A			
22403 SULFATES						2,316.449		5		A		L		18,497						3		A			
42101 CO						1,243.398		5		A		L		9,929						3		A			
42102 CO2						2,317.749		5		A		L		18,507						3		A			
42401 SO2						1,201.398		5		A		L		68,111						3		A			
42402 HYDROGEN SULFIDE						2,000.749		5		A		L		15,976						3		A			
42601 NO		J/112-A				1,201.998		5		A		L		9,598						3		A			
42602 NO2		S-JJJJ-55				4,300.749		5		A		L		1,236						3		A			
42603 NOX		J/1188A				1,201.738		5		A		L		9,596						3		A			
43101 HC		XXJ-12				1,351.001		5		A		L		10,788		0000100				3		A			
43102 NONMETH HC						1,201.448		5		A		L		9,594						3		A			
43502 FORMALYHDE		S-JJJ5555				4,200.749		5		A		L		33,543						3		A			

COMMENT																									
RECORD																									

STATE		COUNTY		AUCR		GEOG SUBALLOC #		CATEGORY NUMBER		CATEGORY DISAG #		COMMENT TYPE		FLAGS NEDS A6 EIS 1 EIS 2		BATCH CODE									
31		0015		011		00367		234		01		EIS		A A A		0									
LINE #		COMMENTS																							
001		CATEGORY IS BROKEN INTO THREE SUBALLOCATIONS 10, 20, 30, FURTHER SUBDIVISION LATER																							

133 Figure AST7-8 - continued. Sample Output (Page 5 of 5)

EIS/AS Test 8

Submit Annual Report in EIS/AS Format

In this test run, EIS/AS master file internal transactions are generated from the EIS/AS master file in order to submit the data that has been added, changed, or deleted since the last execution of CRPASNA (EC0120) to the appropriate agency. The cataloged procedure ECRPM10 is used to execute CRPASNA (EC0120), the annual report program.

In Test 6, CRPASNA (EC0120) was used to submit an annual report to NEDS by generating NEDS transactions. In this test EIS/AS internal transactions are generated by the annual report program. This is accomplished by specifying AREA on the option card. For a description of CRPASNA (EC0120) refer to Test 6.

The run stream for this test run contains the JCL needed for submitting EIS/AS master file data to the appropriate agency by generating EIS/AS internal transactions. This run stream is shown in Figure AST8-1.

The cataloged procedure executed by this run stream is ECRPM10. By using substitutable parameters, the input master file is specified as ECMSTR5 (created in Test 7), the output master file is named ECMSTR6, and the output EIS/AS internal transaction file is named ECAREA1. The user must supply the DD (data definition) information for the option card file in the REPORT step. The options specified in this test run are AREA, NOFLAGW, and NOLIST. Note that when EIS/AS internal transactions are being generated the NEDS transaction file ECSNDTR must be a dummy file in the REPORT step. The sample output produced by this run stream is shown in Figure PST8-2.

```

//ASTESTOK JOB    (ACCOUNTING INFO)
//*
//*   SUBMIT ANNUAL REPORT TO WEDS USING EIS/AS
//*   INTERNAL TRANSACTIONS
//*
//TEST08A EXEC ECRPM10,
//      OLDMSTR=ECMSTR5,
//      NEWSTR=ECMSTR6,
//      TRANSFL2=ECLARFA1
//*
//*   GENERATE EIS/AS INTERNAL TRANSACTIONS FOR ANNUAL REPORT
//*
//REPORT.ECSNDTR DD DUMMY
//REPORT.OPTIONS DD *
AREA NOFLAGW NOLIST

```

Figure AST8-1. Run Stream

PROGRAM NAME: CMPASNA (EC0120)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: AREA, NOFLAGW, NOLIST

INPUT EIS/AS MASTER FILE COUNT:	371
OUTPUT EIS/AS MASTER FILE COUNT:	371
RECORDS DELETED FROM MASTER FILE:	0
AREA TRANSACTIONS GENERATED:	3,076
ADD TRANSACTIONS COUNT:	3,076
CHANGE TRANSACTIONS COUNT:	0
DELETE TRANSACTIONS COUNT:	0
NUMBER OF ERROR MESSAGES:	0
NUMBER OF WARNING MESSAGES:	0
NUMBER OF CONDITIONAL MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0
NUMBER OF DISASTER MESSAGES:	0

Figure AST8-2. Sample Output

EIS/AS Test 9

Generate Internal Transactions and Update the Master File

In this test run, the EIS/AS master file is used to generate internal transactions; each transaction will contain the emission factor file information that corresponds to it. These transactions are then used to update the master file. The cataloged procedure that achieves this is ECFMM30 which executes CMSEFGN (EC0080), the master file emission factor transaction generator program; CSRINTR (EC0050), the master file internal transaction sort program; and CFMMSTR (EC0070), the master file maintenance program.

CMSEFGN (EC0080) compares the EIS/AS master file to the EIS/AS emission factor file and creates internal transactions to update the emission factor information in the master file with data from the emission factor file.

If a matching emission factor file record is found for a master file category record, the dates of the emission factor file record are compared to the date specified on the option card. If the date of the emission factor file category record is greater than that specified by the user for category records, a category-2 internal transaction is generated to change the nitrogen, sulfur, and ash contents in the master file record. The emission factor file pollutant records for each pollutant ID in the master file record are then examined. If the date in the pollutant record is greater than that specified by the user for pollutant records, a category-5 internal transaction is generated to change the emission factor, confidence level, and specific data for the pollutant ID. Only category-2 and category-5 change transactions are generated. Note that these transactions are in master file internal transaction format.

An option card is used to specify date criteria for the emission factor file and to specify whether or not warning messages should be printed.

The date criteria specify a category date and a pollutant date. A category date must be specified for any category-2 internal transactions to be generated; likewise, a pollutant date must be specified for any category-5

internal transactions to be generated. Also, the date of an emission factor file category record must be greater than the specified category date for a category-2 transaction to be created, and the date of an emission factor file pollutant record must be greater than the specified pollutant date for a category-5 transaction to be created. A category date is specified by coding CDAT YYDDD in card columns 13 through 22, where YYDDD represents a five-digit Julian date. Also, a pollutant date is specified by coding PDAT YYDDD in card columns 28 through 37, where YYDDD represents a five-digit Julian date. Either type, or both types can be specified; however, at least one type must be specified. If no date is specified, or if a date is specified incorrectly, program execution will be terminated.

If FLAGW is coded in card columns 1 through 5, all warning messages will be printed in the diagnostic report; if NOFLAGW is coded in columns 1 through 7, no warning messages will be printed. If this field is left blank or improperly coded, a default of NOFLAGW is assumed.

The programs CSRINTR (EC0050) and CFMMSTR (EC0070) have been described in Test 2.

The run stream for this test run contains the JCL needed for generating from the master file internal transactions with new emission factor information and then using these transactions to update the master file. This run stream is shown in Figure AST9-1.

The cataloged procedure executed by this run stream is ECFMM30. Substitutable parameters are used to specify ECMSTR6 (created in Test 8) as the input master file, ECEMFL1 (created in Test 1) as the input emission factor file, and ECMSTR7 as the updated master file. The user must supply the DD (data definition) information for the option card files in the GENER and UPDATE steps. The options used in the GENER step of this test are FLAGW, CDAT 75001, and PDAT 75001. In the UPDATE step the options used are 80, FLAGW, and LIST. Refer to Figure AST9-2 for the sample output produced by this run stream.

```

//ASTEST09 JOB      (ACCOUNTING INFO)
//*
//*  GENERATE INTERNAL EMISSION FACTOR TRANSACTIONS AND
//*  UPDATE THE MASTER FILE
//*
//TEST09A EXFC ECFMM30,
//      EMFCFIL=ECFMFL1,
//      OLDMSTR=ECMSTR6,
//      NEWMSTR=ECMSTR7
//*
//*  CREATE INTERNAL TRANSACTIONS FROM THE TEST 8
//*  MASTER FILE; INSERT NEW EMISSION FACTOR FILE
//*  INFORMATION INTO THE TRANSACTIONS; UPDATE
//*  THE MASTER FILE WITH THESE TRANSACTIONS
//*
//GENER.OPTIONS DD *
FLAGW      CDAT 75001      PDAT 75001
//UPDATE.OPTIONS DD *
RU FLAGW LIST

```

Figure AST9-1. Run Stream

MASTER FILE EMISSION FACTOR TRANSACTION GENERATOR PROGRAM

PAGE

PROGRAM NAME: CMSEFGN (EC0080)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: FLAGW CDA1 75001 PDAT 75001

DATE: CATEGORY 75/001 POLLUTANT 75/001

*** CMSEFGN 009 CONDITIONAL - EMISSION FACTOR FILE CONTAINS FEDERAL CATEGORY RECORDS FOR CATEGORIES OTHER THAN 1-64

RECORD KEY: 061280 000000001001000

*** CMSEFGN 019 WARNING - NO NITROGEN, SULFUR, OR ASH CONTENTS FOR THIS KEY

RECORD KEY: 061280 000000001001000

POLLUTANT ID: 11101

*** CMSEFGN 015 WARNING - NO MATCHING EMISSION FACTOR RECORD FOR THIS POLLUTANT ID

RECORD KEY: 061280 000000001001000

POLLUTANT ID: 42101

*** CMSEFGN 015 WARNING - NO MATCHING EMISSION FACTOR RECORD FOR THIS POLLUTANT ID

RECORD KEY: 061280 000000001001000

POLLUTANT ID: 42401

*** CMSEFGN 015 WARNING - NO MATCHING EMISSION FACTOR RECORD FOR THIS POLLUTANT ID

RECORD KEY: 061280 000000001001000

POLLUTANT ID: 42602

*** CMSEFGN 015 WARNING - NO MATCHING EMISSION FACTOR RECORD FOR THIS POLLUTANT ID

RECORD KEY: 061280 000000001001000

POLLUTANT ID: 43101

*** CMSEFGN 015 WARNING - NO MATCHING EMISSION FACTOR RECORD FOR THIS POLLUTANT ID

Figure AST9-2. Sample Output

140

(Page 1 of 6)

DATE: CATEGORY 75/001 POLLUTANT 75/001

NUMBER OF MASTER FILE RECORDS READ:	371
NUMBER OF EMISSION FACTOR RECORDS READ:	482
NUMBER OF CATEGORY-2 TRANSACTIONS CREATED:	0
NUMBER OF CATEGORY-5 TRANSACTIONS CREATED:	1,136
NUMBER OF WARNING MESSAGES:	1,034
NUMBER OF CONDITIONAL MESSAGES:	1
NUMBER OF ERROR MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0
NUMBER OF DISASTER MESSAGES:	0

Figure AST9-2 - continued. Sample Output

(Page 2 of 6)

PROGRAM NAME: CPRINT (EC0050)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS READ: 1,136
 NUMBER OF TRANSACTIONS WRITTEN: 1,137

ETS/AS MASTER FILE MAINTENANCE PROGRAM - DIAGNOSTIC MESSAGES

PAGE 1

PROGRAM NAME: CFMMSTR (EC0070)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

CONTROL DATE IS 80 , ERROR OPTION IS FLAGW , LIST OPTION IS LIST

ETS/AS MASTER FILE MAINTENANCE PROGRAM - DIAGNOSTIC MESSAGES

PAGE 2

NUMBER OF INPUT TRANSACTIONS READ: 1,137
 NUMBER OF DISASTERS DETECTED: 0
 NUMBER OF ABORTS DETECTED: 0
 NUMBER OF ERRORS DETECTED: 0
 NUMBER OF CONDITIONALS DETECTED: 0
 NUMBER OF WARNINGS DETECTED: 0
 NUMBER OF TRANSACTIONS REJECTED: 0
 NUMBER OF AREA SOURCE FILE RECORDS READ IN: 371
 NUMBER OF AREA SOURCE FILE RECORDS WRITTEN OUT: 371

062238	00000002300100052CA	1110100000080000F	SUSPENDED PART.
062238	00000002300100052CA	4210100000080000F	SUSPENDED PART.
062238	00000002300100052CA	4740100000025000F	SULFUR DIOXIDE
062238	00000002300100052CA	4260200000030000F	N OXIDES
062238	00000004700100052CA	1110100000000200F	SUSPENDED PART.
062238	00000004700100052CA	4710100000000200F	SUSPENDED PART.
062238	00000004700100052CA	4240100000000100F	SULFUR DIOXIDE
062238	00000004700100052CA	4260200000000200F	N OXIDES
062238	00000006000100052CA	1110100000170000F	SUSPENDED PART.
062238	00000006000100052CA	4210100000170000F	SUSPENDED PART.
062238	00000006000100052CA	4740100000001500F	SULFUR DIOXIDE
062238	00000006000100052CA	4260200000004000F	N OXIDES
147840	00000000100100052CA	1110100000100000F	SUSPENDED PART.
147840	00000000100100052CA	4710100000100000F	SUSPENDED PART.
147840	00000000100100052CA	4240100000030000F	SULFUR DIOXIDES
147840	00000000100100052CA	4260200000003000F	N OXIDES
147840	00000000200100052CA	1110100000020000F	SUSPENDED PART.
147840	00000000200100052CA	4210100000020000F	SUSPENDED PART.
147840	00000000200100052CA	4240100000030000F	SULFUR DIOXIDE
147840	00000000200100052CA	4260200000003000F	N OXIDES
147840	00000000300100052CA	1110100000025000F	SUSPENDED PART.
147840	00000000300100052CA	4210100000025000F	SUSPENDED PART.
147840	00000000300100052CA	4240100000140000F	SULFUR DIOXIDE
147840	00000000300100052CA	4260200000010000F	N OXIDES
147840	00000000500100052CA	1110100000100000F	SUSPENDED PART.
147840	00000000500100052CA	4210100000100000F	SUSPENDED PART.
147840	00000000500100052CA	4240100000000000F	SULFUR DIOXIDE
147840	00000000500100052CA	4260200000000000F	N OXIDES
147840	00000000800100052CA	1110100000050000F	SUSPENDED PART.
147840	00000000800100052CA	4210100000050000F	SUSPENDED PART.
147840	00000000800100052CA	4240100000030000F	SULFUR DIOXIDE
147840	00000000800100052CA	42602000000091500F	N OXIDES
147840	00000000900100052CA	1110100000020000F	SUSPENDED PART.
147840	00000000900100052CA	4210100000020000F	SUSPENDED PART.
147840	00000000900100052CA	4240100000140000F	SULFUR DIOXIDE
147840	00000000900100052CA	4260200000022000F	N OXIDES
147840	00000001000100052CA	1110100000160000F	SUSPENDED PART.
147840	00000001000100052CA	4210100000160000F	SUSPENDED PART.
147840	00000001000100052CA	4240100001500000F	SULFUR DIOXIDE
147840	00000001000100052CA	4260200000060000F	N OXIDES
147840	00000001100100052CA	1110100000100000F	SUSPENDED PART.
147840	00000001100100052CA	4210100001000000F	SUSPENDED PART.
147840	00000001100100052CA	47401000000006000F	SULFUR DIOXIDE
147840	00000001100100052CA	4260200001200000F	N OXIDES
147840	00000001400100052CA	1110100000052000F	SUSPENDED PART.
147840	00000001400100052CA	4210100000052000F	SUSPENDED PART.

Figure AST9-2 - continued. Sample Output

061280	0000000000000000565067CG		
061280	0000000010010000734067CARESIDENT ANTHRACITE COAL	79000040123	Y080809080809080809080809
061280	0000000020010000669067CARESIDENT BITUMINOUS COAL	79000020010	Y080809080809080809080809
061280	0000000030010000734067CARESIDENT DISTILLATE OIL	79000009750	Y080809080809080809080809
061280	0000000040010000669067CARESIDENTIAL RESIDUAL OIL	79000008900	Y080809080809080809080809
061280	0000000050010000669067CARESIDENTIAL NATURAL GAS	79000023550	Y080809080809080809080809
061280	0000000060010000734067CARESIDENTIAL WOOD	79000000050	Y080809080809080809080809
061280	0000000070010000669067CACUMM-INST ANTHRACITE COAL	79000023500	Y080809080809080809080809
061280	0000000080010000669067CACUMM-INST BITUMINOUS COAL	790000034750	Y080809080809080809080809
061280	0000000090010000734067CACUMM-INST DISTILLATE OIL	79000042100	Y080809080809080809080809
061280	0000000100010000669067CACUMM-INST RESIDUAL OIL	79000000390	Y080809080809080809080809
061280	0000000110010000669067CACUMM-INST NATURAL GAS	79000008750	Y080809080809080809080809
061280	0000000120010000734067CACUMM-INST WOOD	79000000005	Y080809080809080809080809
061280	0000000130010000669067CAINDUSTRY ANTHRACITE COAL	79000098750	Y080809080809080809080809
061280	0000000140010000669067CAINDUSTRY BITUMINOUS COAL	79000123400	Y080809080809080809080809
061280	0000000150010000734067CAINDUSTRIAL COKE	79000009850	Y080809080809080809080809
061280	0000000160010000669067CAINDUSTRIAL DISTILLATE OIL	79000021500	Y080809080809080809080809
061280	0000000170010000669067CAINDUSTRIAL RESIDUAL OIL	79000000980	Y080809080809080809080809
061280	0000000180010000734067CAINDUSTRIAL NATURAL GAS	79000056900	Y080809080809080809080809
061280	0000000190010000669067CAINDUSTRIAL WOOD	79000000025	Y080809080809080809080809
061280	0000000200010000669067CAINDUSTRIAL PROCESS GAS	79000002350	Y080809080809080809080809
061280	0000009990010000799 CA		
061280	00000100000000000453067SG79		
061280	0000010010010000474067SARESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000010010110000474067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000010013510000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000010019910000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000019990010000474 CA		
061280	00050000000000000453067SG		
061280	0005000010110000344067SDRESIDENT ANTHRACITE COAL	79000059850	
061280	0005000012210000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0005000017010000344067SDRESIDENT ANTHRACITE COAL	79000059850	
061280	0005009990010000344 CA		
061280	00061100000000000453067SG79		
061280	0006119990010000344 CA		
061280	09999900000000000453067SG79		
061280	0999990019910000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0999999990010000344 CA		
062238	00000000000000000453067CG79		
062238	0000000000020000136067 NAREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES		
062238	0000000230010000669067CACUMM-INST UN-SITE INCINER	79000002350	Y080809080809080809080809
062238	0000000470010000669067CACIVIL AIRCRAFT LIU*S	79000005005	Y080809080809080809080809
062238	0000000600010000669067CAFOREST WILD FIRES	79 0000400	Y080809080809080809080809
062238	0000009990010000669 CA		
147840	00000000000000000565074CG800040134213SMITH COUNTY	INDUSTRY	1120768223
147840	0000000000020000136074 NABASH		
147840	0000000010010000669067CARESIDENT ANTHRACITE COAL	0000000001	

Figure AST9-2 - continued. Sample Output

061280	0000000000000000565067CG		
061280	0000000010010000734067CAHESIDENT ANTHRACITE COAL	79000040123	Y080809080809080809080809
061280	0000000020010000669067CAHESIDENT BITUMINOUS COAL	79000020010	Y080809080809080809080809
061280	0000000030010000734067CAHESIDENT DISTILLATE OIL	79000009750	Y080809080809080809080809
061280	0000000040010000669067CAHESIDENTIAL RESIDUAL OIL	79000008900	Y080809080809080809080809
061280	0000000050010000669067CAHESIDENTIAL NATURAL GAS	79000023550	Y080809080809080809080809
061280	0000000060010000734067CAHESIDENTIAL WOOD	79000000050	Y080809080809080809080809
061280	0000000070010000669067CACUMM-INST ANTHRACITE COAL	79000023500	Y080809080809080809080809
061280	0000000080010000669067CACUMM-INST BITUMINOUS COAL	790000034750	Y080809080809080809080809
061280	0000000090010000734067CACUMM-INST DISTILLATE OIL	79000042100	Y080809080809080809080809
061280	0000000100010000669067CACUMM-INST RESIDUAL OIL	79000000390	Y080809080809080809080809
061280	0000000110010000669067CACUMM-INST NATURAL GAS	790000008750	Y080809080809080809080809
061280	0000000120010000734067CACUMM-INST WOOD	79000000005	Y080809080809080809080809
061280	0000000130010000669067CAINDUSTRY ANTHRACITE COAL	79000098750	Y080809080809080809080809
061280	0000000140010000669067CAINDUSTRY BITUMINOUS COAL	79000123400	Y080809080809080809080809
061280	0000000150010000734067CAINDUSTRIAL COKE	79000009850	Y080809080809080809080809
061280	0000000160010000669067CAINDUSTRIAL DISTILLATE OIL	79000021500	Y080809080809080809080809
061280	0000000170010000669067CAINDUSTRIAL RESIDUAL OIL	79000000980	Y080809080809080809080809
061280	0000000180010000734067CAINDUSTRIAL NATURAL GAS	79000056900	Y080809080809080809080809
061280	0000000190010000669067CAINDUSTRIAL WOOD	79000000025	Y080809080809080809080809
061280	0000000200010000669067CAINDUSTRIAL PROCESS GAS	79000002350	Y080809080809080809080809
061280	0000009990010000799 CA		
061280	0000010000000000453067SG79		
061280	0000010010010000474067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000010010110000474067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000010013510000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000010019910000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0000019990010000474 CA		
061280	0005000000000000453067SG		
061280	0005000010110000344067SDRESIDENT ANTHRACITE COAL	79000059850	
061280	0005000012210000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0005000017010000344067SDRESIDENT ANTHRACITE COAL	79000059850	
061280	0005009990010000344 CA		
061280	0006110000000000453067SG79		
061280	0006119990010000344 CA		
061280	0999990000000000453067SG79		
061280	0999990019910000344067SDRESIDENT ANTHRACITE COAL	79000059850	Y080809080809080809080809
061280	0999999990010000344 CA		
062238	0000000000000000453067CG79		
062238	0000000000020000136067 NAREA SOURCE TEST - SOME, BUT NOT ALL VALUES OR CATEGORIES		
062238	0000000230010000669067CACUMM-INST UN-SITE INCINER	79000002350	Y080809080809080809080809
062238	0000000470010000669067CACIVIL AIRCRAFT LID'S	79000005005	Y080809080809080809080809
062238	0000000600010000669067CAFOREST WILD FIRES	79 0000900	Y080809080809080809080809
062238	0000009990010000669 CA		
147840	00000000000000000565074CG800040134213SMITH COUNTY	INDUSTRY	1120788223
147840	0000000000020000136074 NWABASH		
147840	0000000010010000669074CAHESIDENT ANTHRACITE COAL	000000001	

Figure AST9-2 - continued. Sample Output

(Page 6 of 6)

EIS/AS Test 10

Retrieve a Batched Answer File and Produce a Formatted Dump of the Answer File

In this test run, a batched retrieval is performed on the master file and the resulting answer file is sorted before a formatted dump of this file is produced in batch number sequence. To accomplish this, the cataloged procedure ECRTM10 is used first to execute the retrieval language processor program, CRTLNGP (EC0090); the COBOL compiler; and the linkage editor in order to create the generated retrieval program, CRTGENR (EC0100). Then, the cataloged procedure ECRTM20 is used to execute CRTGENR (EC0100). The advantage of using these separate procedures instead of the single retrieval cataloged procedure, ECRTM30, is that the retrieval program does not have to be regenerated from the retrieval specifications each time a new master file is to be used. Next, the cataloged procedure ECSRM10 is used to execute CSRMSTR (EC0110), the master file sort program. The final procedure used is ECRPM30 which executes CRPDUMP (EC0140), the master file formatted dump program.

The retrieval programs were described in Test 7. To produce a batched retrieval, each group of retrieval request cards must be preceded by a \$\$SELECT control card; the last retrieval control card should be a \$\$END card. The batched retrieval specification cards are used as input to CRTLNGP (EC0090). In this run, five retrievals are batched. Note that retrievals can only be batched when the retrieval requests are in the EIS/PS retrieval language.

The master file sort program, CSRMSTR (EC0110), sorts batched retrieval answer files into the sequence required for their use as input to either CRPMSTR (EC0130), the detailed report program, or CRPDUMP (EC0140), the formatted dump program. In addition, this program can be used to sort out-of-sequence master files into the standard master file sequence.

The option card for CSRMSTR (EC0110) specifies the sequence into which the master or answer file is to be sorted. By entering BATCH in card columns 1 through 5, the BATCH option can be specified to sort a batched answer file into batch number sequence. However, if STND is entered in card columns 1

through 4, the STND option is specified and the master file will be sorted into the standard master file sequence; i.e., the sequence created by the master file maintenance program, CFMMSTR (EC0070). If no option card is entered, a default of STND is assumed. If the option card is blank or if any invalid characters occur within columns 1 through 5, the run will be aborted.

An answer file produced by batched retrievals should always be sorted by CSRMSTR (EC0110) using the BATCH option to group together the records selected by each retrieval.

Test 4 provides a description of the master file formatted dump program, CRPDUMP (EC0140).

The run stream for this test run contains the JCL needed to generate a batched answer file, sort this file, and produce a formatted dump of this answer file. The run stream is shown in Figure AST10-1 and the sample output from this run stream is shown in Figure AST10-2.

First, the cataloged procedure ECRTM10 is executed. The user must supply the DD (data definition) information for the retrieval specification card file in the GENER step. In this test, the input retrieval specification cards are used to produce a batched answer file.

Next, the run stream executes the cataloged procedure ECRTM20. The input master file used is ECMSTR7 (created in Test 9) and the output answer file produced is named ECANSR1.

To sort the answer file, the cataloged procedure ECSRM10 is executed. Substitutable parameters specify the input file as ECANSR1 (created in the last step) and the sorted output file as ECANSR2. The user must supply the DD information for the option card file in the SORT step. The option specified in this test is BATCH.

The last cataloged procedure executed is ECRPM30. The master file used as input is ECANSR2. The DD information for the option card file in the DUMP step must be supplied by the user. The option card is not present in this run stream causing the default options to be in effect.

```

//ASTEST10 JOB      (ACCOUNTING INFO)
/**
/**  RETRIEVE A BATCH ANSWER FILE FROM THE MASTER FILE AND
/**  PRODUCE A FORMATTED DUMP OF THE ANSWER FILE
/**
//TEST10A EXEC ECHTM10
/**
/**  GENERATE THE RETRIEVAL LOAD MODULE USING THE
/**  BATCH SPECIFICATIONS
/**
//GENER.INPUT DD *
$3SELECT      0 1 2
COUNTY              = '2320'
CATEGORY-NUMBER      = '032'
$3SELECT
COUNTY              = '1780'
CAT-POLLUTANT-ID     = '43101'
$3SELECT
COUNTY              = '0015'
COUNTY              = '0680'
PROJECTED-YEAR       = '83'
$3SELECT
STATE               = '06'
COUNTY              = '2238'
$3SELECT
AQCR                = '200'
$SFND
//TEST10R EXEC ECHTM20,
//      MSTRFIL=ECMSTR7,
//      ANSRFIL=ECANSR1
/**
/**  EXECUTE THE GENERATED RETRIEVAL PROGRAM FROM
/**  STEP A ON THE MASTER FILE FROM TEST 9
/**
//TEST10C EXEC ECSRMI0,
//      OLDMSTR=ECANSK1,
//      NEWMSR=ECANSK2
/**
/**  SORT THE ANSWER FILE FROM STEP B IN BATCH ORDER
/**  IN PREPARATION FOR THE REPORT
/**
//SORT.OPTIONS DD *
BATCH
//TEST10D EXEC ECRPM30,
//      MSTRFIL=ECANSK2
/**
/**  PRODUCE A FORMATTED DUMP OF THE SORTED ANSWER
/**  FILE FROM STEP C
/**
//DUMP.OPTIONS DD *

```

Figure AST10-1. Run Stream

EIS/AS RETRIEVAL LANGUAGE PROCESSOR PROGRAM - DIAGNOSTIC REPORT

PROGRAM NAME: CRTLNGP (EC0090)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

INPUT (CONTROL CARDS):

```

$SELECT      0 1 2
COUNTY      = '2320'          AND
CATEGORY-NUMBER = '032'
$SELECT
COUNTY      = '1780'          AND
CAT-POLLUTANT-ID = '43101'
$SELECT
COUNTY      = '0015'          OR
COUNTY      = '0680'          AND
PROJECTED-YEAR = '83'
$SELECT
STATE        = '06'           AND
COUNTY      = '2238'
$SELECT
AQCR         = '200'
$END
    
```

```

NUMBER OF CONTROL CARDS READ:      16
NUMBER OF RETRIEVAL SKELTON RECORDS READ: 837
NUMBER OF RETRIEVAL SOURCE RECORDS WRITTEN: 978
NUMBER OF CONDITIONAL MESSAGES:    0
NUMBER OF ABORT MESSAGES:          0
    
```

EIS/AS GENERATED RETRIEVAL PROGRAM - DIAGNOSTIC REPORT

PAGE 1

PROGRAM NAME: CRTGENP (EC0100)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

```

NUMBER OF MASTER FILE RECORDS READ: 371
NUMBER OF MASTER FILE RECORDS WRITTEN: 92
NUMBER OF CONDITIONAL MESSAGES:    0
NUMBER OF ABORT MESSAGES:          0
    
```

Figure AST10-2. Sample Output

149

(Page 1 of 3)

PROGRAM NAME: CSRMSTR (EC0110)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

SORT OPTION SPECIFIED: BATCH

NUMBER OF RECORDS READ: 92
 NUMBER OF RECORDS WRITTEN: 92
 NUMBER OF DIAGNOSTIC MESSAGES: 0

EIS/AS MASTER FILE FORMATTED DUMP PROGRAM - DIAGNOSTIC REPORT

PAGE

1

PROGRAM NAME: CRPDUMP (EC0140)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

(Page 2 of 3) OPTIONS IN EFFECT: 55 LINES PER PAGE; 0 RECORDS SKIPPED; ALL RECORDS TO BE DUMPED

*** CRPDUMP 003 CONDITIONAL - NO VALID LINE SPECIFICATION - DEFAULT OF 55 ASSUMED
 *** CRPDUMP 004 CONDITIONAL - NO VALID VALUE SPECIFIED FOR NUMBER OF RECORDS TO BE SKIPPED - DUMP STARTS AT FIRST RECORD
 *** CRPDUMP 005 CONDITIONAL - NO VALID VALUE SPECIFIED FOR NUMBER OF RECORDS TO BE DUMPED - ENTIRE FILE DUMPED

NUMBER OF DESCRIPTION RECORDS DUMPED: 8
 NUMBER OF CATEGORY RECORDS DUMPED: 82
 NUMBER OF COMMENT RECORDS DUMPED: 2
 TOTAL NUMBER OF RECORDS READ: 92

Figure AST10-2 - continued. Sample Output

```

STATE=42 COUNTY=2320 GENG/SURALLLOC/#=00000 CATEGORY/#=000 DISAGGR/#=00 RECORD/TYPE/(KEY)=0 LINE/#=000 BATCH=0
AQCH=204 RC/TYP=CG YR=75 DY= AIR/RSIN= SMSA= AREA= MJ/ACT= PLT/ID= BSE/YR= PRJD/YR=
RURL/PNP/Z= PUPUL= AQCR/NM= SURAL/TECHNQ/CD= SUBAL/TECHNQ/DESC= DEFND/AREA/CD=
SULFUR/CONTENTS: (ANTHRCT/COAL= ,BITUMNS/COAL=10,DISTILLT/OIL=02,RESID/OIL=18) ASH/CONTENTS: (ANTHRCT/COAL= ,BITUMNS/COAL=091)
#/OIL/CONRDS=0 1ST: (ZONE= ,HORIZ= ,VERT= ) 2ND: (ZONE= ,HORIZ= ,VERT= ) 3RD: (ZONE= ,HORIZ= ,VERT= )
4TH: (ZONE= ,HORIZ= ,VERT= ) 5TH: (ZONE= ,HORIZ= ,VERT= ) 6TH: (ZONE= ,HORIZ= ,VERT= )
SOURCE/TYPE= LENGTH/AREA= LENGTH/AREA/UNITS/CODE= SIP/ESTIMATES: (TSP=01600, SO2=0400, NOX=8400, HC=10400, CO=53200)
PUP/CODE=1 VEH: (GAS/LGT=0016085 GAS/HEV=000466 DIESL/HEV=001935) MVMILES/RDS: (LIM/ACCS= RUP= STH= URB= )
NEDS/A1/FLG= S ETS/FLGS: (CARD/1=S,CARD/2=S,CARD/3=S,CARD/4=S,CARD/5=S,CARD/6=S) #/PULL=05
** POLL/ID POLL/NAME ATTNMNT/STATUS AQMA/# FIS/FLG/CRD/7 ** PULL/ID POLL/NAME ATTNMNT/STATUS AQMA/# ETS/FLG/CRD/7 **
** 11101 PARTICULATES U S ** 42602 NITROGEN OXIDES U S **
** 42101 U S ** 42401 SULFUR DIOXIDE U S **
** 43101 HYDROCARBONS U S **

```

```

STATE=42 COUNTY=2320 GENG/SURALLLOC/#=00000 CATEGORY/#=032 DISAGGR/#=00 RECORD/TYPE/(KEY)=1 LINE/#=000 BATCH=0
AQCH=204 REC/TYPE=CA CATEGORY/DESC=MED DUTY GAS VEH RURAL RD YR/OF/INFD= PRCSR/RATE= CATEGORY/ADJ= UNITS/CD=
UNITS/CD/DESC= UNIFORM/THRUPT= MONTHLY/THRUPT/Z: (JAN= ,FEB= ,MAR= ,APR= ,MAY= ,JUN= ,JUL= ,AUG= ,SEP= ,OCT=
NOV= ,DEC= ) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HR/THRUPT= DATA/CONFIDENCE/RATING=
NITRG/Z= SULF/Z= ASH/Z= HEAT/CONT= UNIFORM/HR/THRUPT= HR/THRUPT/Z: (00= , , ,03= , , ,06= , , ,09=
, ,12= , , ,15= , , ,18= , , ,21= , , ) NEDS/A7/CUMME INFO/SOURCE/CODE=
INFO/SRCF/NARK= EIS/FLG/1=S FIS/FLG/2=S EIS/FLG/3=S FIS/FLG/4=S NEDS/FLG=S NEDS/A7/FLG=S #/PULL=05
PULL/ID EMIS/FACTR EF/CONF/RING EF/SRC/CD EF/ORIG POLL/SPC/DATA NEDS/A7/EMIS POLL/NAME EIS/FLG/5 EMIS/EST CONF/RING MX/HR/EMS
11101 0000001363 0 F SUSPENDED PART. C 0000033 0
42101 0000001363 0 F SUSPENDED PART. C 0000033 0
42401 0000000180 0 F SULFUR DIOXIDE C 0000004 0
42602 0000004390 0 F N OXIDES C 0000107 0
43101 F 0040630SUS HYDROCARBONS S 0000000 0

```

```

STATE=42 COUNTY=1780 GENG/SURALLLOC/#=00000 CATEGORY/#=000 DISAGGR/#=00 RECORD/TYPE/(KEY)=0 LINE/#=000 BATCH=1
AQCH=200 RC/TYP=CG YR=75 DY= AIR/RSIN= SMSA= AREA= MJ/ACT= PLT/ID= BSE/YR= PRJD/YR=
RURL/PNP/Z= PUPUL= AQCR/NM= SURAL/TECHNQ/CD= SUBAL/TECHNQ/DESC= DEFND/AREA/CD=
SULFUR/CONTENTS: (ANTHRCT/COAL= ,BITUMNS/COAL=10,DISTILLT/OIL=02,RESID/OIL=18) ASH/CONTENTS: (ANTHRCT/COAL= ,BITUMNS/COAL=091)
#/OIL/CONRDS=0 1ST: (ZONE= ,HORIZ= ,VERT= ) 2ND: (ZONE= ,HORIZ= ,VERT= ) 3RD: (ZONE= ,HORIZ= ,VERT= )
4TH: (ZONE= ,HORIZ= ,VERT= ) 5TH: (ZONE= ,HORIZ= ,VERT= ) 6TH: (ZONE= ,HORIZ= ,VERT= )
SOURCE/TYPE= LENGTH/AREA= LENGTH/AREA/UNITS/CODE= SIP/ESTIMATES: (TSP=01100, SO2=0500, NOX=9200, HC=11100, CO=57300)
PUP/CODE=3 VEH: (GAS/LGT=0018037 GAS/HEV=000525 DIESL/HEV=001703) MVMILES/RDS: (LIM/ACCS= RUP= STH= URB= )
NEDS/A1/FLG= S ETS/FLGS: (CARD/1=S,CARD/2=S,CARD/3=S,CARD/4=S,CARD/5=S,CARD/6=S) #/PULL=05
** POLL/ID POLL/NAME ATTNMNT/STATUS AQMA/# FIS/FLG/CRD/7 ** PULL/ID POLL/NAME ATTNMNT/STATUS AQMA/# ETS/FLG/CRD/7 **
** 42401 SULFUR DIOXIDE U S ** 43101 HYDROCARBONS U S **
** 42101 U S ** 11101 PARTICULATES U S **
** 42602 NITROGEN OXIDES U S **

```

Figure AST10-2 - continued.

Sample Output

(Page 3 of 3)

EIS/AS Test 11 - Ad Hoc

Generate All Non-Abortive Error Messages of the Emission Factor File Edit-Maintenance Program

In this test run, all non-abortive error messages of CEMEFAC (EC0020) are generated using the cataloged procedure ECEME10 which executes CSREFTR (EC0010), the emission factor file transaction sort program; and CEMEFAC (EC0020), the emission factor file edit-maintenance program.

Specially coded emission factor transactions are used to generate the error messages of CEMEFAC (EC0020). These transactions are sorted by CSREFTR (EC0010) into the sequence required by CEMEFAC (EC0020). See Test 1 for a discussion of CSREFTR (EC0010) and CEMEFAC (EC0020).

The run stream for this test run contains the JCL needed to update the test emission factor file created in Test 1 with the specially coded emission factor file transactions which cause the error messages to be generated. This run stream is shown in Figure AST11-1.

Substitutable parameters are used in the run stream to supply the names of the input and output emission factor files. The names are ECEMFL1 (created in Test 1) and ECEMFL2, respectively. The DD (data definition) information for the input transactions and the option card file is supplied at the end of the run stream.

The FLAGW and LIST options are purposely specified incorrectly so that messages 3 and 4 will be generated. Since there are no warning messages contained in CEMEFAC (EC0020), the default of NOFLAGW (indicated by message 3) will not impede the purpose of this test. Error messages 1, 2, 6, 7, 9, 28, 30, and 36 are not generated since they are abortive in nature. Sample output produced by this run stream is shown in Figure AST11-2.

```

//ASTEST111 JOB . (ACCOUNTING INFO)
/**
/**  GENERATE ALL NON-ABORTIVE ERROR MESSAGES OF THE
/**  EMISSION FACTOR FILE EDIT-MAINTENANCE PROGRAM
/**
//TEST111A EXEC ECEMEL0,
//      OLD E MFC=FCEMFL1,
//      NEW E MFC=FCEMFL2
/**
/**  EDIT TRANSACTIONS WHICH HAVE BEEN SPECIALLY
/**  CODED TO GENERATE THE ERROR MESSAGES OF
/**  CEMEFAC (EC00020)
/**
//SORT,INPUT DD *
STCNTYSURACATDI          YYDDU
00000000000111004#POLID66123EMISSFACRRC
06128000000000300F      79297
112223333344455          66123      111222333
112223333344455          66123      111222333
112223333344455          66123      NTSULASH
4455556666888822        66222
4455556666888822F 9999966222
5566667777711122        77123
5566667777711122        77123
5566667777711122        77123
5566667777711133        77123
//UPDATE.OPTIONS DD *
RUN05 FLAGG LAST

```

```

20
3A
1A
4B
1A
1A
2A
3A
1D
1A
1A
1C

```

Figure AST11-1. Run Stream

PROGRAM NAME: CSHEFTR (EC0010)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS:	12
NUMBER OF OUTPUT TRANSACTIONS:	13

Figure AST11-2. Sample Output

(Page 1 of 3)

PROGRAM NAME: CEMEFAC (EC0020)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

80005 FLAGG LAST

*** CEMEFAC 003 CONDITIONAL - FLAGW OPTION INVALID, USED DEFAULT OF NOFLAGW

80005 FLAGG LAST

*** CEMEFAC 004 CONDITIONAL - LIST OPTION INVALID, USED DEFAULT OF NOLIST

CONTROL DATE IS 80005, ERROR OPTION IS NOFLAGW, LIST OPTION IS NOLIST

STCNTYSUBALCATDI

YYDDDD

2D

*** CEMEFAC 034 ERROR - ACTION CODE INCOMPATIBLE WITH CARD TYPE - CARD REJECTED
 *** CEMEFAC 005 ERROR - COLUMN 1, STATE INVALID - CARD REJECTED
 *** CEMEFAC 008 ERROR - COLUMN 3, COUNTY NOT NUMERIC - CARD REJECTED
 *** CEMEFAC 010 ERROR - COLUMN 7, SUBALLOCATION NOT NUMERIC - CARD REJECTED
 *** CEMEFAC 011 ERROR - COLUMN 12, CATEGORY NOT NUMERIC - CARD REJECTED
 *** CEMEFAC 023 ERROR - COLUMN 15, DISAGGREGATION NOT NUMERIC - CARD REJECTED
 *** CEMEFAC 012 ERROR - COLUMN 24, EIS/AS DATE INVALID - CARD REJECTED

00000000000111004#POLID66123MISSFACIRC

3A

*** CEMEFAC 024 ERROR - COLUMN 17, EF ORIGIN INVALID - CARD REJECTED
 *** CEMEFAC 037 ERROR - COLUMN 17, EF ORIGIN MUST BE F FOR NEUS CATEGORY - CARD REJECTED
 *** CEMEFAC 031 ERROR - COLUMN 18, INVALID EF SOURCE TYPE - CARD REJECTED
 *** CEMEFAC 019 ERROR - COLUMN 19, POLLUTANT ID INVALID - CARD REJECTED
 *** CEMEFAC 013 ERROR - COLUMN 29, EMISSION FACTOR NOT NUMERIC - CARD REJECTED
 *** CEMEFAC 032 ERROR - COLUMN 39, EF CONFIDENCE LEVEL INVALID - CARD REJECTED

0612600000000300F

79297

1A

*** CEMEFAC 020 ERROR - ADD SPECIFIED FOR EXISTING EIS/AS EMF RECORD - CARD REJECTED

112223333344455

66123

111222333

4B

*** CEMEFAC 017 ERROR - COLUMN 79, CARD TYPE INVALID - CARD REJECTED
 *** CEMEFAC 018 ERROR - COLUMN 80, ACTION CODE INVALID - CARD REJECTED

112223333344455

66123

111222333

1A

*** CEMEFAC 027 ERROR - NITROGEN FLAG MUST BE N TO HAVE NITROGEN CONTENT - CARD REJECTED
 *** CEMEFAC 025 ERROR - ASH FLAG MUST BE A TO HAVE ASH CONTENT PRESENT - CARD REJECTED

```

*** CEMFFAC 026 ERROR - SULFUR FLAG MUST BE S TO HAVE SULFUR CONTENT - CARD REJECTED

1122223333344455      06123  NITSULASH                      1A
*** CEMFFAC 016 ERROR - COLUMN 32, NITROGEN CONTENT NOT NUMERIC - CARD REJECTED
*** CEMFFAC 014 ERROR - COLUMN 38, ASH CONTENT NOT NUMERIC - CARD REJECTED
*** CEMFFAC 015 ERROR - COLUMN 35, SULFUR CONTENT NOT NUMERIC - CARD REJECTED

4455556666688822      66222
*** CEMFFAC 035 ERROR - TYPE-2 ADD SPECIFIED FOR NONEXISTENT CATEGORY - CARD REJECTED

4455556666688822F 9999966222      3A
*** CEMFFAC 033 ERROR - ADD OF POLLUTANT SPECIFIED FOR NONEXISTENT CATEGORY - CARD REJECTED

5566667777711122      77123
*** CEMFFAC 022 ERROR - DELETE SPECIFIED FOR NONEXISTENT EIS/AS EMF RECORD - CARD REJECTED

5566667777711122      77123
*** CEMFFAC 029 ERROR - DUPLICATE ADD TRANSACTION - CARD REJECTED

5566667777711133      77123
*** CEMFFAC 021 ERROR - CHANGE SPECIFIED FOR NONEXISTENT EIS/AS EMF RECORD - CARD REJECTED

NUMBER OF TRANSACTIONS READ:                13
NUMBER OF ERRORS DETECTED:                  29
NUMBER OF WARNINGS DETECTED:                 0
NUMBER OF TRANSACTIONS REJECTED:             11
NUMBER OF EMISSION FACTOR FILE RECORDS READ: 682
NUMBER OF EMISSION FACTOR FILE RECORDS WRITTEN: 683

```

```

PROGRAM NAME: CEMFFAC (EC0020)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

```

EIS/AS Test 12 - Ad Hoc

Generate All Non-Abortive Error Messages of the Master File Transaction Edit Program

In this test run, all non-abortive error messages of CEDMSTR (EC0040) are generated using the cataloged procedure ECEDT10 which executes CEDMSTR (EC0040), the master file transaction edit program.

Specially coded master file transactions are used to generate the error messages of CEDMSTR (EC0040). See EIS/AS Test 3 for a discussion of CEDMSTR (EC0040).

The run stream for this test run contains the JCL needed to edit master file transactions and create a file containing master file internal transactions. The specially coded master file transactions are also contained in the run stream which is shown in Figure AST12-1.

A substitutable parameter is used to supply a name for the internal transaction file output from CEDMSTR (EC0040). The name of this file is ECINTR3. The DD (data definition) information for the input transaction file and the option card file is also supplied in the run stream.

The LIST option is misspelled on the option card in order to generate message 4 which indicates that a default of NOLIST is assumed by the program. The FLAGW option is specified so that the warning messages will not be suppressed, therefore, message 3 (which indicates a default of NOFLAGW) will not be generated in this test. Error messages 1, 2, and 144 are not generated since they are abortive in nature. Sample output produced by this run stream is shown in Figure AST12-2.

```

//ASTEST12 JOB      (ACCOUNTING INFO)
//*
//*  GENERATE ALL NON-ABRUPTIVE ERROR MESSAGES OF THE MASTER FILE
//*  TRANSACTION EDIT PROGRAM
//*
//TEST12A EXEC ECEDT10,
//      INTRTRN=FCINTR3
//*
//*  EDIT MASTER FILE IPANSCTIONS SPECIALLY CODED
//*  TO GENERATE THE ERROR MESSAGES OF CDMSTP (EC0040)
//*
//EDIT.INPUT DD *
STCNTYAGC
11222123SUBAL NON-BLANK FIELDS
11000022200111YYDDDBSNMSA
11000012300000POPULATN
11000012300000SI
1100001230000073HRZ3VERT3Z4HRZ4VERT4Z5HRZ5VERT5Z6HRZ6VERT6SLNGTHARUC
11000012300000TSPRESS02FNOXFHCESTCUFST
11000012300000 PLVFGASHVYGASHVYDSSLIMACCRURALRSUBURBANRU
11000012300000PLID1
1100001230000011101 NON-BLANK FIELDS
110000123
110000123 NON-BLANK FIELDS
11000012300000CATAG
1100001230000011100MTHRPUT PERCENTAGES
1100001230000011100
1100001230000011100MTHRPUT PERCENTAGES
1100001230000011100
1100001230000011100POLIDEMISSFACTR D#
110000123000001110043101
110000123000001110043101
110000123000001110011101 NON-BLANK FIELDS
110000123000001114GLIN NON-BLANK FIELDS
1100001230000085
1100001230000011100 NON-BLANK FIELDS
1100001230000076
1100001230000019020032000120150390002001004000011005030000
1100001230000011101
1100001230000011100N01MP020304050607080910MP
1100001230000011100Y
1100001230000011100N010203HP040506070809HP01020304050607010201020304
//EDIT.OUTPUTS DD *
90 FLAG= LAST

```

```

CAB
LG1D
YRPYPG1C
SG2C
CG3C
CG4C
CG5C
CG6C
CG7C
CG7D
NOA
NOD
CA1C
CA2A
CA2A
CA3A
CA3A
CA5A
CA5A
CA5C
CA5D
K2D
CG1A
CU1D
CG3C
CG4C
CG7C
CA2A
CA2C
CA3A

```

Figure AST12-1. Run Stream

PROGRAM NAME: CEDMSTR (EC0040)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: CONTROL YEAR 80 FLAGW NULIST
 (DEFAULT)

*** CEDMSTR 004 CONDITIONAL - BLANK OR INVALID LIST OPTION, ASSUMING NULIST

STCNTYQOC CHAR REF: 1
 BEB EB E BMB

*** CEDMSTR 005 ERROR - COLUMN 80 - INVALID ACTION CODE, CARD REJECTED
 *** CEDMSTR 009 ERROR - COLUMN 01 - INVALID STATE CODE, CARD REJECTED
 *** CEDMSTR 010 ERROR - COLUMN 03 - INVALID COUNTY CODE, CARD REJECTED
 *** CEDMSTR 011 ERROR - COLUMN 07 - INVALID AQCR, CARD REJECTED
 *** CEDMSTR 006 ERROR - COLUMN 78 - INVALID, CARD REJECTED
 *** CEDMSTR 008 ERROR - COLUMN 79 - INVALID CARD NUMBER, CARD REJECTED

112222123SUBAL NON-BLANK FIELDS LG1D REF: 2
 b EB EB

*** CEDMSTR 007 ERROR - COLUMN 77 - INVALID SUBALLOCATION TYPE, CARD REJECTED
 *** CEDMSTR 012 ERROR - COLUMN 10 - INVALID SUBALLOCATION NUMBER, CARD REJECTED
 *** CEDMSTR 022 ERROR - COLUMNS 15-76 NOT BLANK FOR DESCRIPTION DELETE, CARD REJECTED

11000022200111YYDDHSHNSMSA YRPYPCG1C REF: 3
 BEB EB EB E BEBEHE

*** CEDMSTR 013 ERROR - COUNTY WITH NONZERO SUBALLOCATION NUMBER, CARD REJECTED
 *** CEDMSTR 015 ERROR - COLUMN 15 - INVALID YEAR OF RECORD, CARD REJECTED
 *** CEDMSTR 030 ERROR - COLUMN 17 - INVALID DAY, REPLACING SPACES
 *** CEDMSTR 031 ERROR - COLUMN 20 - INVALID AIR BASIN, REPLACING SPACES
 *** CEDMSTR 032 ERROR - COLUMN 23 - INVALID SMSA, REPLACING SPACES
 *** CEDMSTR 033 ERROR - COLUMN 71 - INVALID SIP BASE YEAR, REPLACING SPACES
 *** CEDMSTR 034 ERROR - COLUMN 73 - INVALID PROJECTED YEAR, REPLACING SPACES
 *** CEDMSTR 035 ERROR - COLUMN 75 - INVALID % RURAL, REPLACING SPACES

11000012300000POPULATN SG2C REF: 4
 b E

*** CEDMSTR 014 ERROR - SUBCOUNTY WITH ZERO SUBALLOCATION NUMBER, CARD REJECTED
 *** CEDMSTR 036 ERROR - COLUMN 15 - INVALID POPULATION, REPLACING SPACES
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

11000012300000ST DACSASBSDSRAACACZ1HRZ1VERT11Z2HRZ2VERT2 CG3C REF: 5
 BE H EBEBEBEBEB EB EBEB EB EBEB EB E

*** CEDMSTR 037 ERROR - COLUMN 15 - INVALID SUBALLOCATION TECHNIQUE CODE, REPLACING SPACES
 *** CEDMSTR 038 ERROR - COLUMN 37 - INVALID DEFINED AREA CODE, REPLACING SPACES
 *** CEDMSTR 039 ERROR - COLUMN 40 - INVALID SULFUR-ANTHRACITE COAL, REPLACING SPACES
 *** CEDMSTR 041 ERROR - COLUMN 42 - INVALID SULFUR-BITUMINOUS COAL, REPLACING SPACES
 *** CEDMSTR 043 ERROR - COLUMN 44 - INVALID SULFUR-DISTILLATE OIL, REPLACING SPACES
 *** CEDMSTR 045 ERROR - COLUMN 46 - INVALID SULFUR-RESIDUAL OIL, REPLACING SPACES
 *** CEDMSTR 047 ERROR - COLUMN 48 - INVALID ASH-ANTHRACITE COAL, REPLACING SPACES
 *** CEDMSTR 049 ERROR - COLUMN 51 - INVALID ASH-BITUMINOUS COAL, REPLACING SPACES
 *** CEDMSTR 051 ERROR - COLUMN 54 - UTM ZONE 1 INVALID, REPLACING SPACES
 *** CEDMSTR 053 ERROR - COLUMN 56 - UTM HORIZONTAL 1 INVALID, REPLACING SPACES

*** CEDMSTR 055 ERROR - COLUMN 60 - UTM VERTICAL 1 INVALID, REPLACING SPACES
 *** CEDMSTR 057 ERROR - COLUMN 65 - UTM ZONE 2 INVALID, REPLACING SPACES
 *** CEDMSTR 059 ERROR - COLUMN 67 - UTM HORIZONTAL 2 INVALID, REPLACING SPACES
 *** CEDMSTR 061 ERROR - COLUMN 71 - UTM VERTICAL 2 INVALID, REPLACING SPACES
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

11000012300000Z3HRZ3VER13Z4HRZ4VER14Z5HRZ5VER15Z6HRZ6VER16SLNGTHARUC CG4C

REF: 6

BEB EB EBE EB EBE EB EBE EB EBE EBE
 *** CEDMSTR 063 ERROR - COLUMN 15 - UTM ZONE 3 INVALID, REPLACING SPACES
 *** CEDMSTR 065 ERROR - COLUMN 17 - UTM HORIZONTAL 3 INVALID, REPLACING SPACES
 *** CEDMSTR 067 ERROR - COLUMN 21 - UTM VERTICAL 3 INVALID, REPLACING SPACES
 *** CEDMSTR 069 ERROR - COLUMN 26 - UTM ZONE 4 INVALID, REPLACING SPACES
 *** CEDMSTR 071 ERROR - COLUMN 28 - UTM HORIZONTAL 4 INVALID, REPLACING SPACES
 *** CEDMSTR 073 ERROR - COLUMN 32 - UTM VERTICAL 4 INVALID, REPLACING SPACES
 *** CEDMSTR 075 ERROR - COLUMN 37 - UTM ZONE 5 INVALID, REPLACING SPACES
 *** CEDMSTR 077 ERROR - COLUMN 39 - UTM HORIZONTAL 5 INVALID, REPLACING SPACES
 *** CEDMSTR 079 ERROR - COLUMN 43 - UTM VERTICAL 5 INVALID, REPLACING SPACES
 *** CEDMSTR 081 ERROR - COLUMN 48 - UTM ZONE 6 INVALID, REPLACING SPACES
 *** CEDMSTR 083 ERROR - COLUMN 50 - UTM HORIZONTAL 6 INVALID, REPLACING SPACES
 *** CEDMSTR 085 ERROR - COLUMN 54 - UTM VERTICAL 6 INVALID, REPLACING SPACES
 *** CEDMSTR 087 ERROR - COLUMN 59 - SOURCE TYPE INVALID, REPLACING SPACE
 *** CEDMSTR 088 ERROR - COLUMN 60 - LENGTH OF LINE-LINK-AREA INVALID, REPLACING SPACES
 *** CEDMSTR 089 ERROR - COLUMN 67 - LINE-LINK-AREA CODE INVALID, REPLACING SPACES
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

11000012300000TSPSS02ENDXHCCESTCUEST CG5C

REF: 7

B EB EB EB EB E
 *** CEDMSTR 090 ERROR - COLUMN 15 - SIP ESTIMATE TSP INVALID, REPLACING SPACES
 *** CEDMSTR 091 ERROR - COLUMN 20 - SIP ESTIMATE SD2 INVALID, REPLACING SPACES
 *** CEDMSTR 092 ERROR - COLUMN 24 - SIP ESTIMATE NOX INVALID, REPLACING SPACES
 *** CEDMSTR 093 ERROR - COLUMN 28 - SIP ESTIMATE HC INVALID, REPLACING SPACES
 *** CEDMSTR 094 ERROR - COLUMN 33 - SIP ESTIMATE CO INVALID, REPLACING SPACES
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

11000012300000 PLVHGASHVYGASHVYDSLIMACCRURALRSUBURBURBANRU CG6C

REF: 8

BR EB EB EB EB EB EB E
 *** CEDMSTR 095 ERROR - COLUMN 16 - POPULATION CODE INVALID, REPLACING SPACE
 *** CEDMSTR 096 ERROR - COLUMN 17 - LIGHT VEHICLES-GAS INVALID, REPLACING SPACES
 *** CEDMSTR 097 ERROR - COLUMN 24 - HEAVY VEHICLES-GAS INVALID, REPLACING SPACES
 *** CEDMSTR 098 ERROR - COLUMN 30 - HEAVY VEHICLES-DIESEL INVALID, REPLACING SPACES
 *** CEDMSTR 099 ERROR - COLUMN 36 - LIMITED ACCESS ROADS INVALID, REPLACING SPACES
 *** CEDMSTR 100 ERROR - COLUMN 42 - RURAL ROADS INVALID, REPLACING SPACES
 *** CEDMSTR 101 ERROR - COLUMN 48 - SUBURBAN ROADS INVALID, REPLACING SPACES
 *** CEDMSTR 102 ERROR - COLUMN 54 - URBAN ROADS INVALID, REPLACING SPACES
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

11000012300000PLID1 * PLID2 * CG7C

REF: 9

B E H H E H
 *** CEDMSTR 103 ERROR - COLUMN 15 - POLLUTANT ID 1 INVALID, POLLUTANT 1 REJECTED
 *** CEDMSTR 105 WARNING - COLUMN 35 - REPLACING ATTAINMENT STATUS 1 WITH U
 *** CEDMSTR 106 ERROR - COLUMN 43 - POLLUTANT ID 2 INVALID, POLLUTANT 2 REJECTED
 *** CEDMSTR 108 WARNING - COLUMN 63 - REPLACING ATTAINMENT STATUS 2 WITH U
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

EIS/AS TRANSACTION EDIT PROGRAM - DIAGNOSTIC REPORT

PAGE 3

1100001230000011101 NON-BLANK FIELDS 43101 NON-BLANK FIELDS CG7D
 B E B E
 *** CEDMSTR 023 ERROR - COLS 20-41 NOT BLANK FOR DESCRIPTION POLLUTANT DELETE, COLS 15-41 REJECTED
 *** CEDMSTR 024 ERROR - COLS 48-69 NOT BLANK FOR DESCRIPTION POLLUTANT DELETE, COLS 43-69 REJECTED
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

REF: 10

110000123 NOA
 B E
 *** CEDMSTR 142 WARNING - COLUMN 10 - REPLACING NEDS COMMENT WITH GENERATED BY EIS/AS

REF: 11

110000123 NON-BLANK FIELDS NOD
 B E
 *** CEDMSTR 027 ERROR - COLUMNS 10-77 NOT BLANK FOR NEDS COMMENT DELETE, CARD REJECTED

REF: 12

11000012300000CATAG YRPROCESSRTEGADUC CA1C
 B E BEB EB EBE
 *** CEDMSTR 017 ERROR - COLUMN 15 - CATEGORY NUMBER INVALID, CARD REJECTED
 *** CEDMSTR 019 ERROR - AGGREGATE TRANSACTION WITH NONZERO DISAGGREGATE NUMBER, CARD REJECTED
 *** CEDMSTR 109 ERROR - COLUMN 45 - YEAR OF INFORMATION INVALID, REPLACING SPACES
 *** CEDMSTR 110 ERROR - COLUMN 47 - PROCESS RATE INVALID, REPLACING SPACES
 *** CEDMSTR 111 ERROR - COLUMN 56 - CATEGORY ADJUST INVALID, REPLACING SPACES
 *** CEDMSTR 112 ERROR - COLUMN 63 - UNITS CODE INVALID, REPLACING SPACES
 *** CEDMSTR 143 ERROR - ALL NON-KEY FIELDS CONTAIN SPACES, CARD REJECTED

REF: 13

1100001230000011100THRUPUT PERCENTAGES 25853RTIUMRLYTHRPUT NITSUASH CA2A
 BB EBEBEB EB EB EBEB E
 *** CEDMSTR 113 ERROR - COLUMN 20 - UNIFORM MONTHLY INDICATOR INVALID, REPLACING WITH Y
 *** CEDMSTR 115 ERROR - COLUMN 21 - MONTHLY THRUPUT XS WITH Y INDICATOR, REPLACING UNIFORM XS
 *** CEDMSTR 118 ERROR - COLUMN 45 - HRS/DAY INVALID, REPLACING SPACES
 *** CEDMSTR 119 ERROR - COLUMN 47 - DAYS/WK INVALID, REPLACING SPACE
 *** CEDMSTR 120 ERROR - COLUMN 48 - WKS/YR INVALID, REPLACING SPACES
 *** CEDMSTR 121 ERROR - COLUMN 50 - RATIO OF THRUPUT INVALID, REPLACING SPACES
 *** CEDMSTR 122 ERROR - COLUMN 54 - MAX HOURLY THRUPUT INVALID, REPLACING SPACES
 *** CEDMSTR 123 WARNING - COLUMN 64 - REPLACING DATA CONFIDENCE RATING WITH ZERO
 *** CEDMSTR 126 ERROR - COLUMN 65 - % NITROGEN INVALID, REPLACING SPACES
 *** CEDMSTR 127 ERROR - COLUMN 68 - % SULFUR INVALID, REPLACING SPACES
 *** CEDMSTR 128 ERROR - COLUMN 70 - % ASH INVALID, REPLACING SPACES

REF: 14

1100001230000011100 CA2A
 B B
 *** CEDMSTR 114 WARNING - COLUMN 20 - UNIFORM MONTHLY INDICATOR BLANK, ASSUMING Y
 *** CEDMSTR 123 WARNING - COLUMN 64 - REPLACING DATA CONFIDENCE RATING WITH ZERO

REF: 15

1100001230000011100THRUPUT PERCENTAGES CA3A
 BB E
 *** CEDMSTR 129 ERROR - COLUMN 20 - UNIFORM HOURLY THRUPUT INDICATOR INVALID, REPLACING WITH Y
 *** CEDMSTR 131 ERROR - COLUMN 21 - HOURLY THRUPUT XS WITH Y INDICATOR, REPLACING UNIFORM XS

REF: 16

1100001230000011100 CA3A
 B
 *** CEDMSTR 130 WARNING - COLUMN 20 - UNIFORM HOURLY THRUPUT INDICATOR BLANK, ASSUMING Y

REF: 17

Figure AST12-2 - continued. Sample Output (Page 3 of 5)

EIS/AS TRANSACTION EDIT PROGRAM - DIAGNOSTIC REPORT

PAGE 4

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1100001230000011100POLIDEMISSFACTR U#      A7EMISS      CASA
      H   E8   EHBB      H   E
*** CEDMSTR 134 ERROR - COLUMN 20 - POLLUTANT ID INVALID, CARD REJECTED
*** CEDMSTR 135 ERROR - COLUMN 25 - EMISSION FACTOR INVALID, REPLACING SPACES
*** CEDMSTR 136 WARNING - COLUMN 35 - REPLACING EMISSION FACTOR CONFIDENCE RATING WITH ZERO
*** CEDMSTR 139 ERROR - COLUMN 36 - EMISSION FACTOR ORIGIN INVALID, REPLACING SPACE
*** CEDMSTR 140 ERROR - COLUMN 37 - EMISSION FACTOR SOURCE CODE INVALID, REPLACING SPACE
*** CEDMSTR 141 ERROR - COLUMN 48 - NEDS A7 EMISSION INVALID, REPLACING SPACES

110000123000001110043101      A      CASA
      B
*** CEDMSTR 137 ERROR - COLUMN 35 - EMISSION FACTOR CONFIDENCE RATING INVALID, REPLACING ZERO

110000123000001110043101      B      CA5C
      B
*** CEDMSTR 138 ERROR - COLUMN 35 - EMISSION FACTOR CONFIDENCE RATING INVALID, REPLACING SPACE

110000123000001110011101 NON-BLANK FIELDS      CA5D
      B      E
*** CEDMSTR 026 ERROR - COLUMNS 25-76 NOT BLANK FOR CATEGORY POLLUTANT DELETE, CARD REJECTED

11000012300000111AGLIN NON-BLANK FIELDS      R2D
      BEB EH      E B
*** CEDMSTR 018 ERROR - COLUMN 18 - DISAGGREGATE NUMBER INVALID, CARD REJECTED
*** CEDMSTR 021 ERROR - COLUMN 20 - LINE NUMBER INVALID, CARD REJECTED
*** CEDMSTR 028 ERROR - COLUMNS 23-77 NOT BLANK FOR EIS/AS COMMENT DELETE, CARD REJECTED
*** CEDMSTR 029 ERROR - COLUMN 79 - INVALID CARD NUMBER FOR DELETE TRANSACTION, CARD REJECTED

11000012300000085      CG1A
      BE
*** CEDMSTR 016 ERROR - COLUMN 15 - YEAR OF RECORD GREATER THAN YEAR ON OPTION CARD, CARD REJECTED

1100001230000011100 NON-BLANK FIELDS      CD1D
      B      E
*** CEDMSTR 020 ERROR - DISAGGREGATE TRANSACTION WITH ZERO DISAGGREGATE NUMBER, CARD REJECTED
*** CEDMSTR 025 ERROR - COLUMNS 20-76 NOT BLANK FOR CATEGORY DELETE, CARD REJECTED

11000012300000078      217111512512511502993881018029933529 CG3C
      BEBEHEBEB EH EHEB EH EHEB EB E
*** CEDMSTR 040 CONDITIONAL - COLUMN 40 - SULFUR-ANTHRACITE COAL OUT OF RANGE
*** CEDMSTR 042 CONDITIONAL - COLUMN 42 - SULFUR-BITUMINOUS COAL OUT OF RANGE
*** CEDMSTR 044 CONDITIONAL - COLUMN 44 - SULFUR-DISTILLATE OIL OUT OF RANGE
*** CEDMSTR 046 CONDITIONAL - COLUMN 46 - SULFUR-RESIDUAL OIL OUT OF RANGE
*** CEDMSTR 048 CONDITIONAL - COLUMN 48 - ASH-ANTHRACITE COAL OUT OF RANGE
*** CEDMSTR 050 CONDITIONAL - COLUMN 51 - ASH-BITUMINOUS COAL OUT OF RANGE
*** CEDMSTR 052 CONDITIONAL - COLUMN 54 - UTM ZONE 1 OUT OF RANGE
*** CEDMSTR 054 CONDITIONAL - COLUMN 56 - UTM HORIZONTAL 1 OUT OF RANGE
*** CEDMSTR 056 CONDITIONAL - COLUMN 60 - UTM VERTICAL 1 OUT OF RANGE
*** CEDMSTR 058 CONDITIONAL - COLUMN 65 - UTM ZONE 2 OUT OF RANGE
*** CEDMSTR 060 CONDITIONAL - COLUMN 67 - UTM HORIZONTAL 2 OUT OF RANGE
*** CEDMSTR 062 CONDITIONAL - COLUMN 71 - UTM VERTICAL 2 OUT OF RANGE

```

REF: 18

REF: 19

REF: 20

REF: 21

REF: 22

REF: 23

REF: 24

REF: 25

Figure AST12-2 - continued. Sample Output

(Page 4 of 5)

EIS/AS TRANSACTION EDIT PROGRAM - DIAGNOSTIC REPORT

PAGE 5

REF: 26

1100001230000019020032000120150390002001004000011005030000 CG4C
 BEB EB EBEH EH EHEH EH EHEH EH E
 *** CEDMSTR 064 CONDITIONAL - COLUMN 15 - UTM ZONE 3 OUT OF RANGE
 *** CEDMSTR 066 CONDITIONAL - COLUMN 17 - UTM HORIZONTAL 3 OUT OF RANGE
 *** CEDMSTR 068 CONDITIONAL - COLUMN 21 - UTM VERTICAL 3 OUT OF RANGE
 *** CEDMSTR 070 CONDITIONAL - COLUMN 26 - UTM ZONE 4 OUT OF RANGE
 *** CEDMSTR 072 CONDITIONAL - COLUMN 28 - UTM HORIZONTAL 4 OUT OF RANGE
 *** CEDMSTR 074 CONDITIONAL - COLUMN 32 - UTM VERTICAL 4 OUT OF RANGE
 *** CEDMSTR 076 CONDITIONAL - COLUMN 37 - UTM ZONE 5 OUT OF RANGE
 *** CEDMSTR 078 CONDITIONAL - COLUMN 39 - UTM HORIZONTAL 5 OUT OF RANGE
 *** CEDMSTR 080 CONDITIONAL - COLUMN 43 - UTM VERTICAL 5 OUT OF RANGE
 *** CEDMSTR 082 CONDITIONAL - COLUMN 48 - UTM ZONE 6 OUT OF RANGE
 *** CEDMSTR 084 CONDITIONAL - COLUMN 50 - UTM HORIZONTAL 6 OUT OF RANGE
 *** CEDMSTR 086 CONDITIONAL - COLUMN 54 - UTM VERTICAL 6 OUT OF RANGE

REF: 27

1100001230000011101 S 43101 S CG7C
 B B
 *** CEDMSTR 104 ERROR - COLUMN 35 - ATTAINMENT STATUS 1 INVALID, REPLACING WITH U
 *** CEDMSTR 107 ERROR - COLUMN 63 - ATTAINMENT STATUS 2 INVALID, REPLACING WITH U

REF: 28

1100001230000011100N01MP020304050607080910MP C CA2A
 BE BE B
 *** CEDMSTR 116 ERROR - COLUMN 23 - FEB THRUPTUT % INVALID, REPLACING WITH ZERO
 *** CEDMSTR 116 ERROR - COLUMN 43 - DEC THRUPTUT % INVALID, REPLACING WITH ZERO
 *** CEDMSTR 117 ERROR - SUM OF MONTHLY THRUPTUT %S INVALID, REPLACING W/ UNIFORM THRUPTUTS
 *** CEDMSTR 124 ERROR - COLUMN 64 - DATA CONFIDENCE RATING INVALID, REPLACING ZERO

REF: 29

1100001230000011100Y C CA2C
 H
 *** CEDMSTR 125 ERROR - COLUMN 64 - DATA CONFIDENCE RATING INVALID, REPLACING SPACE

REF: 30

1100001230000011100N010203HP040506070809HP01020304050607010201020304 CA3A
 BE BE
 *** CEDMSTR 132 ERROR - COLUMN 27 - HOUR 03 THRUPTUT % INVALID, REPLACING WITH ZERO
 *** CEDMSTR 132 ERROR - COLUMN 41 - HOUR 10 THRUPTUT % INVALID, REPLACING WITH ZERO
 *** CEDMSTR 133 ERROR - SUM OF HRLY THRUPTUT %S INVALID, REPLACING UNIFORM HRLY THRUPTUTS

NUMBER OF INPUT TRANSACTIONS: 30
 NUMBER OF VALID TRANSACTIONS: 13
 NUMBER OF REJECTED TRANSACTIONS: 17
 NUMBER OF TRANSACTIONS WRITTEN: 13
 NUMBER OF WARNING MESSAGES: 8
 NUMBER OF CONDITIONAL MESSAGES: 25
 NUMBER OF ERROR MESSAGES: 117
 NUMBER OF ABORT MESSAGES: 0
 NUMBER OF DISASTER MESSAGES: 0

PROGRAM NAME: CEDMSTR (EC0040)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

Figure AST12-2 - continued. Sample Output

(Page 5 of 5)

EIS/AS Test 13 - Ad Hoc

Generate All Non-Abortive Error Messages of the NEDS to EIS/AS Master File Transaction Conversion-Edit Program

In this test run, all non-abortive error messages of CCENETR (EC0030) are generated using the cataloged procedure ECCET10 which executes CCENETR (EC0030), the NEDS to EIS/AS master file transaction conversion edit program.

Specially coded NEDS master file transactions are used to generate the error messages of CCENETR (EC0030). These transactions are input to the program in random order. See EIS/AS Test 2 for a discussion of CCENETR (EC0030).

The run stream for this test run contains the JCL needed to convert NEDS master file transactions to EIS/AS master file internal transactions. The specially coded NEDS transactions are also included in the run stream. This run stream is shown in Figure AST13-1.

A substitutable parameter is used to supply a name for the internal transaction file output from CCENETR (EC0030). The name of this file is ECINTR4. The DD (data definition) information for the input transaction file and the option card file is also supplied in the run stream.

The FLAGW and LIST options are specified incorrectly on the option card in order to generate messages 42 and 43 which indicate that defaults of NOFLAGW and NOLIST, respectively, are assumed by the program. The default of NOFLAGW will not impede the purpose of this test since there are no warning messages issued by CCENETR (EC0030). Error messages 40 and 41 are not generated since they are abortive in nature. Sample output produced by this run stream is shown in Figure AST13-2.

```

//ASTES113 JOB      (ACCOUNTING INFO)
//*
//*   GENERATE ALL NON-ABORTIVE ERROR MESSAGES OF THE NEDS
//*   TO EIS/AS MASTER FILE TRANSACTION CONVERSION-EDIT PROGRAM
//*
//TEST113A EXEC ECFE110,
//      INTRN=FCINTR4
//*
//*   EDIT NEDS MASTER FILE TRANSACTIONS SPECIALLY CODED TO
//*   GENERATE THE ERROR MESSAGES OF CCENETH (EC0030)
//*
//CONVERT.INPUT DD *
STCNTYAGC
11222123YYISPESU2ENUXEHCESTCESTASASUSRAACARCPESACRFSBCLKESDORRESRRESNGRFSWAA1      BR0
11222123COMACCOMBCCOMDUCUMROCONGCWINDSACINDSBCCOKEINDOUINDKOINDNGIWDINPG      AA2
11222123INCRESINCLININCCRRNKESRKNINDRRNCMLTVFHGSHVVEHGOFFHWYHVVEHDOFFHDDLCPAA3
11222123AIKMAIKCIVAIRCMVESCVESDVESRDEVPGEVPSULEVPGMLIMACCRURALKSURURBURRANKDA4
11222123DIRTWDSDHTASCONACRWNDFRLANDT*LDIFRET/AMARRNT/AAGRBRNT/AURHTDAYFIRESA5
11222123BOSCTSPFSTSO2ESNUXESINCESTICUESTIM      AA7
//CONVERT.OPTIONS DD *
NO FLAGG LOST

```

Figure AST13-1. Run Stream

PROGRAM NAME: CCENETR (EC0030)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

80 FLAGG LUST

*** CCENETR 042 CONDITIONAL - INVALID FLAGW OPTION, DEFAULT OF NO FLAGW USED

80 FLAGG LUST

*** CCENETR 043 CONDITIONAL - INVALID LIST OPTION, DEFAULT OF NO LIST USED

CONTROL DATE IS 80 , ERROR OPTION IS NOFLAGW, LIST OPTION IS NOLIST

SICNTYAQC
 BEB EB E

BH0
 888

*** CCENETR 085 ERROR - COLUMN 01 - INVALID STATE-TRANSACTION REJECTED
 *** CCENETR 086 ERROR - COLUMN 03 - INVALID COUNTY-TRANSACTION REJECTED
 *** CCENETR 087 ERROR - COLUMN 07 - INVALID AGCR-TRANSACTION REJECTED
 *** CCENETR 088 ERROR - COLUMN 78 - INVALID ACTION-CODE-TRANSACTION REJECTED
 *** CCENETR 031 ERROR - COLUMN 79 - CARD IS NOT AREA SOURCE CARD-TRANSACTION REJECTED
 *** CCENETR 032 ERROR - COLUMN 80 - INVALID CARD NUMBER-TRANSACTION REJECTED

112222123YY1SPES02ENOXENCESC0ESTSAS6S0SRAACABCRSACRESBCLRESDDRESRRRESNGRESWAA1

BEB EB EB EB EB EMEHEHEBEB EB EB EB EB EB EB E
 *** CCENETR 073 ERROR - COLUMN 10 - INVALID YEAR OF RECORD-FIELD REJECTED
 *** CCENETR 074 ERROR - COLUMN 12 - INVALID SIP PARTICULATE EMISSION ESTIMATE-FIELD REJECTED
 *** CCENETR 075 ERROR - COLUMN 17 - INVALID SIP SO2 EMISSION ESTIMATE-FIELD REJECTED
 *** CCENETR 076 ERROR - COLUMN 21 - INVALID SIP NOX EMISSION ESTIMATE-FIELD REJECTED
 *** CCENETR 077 ERROR - COLUMN 25 - INVALID SIP HC EMISSION ESTIMATE-FIELD REJECTED
 *** CCENETR 078 ERROR - COLUMN 30 - INVALID SIP CO EMISSION ESTIMATE-FIELD REJECTED
 *** CCENETR 079 ERROR - COLUMN 35 - INVALID ANTHRACITE COAL SULFUR CONTENTS-FIELD REJECTED
 *** CCENETR 080 ERROR - COLUMN 37 - INVALID BITUMINOUS COAL SULFUR CONTENTS-FIELD REJECTED
 *** CCENETR 081 ERROR - COLUMN 39 - INVALID DISTILLATE OIL SULFUR CONTENTS-FIELD REJECTED
 *** CCENETR 082 ERROR - COLUMN 41 - INVALID RESIDUAL OIL SULFUR CONTENTS-FIELD REJECTED
 *** CCENETR 083 ERROR - COLUMN 43 - INVALID ANTHRACITE COAL ASH CONTENTS-FIELD REJECTED
 *** CCENETR 084 ERROR - COLUMN 46 - INVALID BITUMINOUS COAL ASH CONTENTS-FIELD REJECTED
 *** CCENETR 001 ERROR - COLUMN 49 - INVALID RESIDENTIAL ANTHRACITE COAL-FIELD REJECTED
 *** CCENETR 002 ERROR - COLUMN 54 - INVALID RESIDENTIAL BITUMINOUS COAL-FIELD REJECTED
 *** CCENETR 003 ERROR - COLUMN 60 - INVALID RESIDENTIAL DISTILLATE OIL-FIELD REJECTED

*** CCENETR 004 ERROR - COLUMN 65 - INVALID RESIDENTIAL RESIDUAL OIL-FIELD REJECTED
 *** CCENETR 005 ERROR - COLUMN 69 - INVALID RESIDENTIAL NATURAL GAS-FIELD REJECTED
 *** CCENETR 006 ERROR - COLUMN 74 - INVALID RESIDENTIAL WOOD-FIELD REJECTED

112222123CUMACCOMBCCOMDCCUMKUCONGCWINOSACINDSHCCOKEINDOINDRUINDNGIWDINPG A42

B	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	E
***	CCENETR	007	ERROR	-	COLUMN	10	-	INVALID	COMM/INST	ANTHRACITE	COAL-FIELD	REJECTED			
***	CCENETR	008	ERROR	-	COLUMN	15	-	INVALID	COMM/INST	BITUMINOUS	COAL-FIELD	REJECTED			
***	CCENETR	009	ERROR	-	COLUMN	20	-	INVALID	COMM/INST	DISTILLATE	OIL-FIELD	REJECTED			
***	CCENETR	010	ERROR	-	COLUMN	25	-	INVALID	COMM/INST	RESIDUAL	OIL-FIELD	REJECTED			
***	CCENETR	011	ERROR	-	COLUMN	30	-	INVALID	COMM/INST	NATURAL GAS-FIELD	REJECTED				
***	CCENETR	012	ERROR	-	COLUMN	34	-	INVALID	COMM/INST	WOOD-FIELD	REJECTED				
***	CCENETR	013	ERROR	-	COLUMN	36	-	INVALID	INDUSTRIAL	ANTHRACITE	COAL-FIELD	REJECTED			
***	CCENETR	014	ERROR	-	COLUMN	42	-	INVALID	INDUSTRIAL	BITUMINOUS	COAL-FIELD	REJECTED			
***	CCENETR	015	ERROR	-	COLUMN	48	-	INVALID	INDUSTRIAL	COKE-FIELD	REJECTED				
***	CCENETR	016	ERROR	-	COLUMN	52	-	INVALID	INDUSTRIAL	DISTILLATE	OIL-FIELD	REJECTED			
***	CCENETR	017	ERROR	-	COLUMN	57	-	INVALID	INDUSTRIAL	RESIDUAL	OIL-FIELD	REJECTED			
***	CCENETR	018	ERROR	-	COLUMN	62	-	INVALID	INDUSTRIAL	NATURAL GAS-FIELD	REJECTED				
***	CCENETR	019	ERROR	-	COLUMN	67	-	INVALID	INDUSTRIAL	WOOD-FIELD	REJECTED				
***	CCENETR	020	ERROR	-	COLUMN	70	-	INVALID	INDUSTRIAL	PROCESS GAS-FIELD	REJECTED				

112222123INCRESINCININCCBRNRRESHRNINDBRNCMLTVEHGSVVVEHGOFFHMYHVVVEHDOFFHDDLLOCPAA3

B	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	E
***	CCENETR	021	ERROR	-	COLUMN	10	-	INVALID	RESIDENTIAL	ON SITE	INCINERATION-FIELD	REJECTED			
***	CCENETR	022	ERROR	-	COLUMN	16	-	INVALID	INDUSTRIAL	ON SITE	INCINERATION-FIELD	REJECTED			
***	CCENETR	023	ERROR	-	COLUMN	21	-	INVALID	COMM/INST	ON SITE	INCINERATION-FIELD	REJECTED			
***	CCENETR	024	ERROR	-	COLUMN	25	-	INVALID	RESIDENTIAL	OPEN BURNING-FIELD	REJECTED				
***	CCENETR	025	ERROR	-	COLUMN	31	-	INVALID	INDUSTRIAL	OPEN BURNING-FIELD	REJECTED				
***	CCENETR	026	ERROR	-	COLUMN	37	-	INVALID	COMM/INST	OPEN BURNING-FIELD	REJECTED				
***	CCENETR	045	ERROR	-	COLUMN	72	-	INVALID	RAIL LOCOMOTIVE-FIELD	REJECTED					
***	CCENETR	039	ERROR	-	COLUMN	55	-	INVALID	OFF HIGHWAY GAS-FIELD	REJECTED					
***	CCENETR	044	ERROR	-	COLUMN	67	-	INVALID	OFF HIGHWAY DIESEL-FIELD	REJECTED					
***	CCENETR	065	ERROR	-	COLUMN	42	-	INVALID	LIGHT VEHICLE GAS-FIELD	REJECTED					
***	CCENETR	066	ERROR	-	COLUMN	49	-	INVALID	HEAVY VEHICLE GAS-FIELD	REJECTED					
***	CCENETR	067	ERROR	-	COLUMN	61	-	INVALID	HEAVY VEHICLE DIESEL-FIELD	REJECTED					
***	CCENETR	068	ERROR	-	COLUMN	77	-	INVALID	POPULATION CODE-FIELD	REJECTED					

112222123AIRMAIRCIVAIRCMVESCVESDVESKOEVPGEVPSOLEVPGMLIMACCRUKALKRSURURHURBANRDAA4

B	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	E
***	CCENETR	046	ERROR	-	COLUMN	10	-	INVALID	MILITARY AIRCRAFT	LTO-FIELD	REJECTED				
***	CCENETR	047	ERROR	-	COLUMN	14	-	INVALID	CIVIL AIRCRAFT	LTO-FIELD	REJECTED				
***	CCENETR	048	ERROR	-	COLUMN	20	-	INVALID	COMMERCIAL AIRCRAFT	LTO-FIELD	REJECTED				
***	CCENETR	049	ERROR	-	COLUMN	25	-	INVALID	COAL VESSELS-FIELD	REJECTED					
***	CCENETR	050	ERROR	-	COLUMN	29	-	INVALID	DIESEL OIL VESSELS-FIELD	REJECTED					
***	CCENETR	051	ERROR	-	COLUMN	33	-	INVALID	RESIDUAL OIL VESSELS-FIELD	REJECTED					


```

*** CCENETR 052 ERROR - COLUMN 38 - INVALID GASOLINE VESSELS-FIELD REJECTED
*** CCENETR 053 ERROR - COLUMN 42 - INVALID SOLVENT PURCHASED-FIELD REJECTED
*** CCENETR 054 ERROR - COLUMN 48 - INVALID GASOLINE MARKETED-FIELD REJECTED
*** CCENETR 069 ERROR - COLUMN 53 - INVALID LIMITED ACCESS ROADS-MVM-FIELD REJECTED
*** CCENETR 070 ERROR - COLUMN 54 - INVALID RURAL ROADS-MVM-FIELD REJECTED
*** CCENETR 071 ERROR - COLUMN 65 - INVALID SUBURBAN ROADS-MVM-FIELD REJECTED
*** CCENETR 072 ERROR - COLUMN 71 - INVALID URBAN ROADS-MVM-FIELD REJECTED

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112222123DIRKDSDR1ASCUNACKWUNDERLANDTnLDFIREI/AMANBRNT/AAGRBRTI/AORHIDAYFIRESAA5

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B EB EB EB EB EB EB EB EB EB EB EB EB EB EB EB
*** CCENETR 055 ERROR - COLUMN 10 - INVALID DIRT ROAD TRAVELED-FIELD REJECTED
*** CCENETR 056 ERROR - COLUMN 17 - INVALID DIRT AIR STRIPS-FIELD REJECTED
*** CCENETR 057 ERROR - COLUMN 22 - INVALID CONSTRUCTION ACRES-FIELD REJECTED
*** CCENETR 058 ERROR - COLUMN 28 - INVALID MISC WIND EROSION-FIELD REJECTED
*** CCENETR 059 ERROR - COLUMN 33 - INVALID LAND TILLING-FIELD REJECTED
*** CCENETR 064 ERROR - COLUMN 73 - INVALID STRUCTURE FIRES-FIELD REJECTED
*** CCENETR 060 ERROR - COLUMN 38 - INVALID FOREST WILDFIRES-FIELD REJECTED
*** CCENETR 027 ERROR - COLUMN 45 - INVALID FOREST WILDFIRE TONS/ACRE BURNED-FIELD REJECTED
*** CCENETR 061 ERROR - COLUMN 48 - INVALID MANAGED/PREScribed BURNING-FIELD REJECTED
*** CCENETR 028 ERROR - COLUMN 54 - INVALID MANAGED BURNING TONS/ACRE BURNED-FIELD REJECTED
*** CCENETR 062 ERROR - COLUMN 57 - INVALID AGRICULTURAL FIELD BURNING-FIELD REJECTED
*** CCENETR 029 ERROR - COLUMN 63 - INVALID AGR FIELD BURN TONS/ACRE BURNED-FIELD REJECTED
*** CCENETR 063 ERROR - COLUMN 66 - INVALID FROST CONTROL (ORCHARD HEATERS)-FIELD REJECTED
*** CCENETR 030 ERROR - COLUMN 70 - INVALID FROST CONTROL DAYS/FIRED-FIELD REJECTED

```

```

11222212380SC1SPESTSO2ESNUXESTHCESTICUEST1M

```

AA7

```

BEB EB EB EB EB E
*** CCENETR 038 ERROR - COLUMN 12 - INVALID SOURCE-CODE-TRANSACTION REJECTED
*** CCENETR 033 ERROR - COLUMN 14 - INVALID SOURCE TSP EMISSION ESTIMATE-FIELD REJECTED
*** CCENETR 034 ERROR - COLUMN 20 - INVALID SOURCE SO2 EMISSION ESTIMATE-FIELD REJECTED
*** CCENETR 035 ERROR - COLUMN 25 - INVALID SOURCE NOX EMISSION ESTIMATE-FIELD REJECTED
*** CCENETR 036 ERROR - COLUMN 31 - INVALID SOURCE HC EMISSION ESTIMATE-FIELD REJECTED
*** CCENETR 037 ERROR - COLUMN 37 - INVALID SOURCE CO EMISSION ESTIMATE-FIELD REJECTED

```

Figure AST13-2 - continued. Sample Output

(Page 3 of 4)

NEDS TO EIS/AS CONVERSION-EDIT PROGRAM DIAGNOSTIC REPORT

PAGE

NUMBER OF NEDS TRANSACTIONS READ:	7
NUMBER OF ERRORS DETECTED:	84
NUMBER OF ABORTS DETECTED:	0
NUMBER OF CONDITIONALS DETECTED:	2
NUMBER OF INTERNAL TRANSACTIONS WRITTEN:	99

(Page 4 of 4)
Figure AST13-2 - continued. Sample Output

EIS/AS Test 14 - Ad Hoc

Execute the Master File Emission Factor Transaction Generator Program and Store the Generated Transactions

In this test run, master file emission factor transactions are generated using the cataloged procedure ECMSM10 which executes CMSEFGN (EC0080), the master file emission factor transaction generator program.

The master file emission factor transactions generated by CMSEFGN (EC0080) are stored for future use. See EIS/AS Test 9 for a discussion of this program.

The run stream for this test run contains the JCL needed to generate the transactions. Substitutable parameters are used to supply the names of the input emission factor file and master file, and the output transaction file. The names of these files are ECEMFL2 (created in Test 11), ECMSTR3 (created in Test 5), and ECINTR5, respectively. The DD (data definition) information for the option card file is also supplied in the run stream. This run stream is shown in Figure AST14-1.

The FLAGW option field of the option card is blank, therefore, the default of NOFLAGW is in effect and the warning messages will not be printed. A category date of 76001 (Julian date expressed as YYDDD, where YY is the year and DDD is the day of the year) is supplied on the option card. This date controls the generation of transactions by creating category-2 transactions only when the date of an emission factor file category record is greater than the category date specified on the option card. No category-5 transactions are created because a pollutant date is not specified on the option card. Sample output produced by this run stream is shown in Figure AST14-2.

```

//ASTEST14 JOB    (ACCOUNTING INFO)
//*
//*   EXECUTE THE MASTER FILE EMISSION FACTOR TRANSACTION
//*   GENERATOR PROGRAM AND STORE THE GENERATED TRANSACTIONS
//*
//TEST14A FXFC ECMSM10,
//      FMFCFIL=ECFMFL2,
//      MSTHFILE=ECMSTR3,
//      INTRTRN=ECTNTR5
//*
//*   GENERATE MASTER FILE EMISSION FACTOR TRANSACTIONS AND
//*   STORE THEM FOR FUTURE USE
//*
//GENER.OPTIONS DD *
//      CDAT 76001

```

Figure AST14-1. Run Stream

MASTER FILE EMISSION FACTOR TRANSACTION GENERATOR PROGRAM

PAGE

PROGRAM NAME: CMSEFGN (EC0080)
 REVISION LEVFL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: NOFLAG CDAT 76001

DATE: CATEGORY 76/001 POLLUTANT N/A

*** CMSEFGN 009 CONDITIONAL - EMISSION FACTOR FILE CONTAINS FEDERAL CATEGORY RECORDS FOR CATEGORIES OTHER THAN 1-64

NUMBER OF MASTER FILE RECORDS READ:	420
NUMBER OF EMISSION FACTOR RECORDS READ:	683
NUMBER OF CATEGORY-2 TRANSACTIONS CREATED:	20
NUMBER OF CATEGORY-5 TRANSACTIONS CREATED:	0
NUMBER OF WARNING MESSAGES:	3,774
NUMBER OF CONDITIONAL MESSAGES:	1
NUMBER OF ERROR MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0
NUMBER OF DISASTER MESSAGES:	0

EIS/AS Test 15 - Ad Hoc

Exercise All Options of the Master File Internal Transaction Emission Factor Insertion Program

In this test run, all options of CMSEFIN (EC0060) are exercised using the cataloged procedure ECMST10 which executes CSRINTR (EC0050), the master file internal transaction sort program; and CMSEFIN (EC0060), the master file internal transaction emission factor insertion program.

The internal transactions generated in Test 14 are sorted by CSRINTR (EC0050) into the sequence required by CMSEFIN (EC0060). See Test 2 for a discussion of these programs.

The run stream for this test run contains the JCL needed to insert emission factors from the emission factor file into the internal transactions created in Test 14. This run stream is shown in Figure AST15-1.

Substitutable parameters are used to supply the names of the input emission factor file and internal transaction file, and the output internal transaction file with the inserted emission factors. The names of these files are ECEMFL2 (created in Test 11), ECINTR5, and ECINTR6, respectively. The DD (data definition) information for the option card file of CMSEFIN (EC0060) is also supplied.

The FLAGW option is specified on the option card so that all warning messages will be printed in the diagnostic report output from CMSEFIN (EC0060). All available fields are selected for insertion or overriding: nitrogen content, sulfur content, ash content, emission factor, confidence level, and pollutant-specific data. Also, a category date and a pollutant date are specified to control the insert/override action. Sample output produced by this run stream is shown in Figure AST15-2.

```

//ASTEST15 JOB      (ACCOUNTING INFO)
//*
//*   EXERCISE ALL OPTIONS OF THE MASIFR FILE INTERNAL
//*   TRANSACTION EMISSION FACTOR INSERTION PROGRAM
//*
//TEST15A EXEC ECMS110,
//      EMFCF11=ECFMFL2,
//      OLDINTR=ECINTR5,
//      NEWINTR=ECINTR6
//*
//*   SPECIFY 'FLAGW' ON THE OPTION CARD:
//*   SELECT ALL AVAILABLE FIELDS FOR INSERTION
//*   OR OVERRIDING: NITROGEN CONTENT, SULFUR
//*   CONTENT, ASH CONTENT, EMISSION FACTOR,
//*   CONFIDENCE LEVEL, AND POLLUTANT-SPECIFIC
//*   DATA: SPECIFY A CATEGORY DATE AND A
//*   POLLUTANT DATE TO CONTROL THE INSERT/
//*   OVERRIDE ACTION
//*
//INSERT,OPTIONS DD *
FLAGW  NIT ID SUL ID ASH ID EMISSION ID CONF ID SPEC ID CDAT 75001 PDAT 75001

```

Figure AST15-1. Run Stream

PROGRAM NAME: CSRINTR (EC0050)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS READ:	20
NUMBER OF TRANSACTIONS WRITTEN:	21

Figure AST15-2. Sample Output

(Page 1 of 2)

EMISSION FACTOR INSERTION PROGRAM

PAGE 1

PROGRAM NAME: CMSEFIN (EC0060)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: FLAG

FIELDS SELECTED FOR INSERTIONS: NIT SUL ASF EMISSION CONF SPEC CDAT 75001 PDAT 75001

FIELDS TO BE OVERRIDDEN: NIT SUL ASF EMISSION CONF SPEC

NITROGEN I O SULFUR I O ASF I O EMISSION FACTOR I O CONF LEVEL I O SPEC DATA I O DATE: CATEGORY 75001 POLLUTANT 75001

*** CMSEFIN DOES CONDITIONAL - EMISSION FACTOR FILE CONTAINS FEDERAL CATEGORY RECORDS FOR CATEGORIES OTHER THAN 1-64

NUMBER OF INPUT TRANSACTIONS:	21
NUMBER OF EMISSION FACTOR RECORDS READ:	676
NUMBER OF STATE AND LOCAL INSERTIONS MADE:	20
NUMBER OF FEDERAL INSERTIONS MADE:	0
NUMBER OF OUTPUT TRANSACTIONS:	21

Figure AST15-2 - continued. Sample Output

(Page 2 of 2)

EIS/AS Test 16 - Ad Hoc

Execute a COBOL Retrieval and Produce a Formatted Dump of the Answer File

In this test run, a COBOL retrieval is executed using the cataloged procedure ECRTM30 which executes CRTLNGP (EC0090), the retrieval language processor program; the COBOL compiler; the linkage editor; and CRTGENR (EC0100), the generated retrieval program. The answer file produced by this procedure is listed in a formatted dump by using the cataloged procedure ECRPM30 which executes CRPDUMP (EC0140), the master file formatted dump program.

The user-supplied COBOL statements are combined with CRTSKEL, the retrieval program, by CRTLNGP (EC0090) to form the generated retrieval program CRTGENR (EC0100). The generated program is then compiled, link-edited, and executed. An EIS/AS master file is input to CRTGENR (EC0100) which selects records according to the user-supplied COBOL statements and creates an answer file. This answer file is passed to CRPDUMP (EC0140) to be listed in a formatted dump. Refer to Test 7 for a discussion of CRTLNGP (EC0090) and CRTGENR (EC0100); and refer to Test 4 for a discussion of CRPDUMP (EC0140).

The run stream for this test run contains the JCL needed to execute the retrieval package and produce a formatted dump of the answer file. The purpose of this test run is to retrieve all master file data that has not been submitted to NEDS. All data flags in each master file record are checked for 'S'. If a flag does not contain 'S', that record is written to the answer file. This run stream is shown in Figure AST16-1. Sample output produced by this run stream is shown in Figure AST16-2.

Substitutable parameters are used to supply the names of the master file input to CRTGENR (EC0100) and the answer file output from CRTGENR (EC0100). A substitutable parameter is also used to supply the name of the answer file input to CRPDUMP (EC0140). The names of the master file and answer file are ECMSTR7 (created in Test 9) and ECANSR3, respectively. The DD (data definition) information for the COBOL statements input to CRTLNGP (EC0090) and the option card file input to CRPDUMP (EC0140) are also supplied.

The user-supplied COBOL statements must conform to ANS COBOL format. The COBOL statements in this test run are included in the run stream.

No option card is supplied for CRPDUMP (EC0140), therefore, the following defaults are assumed by the program: 55 printed lines per page, no records are skipped, and all records will be dumped.

```

//ASTEST16 JOB      (ACCOUNTING INFO)
//*
//*   EXECUTE A CUMUL RETRIEVAL AND LIST THE ANSWER FILE USING THE
//*   MASTER FILE FORMATTED DUMP PROGRAM
//*
//TEST16A EXEC ECKTM30,
//      MSTRF11=FCMSTR7,
//      ANSWF11=ELANSH3
//*
//*   GENERATE AND EXECUTE A MASTER FILE RETRIEVAL PROGRAM
//*   THE USER SPECIFICATIONS FOR WHICH ARE PROVIDED IN
//*   JN-STRECAM CUMUL STATEMENTS
//*
//GENER. INPUT DD *
$SELECT USER
    IF RECORD-IS-DESCRIPTION
        PERFORM USER-DESC-PARA THRU USER-DESC-PARA-END
    ELSE
        IF RECORD-IS-CATEGORY
            PERFORM USER-CAT-PARA THRU USER-CAT-PARA-END
        ELSE
            PERFORM USER-CUMM-PARA THRU USER-CUMM-PARA-END.
        GO TO USER-QUALIFICATION-END.
    USER-DESC-PARA.
        IF NEDS-A1-FLAG IS NOT EQUAL TO 'S' OR
           NEDS-A3-FLAG IS NOT EQUAL TO 'S' OR
           NEDS-A4-FLAG IS NOT EQUAL TO 'S' OR
           EIS-FLAG-CARD-0-1 IS NOT EQUAL TO 'S' OR
           EIS-FLAG-CARD-0-2 IS NOT EQUAL TO 'S' OR
           EIS-FLAG-CARD-0-3 IS NOT EQUAL TO 'S' OR
           FIS-FLAG-CARD-0-4 IS NOT EQUAL TO 'S' OR
           FIS-FLAG-CARD-0-5 IS NOT EQUAL TO 'S' OR
           EIS-FLAG-CARD-0-6 IS NOT EQUAL TO 'S'
            PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
        ELSEF
            MOVE BINARY-1 TO DFSC-SUB
            PERFORM USER-DFSC-REPEAT THRU USER-DFSC-REPEAT-END
            UNTIL DFSC-SUB IS GREATER THAN DFSC-NBR-POLL.
        USER-DESC-PARA-END.
        EXIT.
    USER-DESC-REPEAT.
        IF EIS-FLAG-CARD-0-7 (DFSC-SUB) IS NOT EQUAL TO 'S'
            PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
            MOVE DFSC-NBR-POLL TO DFSC-SUB.
        ADD BINARY-1 TO DFSC-SUB.
        USER-DESC-REPEAT-END.
        EXIT.
    USER-CAT-PARA.
        IF NEDS-FLAG IS NOT EQUAL TO 'S' OR
           NEDS-A7-FLAG IS NOT EQUAL TO 'S' OR
           FIS-FLAG-CARD-1-1 IS NOT EQUAL TO 'S' OR
           FIS-FLAG-CARD-1-2 IS NOT EQUAL TO 'S' OR
           FIS-FLAG-CARD-1-3 IS NOT EQUAL TO 'S' OR
           FIS-FLAG-CARD-1-4 IS NOT EQUAL TO 'S'
            PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
        ELSEF
            MOVE BINARY-1 TO CAT-SUB
            PERFORM USER-CAT-REPEAT THRU USER-CAT-REPEAT-END

```

(Page 1 of 2)

Figure AST16-1. Run Stream

```

        UNTIL CAT-SUB IS GREATER THAN CAT-NRR-POLL.
USER-CAT-PARA-END.
EXIT.
USER-CAT-REPEAT.
    IF FIS-FLAG-CARD-1-5 (CAT-SUB) IS NOT EQUAL TO 'S'
        PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
        MOVE CAT-NRR-POLL TO CAT-SUB.
        ADD BINARY-1 TO CAT-SUB.
    USER-CAT-REPEAT-END.
EXIT.
USER-CUMM-PARA.
    IF NEDS-A6-FLAG IS EQUAL TO SPACE AND
        (EIS-FLAG-CARD-2-1 IS NOT EQUAL TO 'S' OR
        ETS-FLAG-CARD-2-2 IS NOT EQUAL TO 'S')
        PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
    ELSE
        IF NEDS-A6-FLAG IS NOT EQUAL TO 'S'
            PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END.
    USER-CUMM-PARA-END.
EXIT.
$END
//TEST16R FXFC ECRPM30,
//      MSTKFI=FCANSK3
//*
//*   DUMP THE ANSWER FILE FROM STEP A
//*
//DUMP.OPTIONS DD *
```

(Page 2 of 2)

Figure AST16-1 - continued. Run Stream

PROGRAM NAME: CHTLNGP (EC0090)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

INPUT (CONTROL CARDS):

```

$$$SELECT USER
  IF RECORD-IS-DESCRIPTION
    PERFORM USER-DFSC-PARA THRU USER-DFSC-PARA-END
  ELSE
    IF RECORD-IS-CATEGORY
      PERFORM USER-CAT-PARA THRU USER-CAT-PARA-END
    ELSE
      PERFORM USER-COMM-PARA THRU USER-COMM-PARA-END.
  GO TO USER-QUALIFICATION-END.
USER-DESC-PARA.
  IF NEDS-A1-FLAG IS NOT EQUAL TO 'S' OR
    NEDS-A3-FLAG IS NOT EQUAL TO 'S' OR
    NEDS-A4-FLAG IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-0-1 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-0-2 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-0-3 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-0-4 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-0-5 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-0-6 IS NOT EQUAL TO 'S'
    PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
  ELSE
    MOVE BINARY-1 TO DFSC-SUP
    PERFORM USER-DFSC-REPEAT THRU USER-DFSC-REPEAT-END
    UNTIL DFSC-SUP IS GREATER THAN DESC-NBR-POLL.
  USER-DESC-PARA-END.
  EXIT.
USER-DESC-REPEAT.
  IF FIS-FLAG-CARD-0-7 (DESC-SUP) IS NOT EQUAL TO 'S'
    PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
    MOVE DESC-NBR-POLL TO DESC-SUP.
  ADD BINARY-1 TO DESC-SUP.
  USER-DESC-REPEAT-END.
  EXIT.
USER-CAT-PARA.
  IF NEDS-FLAG IS NOT EQUAL TO 'S' OR
    NEDS-A7-FLAG IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-1-1 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-1-2 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-1-3 IS NOT EQUAL TO 'S' OR
    FIS-FLAG-CARD-1-4 IS NOT EQUAL TO 'S'
    PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
  ELSE

```

```

        MOVE BINARY-1 TO CAT-SUB
        PERFORM USER-CAT-REPEAT THRU USER-CAT-REPEAT-END
        UNTIL CAT-SUB IS GREATER THAN CAT-APR-POLL.
    USER-CAT-PARA-END.
    EXIT.
    USER-CAT-REPEAT.
        IF EIS-FLAG-CARD-1-5 (CAT-SUB) IS NOT EQUAL TO 'S'
            PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
            MOVE CAT-APR-POLL TO CAT-SUB.
        ADD BINARY-1 TO CAT-SUB.
    USER-CAT-REPEAT-END.
    EXIT.
    USER-COMM-PARA.
        IF NFDS-A6-FLAG IS EQUAL TO SPACE AND
            (EIS-FLAG-CARD-2-1 IS NOT EQUAL TO 'S' OR
             EIS-FLAG-CARD-2-2 IS NOT EQUAL TO 'S')
            PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END
        ELSE
            IF NFDS-A6-FLAG IS NOT EQUAL TO 'S'
                PERFORM RECORD-QUAL-PARA THRU RECORD-QUAL-PARA-END.
    USER-COMM-PARA-END.
    EXIT.

```

\$\$\$END

NUMBER OF CONTROL CARDS READ:	65
NUMBER OF RETRIEVAL SKELETON RECORDS READ:	837
NUMBER OF RETRIEVAL SOURCE RECORDS WRITTEN:	954
NUMBER OF CONDITIONAL MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0

PROGRAM NAME: CRTLANGP (FC0090)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

Figure AST16-2 - continued. Sample Output

EIS/AS GENERATED RETRIEVAL PROGRAM - DIAGNOSTIC REPORT

PAGE 1

PROGRAM NAME: CNTGFNR (EC0100)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF MASTER FILE RECORDS READ:	371
NUMBER OF MASTER FILE RECORDS WRITTEN:	284
NUMBER OF CONDITIONAL MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0

Figure AST16-2 - continued. Sample Output
(Page 3 of 6)

PROGRAM NAME: CRPDUMP (EC0140)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTIONS IN EFFECT: 55 LINES PER PAGE; 0 RECORDS SKIPPED; ALL RECORDS TO BE DUMPED

*** CRPDUMP 003 CONDITIONAL - NO VALID LINE SPECIFICATION - DEFAULT OF 55 ASSUMED
*** CRPDUMP 004 CONDITIONAL - NO VALID VALUE SPECIFIED FOR NUMBER OF RECORDS TO BE SKIPPED - DUMP STARTS AT FIRST RECORD
*** CRPDUMP 005 CONDITIONAL - NO VALID VALUE SPECIFIED FOR NUMBER OF RECORDS TO BE DUMPED - ENTIRE FILE DUMPED

NUMBER OF DESCRIPTION RECORDS DUMPED:	0
NUMBER OF CATEGORY RECORDS DUMPED:	284
NUMBER OF COMMENT RECORDS DUMPED:	0
TOTAL NUMBER OF RECORDS READ:	284

Figure AST16-2 - continued. Sample Output

(Page 4 of 6)

```

STATE=06 COUNTY=223R GEOGR/SUBALLLOC/#=00000 CATEGORY/#=023 DISAGGR/#=00 RECORD/TYPE/(KEY)=1 LINE/#=000 BATCH=0
AQCR=067 REC/TYPE=CA CATEGORY/DESC=CUMM-INST CN-STIE INCINER YR/OF/INFC=79 PRCSS/RATE=000002350 CATEGORY/ADJ= UNITS/CD=
UNITS/CD/DESC= UNIFORM/THRUPT=Y MONTHLY/THRUPT/1: (JAN=08,FEB=08,MAR=09,APR=08,MAY=08,JUN=09,JUL=08,AUG=08,SEP=09,OCT=08
NOV=08,DEC=09) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HRLY/THRUPT= DATA/CONFIDENCE/RATING=0
NITRG/1= SULF/1= ASH/1= HEAT/CONT= UNIFORM/HRLY/THRUPT= HRLY/THRUPT/1: (00= , , ,03= , , ,06= , , ,09=
, ,12= , , ,15= , , ,18= , , ,21= , , ) NEDS/A7/CUMM=MASTER FILE TEST DATA INFO/SOURCE/CCDF=S
INFO/SRCE/NARK= EIS/FLG/1=S EIS/FLG/2=S EIS/FLG/3=S EIS/FLG/4=S NEDS/FLG=S NEDS/A7/FLG=S #/POLL=06
POLL/ID FMIS/FACTR EF/CNF/RING EF/SRC/CD EF/ORIG POLL/SPC/DATA NEDS/A7/EMIS POLL/NAME EIS/FLG/5 FMIS/EST CNF/RING MX/HRLY/EMS
11101 0000000000 0 F SUSPENDED PART. C 0000000 0
42101 0000000000 0 F SUSPENDED PART. C 0000000 0
42401 0000002500 0 F SULFUR DIOXIDE C 0000000 0
42602 0000003000 0 F N OXIDES C 0000000 0
43101 0000000000 0 F HYDROCARBONS S 0000000 0
42269 0 L TOTAL SULFUR S 0000000 0

```

```

STATE=06 COUNTY=223R GEOGR/SUBALLLOC/#=00000 CATEGORY/#=047 DISAGGR/#=00 RECORD/TYPE/(KEY)=1 LINE/#=000 BATCH=0
AQCR=067 REC/TYPE=CA CATEGORY/DESC=CIVIL AIRCRAFT LTU*S YR/OF/INFC=79 PRCSS/RATE=000005005 CATEGORY/ADJ= UNITS/CD=
UNITS/CD/DESC= UNIFORM/THRUPT=Y MONTHLY/THRUPT/1: (JAN=08,FEB=08,MAR=09,APR=08,MAY=08,JUN=09,JUL=08,AUG=08,SEP=09,OCT=08
NOV=08,DEC=09) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HRLY/THRUPT= DATA/CONFIDENCE/RATING=0
NITRG/1= SULF/1= ASH/1= HEAT/CONT= UNIFORM/HRLY/THRUPT= HRLY/THRUPT/1: (00= , , ,03= , , ,06= , , ,09=
, ,12= , , ,15= , , ,18= , , ,21= , , ) NEDS/A7/CUMM=MASTER FILE TEST DATA INFO/SOURCE/CCDF=S
INFO/SRCE/NARK= EIS/FLG/1=S EIS/FLG/2=S EIS/FLG/3=S EIS/FLG/4=S NEDS/FLG=S NEDS/A7/FLG=S #/POLL=05
POLL/ID FMIS/FACTR EF/CNF/RING EF/SRC/CD EF/ORIG POLL/SPC/DATA NEDS/A7/EMIS POLL/NAME EIS/FLG/5 FMIS/EST CNF/RING MX/HRLY/EMS
11101 0000000020 0 F SUSPENDED PART. C 0000000 0
42101 0000000020 0 F SUSPENDED PART. C 0000000 0
42401 0000000010 0 F SULFUR DIOXIDE C 0000000 0
42602 0000000028 0 F N OXIDES C 0000000 0
43101 0 F HYDROCARBONS S 0000000 0

```

```

STATE=06 COUNTY=223R GEOGR/SUBALLLOC/#=00000 CATEGORY/#=060 DISAGGR/#=00 RECORD/TYPE/(KEY)=1 LINE/#=000 BATCH=0
AQCR=067 REC/TYPE=CA CATEGORY/DESC=FOREST WILD FIRES YR/OF/INFC=79 PRCSS/RATE= CATEGORY/ADJ=0000900 UNITS/CD=
UNITS/CD/DESC= UNIFORM/THRUPT=Y MONTHLY/THRUPT/1: (JAN=08,FEB=08,MAR=09,APR=08,MAY=08,JUN=09,JUL=08,AUG=08,SEP=09,OCT=08
NOV=08,DEC=09) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HRLY/THRUPT= DATA/CONFIDENCE/RATING=0
NITRG/1= SULF/1= ASH/1= HEAT/CONT= UNIFORM/HRLY/THRUPT= HRLY/THRUPT/1: (00= , , ,03= , , ,06= , , ,09=
, ,12= , , ,15= , , ,18= , , ,21= , , ) NEDS/A7/CUMM=MASTER FILE TEST DATA INFO/SOURCE/CCDF=F
INFO/SRCE/NARK= EIS/FLG/1=S EIS/FLG/2=S EIS/FLG/3=S EIS/FLG/4=S NEDS/FLG=S NEDS/A7/FLG=S #/POLL=06
POLL/ID FMIS/FACTR EF/CNF/RING EF/SRC/CD EF/ORIG POLL/SPC/DATA NEDS/A7/EMIS POLL/NAME EIS/FLG/5 FMIS/EST CNF/RING MX/HRLY/EMS
11101 00000017000 0 F SUSPENDED PART. C 0000000 0
42101 00000017000 0 F SUSPENDED PART. C 0000000 0
42401 00000000150 0 F SULFUR DIOXIDE C 0000000 0
42602 00000004000 0 F N OXIDES C 0000000 0
43101 0 F HYDROCARBONS S 0000000 0
42269 0 L TOTAL SULFUR S 0000000 0

```

```

STATE=42 COUNTY=2440 GEOGR/SURALLOC/#=00000 CATFGRY/#=060 DISAGGR/#=00 RECORD/TYPE/(KEY)=1 LINE/#=000 BATCH=0
AQCR=167 REC/TYPE=CA CATFGRY/DESC=FOREST WILD FIRES YR/QF/INFC= PRCSS/RATE=000000098 CATEGORY/ADJ=0000009 UNITS/LD=
UNITS/CD/DESC= UNIFORM/THRUPT= MONTHLY/THRUPT/1%: (JAN= ,FEB= ,MAR= ,APR= ,MAY= ,JUN= ,JUL= ,AUG= ,SEP= ,OCT=
NOV= ,DEC= ) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HRLY/THRUPT= DATA/CONFIDENCE/RATING=
NITRG/1% SULF/1% ASH/1% HEAT/CONT= UNIFORM/HRLY/THRUPT= HRLY/THRUPT/1%: (00= , , 03= , , 06= , , 09=
, 12= , , 15= , , 18= , , 21= , , ) NEDS/A7/CUMM= INFO/SOURCE/CODE=
INFO/SRCE/MARK= EIS/FLG/1=S FIS/FLG/2=S EIS/FLG/3=S FIS/FLG/4=S NEDS/FLG=S NEDS/A7/FLG=S #/PULL=05
POLL/ID EMIS/FACTR EF/CNF/RING EF/SRC/CD EF/CRIG POLL/SPEC/DATA NEDS/A7/EMIS POLL/NAME FIS/FLG/5 EMIS/EST CNF/RING MX/HRLY/EMS
11101 0000017000 0 F SUSPENDED PART. C 0000007 0
42101 0000017000 0 F SUSPENDED PART. C 0000007 0
42401 0000000150 0 F SULFUR DIOXIDE C 0000000 0
42602 0000004000 0 F N OXIDES C 0000002 0
43101 F 0170000SUS HYDROCARBONS S 0000000 0

```

```

STATE=42 COUNTY=2440 GEOGR/SURALLOC/#=00000 CATFGRY/#=061 DISAGGR/#=00 RECORD/TYPE/(KEY)=1 LINE/#=000 BATCH=0
AQCR=167 REC/TYPE=CA CATFGRY/DESC=MANAGED BURNING-PRESERVE YR/QF/INFC= PRCSS/RATE=000005875 CATEGORY/ADJ=0000003 UNITS/LD=
UNITS/CD/DESC= UNIFORM/THRUPT= MONTHLY/THRUPT/1%: (JAN= ,FEB= ,MAR= ,APR= ,MAY= ,JUN= ,JUL= ,AUG= ,SEP= ,OCT=
NOV= ,DEC= ) HRS/PER/DAY= DAYS/PER/WK= WKS/PER/YR= THRUPT/RATIO= MAX/HRLY/THRUPT= DATA/CONFIDENCE/RATING=
NITRG/1% SULF/1% ASH/1% HEAT/CONT= UNIFORM/HRLY/THRUPT= HRLY/THRUPT/1%: (00= , , 03= , , 06= , , 09=
, 12= , , 15= , , 18= , , 21= , , ) NEDS/A7/CUMM= INFO/SOURCE/CODE=
INFO/SRCE/MARK= EIS/FLG/1=S FIS/FLG/2=S EIS/FLG/3=S FIS/FLG/4=S NEDS/FLG=S NEDS/A7/FLG=S #/PULL=05
POLL/ID EMIS/FACTR EF/CNF/RING EF/SRC/CD EF/CRIG POLL/SPEC/DATA NEDS/A7/EMIS POLL/NAME FIS/FLG/5 EMIS/EST CNF/RING MX/HRLY/EMS
11101 0000017000 0 F SUSPENDED PART. C 0000150 0
42101 0000017000 0 F SUSPENDED PART. C 0000150 0
42401 0000000150 0 F SULFUR DIOXIDE C 0000001 0
42602 0000004000 0 F N OXIDES C 0000035 0
43101 F 0170000SUS HYDROCARBONS S 0000000 0

```

EIS/AS Test 17 - Ad Hoc

Execute an EIS/AS Retrieval and Produce a Detailed Report of the Answer File

In this test run, an EIS/AS retrieval is executed using the cataloged procedure ECRTM30 which executes CRTLNGP (EC0090), the retrieval language processor program; the COBOL compiler; the linkage editor; and CRTGENR (EC0100), the generated retrieval program. The answer file produced by this procedure is listed in a detailed report using the cataloged procedure ECRPM20 which executes CRPMSTR (EC0130), the master file detailed report program.

The user-supplied EIS/AS retrieval language statements are combined with CRTSKEL, the retrieval skeleton program, by CRTLNGP (EC0090) to form the generated retrieval program, CRTGENR (EC0100). The generated program is then compiled, link-edited, and executed. An EIS/AS master file is input to CRTGENR (EC0100) which selects records according to the user-supplied retrieval language statements and creates an answer file. This answer file is passed to CRPMSTR (EC0130) to be listed in a detailed report. See Test 7 for a discussion of CRTLNGP (EC0090), CRTGENR (EC0100), and CRPMSTR (EC0130).

The run stream for this test run contains the JCL needed to execute the retrieval package and produce a detailed report of the answer file. The purpose of this test run is to retrieve all geographic suballocation and category disaggregation records that contain particulate data. The user should note that in this test run, if a description record qualifies for selection, then all category records subordinate to it will also be selected. This is because the \$\$SELECT card specifies that both record types are to be retrieved. Also, if a category record qualifies for selection, the description record to which it is subordinate will be selected. The run stream for this test run is shown in Figure AST17-1.

Substitutable parameters are used to supply the names of the master file input to CRTGENR (EC0100) and the answer file output from CRTGENR (EC0100). A substitutable parameter is also used to specify the name of the answer file input to CRPMSTR (EC0130). The names of the master file and answer file are ECMSTR7 (created in Test 9) and ECANSR4, respectively. The DD (data

definition) information for the EIS/AS retrieval language statements input to CRTGENR (EC0100) and the option card file input to CRPMSTR (EC0130) are also supplied.

The EIS/AS retrieval language statements must conform to the format specified in Test 7. The retrieval language statements are also included in the run stream. The option card in this run stream specifies that the detailed report is to be printed with a maximum of 65 lines per page. Sample output produced by this run stream is shown in Figure AST17-2.

```

//AST17 JOB      (ACCOUNTING INFO)
/**
/**  EXECUTE AN EIS/AS RETRIEVAL AND LIST THE
/**  ANSWER FILE USING THE MASTER FILE DETAILED
/**  REPORT PROGRAM
/**
//TEST17A EXEC ECRTM30,
//      MSTRFIL=ECMSTR7,
//      ANSRFIL=ECANSR4
/**
/**  CREATE AND EXECUTE A RETRIEVAL PROGRAM
/**  IN WHICH THE USER SPECIFICATIONS APPEAR
/**  AS EIS/AS RETRIEVAL LANGUAGE STATEMENTS
/**
//GENER. INPUT: DD *
$$SELECT      0 1
(GEUG-SUBALLOCATION-NBR      N = '00000'
DESC-POLLUTANT-ID          = '11101')
(GEUG-SUBALLOCATION-NBR      N = '00000'
CATEGORY-DISAGGREG-NBR     N = '00'
CAT-POLLUTANT-ID           = '11101')
$$END
//TEST17B EXEC ECRPM20,
//      MSTRFIL=ECANSR4
/**
/**  LIST THE ANSWER FILE PRODUCED IN
/**  STEP A USING THE DETAILED REPORT PROGRAM
/**
//LIST. OPTIONS DD *
65

```

```

AND
OR
AND
AND

```

Figure AST17-1. Run Stream

PROGRAM NAME: CRTLNGP (EC0090)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

INPUT (CONTROL CARDS):

```
$$SELECT      0 1
(GFGG-SURALLOCATION-NBR      N = '00000'      AND
DESC-POLLUTANT-ID           = '11101')      OR
(GFGG-SURALLOCATION-NBR      N = '00000'      AND
CATEGORY-DISAGGREG-NBR      N = '00'        AND
CAT-POLLUTANT-ID           = '11101')
$$END
```

```
NUMBER OF CONTROL CARDS READ:      7
NUMBER OF RETRIEVAL SKELETON RECORDS READ:  837
NUMBER OF RETRIEVAL SOURCE RECORDS WRITTEN:  922
NUMBER OF CONDITIONAL MESSAGES:      0
NUMBER OF ABORT MESSAGES:           0
```

Figure AST17-2. Sample Output

(Page 1 of 6)

FIS/AS GENERATED RETRIEVAL PROGRAM - DIAGNOSTIC REPORT

PAGE 1

PROGRAM NAME: FRTGENR (FCU100)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF MASTER FILE RECORDS READ:	371
NUMBER OF MASTER FILE RECORDS WRITTEN:	10
NUMBER OF CONDITIONAL MESSAGES:	0
NUMBER OF ABORT MESSAGES:	0

(Page 2 of 6)
Figure AST17-2 - continued. Sample Output

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
DIAGNOSTIC REPORT

PAGE

PROGRAM NAME: CKPMSTR (EC0130)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTION IN EFFECT: 65 LINES PER PAGE MAXIMUM

NUMBER OF RECORDS READ:	10
NUMBER OF DESCRIPTION RECORDS:	3
NUMBER OF CATEGORY RECORDS:	7
NUMBER OF COMMENT RECORDS:	0

Figure AST17-2 - continued. Sample Output
(Page 3 of 6)

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
FILE LISTING

PAGE 1

DESCRIPTION													

STATE	COUNTY	AGCR	AGCR NAME				PLANT ID	GEOR SUR #	SMSA	BATCH			
31	0015	011	WESTERN PART OF STATE DU				0195	00135	1257	0			
RECORD TYPE	CATEGORY NUMBER	CATEGORY DISAG #	AIR BASIN	DEFINED AREA CODE	AREA NAME	MAJOR ACTIVITY	SUBALLOCATION TECHNIQUE						
SG	000	00	011	123	CADE'S COVE	FARMING	15	CAASE					
DATE YR/DAY	SIP BASE YEAR	PROJ'D YEAR	SOURCE TYPE	LENGTH ARFA	UNITS CD	PCP CODE	POPULATION PUR %	TOTAL	NUMBER OF COORDINATES	NUMBER OF POLLUTANTS			
79/303	79	83	A	137.59	12		50	101,234	2	16			
UTM COORDINATES													
01 HORIZ VERT	02 HORIZ VERT	03 HORIZ VERT	04 HORIZ VERT	05 HORIZ VERT	06 HORIZ VERT								
18 530.0 4310.0	18 535.1 4320.1												
SULFUR CONTENTS		ASH CONTENTS		GAS FUEL		DIESEL FUEL		MOTOR VEHICLE MILES					
ANTH COAL	BITUM COAL	DIST OIL	RESID'L OIL	ANTH COAL	BITUM COAL	VEHICLES LIGHT	VEHICLES HEAVY	LIMITED ACCESS ROADS	RURAL ROADS	SUB URBAN ROADS			
FLAG	ETS	FLAGS				SIP ESTIMATES							
NEDS A1	1 2 3 4 5 6					TSP	SO2	NOX	HC	CO			
S	S S S S S S					125	137	12	3,459	119			
***	POLLUTANT		ATTAINMENT		AQMA	ETS	***	POLLUTANT		ATTAINMENT	AQMA	ETS	***
***	ID	NAME	STATUS		NUMBER	F 7	***	ID	NAME	STATUS	NUMBER	F 7	***
***	42601	NO	U		000123	S	***	42602	NO2	A	000123	S	***
***	11114	WINDBLN PART	U		000123	S	***	21101	TOTAL DUSTFALL	A	000123	S	***
***	44101	TOTAL OXIDANTS	U		000123	S	***	44201	OXONE	A	000123	S	***
***	42101	CO	U		000123	S	***	42102	CO2	A	000123	S	***
***	42603	NOX	U		000123	S	***	43101	HC	A	000123	S	***
***	43102	NONMETH HC	U		000123	S	***	43502	FORMALDEHYDE	A	000123	S	***
***	11101	TSP	U		000123	S	***	11103	BENZENE ORGNICS	A	000123	S	***
***	42401	SO2	U		000123	S	***	42402	HYDROGEN SULFIDE	A	000123	S	***

Figure AST17-2 - continued. Sample Output

(Page 4 of 6)

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
FILE LISTING

PAGE 2

CATEGORY 100

STATE	COUNTY	AGGR	GFUG SUBALLNO #	CATEGORY #	CATEGORY DISAG #	HATCH
31	0015	011	00135	100	10	0

RECORD YEAR	RECORD TYPE	CATEGORY DESCRIPTION	CATEGORY ADJUSTMENT	PROCESS RATE	UNITS CODE	DESCRIPTION	NORMAL OPERATING HR/D D/WK WK/YR	THRUPT RATIO
1979	SU	LAT 100 DISAG 10	23	125			24 7 52	1.3

UNIFORM THRUPT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	NITROGEN	SULFUR	ASH	HEAT CONTENT
YES	A	A	9	A	A	9	A	A	9	A	A	9	.013	5.1	10.2	0034

UNIFORM THRUPT	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
YES	4	4	4	4	4	5	4	4	4	4	4	5	4	4	4	4	4	5	4	4	4	4	4	5

MAX HRLY THRUPT	DATA CONF RATING	EIS FLAG	NEDS FLAG	NFDS A7 FLAG	COMMENT	INFORMATION CODE	SOURCE NARRATIVE	NUMBER OF POLLUTANTS
1	1	S S S S	S	S		L	LOCAL GOVERNMENT	16

POLLUTANT ID	POLLUTANT NAME	POLLUTANT SPECIFIC DATA	EMISSION FACTOR	FM FAC CONF RTNG	EM FAC SOURCE	EM FAC ORIGIN	EMISSIONS ESTIMATES	NEDS A7 EMISSION	MAX HOURLY	CONF RTNG	FLAG EIS S
11101	ISP	1234	26.100	5	A	L	383			3	S
11103	BENZENE ORGNICS		1,201.449	5	A	L	1,727			3	S
11114	WINDBLN FART		1,241.198	5	A	L	1,784			3	S
21101	TOTAL DUSTFALLS		2,301.449	5	A	L	3,302			3	S
22306	NITRATES		1,241.198	5	A	L	1,784			3	S
22403	ISULFATES		2,316.449	5	A	L	3,330			3	S
42101	CO		1,243.398	5	A	L	1,787			3	S
42102	CO2		2,317.749	5	A	L	3,332			3	S
42401	SO2		1,201.398	5	A	L	8,808			3	S
42402	HYDROGEN SULFIDE		2,000.749	5	A	L	2,876			3	S
42601	NO	J/112-A	1,201.998	5	A	L	1,726			3	S
42602	NO2	S-JJJJ-55	4,300.749	5	A	L	80			3	S
42603	NOX	J/1188A	1,201.738	5	A	L	1,727			3	S
43101	HC	S-JJJ5555	33,322.749	5	A	L	47,901			3	S
43102	NONMETH HC		1,201.446	5	A	L	1,727			3	S
43502	FORMALYHYDE	S-JJJ5555	4,200.749	5	A	L	6,039			3	S

Figure AST17-2 - continued. Sample Output

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
FILE LISTING

PAGE 3

*****										*****															
CATEGORY 999										*****															
*****										*****															
		STATE	COUNTY		AUCK		GEOG SUBALLOC #		CATEGORY #		CATEGORY DISAG #		BATCH												
		31	0015				00155		999		00		0												
RECORD YEAR	RECORD TYPE	CATEGORY DESCRIPTION				CATEGORY ADJUSTMENT				PROCESS RATE		UNITS CODE DESCRIPTION		NORMAL OPERATING HR/D D/WK WK/YR		THRUPT RATIO									

CA																									
UNIFORM		MONTHLY THRUPT PERCENTAGES												PERCENTAGES OF				HEAT							
THRUPT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	NITROGEN	SULFUR	ASH	CONTENT								

YES																									
UNIFORM		HOURLY THRUPT PERCENTAGES																							
THRUPT		0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300

YES																									
MAX HRLY		DATA CONF		EIS FLAG				NEDS		NEDS A7		INFORMATION SOURCE				NUMBER OF									
THRUPT		RATING		1	2	3	4	FLAG	FLAG	COMMENT		CODE				NARRATIVE				POLLUTANTS					

				S	S	S	S	S	S											1					
POLLUTANT		POLLUTANT				EMISSION		EM FAC		EM FAC		EM FAC		EMISSIONS		NEDS A7		MAX HOURLY		CONF		FLAG			
ID NAME		SPECIFIC DATA				FACTOR		CONF RTNG		SOURCE		ORIGIN		ESTIMATES		EMISSION		MAX HOURLY		RTNG		EIS S			

S																									

Figure AST17-2 - continued. Sample Output

(Page 6 of 6)

EIS/AS Test 18 - Ad Hoc

Produce a Quick Look Report for County Data

In this test run, county data is extracted from the master file and listed in a formatted report using the cataloged procedure ECRPM40 which executes CRTQLED (EC0160), the quick look edit program; CRTQLEX (EC0170), the quick look extract program; and CRPQUIK (EC0180), the quick look report program.

The user-supplied quick look control cards are edited by CRTQLED (EC0160). As these cards are edited, CRTQLED (EC0160) builds two temporary control files; an extract control file which is passed to CRTQLEX (EC0170) and a report control file which is passed to CRPQUIK (EC0180). The extract control file contains the selection criteria needed by CRTQLEX (EC0170) to extract data from the master file. The report control file contains the information which determines the format of the report printed by CRPQUIK (EC0180). An EIS/AS master file is input to CRTQLEX (EC0170) from which data is selected according to the criteria contained in the extract control file passed from CRTQLED (EC0160). When data is extracted from the master file, it is written to a temporary file which is passed to CRPQUIK (EC0180). The data in this temporary file is printed in a report according to the format specifications contained in the report control file which is passed from CRTQLED (EC0160).

The control cards input to CRTQLED (EC0160) must conform to specific formats. See Figure AST18-1 for a description of the control card formats and Figure AST18-2 for definitions of the control card fields. Figure AST18-3 contains the data element names and their valid abbreviations that may be coded on the control cards; Figure AST18-4 shows the EIS/AS quick look retrieval load sheet.

The run stream for this test run contains the JCL needed to execute the quick look package. The purpose of this test run is to create a report containing the fuel process rates for categories 1 through 64 in each county. Data will be extracted only when the fuel process rate field of a category record is non-blank. A page break is specified on the county (CNTY) field and

for each page break a subtotal of the number of categories in the county will be printed. A total of the number of quick look lines will be printed at the end of the report. In this test run, the total number of quick look lines is equivalent to the total number of categories listed for each county. The run stream for this test run is shown in Figure AST18-5.

A substitutable parameter is used to specify the name of the master file input to CRTQLEX (EC0170). The name of the master file is ECMSTR7 (created in Test 9). The DD (data definition) information for the control cards input to CRTQLED (EC0160) is also supplied. Sample output produced by this run stream is shown in Figure AST18-6.

\$\$SELECT Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 8	8	Alphanumeric	\$\$SELECT
9	1		Unused
10 - 72	63	Alphanumeric	Report Title
73 - 80	8	Alphanumeric	Date

(Page 1 of 8)

Figure AST18-1. Quick Look Control Card Formats

10 Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	10
3	1		Unused
4	1	Alphanumeric	Left Parenthesis
5	1		Unused
6 - 9	4	Alphanumeric	Data Element Abbreviation
10	1		Unused
11	1	Alphanumeric	Relational Operator
12	1		Unused
13 - 24	12	Alphanumeric	Test Value
25	1		Unused
26	1	Alphanumeric	Right Parenthesis
27	1		Unused
28 - 30	3	Alphabetic	Boolean Operator
31 - 80	50		Unused

(Page 2 of 8)

Figure AST18-1 - continued. Quick Look Control Card Formats

20 Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	20
3	1		Unused
4 - 5	2	Alphabetic	Report Type
6 - 80	75		Unused

(Page 3 of 8)

Figure AST18-1 - continued. Quick Look Control Card Formats

30 Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	30
3	1		Unused
4 - 7	4	Alphanumeric	Data Element Abbreviation
8	1	Alphabetic	Page Break/Subtotaling Request
9	1		Unused
10 - 15	6		Repeat Columns 4-9
16 - 21	6		Repeat Columns 4-9
22 - 27	6		Repeat Columns 4-9
28 - 33	6		Repeat Columns 4-9
34 - 39	6		Repeat Columns 4-9
40 - 80	41		Unused

(Page 4 of 8)

Figure AST18-1 - continued. Quick Look Control Card Formats

40 Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	40
3	1		Unused
4 - 7	4	Alphanumeric	Data Element Abbreviation
8	1	Alphabetic	Summation Request
9	1		Unused
10 - 15	6		Repeat Columns 4-9
16 - 21	6		Repeat Columns 4-9
22 - 27	6		Repeat Columns 4-9
28 - 33	6		Repeat Columns 4-9
34 - 39	6		Repeat Columns 4-9
40 - 45	6		Repeat Columns 4-9
46 - 51	6		Repeat Columns 4-9
52 - 57	6		Repeat Columns 4-9
58 - 63	6		Repeat Columns 4-9
64 - 80	17		Unused

(Page 5 of 8)

Figure AST18-1 - continued. Quick Look Control Card Formats

50 Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	50
3	1		Unused
4 - 7	4	Alphanumeric	Data Element Abbreviation
8	1		Unused
9 - 13	5		Repeat Columns 4-8
14 - 18	5		Repeat Columns 4-8
19 - 23	5		Repeat Columns 4-8
24 - 28	5		Repeat Columns 4-8
29 - 33	5		Repeat Columns 4-8
34 - 38	5		Repeat Columns 4-8
39 - 80	42		Unused

(Page 6 of 8)

Figure AST18-1 - continued. Quick Look Control Card Formats

51 Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 2	2	Numeric	51
3	1		Unused
4 - 8	5	Numeric	Pollutant ID
9	1		Unused
10 - 15	6		Repeat Columns 4-9
16 - 21	6		Repeat Columns 4-9
22 - 27	6		Repeat Columns 4-9
28 - 33	6		Repeat Columns 4-9
34 - 39	6		Repeat Columns 4-9
40 - 80	41		Unused

(Page 7 of 8)

Figure AST18-1 - continued. Quick Look Control Card Formats

\$\$END Card

<u>Column #</u>	<u>Field Length</u>	<u>Data Type</u>	<u>Description</u>
1 - 5	5	Alphanumeric	\$\$END
6 - 80	75		Unused

(Page 8 of 8)

Figure AST18-1 - continued. Quick Look Control Card Formats

Boolean Operator: Used to combine type 10 cards.

Card Type: 10

Valid Codes: AND, OR

Field Length: 3 characters

Data Element Abbreviation: A four-character abbreviation for a data element in the EIS/AS master file.

Card Type: 10, 30, 40, 50

Valid Codes: Valid abbreviations are shown in Figure AST18-3.

Abbreviations that are not allowed on the 10 card or 30 card are designated by ** under the heading 10/30 Card.

Field Length: 4 characters

Date: A date to appear on each page of the quick look report or pollutant summary report.

Card Type: \$\$SELECT

Valid Codes: This field is not edited, but it is recommended that the date be entered as MM/DD/YY where MM, DD, and YY are the month, day, and year, respectively.

Field Length: 8 characters

Left Parenthesis: Used in conjunction with a right parenthesis to group type 10 cards.

Card Type: 10

Valid Codes: (or blank

Field Length: 1 character

(Page 1 of 4)

Figure AST18-2. Quick Look Control Card Field Descriptions

Page Break/Subtotaling Request: Used to request a page break in the quick look report when the value of the associated data element changes. Also, if totaling is requesting on the 40 card, subtotals will be generated with each page break.

Card Type: 30

Valid Codes: X - page break/subtotaling requested
blank - page break/subtotaling not requested

Field Length: 1 character

Pollutant ID: Identifies pollutants for which emissions estimates are to be included in the pollutant summary report.

Card Type: 51

Valid Codes: 11101 - Total Suspended Particulate
42101 - Carbon Monoxide
42401 - Sulfur Dioxide
42601 - Nitric Oxide
42602 - Nitrogen Dioxide
42603 - Oxides of Nitrogen
43101 - Hydrocarbons

Field Length: 5 characters

Relational Operator: Specifies a comparison to be made between a data element in the master file and the test value.

Card Type: 10

Valid Codes: E - Equal to
U - Unequal
G - Greater than or equal to
L - Less than or equal to

(Page 2 of 4)

Figure AST18-2 - continued. Quick Look Control Card Field Descriptions

P - Present, any entry

B - Blank

Field Length: 1 character

Report Title: A title to appear on each page of the quick look report or pollutant summary report.

Card Type: \$\$SELECT

Field Length: 63 characters

Report Type: Specifies whether a quick look report or a pollutant summary report is to be produced.

Card Type: 20 card

Valid Codes: QL - Quick look report

SU - Pollutant summary report

Field Length: 2 characters

Right Parenthesis: Used in conjunction with a left parenthesis to group type 10 cards.

Card Type: 10

Valid Codes:) or blank

Field Length: 1 character

Summation Request: Used to request totals for data elements in the quick look report. If a page break/subtotaling request is entered on the 30 card, a summation request will also cause subtotals to be generated at each page break for those data elements for which a summation request is entered.

(Page 3 of 4)

Figure AST18-2 - continued. Quick Look Control Card Field Descriptions

Card Type: 40
Valid Codes: X - summation requested
Blank - summation not requested
Field Length: 1 character

Test Value: Specifies a value against which the associated data element in the master file is compared.

Card Type: 10
Valid Codes: Valid codes for this field depend upon the associated data element. The test value should be entered with a format that corresponds to the format of the data element in the master file.
Field Length: Variable, no more than 12 characters. Refer to Figure AST18-3.

(Page 4 of 4)

Figure AST18-2 - continued. Quick Look Control Card Field Descriptions

Description Record Data Elements

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totaled</u>
State	STTE	2	N/A	
County	CNTY	4	5	
AQCR	AQCR	3	5	
Geographic Suballocation Number	GSUB	5	6	
Category Number	CATN	3	5	
Category Disaggregation Number	DISA	2	5	
Year	YEAR	2	5	
Day	DAYJ	3	5	
Air Basin	BASN	3	5	
SMSA	SMSA	4	5	
Area Name*	ANME	20	21	
Major Activity*	MACT	20	21	
Associated Plant ID	PLID	4	5	
SIP Base Year	SIPY	2	5	
Projected Year	PRJY	2	5	
Rural Population Percentage	RPPC	2	5	
Population	POPN	8	9	14
AQCR Name*	AQNM	54	55	
Suballocation Technique Code	SATC	2	5	
Suballocation Technique Description	SATD	**	21	
Defined Area Code	DFAC	3	5	

*Only the first 12 characters are used in selection

**Not valid on a 10 card or a 30 card

N/A Not allowed

(Page 1 of 8)

Figure AST18-3. Data Element Abbreviations and Lengths

Description Record Data Elements (continued)

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totalled</u>
Sulfur Content - Anthracite Coal	SUAC	2	5	
Sulfur Content - Bituminous Coal	SUBC	2	5	
Sulfur Content - Distillate Oil	SUDO	2	5	
Sulfur Content - Residual Oil	SURO	2	5	
Ash Content - Anthracite Coal	ASHA	3	5	
Ash Content - Bituminous Coal	ASHB	3	5	
Number of UTM Coordinates	NUTM	1	N/A	
UTM Zone 1	UTZ1	2	5	
UTM Horizontal 1	UTH1	4	6	
UTM Vertical 1	UTV1	5	7	
UTM Zone 2	UTZ2	2	5	
UTM Horizontal 2	UTH2	4	6	
UTM Vertical 2	UTV2	5	7	
UTM Zone 3	UTZ3	2	5	
UTM Horizontal 3	UTH3	4	6	
UTM Vertical 3	UTV3	5	7	
UTM Zone 4	UTZ4	2	5	
UTM Horizontal 4	UTH4	4	6	
UTM Vertical 4	UTV4	5	7	
UTM Zone 5	UTZ5	2	5	
UTM Horizontal 5	UTH5	4	6	
UTM Vertical 5	UTV5	5	7	

N/A Not allowed

(Page 2 of 8)

Figure AST18-3 - continued. Data Element Abbreviations and Lengths

Description Record Data Elements (continued)

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totaled</u>
UTM Zone 6	UTZ6	2	5	
UTM Horizontal 6	UTH6	4	6	
UTM Vertical 6	UTV6	5	7	
Source Type	TYSO	1	5	
Length or Area	LNGL	7	9	
Units Code for Length or Area	LNGA	2	5	
TSP SIP Estimate	ETSP	5	6	11
SO ₂ SIP Estimate	ES02	4	5	10
NO _x SIP Estimate	ENOX	4	5	10
HC SIP Estimate	ESHC	5	6	11
CO SIP Estimate	ESCO	5	6	11
Population Code	POPC	1	5	
Gas Fuel for Light Vehicles	GASL	7	8	13
Gas Fuel for Heavy Vehicles	GASH	6	7	12
Diesel Fuel for Heavy Vehicles	DESH	6	7	12
Motor Vehicle Miles for Limited	VMLA	6	7	12
Access Roads				
Motor Vehicle Miles for Rural Roads	VMRR	6	7	12
Motor Vehicle Miles for Suburban Roads	VMSR	6	7	12
Motor Vehicle Miles for Urban Roads	VMUR	7	8	13
Number of Pollutants	NPLD	2	5	

(Page 3 of 8)

Figure AST18-3 - continued. Data Element Abbreviations and Lengths

Description Record Pollutant-Specific Data Elements

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totaled</u>
Pollutant ID (Description Record)	PLTD	5	6	
Pollutant Name (Description Record)	PNMD	**	16	
Attainment Status	ATTN	1	5	
AQMA Number	AQNO	6	7	

** Not valid on a 10 card or a 30 card

(Page 4 of 8)

Figure AST18-3 - continued. Data Element Abbreviations and Lengths

Category Record Data Elements

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totalled</u>
Category Description	CATD	**	26	
Year of Information	IN YR	2	5	
Process Rate	PROR	9	10	
Category Adjustment Value	CATA	7	8	
Units Code	UNTC	2	5	
Units Code Description	UNTD	**	13	
Uniform Thruput	UNTP	1	5	
January Thruput	JATP	2	5	
February Thruput	FETP	2	5	
March Thruput	M RTP	2	5	
April Thruput	APTP	2	5	
May Thruput	MATP	2	5	
June Thruput	JNTP	2	5	
July Thruput	JLTP	2	5	
August Thruput	AUTP	2	5	
September Thruput	SETP	2	5	
October Thruput	OCTP	2	5	
November Thruput	NOTP	2	5	
December Thruput	DETP	2	5	
Hours per Day	HRDY	2	5	
Days per Week	DYWK	1	5	

** Not valid on a 10 card or a 30 card

(Page 5 of 8)

Figure AST18-3 - continued. Data Element Abbreviations and Lengths

Category Record Data Elements (continued)

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totaled</u>
Weeks per Year	WKYR	2	5	
Thruput Ratio	RATP	4	6	
Maximum Hourly Thruput	MHTP	10	11	
Data Confidence Rating	CONF	1	5	
Nitrogen Content	NITP	3	5	
Sulfur Content	SULP	2	5	
Ash Content	ASHP	3	5	
Heat Content	HTCT	4	5	
Uniform Hourly Thruput	UHTP	1	5	
Thruput for Hour Beginning 0000	00TP	2	5	
Thruput for Hour Beginning 0100	01TP	2	5	
Thruput for Hour Beginning 0200	02TP	2	5	
Thruput for Hour Beginning 0300	03TP	2	5	
Thruput for Hour Beginning 0400	04TP	2	5	
Thruput for Hour Beginning 0500	05TP	2	5	
Thruput for Hour Beginning 0600	06TP	2	5	
Thruput for Hour Beginning 0700	07TP	2	5	
Thruput for Hour Beginning 0800	08TP	2	5	
Thruput for Hour Beginning 0900	09TP	2	5	
Thruput for Hour Beginning 1000	10TP	2	5	
Thruput for Hour Beginning 1100	11TP	2	5	
Thruput for Hour Beginning 1200	12TP	2	5	
Thruput for Hour Beginning 1300	13TP	2	5	

(Page 6 of 8)

Figure AST18-3 - continued. Data Element Abbreviations and Lengths

Category Record Data Elements (continued)

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totaled</u>
Thruput for Hour Beginning 1400	14TP	2	5	
Thruput for Hour Beginning 1500	15TP	2	5	
Thruput for Hour Beginning 1600	16TP	2	5	
Thruput for Hour Beginning 1700	17TP	2	5	
Thruput for Hour Beginning 1800	18TP	2	5	
Thruput for Hour Beginning 1900	19TP	2	5	
Thruput for Hour Beginning 2000	20TP	2	5	
Thruput for Hour Beginning 2100	21TP	2	5	
Thruput for Hour Beginning 2200	22TP	2	5	
Thruput for Hour Beginning 2300	23TP	2	5	
Information Source Code	ICSO	1	5	
Information Source Narrative	INSO	**	21	
Number of Pollutants	NPLC	2	5	

** Not valid on a 10 card or 30 card

(Page 7 of 8)

Figure AST18-3 - continued. Data Element Abbreviations and Lengths

Category Record Pollutant-Specific Data Elements

<u>Data Element Name</u>	<u>Abbreviation</u>	<u>Data Element Length</u>		
		<u>10/30</u> <u>Card</u>	<u>40/50</u> <u>Card</u>	<u>40 Card</u> <u>If Totaled</u>
Pollutant ID (Category Record)	PLTC	5	6	
Emission Factor	EFAC	10	12	
Emission Factor Confidence Rating	EFCR	1	5	
Emission Factor Source Code	EFSC	1	5	
Emission Factor Origin	EFOR	1	5	
Pollutant-Specific Data	SIZE	10	11	
NEDS A7 Emission	A7EM	7	8	
Pollutant Name (Category Record)	PNMC	**	16	
Emissions Estimate	EEST	7	8	13
Confidence Rating	CNFR	1	5	
Maximum Hourly Emission	MHRE	6	7	12

** Not valid on a 10 card or a 30 card

(Page 8 of 8)

Figure AST18-3 - continued. Data Element Abbreviations and Lengths

DATE _____

		REPORT	DATE		
		REPORT TITLE			
1	8	10			72 73 8
S	S	S	E	L	E
C	T				

[illegible][illegible]

E - EQUAL
U - UNEQUAL
G - GREATER THAN
L - LESS THAN
P - PRESENT
B - BLANK

AND/OR MUST BE
BLANK ON LAST 10
CARD

		RPT CODE
1 2		4 5
2 0		1

SU - POLLUTANT SUMMARY REPORT
QL - QUICK LOOK REPORT

[illegible]

ENTER X FOR PAGE BREAK/SUBTOTALLING

[illegible]

ENTER X
FOR TOTALS

[illegible]

		POLLUTANT ID	POLLUTANT ID	POLLUTANT ID	POLLUTANT ID	POLLUTANT ID	POLLUTANT ID
1	2	4	10	16	22	28	34
5	1						

1				5
8	8	E	N	D

```

//ASTES118 JOB    (ACCOUNTING INFO)
//*
//*   EXECUTE A QUICK LOOK REPORT FOR COUNTY DATA
//*
//TES118A EXEC ECKPM40,
//      MSTRFIL=ECMSTR7
//*
//*   CREATE A REPORT CONTAINING THE FUEL PROCESS RATES FOR
//*   CATEGORIES 1 THROUGH 64 IN EACH COUNTY
//*
//F011.INPUT DD *
$$SELECT      FUEL PROCESS RATES FOR CATEGORIES 1-64 IN ALL COUNTIES      02/01/80
10  CATN L 064          AND
10  PROR P
20  UL
30  CNTYX
40  GSUB CATN  UTSA  PROR
$$END

```

Figure AST18-5. Run Stream

02/01/80

EIS/ARFA SOURCE RETRIEVAL EDIT REPORT

PAGE 01

\$\$\$SELECT CARD - TITLE FUEL PROCESS RATES FOR CATEGORIES 1-64 IN ALL COUNTIES

10 CARDS - SELECTION CRITERIA

PAREN DATA ELEMENT	CONDITION	VALUE	PAREN AND/OR	ERRORS
CATN	LESS THAN OR EQUAL TO	064	AND	
PRON	PRESENT ANY ENTRY			

20 CARD - REPORT FORMAT QL

30 CARD - REPORT SEQUENCE PAGE BREAK/ SHORTTALS

COUNTY

X

*COUNTY

*CATEGORY

*MASTER FILE SEQUENCE

40 CARD - QUICK LOOK DATA ELEMENTS

TOTAL

*COUNTY (KEY DATA ELEMENT, ALWAYS PRESENT)

GEOGRAPHIC SUBALLOCATION

CATEGORY NUMBER

CATEGORY DISAGGREGATE NO.

PROCESS RATE

Figure AST18-6. Sample Output

220

(Page 1 of 6)

PROGRAM NAME: CRTGLEY (EC0170)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

RETRIEVAL EXTRACT REPORT

02/01/80

ETS-AREA SOURCE

.....
NUMBER OF RECORDS READ 371
NUMBER OF RECORDS WRITTEN 191

CONTINUING WITH RETRIEVAL

Figure AST18-6 - continued. Sample Output
(Page 2 of 6)

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 1

FUEL PROCESS RATES FOR CATEGORIES 1-64 IN ALL COUNTIES

COUNTY	GFUGH	CATG	DIS-	PROCESS
TY	SUBAL	NO.	AGGR	RATE
0680	00000	002	00	000000005
0680	00000	003	00	000000009
0680	00000	005	00	000000013
0680	00000	006	00	000000009
0680	00000	008	00	000000011
0680	00000	011	00	000000001
0680	00000	016	00	000000008
0680	00000	018	00	000000001
0680	00000	024	00	000000270
0680	00000	025	00	000000001
0680	00000	026	00	000000025
0680	00000	039	00	000001166
0680	00000	044	00	000000011
0680	00000	045	00	000000013
0680	00000	047	00	000000584
0680	00000	052	00	000000575
0680	00000	053	00	000000709
0680	00000	054	00	000000273
0680	00000	055	00	000015840
0680	00000	057	00	000114000
0680	00000	060	00	000000457
0680	00000	061	00	000002870

NUMBER OF RECORDS IN THIS CNTY IS 22

Figure AST18-6 - continued. Sample Output

(Page 3 of 6)

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 2

FUEL PROCESS RATES FOR CATEGORIES 1-64 IN ALL COUNTIES

COUNTY GEOGR CATG DIS- PROCESS
TY SUBAL NO. AGGR RATE

1280	00000	001	00	000040123
1280	00000	002	00	000020010
1280	00000	003	00	000009750
1280	00000	004	00	000008900
1280	00000	005	00	000023550
1280	00000	006	00	000000050
1280	00000	007	00	000023500
1280	00000	008	00	000034750
1280	00000	009	00	000042100
1280	00000	010	00	000000390
1280	00000	011	00	000008750
1280	00000	012	00	000000005
1280	00000	013	00	000098750
1280	00000	014	00	000123400
1280	00000	015	00	000000650
1280	00000	016	00	000021500
1280	00000	017	00	000000980
1280	00000	018	00	000056900
1280	00000	019	00	000000025
1280	00000	020	00	000002350
1280	00001	001	00	000059850
1280	00001	001	01	000059850
1280	00001	001	35	000059850
1280	00001	001	99	000059850
1280	00500	001	01	000059850
1280	00500	001	22	000059850
1280	00500	001	70	000059850
1280	99999	001	99	000059850

NUMBER OF RECORDS IN THIS CNTY IS 28

RUN DATE 02/01/80

SOUTH CAROLINA
EIS/AREA SOURCE
QUICK LOOK REPORT

PAGE 3

FUEL PROCESS RATES FOR CATEGORIES 1-64 IN ALL COUNTIES

COUNTY	GFURR	CATG	DIS-	PROCESS
TY	SUBAL	NO.	AGGR	RATE
1380	00000	002	00	000000013
1380	00000	003	00	000000273
1380	00000	006	00	000000052
1380	00000	006	00	000000016
1380	00000	009	00	000000001
1380	00000	010	00	000000002
1380	00000	011	00	000000019
1380	00000	016	00	000000035
1380	00000	018	00	000000007
1380	00000	024	00	000000233
1380	00000	025	00	000000002
1380	00000	026	00	000000024
1380	00000	039	00	000001199
1380	00000	044	00	000000011
1380	00000	045	00	000000018
1380	00000	047	00	000000511
1380	00000	052	00	000000076
1380	00000	053	00	000001700
1380	00000	054	00	000000218
1380	00000	055	00	000019404
1380	00000	057	00	000152000
1380	00000	060	00	000000207
1380	00000	061	00	000009405

NUMBER OF RECORDS IN THIS CNTY IS 23

Figure AST18-6 - continued. Sample Output
(Page 5 of 6)

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/APEA SOURCE
QUICK LOOK REPORT

PAGE 4

FUEL PROCESS RATES FOR CATEGORIES 1-64 IN ALL COUNTIES

COUNTY	GEOGR	CATG	DIST	PROCESS
TY	SUBAL	NO.	AGGR	RATE
7860	00000	001	00	000000001
7860	00000	002	00	000000001
7860	00000	003	00	000000103
7860	00000	005	00	000000096
7860	00000	008	00	000000004
7860	00000	009	00	000000034
7860	00000	010	00	000000045
7860	00000	011	00	000000025
7860	00000	014	00	000000281
7860	00000	016	00	000000062
7860	00000	017	00	000000170
7860	00000	018	00	000000023
7860	00000	021	00	000001467
7860	00000	039	00	000001184
7860	00000	044	00	000000003
7860	00000	045	00	000000314
7860	00000	047	00	000000767
7860	00000	052	00	000000066
7860	00000	053	00	000000567
7860	00000	054	00	000000207
7860	00000	055	00	000000030
7860	00000	057	00	000000167
7860	00000	058	00	000000285
7860	00000	059	00	000000649
7860	00000	064	00	000000080

NUMBER OF RECORDS IN THIS CNTY IS 25

TOTAL NUMBER OF QUICK LOOK LINES EQUALS 191

Figure AST18-6 - continued. Sample Output

(Page 6 of 6)

EIS/AS Test 19 - Ad Hoc

Produce a Quick Look Report for Particulate Emissions

In this test run, a report containing particulate emissions is generated using the cataloged procedure ECRPM40 which executes CRTQLED (EC0160), the quick look edit program; CRTQLEX (EC0170), the quick look extract program; and CRPQUIK (EC0180), the quick look report program.

CRTQLED (EC0160) edits user-supplied control cards and creates two temporary control files; an extract control file which is passed to CRTQLEX (EC0170), and a report control file which is passed to CRPQUIK (EC0180). See EIS/AS Test 18 for a discussion of these programs and files.

The run stream for this test run contains the JCL needed to execute the quick look package. The purpose of this test run is to create a report containing particulate emissions for categories 1 through 27 in each county. Since emissions estimate is a pollutant-related field, the pollutant code must be specified as part of the selection criteria in the user-supplied control cards (in this case the pollutant code is 11101).

A page break is specified at the county level and the totalling option has been specified for emissions estimates. Consequently, a subtotal of emissions estimates will be printed for each county (page break) and a final total of all emissions estimates contained in the report will be printed at the end of the report. The run stream for this test run is shown in Figure AST19-1.

A substitutable parameter is used to specify the name of the master file input to CRTQLEX (EC0170). The name of the master file is ECMSTR7 (created in Test 9). The DD (data definition) information for the control cards input to CRTQLED (EC0160) is also supplied. Sample output produced by this run stream is shown in Figure AST19-2.

```

//AST19 JOB      (ACCOUNTING INFO)
//*
//* . EXECUTE A QUICK LOOK REPORT FOR PARTICULATE
//* EMISSIONS
//*
//TEST19A EXEC ECRPM40,
//      MSTHFILE=ECMSTR7
//*
//* CREATE A REPORT CONTAINING PARTICULATE EMISSIONS
//* FOR CATEGORIES 1 THROUGH 27 IN EACH COUNTY
//* SPECIFY A PAGE BREAK AT THE COUNTY LEVEL AND THE
//* TOTTALLING OPTION
//*
//EDIT1.INPUT DD *
$SELECT PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES      02/01/80
10 CATN G 001                      AND
10 CATN L 027                      AND
10 PLIC E 11101
20 OL
30 CNTYX
40 GSUP CATN DISA PLIC EESTX
$SFND

```

Figure AST19-1. Run Stream

\$\$\$SELECT CARD - TITLE PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

10 CARDS - SELECTION CRITERIA

PAREN DATA ELEMENT	CONDITION	VALUE	PAREN AND/OR	ERRORS
CATN	GREATER THAN OR EQUAL TO	001	AND	
CATN	LESS THAN OR EQUAL TO	027	AND	
PLTC	EQUAL TO	11101		

20 CARD - REPORT FORMAT Q1

30 CARD - REPORT SEQUENCE PAGE BREAK/ SUBTOTALS
COUNTY X
*COUNTY
*CATEGORY
*MASTER FILE SEQUENCE

40 CARD - QUICK LOOK DATA ELEMENTS
TOTAL

*COUNTY (KEY DATA ELEMENT, ALWAYS PRESENT)
GEOGRAPHIC SUPALLOCATION
CATEGORY NUMBER
CATEGORY DISAGGREGATE NO.
POLLUTANT ID - CATEGORY REC
EMISSIONS ESTIMATES

X

PROGRAM NAME: CATWEX (ECU170)
REVISION LEVFL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

RETRIEVAL EXTRACT REPORT

02/01/80

ETS-AREA SOURCE

.....
NUMBER OF RECORDS READ 371
NUMBER OF RECORDS WRITTEN 116

CONTINUING WITH RETRIEVAL

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 1

PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

.....
COUNTY GEOG CATG DIS- PLT EMISS
TY SUBAL NO. AGGR CATEY ESTIM
.....
0680 00000 002 00 11101 0000000
0680 00000 003 00 11101 0000000
0680 00000 004 00 11101 0000000
0680 00000 005 00 11101 0000000
0680 00000 006 00 11101 0000001
0680 00000 008 00 11101 0000000
0680 00000 011 00 11101 0000000
0680 00000 013 00 11101 0000000
0680 00000 016 00 11101 0000000
0680 00000 018 00 11101 0000000
0680 00000 024 00 11101 0000002
0680 00000 025 00 11101 0000000
0680 00000 026 00 11101 0000000
0680 00000 027 00 11101 0000000

SUBTOTAL
0680 3

NUMBER OF RECORDS IN THIS CNTY IS 14

Figure AST19-2 - continued. Sample Output

(Page 2 of 6)

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 2

PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

COUNTY	SECTOR	CATG NO.	DIS- AGGR	PL1 CATGY	EMISS ESTIM
1280	00000	001	00	11101	0000000
1280	00000	002	00	11101	0000080
1280	00000	003	00	11101	0000015
1280	00000	004	00	11101	0000018
1280	00000	005	00	11101	0001830
1280	00000	006	00	11101	0000002
1280	00000	007	00	11101	0000353
1280	00000	008	00	11101	0000579
1280	00000	009	00	11101	0001263
1280	00000	010	00	11101	0000008
1280	00000	011	00	11101	0000044
1280	00000	012	00	11101	0000000
1280	00000	013	00	11101	0004385
1280	00000	014	00	11101	0000012
1280	00000	015	00	11101	0000030
1280	00000	016	00	11101	0000848
1280	00000	017	00	11101	0000048
1280	00000	018	00	11101	0001050
1280	00000	019	00	11101	0000001
1280	00000	020	00	11101	0000081
SUBTOTAL					
1280					10647
NUMBER OF RECORDS IN THIS CNTY IS					20

Figure AST19-2 - continued. Sample Output
(Page 3 of 6)

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 3

PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

COUNTY	GEOGR	CAT	DIS-	PLT	EMISS
TY	SUBAL	NO.	AGGR	CATGY	ESTIM
1380	00000	002	00	11101	0000000
1380	00000	003	00	11101	0000000
1380	00000	006	00	11101	0000001
1380	00000	008	00	11101	0000000
1380	00000	009	00	11101	0000000
1380	00000	010	00	11101	0000000
1380	00000	011	00	11101	0000000
1380	00000	016	00	11101	0000000
1380	00000	018	00	11101	0000000
1380	00000	024	00	11101	0000002
1380	00000	025	00	11101	0000000
1380	00000	026	00	11101	0000000
1380	00000	027	00	11101	0000000

SUBTOTAL

1380 3

NUMBER OF RECORDS IN THIS CNTY IS 13

Figure AST19-2 - continued. Sample Output

(Page 4 of 6)

RUN DATE 02/01/80

SOUTH CAROLINA
 ETS/AREA SOURCE
 QUICK LOOK REPORT

PAGE 4

PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

COUNTY	GEOGR	CATG	DIS-	PLT	FMISSE
TY	SUBAL	NO.	AGGR	CATGY	ESTIM
1780	00000	002	00	11101	0000000
1780	00000	003	00	11101	0000000
1780	00000	005	00	11101	0000000
1780	00000	006	00	11101	0000001
1780	00000	008	00	11101	0000000
1780	00000	011	00	11101	0000000
1780	00000	016	00	11101	0000000
1780	00000	018	00	11101	0000000
1780	00000	024	00	11101	0000002
1780	00000	025	00	11101	0000000
1780	00000	026	00	11101	0000000
1780	00000	027	00	11101	0000000

SUBTOTAL
 1780

3

NUMBER OF RECORDS IN THIS CNTY IS 12

RUN DATE 02/01/80

SOUTH CAROLINA
 ETS/AREA SOURCE
 QUICK LOOK REPORT

PAGE 5

PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

COUNTY	GEOGR	CATG	DIS-	PLT	FMISSE
TY	SUBAL	NO.	AGGR	CATGY	ESTIM
2238	00000	023	00	11101	0000000

SUBTOTAL
 2238

0

NUMBER OF RECORDS IN THIS CNTY IS 1

232
 Figure AST19-2 - continued. Sample Output
 (Page 5 of 6)

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 9

PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

COUNTY	GEOGR	CATG	DIS-	PLT	EMISS
TY	SUBAL	NO.	AGGR	CATGY	ESTIM
7860	00000	001	00	11101	0000000
7860	00000	002	00	11101	0000001
7860	00000	003	00	11101	0000000
7860	00000	005	00	11101	0000000
7860	00000	008	00	11101	0000000
7860	00000	009	00	11101	0000000
7860	00000	010	00	11101	0000000
7860	00000	011	00	11101	0000000
7860	00000	014	00	11101	0000002
7860	00000	016	00	11101	0000000
7860	00000	017	00	11101	0000002
7860	00000	018	00	11101	0000000
7860	00000	021	00	11101	0000023
7860	00000	022	00	11101	0000000
7860	00000	027	00	11101	0000091

SUBTOTAL

7860 119

NUMBER OF RECORDS IN THIS CNTY IS 15

GRAND TOTALS

RUN DATE 02/01/80

SOUTH CAROLINA
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 10

PARTICULATE EMISSIONS FOR CATEGORIES 1-27 IN ALL COUNTIES

COUNTY	GEOGR	CATG	DIS-	PLT	EMISS
TY	SUBAL	NO.	AGGR	CATGY	ESTIM
					10900

TOTAL NUMBER OF QUICK LOOK LINES EQUALS 116

Figure AST19-2 - continued. Sample Output

(Page 6 of 6)

EIS/AS Test 20 - Ad Hoc

Produce a Quick Look Pollutant Summary Report for the Criteria Pollutants

In this test run, a summary report of the criteria pollutant emissions is obtained using the cataloged procedure ECRPM40 which executes CRTQLED (EC0160), the quick look edit program; CRTQLEX (EC0170), the quick look extract program; and CRPQUIK (EC0180), the quick look report program.

The user-supplied control cards input to CRTQLED (EC0160) are slightly different from those used to execute a regular quick look report. In a pollutant summary report, the 50-card is the counterpart of the 40-card which is used in a quick look report. See EIS/AS Test 18 for further discussion of the quick look package.

The run stream for this test run contains the JCL needed to execute the quick look package. The purpose of this test run is to obtain a summary report of the criteria pollutant emissions. The criteria pollutants and their associated pollutant codes are: total suspended particulates (11101), carbon monoxide (42101), sulfur dioxide (42401), oxides of nitrogen (42603), and hydrocarbons (43101). The pollutant summary report automatically lists the county, category number, category disaggregate number, and emissions estimates for the criteria pollutants. Additional information may be requested through the use of the 50-card, but the additional information must not be related to a specific pollutant. For this test run, additional information specified on the 50-card includes the geographic suballocation number and the year of the information.

A page break occurs at the county level with subtotals of the emissions estimates printed for each county. A total of emissions estimates for each state is also printed. If the input master file contains information from only one state, then the total emissions for the state will also be the total emissions listed in the report. Since no 10-cards are input to CRTQLED (EC0160) in this test run, all master file category records will be processed for selection. Totaling and page breaks cannot be requested for a pollutant

summary report, therefore, no 30-card is submitted in this test run. The run stream for this test run is shown in Figure AST20-1.

A substitutable parameter is used to specify the name of the master file input to CRTQLEX (EC0170). The name of the master file is ECMSTR7 (created in Test 7). The DD (data definition) information for the control cards input to CRTQLED (EC0160) is also supplied. Sample output produced by this test run is shown in Figure AST20-2.

```

//ASTEST20 JOB      (ACCOUNTING INFO)
/**
/**  PRODUCE A POLLUTANT SUMMARY REPORT
/**
//TEST20A FXFC ECKPM40,
//      MSTWFI1=FCMSTR7
/**
/**  PRODUCE THE SUMMARY REPORT WITH
/**  GEOGRAPHIC SUBALLOCATION NUMBER AND
/**  YEAR OF INFORMATION FIELDS INCLUDED
/**  IN THE REPORT
/**
//FUT1.INPUT DD *
$$SELECT      SUMMARY REPORT FOR THE CRITERIA POLLUTANTS
20 SU
50 GSUB INYK
$$END
02/01/80

```

Figure AST20-1. Run Stream

```

.....
07/01/80                               FIS/AFCA SOURCE RETRIEVAL EDIT REPORT                               PAGE 01
.....
$$$SELECT CARD - TITLE                SUMMARY REPORT FOR THE CRITERIA POLLUTANTS
.....

20 CARD - REPORT FORMAT    SU

30 CARD - REPORT SEQUENCE                PAGE BREAK
  *COUNTY
  *CATEGORY
    *MASTER FILE SEQUENCE

50 CARD - SUMMARY DATA ELEMENTS
  *COUNTY
  *CATEGORY
  *DISAGGREGATE
  GEOGRAPHIC SUBALLOCATION
  YEAR OF INFO
    *KEY FIELDS

CRITERIA SUMMARY POLLUTANTS
  TSP
  CO
  SO2
  NOx
  HC

```

PROGRAM NAME: CRTQLEX (FCU170)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

RETRIEVAL EXTRACT REPORT

02/01/80

ETS-AREA SOURCE

.....
NUMBER OF RECORDS READ 371
NUMBER OF RECORDS WRITTEN 334

CONTINUING WITH RETRIEVAL

Figure AST20-2 - continued. Sample Output

(Page 2 of 4)

RUN DATE 02/01/80

COLLEGE
ETS/AREA SOURCE
POLLUTANT SUMMARY REPORT

PAGE 1

SUMMARY REPORT FOR THE CRITERIA POLLUTANTS

COUNTY	CATF	DIS	GFGR	INFC	TSP	CO	SUP	NOX	HC
TY	GRY	AGG	SUBAL	YEAR	EMISSIONS	EMISSIONS	EMISSIONS	EMISSIONS	EMISSIONS
1280	001	00	00000	79	0	0	0	0	0
1280	002	00	00000	79	80	6	0	10	1331
1280	003	00	00000	79	15	3	6	0	646
1280	004	00	00000	79	18	3	0	5	592
1280	005	00	00000	79	1830	7	19	69	1566
1280	006	00	00000	79	2	0	0	0	3
1280	007	00	00000	79	353	7	47	22	1563
1280	008	00	00000	79	579	10	76	36	2311
1280	009	00	00000	79	1263	12	295	317	2800
1280	010	00	00000	79	8	0	1	2	26
1280	011	00	00000	79	44	3	26	16	582
1280	012	00	00000	79	0	0	0	0	0
1280	013	00	00000	79	4385	28	217	412	6567
1280	014	00	00000	79	12	35	0	1	8206
1280	015	00	00000	79	30	3	5	4	655
1280	016	00	00000	79	848	6	97	25	1430
1280	017	00	00000	79	48	0	6	3	65
1280	018	00	00000	79	1050	16	142	79	3784
1280	019	00	00000	79	1	0	0	0	2
1280	020	00	00000	79	81	1	6	8	150
1280	999	00	00000		10647	140	943	1038	32287
1280	001	00	00001	79	0	0	0	0	0
1280	001	01	00001	79	0	0	0	0	0
1280	001	35	00001	79	0	0	0	0	0
1280	001	99	00001	79	0	0	0	0	0
1280	999	00	00001		0	0	0	0	0
1280	001	01	00500	79	0	0	0	0	0
1280	001	22	00500	79	0	0	0	0	0
1280	001	70	00500	79	0	0	0	0	0
1280	999	00	00500		0	0	0	0	0
1280	999	00	00611		0	0	0	0	0
1280	001	99	99999	79	0	0	0	0	0
1280	999	00	99999		0	0	0	0	0
TOTAL EMISSIONS FOR COUNTY 1280-					10647	140	943	1038	32287

239
Figure AST20-2 - continued. Sample Output
(Page 3 of 4)

WIN DATE 02/01/80

COLORADO
EIS/AREA SOURCE
POLLUTANT SUMMARY REPORT

PAGE 2

SUMMARY REPORT FOR THE CRITERIA POLLUTANTS

COUNTY	DATE	DISTRICT	GEOGRAPHIC SUBAL	INFC YEAR	TSP EMISSIONS	CO EMISSIONS	SOP EMISSIONS	NOX EMISSIONS	HC EMISSIONS
2238	023	00	00000	79	0	0	0	0	0
2238	047	00	00000	79	0	0	0	0	0
2238	060	00	00000	79	0	0	0	0	0
2238	999	00	00000		4	01	3	4	0
TOTAL EMISSIONS FOR COUNTY 2238-					0	0	0	0	0
TOTAL EMISSIONS FOR SELECTED RECORDS IN STATE 06					10647	140	943	1038	32287

EIS/AS Test 21 - Ad Hoc

Produce a Quick Look Pollutant Summary Report for Six Pollutants

In this test run, a pollutant summary report for six pollutants is generated using the cataloged procedure ECRPM40 which executes CRTQLED (EC0160), the quick look edit program; CRTQLEX (EC0170), the quick look extract program; and CRPQUIK (EC0180), the quick look report program.

The user-supplied control cards input to CRTQLED (EC0160) are similar to those used in EIS/AS Test 20. The major difference is that a 10-card and a 51-card are supplied along with the 20-card and the 50-card. The 10-card is for selection purposes and the 51-card specifies the six pollutants which are to appear in the report. See EIS/AS Test 18 for further discussion of the quick look package.

The run stream for this test run contains the JCL needed to execute the quick look package. The purpose of this test run is to obtain a summary report of the emissions for the six pollutants: total suspended particulates (11101), carbon monoxide (42101), sulfur dioxide (42401), nitrogen dioxide (42602), oxides of nitrogen (42603), and hydrocarbons (43101). These pollutants are specified through the use of the 51-card. A 10-card specifies that any category record selected for the report must have a non-blank process rate. See EIS/AS Test 20 for further discussion of the quick look pollutant summary report. The run stream for this test run is shown in Figure AST21-1.

A substitutable parameter is used to specify the name of the master file input to CRTQLEX (EC0170). The name of the master file is ECMSTR7 (created in Test 7). The DD (data definition) information for the control cards input to CRTQLED (EC0160) is also supplied. Sample output from this procedure is shown in Figure AST21-2.

```

//ASTEST21 JOB      (ACCOUNTING INFO)
//*
//*   PRODUCE A SUMMARY REPORT FOR USER-SPECIFIED
//*   POLLUTANTS
//*
//TEST21A EXEC ECKPM40,
//      MSTRFIL=ECMSTR7
//*
//*   SELECT THOSE MASTER RECORDS WHOSE PROCESS RATES
//*   ARE PRESENT; PRODUCE THE REPORT FOR THE SIX
//*   POLLUTANTS SPECIFIED
//*
//EDT1.INPUT DD *
$$SELECT      SUMMARY REPORT FOR SIX POLLUTANTS
10  PRUR P
20  SII
50  GSUP INYK
51  11101 42101 42401 42602 42603 43101
$$END

```

02/01/80

Figure AST21-1. Run Stream

```

.....
02/01/80                               FIS/ARFA SOURCE RETRIEVAL EDIT REPORT                               PAGE 01
.....

```

```

$$$SELECT CARD - TITLE                SUMMARY REPORT FOR SIX POLLUTANTS
.....

```

```

10 CARDS - SELECTION CRITERIA

```

PAREN DATA ELEMENT	CONDITION	VALUE	PAREN AND/OR	ERRORS
PROR	PRESENT ANY ENTRY			

```

20 CARD - REPORT FORMAT 'SU

```

```

30 CARD - REPORT SEQUENCE                PAGE BREAK
*COUNTY
*CATEGORY
*MASTER FILE SEQUENCE

```

```

50 CARD - SUMMARY DATA ELEMENTS
*COUNTY
*CATEGORY
*DISAGGREGATE
GEOGRAPHIC SUBALLOCATION
YEAR OF INFO
*KEY FIELDS

```

```

51 CARD - REQUESTED SUMMARY POLLUTANTS
TSP
CO
SO2
NOX
NOX
HC

```

PROGRAM NAME: CRTWLEY (EC0170)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

RETRIEVAL EXTRACT REPORT

02/01/80

ETS-AREA SOURCE

.....
NUMBER OF RECORDS READ 371
NUMBER OF RECORDS WRITTEN 195

CONTINUING WITH RETRIEVAL

RUN DATE 02/01/80

COLUMBIA
ETS/AREA SOURCE
POLLUTANT SUMMARY REPORT

PAGE

SUMMARY REPORT FOR SIX POLLUTANTS

COUNTY	CATE	DIS	GFGR	INFC	TSP EMISSIONS	CO EMISSIONS	SUP EMISSIONS	NOX EMISSIONS	NOX EMISSIONS	HC EMISSIONS
TY	GRY	AGR	SUBAL	YEAR						
1280	001	00	00000	79	0	0	0	0	0	0
1280	002	00	00000	79	80	6	0	19	19	1331
1280	003	00	00000	79	15	3	6	0	0	648
1280	004	00	00000	79	18	3	0	5	5	592
1280	005	00	00000	79	1830	7	19	89	89	1566
1280	006	00	00000	79	2	0	0	0	0	3
1280	007	00	00000	79	353	7	47	27	22	1563
1280	008	00	00000	79	579	10	76	36	36	2311
1280	009	00	00000	79	1263	12	295	317	317	2800
1280	010	00	00000	79	8	0	1	2	2	26
1280	011	00	00000	79	44	3	26	16	16	582
1280	012	00	00000	79	0	0	0	0	0	0
1280	013	00	00000	79	4385	28	217	412	412	6567
1280	014	00	00000	79	12	35	0	1	1	8206
1280	015	00	00000	79	30	3	5	4	4	655
1280	016	00	00000	79	808	6	97	25	25	1430
1280	017	00	00000	79	48	0	6	3	3	65
1280	018	00	00000	79	1050	14	102	79	79	3784
1280	019	00	00000	79	1	0	0	0	0	2
1280	020	00	00000	79	81	1	6	8	8	156
1280	001	00	00001	79	0	0	0	0	0	0
1280	001	01	00001	79	0	0	0	0	0	0
1280	001	35	00001	79	0	0	0	0	0	0
1280	001	99	00001	79	0	0	0	0	0	0
1280	001	01	00500	79	0	0	0	0	0	0
1280	001	22	00500	79	0	0	0	0	0	0
1280	001	70	00500	79	0	0	0	0	0	0
1280	001	99	99999	79	0	0	0	0	0	0
TOTAL EMISSIONS FOR COUNTY 1280-					10647	140	943	1038	1038	32287

Figure AST21-2 - continued. Sample Output

(Page 3 of 4)

RUN DATE 02/01/90

COLORADO
EIS/AREA SOURCE
POLLUTANT SUMMARY REPORT

PAGE 2

SUMMARY REPORT FOR SIX POLLUTANTS

COUNTY	CATE	DIS	GEOG	INFC	TSP EMISSIONS	CO EMISSIONS	SU2 EMISSIONS	NOX EMISSIONS	NOX EMISSIONS	HC EMISSIONS
TY	GORY	AGG	SUBAL	YEAR						
2238	023	00	00000	79	0	0	0	0	0	0
2238	047	00	00000	79	0	0	0	0	0	0
TOTAL EMISSIONS FOR COUNTY 2238-					0	0	0	0	0	0
TOTAL EMISSIONS FOR SELECTED RECORDS IN STATE 06					10647	140	943	1038	1036	32287

Figure AST21-2 - continued. Sample Output

(Page 4 of 4)

EIS/AS Test 22 - Ad Hoc

Execute the Retrieval Package and Produce a Quick Look Report from the Answer File

In this test run, the retrieval package is executed using the cataloged procedure ECRTM30 which executes CRTLNGP (EC0090), the retrieval language processor program; the COBOL compiler; the linkage editor; and CRTGENR (EC0100), the generated retrieval program. A quick look report is produced from the answer file using the cataloged procedure ECRPM40 which executes CRTQLED (EC0160), the quick look edit program; CRTQLEX (EC0170), the quick look extract program; and CRPQUIK (EC0180), the quick look report program.

Two sets of user-supplied control cards are necessary for this test run. The first set consists of EIS/AS retrieval specification cards which are input to CRTLNGP (EC0090). The second set consists of the quick look control cards which are input to CRTQLED (EC0160). See Test 7 for a discussion of the retrieval package and Test 18 for a discussion of the quick look package.

The run stream for this test run contains the JCL needed to execute the retrieval package and the quick look package. The purpose of this test run is to demonstrate the interactive capabilities of the retrieval and quick look packages. In this test, an answer file (a subset of the master file) is produced using the retrieval package. This answer file is used as the input master file for the quick look package which creates a report from a subset of the answer file. The answer file produced by the retrieval package is cataloged for future use. It contains master file description records that have a year of '75' or greater and a blank population field, description records that have blank year and population fields, and all category records that are subordinate to these description records. Comment records are not selected for inclusion in the answer file.

The quick look report produced from the answer file contains only a subset of the answer file records. The data elements listed in the report include the county, the geographic suballocation number, the category number,

the category disaggregate number, the year of information, the pollutant ID, and the emission factor and emissions estimate associated with the pollutant. All emissions estimates are totaled. The run stream for this test run is shown in Figure AST22-1.

Substitutable parameters are used when executing the procedure ECRTM30 to supply the names of the master file input to CRTGENR (EC0100) and the answer file output from CRTGENR (EC0100). The names of these files are ECMSTR7 (created in Test 9) and ECANSR5, respectively. A substitutable parameter is also used to override the disposition of the answer file. The overriding disposition is 'NEW,CATLG,DELETE'.

A substitutable parameter is used when executing the procedure ECRPM40 to supply the name of the master file input to CRTQLEX (EC0170). The name of the file is ECANSR5, the answer file output from CRTGENR (EC0100).

The DD (data definition) information for the retrieval specification cards input to CRTLNGP (EC0090) and the quick look control cards input to CRTQLED (EC0160) is also supplied. Sample output from this test run is shown in Figure AST22-2.

The same quick look report could be produced without the use of the retrieval package, but there would be no answer file to retain for future use. The quick look package produces a temporary file which contains only key information and the data extracted for the report. This temporary file is deleted at the end of the run.

There may be other reasons that require the user to incorporate the retrieval and quick look packages. Suppose the user wishes to produce a quick look report, but the selection criteria involves more than twenty 10-cards which is the maximum for a given report. In most cases, the selection criteria can be divided into subsets. The most comprehensive subset(s) can then be used with the retrieval package to produce an answer file. This answer file can then be input to the quick look package along with the remaining selection criteria to produce the desired report. For example, suppose the selection criteria for a quick look report were as follows:

1.	10	STTE B	OR
2.	10	(YEAR E 75	AND
3.	10	CATN G 005	AND
4.	10	CATN L 037	AND
5.	10	INYR G 78	AND
6.	10	PLTC E 11101	AND
7.	10	EEST G 0000001	) OR
8.	10	(YEAR E 77	AND
9.	10	CATN G 005	AND
10.	10	CATN L 037	AND
11.	10	INYR G 78	AND
12.	10	PLTC E 11101	AND
13.	10	EEST G 0000001	) OR
14.	10	(YEAR B	AND
15.	10	POPN B	AND
16.	10	RPPC B	AND
17.	10	CATN G 005	AND
18.	10	CATN L 037	AND
19.	10	INYR G 78	AND
20.	10	PLTC E 11101	AND
21.	10	EEST G 0000001	)

Execution of the quick look package would be terminated since there are twenty-one 10-cards. The first 10-card specifies that a record is to be selected if the state field is blank, but this will never occur since the state field is part of the key information and will always contain a value. This card is necessary only because the first 10-card should not contain parentheses.

The problem can be solved by dividing the selection criteria into subsets. Since lines 3 through 7, 9 through 13, and 17 through 21 are identical, they can form a subset. These data elements are associated with category records. The remaining data elements (YEAR, POPN, and RPPC) are associated with description records. Since category records are subordinate to description records, the data elements YEAR, POPN, and RPPC will be the

comprehensive subset. The retrieval request cards derived from this subset are as follows:

```

$$SELECT          0 1
YEAR              = '75'                OR
YEAR              = '77'                OR
(YEAR             = '  '                AND
POPULATION        = '      '           AND
RURAL-POPULATION-PERCENT = '  '
$$END

```

The number of quick look control cards is reduced significantly. They are as follows:

```

$$SELECT
10  CATN G 005                AND
10  CATN L 037                AND
10  INYR G 78                 AND
10  PLTC E 11101              AND
10  EEST G 0000001
20 QL
:
:
$$END

```

Hence, the problem is solved and the user has the option of retaining the answer file created from the retrieval procedure.

```

//ASTES122 JOB      (ACCOUNTING INFO)
/**
/**  RETRIEVE RECORDS FROM THE MASTER FILE AND
/**  PRODUCE A QUICK LOOK REPORT FROM THE ANSWER FILE
/**
//TEST22A EXEC ECKTM30,
//      MSTRFILE=ECKMSTR7,
//      ANSRFILE=FCANSRS,
//      DISP='NEW,CATLG,DELETE'
/**
/**  SELECT THE DESCRIPTION AND CATEGORY RECORDS FOR WHICH
/**  THE YEAR IS NOT LESS THAN 1975 OR NOT GIVEN AND FOR
/**  WHICH NO POPULATION FIGURE IS GIVEN
/**
//GENER.INPUT DD *
$$$SELECT          0 1
(YEAR              N < '75'                                OR
YEAR              = ' ' )                                AND
POPULATION        = ' ' )
$$$END
//TEST22B EXEC ECKPM40,
//      MSTRFILE=FCANSRS
/**
/**  PRODUCE A QUICK LOOK REPORT FROM THE ANSWER FILE IN STEP A;
/**  REPORT ON TSP EMISSIONS FOR SPECIFIC CATEGORIES FOR 1978 ON
/**
//FDJ1.INPUT DD *
$$$SELECT  TSP EMISSIONS IN CATEGORIES 5-37 FROM 1978 TO PRESENT
10  CATN G 005          AND
10  CATN L 037          AND
10  INYR G 76           AND
10  PLIC F 11101
20  GL
40  GSUB CATN USA INYR PLIC EFAC EESTX
$$$END

```

Figure AST22-1. Run Stream

PROGRAM NAME: CRTLNQP (EC0090)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

INPUT (CONTROL CARDS):

```

$$SELECT      0 1          N < '75'          OR
(YEAR          = ' ' )          AND
YEAR
POPULATION     = ' '
$$END
  
```

```

NUMBER OF CONTROL CARDS READ:      5
NUMBER OF RETRIEVAL SKFLETON RECORDS READ:  837
NUMBER OF RETRIEVAL SOURCE RECORDS WRITTEN:  916
NUMBER OF CONDITIONAL MESSAGES:      0
NUMBER OF ABORT MESSAGES:           0
  
```

PROGRAM NAME: CRTGENR (EC0100)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

```

NUMBER OF MASTER FILE RECORDS READ:      371
NUMBER OF MASTER FILE RECORDS WRITTEN:  308
NUMBER OF CONDITIONAL MESSAGES:          0
NUMBER OF ABORT MESSAGES:                0
  
```

\$\$\$SELECT CARD - TITLE

TSP EMISSIONS IN CATEGORIES 5-37 FROM 1978 TO PRESENT

10 CARDS - SELECTION CRITERIA

PAREN DATA ELEMENT	CONDITION	VALUE	PAREN AND/OR	ERRORS
CATN	GREATER THAN OR EQUAL TO	005	AND	
CATN	LESS THAN OR EQUAL TO	037	AND	
INYN	GREATER THAN OR EQUAL TO	78	AND	
PLTC	EQUAL TO	11101		

20 CARD - REPORT FORMAT 01

30 CARD - REPORT SEQUENCE

PAGE BREAK/ SUBTOTALS

*COUNTY

*CATEGORY

*MASTER FILE SEQUENCE

40 CARD - QUICK LOOK DATA ELEMENTS

TOTAL

*COUNTY (KEY DATA ELEMENT, ALWAYS PRESENT)

GEOGRAPHIC SUPALLOCATION

CATEGORY NUMBER

CATEGORY DISAGGREGATE NO.

YEAR OF INFO

POLLUTANT ID - CATEGORY REC

EMISSION FACTOR

EMISSIONS ESTIMATES

x

PROGRAM NAME: CRIMLEX (EC0170)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

RETRIEVAL EXTRACT REPORT

ETS-AREA SOURCE

02/01/80

.....
NUMBER OF RECORDS READ 308
NUMBER OF RECORDS WRITTEN 17

CONTINUING WITH RETRIEVAL

MMN DATE 02/01/80

COLORADO
ETS/AREA SOURCE
QUICK LOOK REPORT

PAGE 1

TSP EMISSIONS IN CATEGORIES 5-37 FROM 1978 TO PRESENT

COUN TY	GEGRK SUEAL NO.	CAIG NO.	DIS- AGGR	INFC YEAR	PLT CATGY	EMISSION FACTOR	EMISS ESTIM
1280	00000	005	00	79	11101	0000007.000	0001830
1280	00000	006	00	79	11101	0000002.000	0000002
1280	00000	007	00	79	11101	0000001.000	0000353
1280	00000	008	00	79	11101	0000001.000	0000579
1280	00000	009	00	79	11101	0000001.000	0001263
1280	00000	010	00	79	11101	0000001.000	0000008
1280	00000	011	00	79	11101	0000001.000	0000044
1280	00000	012	00	79	11101	0000001.000	0000000
1280	00000	013	00	79	11101	0000001.000	0004385
1280	00000	014	00	79	11101	0000001.000	0000012
1280	00000	015	00	79	11101	0000001.000	0000030
1280	00000	016	00	79	11101	0000001.000	0000848
1280	00000	017	00	79	11101	0000001.000	0000048
1280	00000	018	00	79	11101	0000001.000	0001050
1280	00000	019	00	79	11101	0000001.000	0000001
1280	00000	020	00	79	11101	0000001.000	0000081
2238	00000	023	00	79	11101	0000008.000	0000000

GRAND TOTALS

10534

TOTAL NUMBER OF QUICK LOOK LINES EQUALS 17

EIS/AS Test 23 - Ad Hoc

Execute the Retrieval Package and Produce a Batched Answer File and a Detailed Report of the File

In this test run, a batch retrieval is executed using the cataloged procedure ECRTM30 which executes CRTLNPG (EC0090), the retrieval language processor program; the COBOL compiler; the linkage editor; and CRTGENR (EC0100), the generated retrieval program. The answer file output from CRTGENR (EC0100) is sorted using the cataloged procedure ECSRM10 which executes CSRMSTR (EC0110), the master file sort program. A detailed list of the sorted file output from CSRMSTR (EC0110) is produced using the cataloged procedure ECRPM20 which executes CRPMSTR (EC0130), the master file detailed report program.

The user-supplied retrieval request cards input to CRTLNPG (EC0090) are divided into groups which are called batches. Each batch is separated from the preceding batch by a \$\$SELECT card and is supplied with a sequence number by CRTLNPG (EC0090). When CRTGENR (EC0100) selects a master file record, this sequence number is inserted in the record to indicate the batch in which the record qualifies. The input master file records are compared with each batch of retrieval criteria, therefore a record may be selected more than once. The resulting answer file is sorted into batch number sequence by CSRMSTR (EC0110). The user must supply an option card to CSRMSTR (EC0110) specifying that a BATCH sort is to be performed. The sorted answer file is printed in a detailed report by CRPMSTR (EC0130). The batch number will appear in the upper right corner of each page of the detailed report. The report may not be in master file sequence since the input answer file is sorted in batch number sequence. An option card is supplied as input to CRPMSTR (EC0130) to indicate the maximum number of printed lines per page in the detailed report. Test 7 provides a discussion of the retrieval package and CRPMSTR (EC0130); Test 10 contains a discussion of CSRMSTR (EC0110).

The run stream for this test run contains the JCL needed to execute the retrieval package, the master file sort program, and the master file detailed report program. There are three batches designated in the retrieval request

cards. The first \$\$\$SELECT card specifies that both description and category records are to be retrieved. Information contained on any succeeding \$\$\$SELECT card will be ignored. The run stream for this test run is shown in Figure AST23-1.

Substitutable parameters are used when executing the procedure ECRTM30 to supply the names of the master file input to CRTGENR (EC0100) and the answer file output from CRTGENR (EC0100). The names of these files are ECMSTR7 (created in Test 9) and ECANSR6, respectively.

Substitutable parameters are used when executing the procedure ECSRM10 to supply the names of the master file input to CSRMSTR (EC0110) and the sorted master file output from CSRMSTR (EC0110). The names of these files are ECANSR6 and ECANSR7, respectively.

A substitutable parameter is used when executing ECRPM20 to supply the name of the master file input to CRPMSTR (EC0130). The name of this file is ECANSR7.

The DD (data definition) information for the retrieval specification cards input to CRTLNGP (EC0090), the option card input to CSRMSTR (EC0110), and the option card input to CRPMSTR (EC0130) is also supplied. Sample output from this test run is shown in Figure AST23-2.

```

//ASTEST23 JOB      (ACCOUNTING INFO)
/**
/**  PERFORM A BATCH RETRIEVAL AND PRODUCE A
/**  DETAILED REPORT FROM THE SORTED ANSWER FILE
/**
//TEST23A EXEC ECRIM30,
//      MSTRFIL=FCMSTR7,
//      ANSWFIL=FCANSK6
/**
/**  RETRIEVE THREE BATCHES OF RECORDS BASED ON THE
/**  FOLLOWING COUNTY AND SUBALLOCATION RESTRICTIONS:
/**  (1)  A POSITIVE RURAL POPULATION PERCENTAGE LESS
/**       THAN 40 % WITH A TOTAL POPULATION LESS THAN
/**       50,000
/**  (2)  A RURAL POPULATION PERCENTAGE GREATER THAN
/**       40% WITH A NON-BLANK POPULATION FIGURE
/**  (3)  A TOTAL POPULATION GREATER THAN 100,000
/**
//GENOP.INPUT DD *
$SELECT      0 1
RURAL-POPULATION-PERCENT      > '00'                AND
RURAL-POPULATION-PERCENT      < '40'                AND
POPULATION                    < '00050000'
$SELECT
RURAL-POPULATION-PERCENT      > '40'                AND
POPULATION                    N = ' '
$SELECT
POPULATION                    > '00100000'
$END
//TEST23B EXEC ECSRMI0,
//      OLDMSTR=FCANSK6,
//      NEWMSTR=FCANSK7
/**
/**  SORT THE ANSWER FILE FROM STEP A USING THE
/**  BATCH OPTION
/**
//SORT.OPTIONS DD *
BATCH
//TEST23C EXEC ECHPM20,
//      MSTRFIL=FCANSK7
/**
/**  PRODUCE A DETAILED REPORT OF THE SORTED
/**  ANSWER FILE FROM STEP B
/**
//LIST.OPTIONS DD *
60

```

Figure AST23-1. Run Stream

ETS/AS RETRIEVAL LANGUAGE PROCESSOR PROGRAM - DIAGNOSTIC REPORT

PAGE

PROGRAM NAME: CRTLNGP (EC0090)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

INPUT (CONTROL CARDS):
 \$\$SELECT 0 1
 RURAL-POPULATION-PERCENT > '00' AND
 RURAL-POPULATION-PERCENT < '40' AND
 POPULATION < '00050000'
 \$\$SELECT
 RURAL-POPULATION-PERCENT > '40' AND
 POPULATION N = ' ' ,
 \$\$SELECT
 POPULATION > '00100000'
 \$\$END

NUMBER OF CONTROL CARDS READ: 10
 NUMBER OF RETRIEVAL SKELFION RECORDS READ: 837
 NUMBER OF RETRIEVAL SOURCE RECORDS WRITTEN: 946
 NUMBER OF CONDITIONAL MESSAGES: 0
 NUMBER OF ABORT MESSAGES: 0

EIS/AS GENERATED RETRIEVAL PROGRAM - DIAGNOSTIC REPORT

PAGE

PROGRAM NAME: CRTGENR (EC0100)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF MASTER FILE RECORDS READ: 371
 NUMBER OF MASTER FILE RECORDS WRITTEN: 9
 NUMBER OF CONDITIONAL MESSAGES: 0
 NUMBER OF ABORT MESSAGES: 0

PROGRAM NAME: CSRMSR (EC0110)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

SORT OPTION SPECIFIED: BATCH

NUMBER OF RECORDS READ:	9
NUMBER OF RECORDS WRITTEN:	9
NUMBER OF DIAGNOSTIC MESSAGES:	0

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
 DIAGNOSTIC REPORT

PAGE

PROGRAM NAME: CRPMSR (EC0130)
 REVISION LEVEL: 1-00
 LAST UPDATE #: A-1
 DATE INCORPORATED: FEBRUARY 1, 1980

OPTION IN EFFECT: 60 LINES PER PAGE MAXIMUM

NUMBER OF RECORDS READ:	9
NUMBER OF DESCRIPTION RECORDS:	9
NUMBER OF CATEGORY RECORDS:	0
NUMBER OF COMMENT RECORDS:	0

Figure AST23-2 - continued. Sample Output

(Page 2 of 3)

AREA SOURCE MASTER FILE DETAIL LIST PROGRAM
FILE LISTING

PAGE 1

DESCRIPTION																			

STATE		COUNTY	AGCR	AGCR NAME				PLANT ID		GEUC SUR #		SMSA	BATCH						
14		7P40	074					1120		00000		4213	0						
RECORD TYPE		CATEGORY NUMBER	CATEGORY DISAG #	ATH RASID	DEFINED AREA CODE	AREA NAME	MAJOR ACTIVITY			SUBALLOCATION TECHNIQUE									
CG		000	00	013	SMITH COUNTY		INDUSTRY												
DATE YR/DAY		SIP BASE YEAR	PROJID YEAR	SOURCE TYPE	LENGTH AREA	UNITS CO	PCF CODE	POPULATION TOTAL		NUMBER OF COORDINATES		NUMBER OF POLLUTANTS							
80/004		78	82		12,345.55	54	6	23		4		5							
UTM COORDINATES																			
01 HCR17		VERT	02 HCR17	VERT	03 HCR17	VERT	04 HCR17	VERT	05 HCR17	VERT	06 HCR17	VERT							
					01 123.4	5123.4	56	788.8	5120.5	12	345.7	8965.4	12	223.5	5632.2				
ANTH COAL		SULFUR BITUM COAL	CONTENTS DIST OIL	RESID'L OIL	ASH COAL	CONTENTS BITUM COAL	GAS FUEL VEHICLES LIGHT		DIESEL FUEL VEHICLES HEAVY		LIMITED ACCESS ROADS		MOTOR VEHICLE MILES RURAL ROADS		MILES SUR URBAN ROADS				
0.6		3.8	0.3	1.1	9.3	9.3	5,671		810		826		3,098		5,303				
FLAG		EIS	FLAGS		SIP ESTIMATES														
NEDS A1		1 2 3 4 5 6			TSP	SO2	NOX		HC		CO								
S		S S S S S S			197	3	10		15		55								
***		POLLUTANT		ATTAINMENT		ACMA	EIS	***		POLLUTANT		ATTAINMENT		ACMA	EIS	***			
***		ID	NAME		STATUS	NUMBER	F 7	***		ID	NAME		STATUS	NUMBER	F 7	***			
***		42101	CUT		A	00023	S	***		42401	SULFUR DIOXIDE		U		S	***			
***		43101	HYDROCARBONS		U		S	***		11101	TSP-1		U	000123	S	***			
***		42602	NITROGEN OXIDES		U		S	***											

Figure AST23-2 - continued. Sample Output

(Page 3 of 3)

EIS/AS Test 24 - Ad Hoc

Create the Official NADB Emission Factor File and Produce a Detailed Report

In this test run, the official NADB area source emission factor file is created from EIS/AS emission factor file transactions using the cataloged procedure ECEME10. This procedure executes CSREFTR (EC0010), the emission factor file transaction sort program; and CEMEFAC (EC0020), the emission factor file edit-maintenance program. The file output from CEMEFAC (EC0020) is listed in a detailed report using the cataloged procedure ECRPE10 which executes CRPEFAC (EC0150), the emission factor file detailed report program.

The transactions input to CSREFTR (EC0010) must be in EIS/AS emission factor file transaction format. An option card must be supplied as input to CEMEFAC (EC0020) specifying a control date, a warning message option (optional), and a list option (optional). Also, a dummy file must be specified as input to CEMEFAC (EC0020) since this is a file creation run. See EIS/AS Test 1 for a discussion of CSREFTR (EC0010), CEMEFAC (EC0020), and CRPEFAC (EC0150).

The run stream for this test run contains the JCL needed to execute the emission factor file maintenance and detailed report procedures. The purpose of this test run is to create the official NADB emission factor file which will be used in live runs of the EIS/AS system. It is suggested that the user keep a backup of this file in the event that the original file is inadvertently deleted. The run stream for this test run is shown in Figure AST24-1.

Substitutable parameters are used to supply the name of the emission factor file output from CEMEFAC (EC0020) and input to CRPEFAC (EC0150). The name of this file is NADBEMF. The DD (data definition) information for the transactions input to CSREFTR (EC0010) and the option card input to CEMEFAC (EC0020) is also supplied. Sample output from this test run is shown in Figure AST24-2.

```

//ASTEST24 JOB      (ACCOUNTING INFO)
/**
/**  CREATE THE OFFICIAL NADB EMISSION FACTOR
/**  FILE AND LIST IT
/**
//TEST24A EXEC ECEM10,
//      NEWEMFC=NADHFMF
/**
/**  USE FIS/AS EMISSION FACTOR TRANSACTIONS TO GENERATE
/**  THE OFFICIAL FILE
/**
//SURL.INPUT DD *
0000000000000100      78179      RESIDENT ANTHRACITE COAL      1A
0000000000000100F 11101800500000010000 SUSPENDED PART.      3A
0000000000000100F 42101781790000090000 CARBON MONOXIDE      3A
0000000000000100F 42401800500000038000 SULFUR DIOXIDES      3A
0000000000000100F 42602800500000030000 N OXIDES      3A
0000000000000100F 43101800500000002500 TOTAL HY CARBON      3A
0000000000000200      78179      RESIDENT BITUMINOUS COAL      1A
0000000000000200F 11101781790000020000 SUSPENDED PART.      3A
0000000000000200F 42101800500000090000 CARBON MONOXIDE      3A
0000000000000200F 42401800500000038000 SULFUR DIOXIDE      3A
0000000000000200F 42602800500000030000 N OXIDES      3A
0000000000000200F 43101781790000020000 TOTAL HY CARBON      3A
0000000000000300      78179      RESIDENT DISTILLATE OIL      1A
0000000000000300F 11101800500000002500 SUSPENDED PART.      3A
0000000000000300F 42101800500000005000 CARBON MONOXIDE      3A
0000000000000300F 42401800500000014000 SULFUR DIOXIDE      3A
0000000000000300F 42602800500000018000 N OXIDES      3A
0000000000000300F 43101800500000001000 TOTAL HY CARBON      3A
0000000000000400      78179      RESIDENTIAL RESIDUAL OIL      1A
0000000000000400F 111018005000000016000 SUSPENDED PART.      3A
0000000000000400F 42101800500000005000 CARBON MONOXIDE      3A
0000000000000400F 42401800500000015000 SULFUR DIOXIDE      3A
0000000000000400F 42602800500000018000 N OXIDES      3A
0000000000000400F 43101800500000001000 TOTAL HY CARBON      3A

```

(Remainder of transactions omitted)

```

//UPDATE.ECSHLEF DD DUMMY
//UPDATE.OPITONS DD *
P0001
//TEST24B EXEC ECRPE10,
//      FMFCFIL=NADHFMF
/**
/**  LIST THE OFFICIAL FILE GENERATED IN STEP A
/**

```

Figure AST24-1. Run Stream

PROGRAM NAME: CSREFTR (EC0010)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

NUMBER OF INPUT TRANSACTIONS: 384
NUMBER OF OUTPUT TRANSACTIONS: 385

PROGRAM NAME: CEMEFAC (EC0020)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

OPTION CARD

CONTROL DATE IS 80001, ERROR OPTION IS NOFLAGW, LIST OPTION IS NULIST

NUMBER OF TRANSACTIONS READ: 385
NUMBER OF ERRORS DETECTED: 0
NUMBER OF WARNINGS DETECTED: 0
NUMBER OF TRANSACTIONS REJECTED: 0
NUMBER OF EMISSION FACTOR FILE RECORDS READ: 0
NUMBER OF EMISSION FACTOR FILE RECORDS WRITTEN: 385

PROGRAM NAME: CRPEFAC (EC0150)
REVISION LEVEL: 1-00
LAST UPDATE #: A-1
DATE INCORPORATED: FEBRUARY 1, 1980

EMISSION FACTOR FILE RECORD COUNT:	385
NUMBER OF CATEGORIES IN LIST:	64
NUMBER OF POLLUTANT ENTRIES IN LIST:	320
FEDERAL POLLUTANT ENTRIES:	320
STATE POLLUTANT ENTRIES:	0
LOCAL POLLUTANT ENTRIES:	0
NUMBER OF ERRORS:	0
NUMBER OF PAGES IN REPORT:	11

Figure AST24-2 - continued. Sample Output

(Page 2 of 3)

EIS/AS EMISSION FACTOR FILE DETAILED REPORT

PAGE 1

STATE	COUNTY	SUBALLOC	DISAG	CATEGORY	DESCRIPTION	CAT DATE	FLAGS/CONTENTS	%S	
CODE	NAME	NUMBER	#	NUMBER		YY DDD	NIT	SUL	ASH

		EMF DATE	POLLUTANT			EMISSION	CONF	POLLUTANT	
		YY DDD	ID	NAME	ORIG	FACTOR	LEVEL	SPEC	DATA

00	0000	00000	00	001	RESIDENT ANTHRACITE COAL	78 179			
		80 050	11101	SUSPENDED PART.	FEDERAL	10.000	0		
		78 179	42101	CARBON MONOXIDE	FEDERAL	90.000	0		
		80 050	42401	SULFUR DIOXIDES	FEDERAL	38.000	0		
		80 050	42602	N OXIDES	FEDERAL	3.000	0		
		80 050	43101	TOTAL HY CARBON	FEDERAL	2.500	0		
00	0000	00000	00	002	RESIDENT BITUMINOUS COAL	78 179			
		78 179	11101	SUSPENDED PART.	FEDERAL	20.000	0		
		80 050	42101	CARBON MONOXIDE	FEDERAL	90.000	0		
		80 050	42401	SULFUR DIOXIDE	FEDERAL	38.000	0		
		80 050	42602	N OXIDES	FEDERAL	3.000	0		
		78 179	43101	TOTAL HY CARBON	FEDERAL	20.000	0		
00	0000	00000	00	003	RESIDENT DISTILLATE OIL	78 179			
		80 050	11101	SUSPENDED PART.	FEDERAL	2.500	0		
		80 050	42101	CARBON MONOXIDE	FEDERAL	5.000	0		
		80 050	42401	SULFUR DIOXIDE	FEDERAL	144.000	0		
		80 050	42602	N OXIDES	FEDERAL	18.000	0		
		80 050	43101	TOTAL HY CARBON	FEDERAL	1.000	0		
00	0000	00000	00	004	RESIDENTIAL RESIDUAL OIL	78 179			
		80 050	11101	SUSPENDED PART.	FEDERAL	16.900	0		
		80 050	42101	CARBON MONOXIDE	FEDERAL	5.000	0		
		80 050	42401	SULFUR DIOXIDE	FEDERAL	159.000	0		
		80 050	42602	N OXIDES	FEDERAL	18.000	0		
		80 050	43101	TOTAL HY CARBON	FEDERAL	1.000	0		
00	0000	00000	00	005	RESIDENTIAL NATURAL GAS	78 179			
		78 179	11101	SUSPENDED PART.	FEDERAL	10.000	0		
		80 050	42101	CARBON MONOXIDE	FEDERAL	20.000	0		
		80 050	42401	SULFUR DIOXIDE	FEDERAL	0.600	0		
		80 050	42602	N OXIDES	FEDERAL	80.000	0		
		80 050	43101	TOTAL HY CARBON	FEDERAL	8.000	0		
00	0000	00000	00	006	RESIDENTIAL WOOD	78 179			
		78 179	11101	SUSPENDED PART.	FEDERAL	25.000	0		
		80 050	42101	CARBON MONOXIDE	FEDERAL	150.000	0		
		80 050	42401	SULFUR DIOXIDE	FEDERAL	0.500	0		
		80 050	42602	N OXIDES	FEDERAL	1.000	0		
		80 050	43101	TOTAL HY CARBON	FEDERAL	6.000	0		

Figure AST24-2 - continued. Sample Output

(Page 3 of 3)

APPENDIX A

CROSS-REFERENCE OF TESTS, PROCEDURES, AND PROGRAMS

<u>Test</u>	<u>Procedures</u>	<u>Programs</u>
1	ECEME10 ECRPE10	CSREFTR (EC0010) CEMEFAC (EC0020) CRPEFAC (EC0150)
2	ECFMM20	CCENETR (EC0030) CSRINTR (EC0050) CMSEFIN (EC0060) CFMMSTR (EC0070)
3	ECERM10	CEDMSTR (EC0040) CSRINTR (EC0050) CMSEFIN (EC0060) CFMMSTR (EC0070)
4	ECRPM30	CRPDUMP (EC0140)
5	ECEDT10 ECMST10 ECFMM10	CEDMSTR (EC0040) CSRINTR (EC0050) CMSEFIN (EC0060) CSRINTR (EC0050) CFMMSTR (EC0070)
6	ECRPM10	CRPASNA (EC0120)
7	ECRTM30 ECRPM20	CRTLNGP (EC0090) CRTGENR (EC0100) CRPMSTR (EC0130)
8	ECRPM10	CRPASNA (EC0120)

<u>Test</u>	<u>Procedures</u>	<u>Programs</u>
9	ECFMM30	CMSEFGN (EC0080) CSRINTR (EC0050) CFMMSTR (EC0070)
10	ECRTM10 ECRTM20 ECSR10 ECRPM30	CRTLNGP (EC0090) CRTGENR (EC0100) CSR10 (EC0110) CRPDUMP (EC0140)
11	ECEME10	CSREFTR (EC0010) CEMEFAC (EC0020)
12	ECEDT10	CEDMSTR (EC0040)
13	ECCET10	CCENETR (EC0030)
14	ECMSM10	CMSEFGN (EC0080)
15	ECMST10	CSRINTR (EC0050) CMSEFIN (EC0060)
16	ECRTM30 ECRPM30	CRTLNGP (EC0090) CRTGENR (EC0100) CRPDUMP (EC0140)
17	ECRTM30 ECRPM20	CRTLNGP (EC0090) CRTGENR (EC0100) CRPMSTR (EC0130)
18	ECRPM40	CRTQLED (EC0160) CRTQLEX (EC0170) CRPQUIK (EC0180)
19	ECRPM40	CRTQLED (EC0160) CRTQLEX (EC0170) CRPQUIK (EC0180)

<u>Test</u>	<u>Procedures</u>	<u>Programs</u>
20	ECRPM40	CRTQLED (EC0160) CRTQLEX (EC0170) CRPQUIK (EC0180)
21	ECRPM40	CRTQLED (EC0160) CRTQLEX (EC0170) CRPQUIK (EC0180)
22	ECRTM30 ECRTM40	CRTLNGP (EC0090) CRTGENR (EC0100) CRTQLED (EC0160) CRTQLEX (EC0170) CRPQUIK (EC0180)
23	ECRTM30 ECSRMI0 ECRPM20	CRTLNGP (EC0090) CRTGENR (EC0100) CSRMRSTR (EC0110) CRPMSTR (EC0130)
24	ECEME10 ECRPE10	CSREFTR (EC0010) CEMEFAC (EC0020) CRPEFAC (EC0150)

<u>Procedure</u>	<u>EIS/AS Tests</u>
EC CET10	13
EC EDT10	5, 12
EC ME10	1, 11, 24
EC MM10	3
EC FM10	5
EC FM20	2
EC FM30	9
EC SM10	14
EC ST10	5, 15
EC RP E10	1, 24
EC RP M10	6, 8
EC RP M20	7, 17, 23
EC RP M30	4, 10, 16
EC RP M40	18, 19, 20, 21, 22
EC RT M10	10
EC RT M20	10
EC RT M30	7, 16, 17, 22, 23
EC SR M10	10, 23

<u>Program</u>	<u>EIS/AS Tests</u>
CCENETR (EC0030)	2, 13
CEDMSTR (EC0040)	3, 5, 12
CEMEFAC (EC0020)	1, 11, 24
CFMMSTR (EC0070)	2, 3, 5, 9
CMSEFGN (EC0080)	9, 14
CMSEFIN (EC0060)	2, 3, 5, 15
CRPASNA (EC0120)	6, 8
CRPDUMP (EC0140)	4, 10, 16
CRPEFAC (EC0150)	1, 24
CRPMSTR (EC0130)	7, 17, 23
CRPQUIK (EC0180)	18, 19, 20, 21, 22
CRTGENR (EC0100)	7, 10, 16, 17, 22, 23
CRTLNGP (EC0090)	7, 10, 16, 17, 22, 23
CRTQLED (EC0160)	18, 19, 20, 21, 22
CRTQLEX (EC0170)	18, 19, 20, 21, 22
CSREFTR (EC0010)	1, 11, 24
CSRINTR (EC0050)	2, 3, 5, 9, 15
CSRMSTR (EC0110)	10, 23

TECHNICAL REPORT DATA
(Please read instructions on the reverse before completing)

1. REPORT NO. EPA 450/4-80-018		2.		3. RECIPIENT'S ACCESSION NO.	
4. TITLE AND SUBTITLE Emissions Inventory System/Area Source (EIS/AS) Test Run Series Documentation				5. REPORT DATE October 1980	
				6. PERFORMING ORGANIZATION CODE	
7. AUTHOR(S) The Research Triangle Institute Operations Analysis Division, Research Triangle Park, N.C.				8. PERFORMING ORGANIZATION REPORT NO. 27709	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Office of Air Quality Planning and Standards Monitoring and Data Analysis Division Research Triangle Park, North Carolina 27711				10. PROGRAM ELEMENT NO.	
				11. CONTRACT/GRANT NO. 68-02-3011	
12. SPONSORING AGENCY NAME AND ADDRESS U. S. Environmental Protection Agency Office of Air, Noise, and Radiation Office of Air Quality Planning and Standards Research Triangle Park, North Carolina 27711				13. TYPE OF REPORT AND PERIOD COVERED	
				14. SPONSORING AGENCY CODE	
15. SUPPLEMENTARY NOTES					
16. ABSTRACT This manual documents the EIS/AS test run series released by the Environmental Protection Agency. The test run series is divided into two major areas: basic test runs and ad hoc test runs. The basic test runs exercise each program in EIS/AS at least once and provide the user with a means of determining whether or not his installation of EIS/AS has been successful. The ad hoc test runs further exercise the capabilities of the EIS/AS programs. The ad hoc test runs also provide the user with examples of how various combinations of EIS/AS programs may be used to generate certain reports or to accomplish special tasks. Any programs added to the original EIS/AS system are exercised by ad hoc test runs. The EIS/AS User's Guide should be used as a reference in conjunction with this manual. Appendix A of this manual provides a cross-reference of tests, procedures, and programs.					
17. KEY WORDS AND DOCUMENT ANALYSIS					
a. DESCRIPTORS		b. IDENTIFIERS/OPEN ENDED TERMS		c. COSATI Field/Group	
Computer Programs Computer Software Data Processing Air Pollution Data Handling Computer System Programs Data Base Management System Distributed Processing		CDHS EIS/AS NEDS Atmospheric Pollution System Installation System Testing			
18. DISTRIBUTION STATEMENT Unlimited		19. SECURITY CLASS (This Report) Unclassified		21. NO. OF PAGES 271	
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