

SECTION XI

SOURCE SURVEILLANCE

XI. SOURCE SURVEILLANCE

A. General:

The source surveillance system provides general procedures for:

1. Monitoring the status of compliance of all stationary emission sources in the state.
2. Detecting and initiating any necessary action to abate emissions from sources not otherwise known to the state agency.
3. Periodic testing and inspection of all stationary sources.
4. Investigating and taking necessary action with respect to complaints.
5. Enforcing rules and regulations applicable to visual emissions.
6. Automatic data processing of reports for management purposes.

B. System Concept

1. The system will be implemented in two phases. Phase I consists of acquiring a complete listing of all stationary emission sources in the state, the Master Source Surveillance List (MSSL). Phase I has been initiated and will be completed during calendar year 1974. Phase II is an on site inspection (using the form shown in Attachment I) of each source listed to:
 - a. Determine violations of any rules or regulations.
 - b. Allow for the review of records maintained by the source as required by Rule 9 (Section XIV). (May include Rule 11 in certain situations)
 - c. Determine if visible emissions are in compliance (Rule 103 Section XIV).
 - d. Ascertain if compliance sampling is needed.
 - e. Obtain information concerning complaints.
 - f. Maintain a current MSSL.
2. Phase II has been initiated and runs concurrently with Phase I. Phase II is a continuing program to fulfill the requirements of FR 158, Paragraph 420.19 and supplement emissions inventory. Data collected in both phases will be computerized. Software programs are being generated to optimize information retrieval for management purposes.

C. Implementation

1. Phase I - Sequential actions
 - a. Compilation of a list of all currently known sources.

- b. A compiled list is distributed to Local Control Programs (where they exist) and State Regional Offices in all other areas.
 - c. State, Local, and Regional offices, as appropriate, verify this list by on site inspection. Verification may result in additions (where new sources unknown to the state are discovered) or deletions (where it is evident the source was listed in error) to the list.
 - d. The corrected verified list is forwarded to the central office for computerization.
 - e. The computer print-out master list (MSSL) is distributed to Central, Regional, and Local offices.
2. Phase II - Sequential actions
- a. Sources on the MSSL are subjected to an on site inspection not less than biennially, to determine factors outlined in B 1 a through b above.
 - b. A standardized inspection form is completed on all sources (Attachments 1 and 2).
 - c. The compliance status and/or the necessity for the acquisition of additional data is determined. (Stack sampling, property line sampling, visible emissions observation, or a combination may be required.) All data are generated in accordance with procedures contained in the Compliance Sampling Manual submitted with the Implementation Plan.
 - d. Completed reports are forwarded to the central office, (local program office where existant, with copy to central and regional office). Reports are computerized.
 - e. Computerized material will be used for management action and planning.

D. Complaints Handling Procedures

- 1. Air pollution complaints may be received by the central office of Air Pollution Control Services, any one of the twelve regional offices, or by a local air pollution control program (see Attachment 3 - flow chart). When a complaint is received in the central office, it is channeled to the Compliance Program for logging and filing. If the complaint is from an area where a local program exists, such program is notified that it has primary jurisdiction in its resolution. Concurrently, the appropriate state Regional Office is provided the same information. Local programs report activities through the state Regional Programs. In the absence of a local program, the state Regional Office has the primary responsibility for all actions.

2. Complaints based upon the release of toxic or any other harmful pollutant will be given top priority, and an investigation initiated at once.
3. Complaints received at Regional Offices will be investigated and handled at that level except when a local program has jurisdiction. The Regional Office will refer such complaints to the local air pollution control program, and offer assistance if needed.
4. A complete report of all investigations is made by local and/or regional personnel. In the event that a violation of the Regulations of the Texas Air Control Board is determined, appropriate compliance action is taken to effect progress toward a solution. The source will be notified by the regional or local program personnel that a violation exists and will be requested to comply with the Regulations. In all situations, the Compliance Program staff in the Central Office in Austin will keep abreast of the complaint to insure that corresponding investigations have been made and that all compliance work has been done. If a regional or local office needs assistance, Compliance Program personnel are responsible for initiating the actions.

E. The Source Surveillance Center

1. The Center is established in the state Central Office to collect, coordinate, and integrate reports generated by the Source Surveillance System and the Compliance Program.
2. A monthly report containing the current compliance status, inspection history, complaints, type and amount of emissions, and location is printed and forwarded to appropriate program managers.
3. The monthly report will be used by program managers to assist them in defining progress toward meeting required schedules.

SOURCE SURVEILLANCE INVESTIGATION REPORT
Part I -- Surveillance Inspection*

M.S.S.L. Acct. No.: _____ Region: _____ County: _____ Date of Investigation: _____

Company Name: _____

Location: _____

City: _____ County: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Company Representative: _____ Title: _____ Telephone: _____

IS COMPANY AN EMISSION SOURCE? YES _____ NO _____ REMOVE FROM M.S.S.L. LIST? YES _____ NO _____

MISSION INVENTORY STATUS: Required? Yes _____ No _____ Submitted? Yes _____ No _____

Reasonably Accurate? Yes _____ No _____

Facility Size: Process _____ Multi-Process _____ Incinerator _____ Flare _____

Products: Chemical _____ Food/Agriculture _____ Metallurgical _____ Mineral _____ Petroleum _____ Wood _____

Emission Sources: 1 Incinerator 2 Stack 3 Flare 4 Fugitive 5 Open Burning 6 Other

Emissions:

Particulate: Dust _____ Smoke _____ Fumes _____ Mist _____

Gaseous: SO₂ _____ H₂S _____ H₂SO₄ _____ NO_x _____ HF _____ NH₃ _____ Cl _____

Hg _____ H/C _____ CO _____ O₃ _____

Odor: _____ Emission Source: _____

Abatement Equipment Installed? Yes _____ No _____ Operational? Yes _____ No _____

Sampling Recommended: Opacity _____ Property Line _____ Stack _____ None _____

Sampling Accomplished: Opacity _____ Property Line _____ Stack _____ None _____

Sampling Not Accomplished Because of:

Wind Direction _____ Wind Velocity _____ Precipitation/Fog _____ Equipment Failure _____

Plant Shutdown _____ Intermittent Plant Operation _____ No Requirement _____

Surveillance Inspection Comments:

Time of Investigation: _____ to _____

Surveillance Inspection -- Complete Part I Compliance Testing -- Complete Part I and Part 2. Follow-up Investigations -- Complete first 3 lines; and, only those other lines that require up-dating. M.S.S.L. Acct. No. -- The computer alpha-numerical identification number. Form Date -- January 1972.

Part 2 -- COMPLIANCE TESTING*

Company Representative's Name: _____ Telephone: _____

Statement: _____

Complainant: _____ Telephone: _____

Address: _____

Statement: _____

Investigator's Findings: (Compliance Testing)

Time of Investigation: _____ to _____ .

Weather: Sky Condition: clear _____ cloudy _____ overcast _____ precipitation _____ .
wind direction _____ velocity _____ temperature _____ humidity _____ .

In compliance _____ . Out of compliance _____ . Opacity _____ %.

Recommendations:

Investigator _____ Signature _____

Asst. Investigator _____ Signature _____

Region _____ Office Assigned _____ Tel. _____

SOURCE SURVEILLANCE INVESTIGATION REPORT (SSIR)
ADMINISTRATIVE PROCEDURES

General:

The Source "Surveillance Investigation Report" (SSIR) will be used to report all investigations: surveillance inspections; compliance testing; and complaint investigations. The completed SSIR's will be mailed by the originating office weekly to arrive at the Source Surveillance Center no later than the following Wednesday. SSIR's requiring sample analysis will be retained until these results can be incorporated in the report. The SSIR's and all related correspondence will be addressed to the Air Pollution Control Services Attention: Source Surveillance Center, 820 East 53rd Street, Austin, Texas, 78751.

Definitions:

Surveillance Inspection - an investigation for the purpose of "evaluating" a source's compliance with air pollution laws and regulations. Compliance testing may be accomplished immediately after the evaluation or scheduled for a later date.

Compliance Testing - an investigation for the purpose of "testing" a source's compliance with air pollution laws and regulations. Testing will be accomplished with the appropriate test equipment and procedures.

Compliance Testing Follow-ups - the compliance investigations other than the initial investigation of a particular source; i.e., to obtain more samples, to check plant modification status, etc.

Completion Procedures:

Item 1 - M.S.S.L. Account Number - Insert the computer Alpha-Numerical Identification Number of the company from the Master Source Surveillance Listing as listed. Do not leave a space between the letters and numbers of the code.

Item 2 - Region - region in which company is located.

Item 3 - County - county in which company is located.

Item 4 - Date - date investigation was accomplished.

Item 5 - Company Name - the complete company title.

Items 6 & 7 - Location - address of the physical location of the company.

Items 8 & 9 - Mailing address - complete if different from the company location address. If not insert the word "same".

Item 10 - Company Representative - insert the name of the individual which supplied the SSIR data during your investigation/inspection, his title, and telephone number.

Items 11 & 12 - Check either "yes" or "no". These two items will be a judgement decision by the investigator.

Items 13 & 14 - This information will be obtained from the plant being investigated.

Item 15 - Completion of this item is at the discretion of the investigator. In many cases the investigator may not have the time or training to accurately evaluate the report.

Item 16 - Facility Size - Check the most appropriate blank.

Item 17 - Products - General classification of major pollutant sources. Federal Register, Vol. 36, No. 158, Saturday, August 14, 1971. Reference attachment for the classification of a particular company.

Item 18 - Emission Sources - The emission sources have been given a code number; i.e., 1 for incinerator, 2 for stack, etc. This code number will be placed in the applicable emissions blanks items 19, 20, and 21 to correlate the source/sources with its applicable emission/emissions.

Example 1: We have SO₂ being emitted from a stack: item 20 would then be completed in the following manner: SO₂ 2. The number 2 being placed in the SO₂ blank signifies that SO₂ is being emitted from a stack.

Example 2: Same case as example one but SO₂ is being emitted from more than one source; i.e., SO₂ is being emitted from the stack and from fugitive sources. Item 20 would then be completed in the following manner: SO₂ 2,4.

Example 3: SO₂ and H₂S are being admitted from the stack. Item 20 would be then completed in the following manner: SO₂ 2, H₂S 2.

The examples are applicable to items 19, 20, 21, and 22. At the discretion of the investigator there may be cases in which he would use item 21 to describe odor: i.e., sour, acid, etc; and item 22 to name sources: i.e., feed lot, etc.

Item 23 - Check yes if abatement equipment has been installed. Check yes if abatement equipment is operating during the investigation.

Item 24 - Sampling Recommended - Investigator will recommend the need for sampling; and the type of sampling by checking the applicable blank.

Item 25 - Sampling Accomplished - Check to indicate the type of sampling accomplished.

Item 26 - Check to indicate, if sampling was scheduled, why sampling was not accomplished.

Item 27 - Surveillance Inspection Comments - Investigator completes at his discretion and/or local requirements.

Item 28 - Time of Investigation - Does not include travel time to point of investigation or return travel time to office.

Item 29 - Company Representative's Name - the name of the individual representing the company during your investigation.

Item 30 - Statement - Short concise statement of the company's position.

Item 31 - Complainant - Name of the primary complainant. If more than one list under findings.

Item 32 - Statement - Short concise statement of his complaint.

Item 33 - Investigators findings - List any facts pertinent to the investigation.

Item 34 - Time of Investigation - reference item 28.

Item 35 - Weather - Check most descriptive sky condition. The wind direction and velocity will be measured at the investigation site. Temperature and humidity can be obtained from local weather news.

Item 36 - Compliance - Check to indicate compliance sampling results. Record opacity reading as a percentage value.

Item 37 - Recommendations - Same as item 27.

Item 38 - Investigator - List the investigator's name or the team chief's name when team sampling.

Item 39 - Assistant Investigator - List all other members of the investigation team.

Item 40 - Region - Investigator's region of assignment, his home office and office telephone number.

MAJOR POLLUTANT SOURCES

Chemical Process Industries

Adipic acid
Ammonia
Ammonium nitrate
Carbon black¹
Charcoal
Chlorine
Detergent and soap
Explosives (TNT and nitrocellulose)¹
Hydrofluoric acid¹
Nitric acid
Paint and varnish manufacturing¹
Phosphoric acid¹
Phthalic anhydride
Plastics manufacturing¹
Printing ink manufacturing¹
Sodium carbonate¹
Sulfuric acid¹
Synthetic fibers
Synthetic rubber
Terephthalic acid

Food and Agricultural Industries

Alfalfa dehydrating¹
Ammonium nitrate
Coffee roasting¹
Cotton ginning¹
Feed and grain¹
Fermentation processes
Fertilizers¹
Fish meal processing
Meat smoke houses¹
Starch manufacturing¹
Sugar cane processing¹

Metallurgical Industries

Primary metals industries:
Aluminum ore reduction¹
Copper Smelters¹
Ferroalloy production¹
Iron and steel mills¹
Lead smelters¹
Metallurgical coke manufacturing¹
Zinc¹

Secondary metals industries:

Aluminum operations¹
Brass and bronze smelting¹
Ferroalloys¹
Gray iron foundries¹
Lead smelting¹
Magnesium smelting¹
Steel foundries¹
Zinc processes¹

Mineral Products Industries

Asphalt roofing¹
Asphaltic Concrete batching¹
Bricks and related clay refractories¹
Calcium carbide¹
Castable refractories¹
Cement¹
Ceramic and clay processes¹
Clay and fly ash sintering¹
Coal cleaning¹
Concrete batching¹
Fiberglass manufacturing¹
Frit manufacturing¹
Glass manufacturing¹
Gypsum manufacturing¹
Lime manufacturing¹
Mineral wool manufacturing¹
Paperboard manufacturing¹
Perlite manufacturing¹
Phosphate rock preparation¹
Rock, gravel, and sand quarrying and Processing¹

Petroleum Refining and Petrochemical

Operations¹
Wood processing¹

Petroleum Storage (Storage tanks and bulk terminals)

Miscellaneous

Fossil fuel steam electric powerplants¹
Municipal or equivalent incinerators¹
Open burning dumps¹

¹ Major sources of sulfur oxides and/or particulate matter.

SOURCE SURVEILLANCE INVESTIGATION REPORT
Part I -- Surveillance Inspection*

M.S.S.L. Acct. No.: (1) _____ Region: (2) _____ County: (3) _____ Date of Investigation: (4) _____

5) Company Name: _____

6) Location: _____

7) City: _____ County: _____

(8) Mailing Address: _____

(9) City: _____ State: _____ Zip: _____

(10) Company Representative: _____ Title: _____ Telephone: _____

1) IS COMPANY AN EMISSION SOURCE? YES _____ NO _____. (12) REMOVE FROM M.S.S.L. LIST? YES _____ NO _____.

3) EMISSION INVENTORY STATUS: Required? Yes _____ No _____. (14) Submitted? Yes _____ No _____.

(15) Reasonably Accurate? Yes _____ No _____.

6) Facility Size: Process _____ Multi-Process _____ Incinerator _____ Flare _____.

7) Products: Chemical _____ Food/Agriculture _____ Metallurgical _____ Mineral _____ Petroleum _____ Wood _____

8) Emission Sources: 1 Incinerator 2 Stack 3 Flare 4 Fugitive 5 Open Burning 6 Other

Emissions:

(19) Particulate: Dust _____ Smoke _____ Fumes _____ Mist _____.

(20) Gaseous: SO₂ _____ H₂S _____ H₂SO₄ _____ NO_x _____ HF _____ NH₃ _____ Cl _____

Hg _____ H/C _____ CO _____ O₃ _____

(21) Odor: _____ Emission Source: (22) _____

23) Abatement Equipment Installed? Yes _____ No _____. Operational? Yes _____ No _____.

24) Sampling Recommended: Opacity _____ Property Line _____ Stack _____ None _____.

25) Sampling Accomplished: Opacity _____ Property Line _____ Stack _____ None _____.

26) Sampling Not Accomplished Because of:

Wind Direction _____ Wind Velocity _____ Precipitation/Fog _____ Equipment Failure _____

Plant Shutdown _____ Intermittent Plant Operation _____ No Requirement _____.

27) Surveillance Inspection Comments:

(28) Time of Investigation: _____ to _____.

*Surveillance Inspection -- Complete Part I Compliance Testing -- Complete Part I and Part 2. Follow-up Investigations -- Complete first 3 lines; and, only those other lines that require up-dating. M.S.S.L. Acct. No. -- The computer alpha-numerical identification number. Form Date -- January 1972.

Part 2 - COMPLIANCE TESTING*

Company Representative's Name: (29) _____ Telephone: _____

Statement: (30) _____

Complainant: (31) _____ Telephone: _____

Address: _____

Statement: (32) _____

Investigator's Findings: (Compliance Testing) (33)

(34) Time of Investigation: _____ to _____.

(35) Weather: Sky Condition: clear _____ cloudy _____ overcast _____ precipitation _____.
wind direction _____ velocity _____ temperature _____ humidity _____.

(36) In compliance _____ Out of compliance _____ Opacity _____%.

Recommendations: (37)

Investigator (38) _____ Signature _____

Asst. Investigator (39) _____ Signature _____

Region (40) _____ Office Assigned _____ Tel. _____

**TEXAS AIR CONTROL BOARD
PLUME OBSERVATION RECORD FORM**

NAME OF SOURCE _____

DATE _____

ADDRESS _____

OBSERVER _____

START TIME _____

OBSERVATION POINT _____

DISTANCE FROM STACK _____

WIND SPEED _____ DIRECTION _____

TYPE OF BACKGROUND _____

COLOR OF EMISSION _____

TYPE OF INSTALLATION _____

OBSERVATION ENDED _____

SMOKE DENSITY TABULATION
No. Units X Equiv. No. 1 Units

Units No. 0	_____
Units No. ½	_____
Units No. 1	_____
Units No. 1½	_____
Units No. 2	_____
Units No. 2½	_____
Units No. 3	_____
Units No. 3½	_____
Units No. 4	_____
Units No. 4½	_____
Units No. 5	_____
Total Units	_____

Total Equiv. No. 1 Units

= _____

Average Smoke Density =

Equiv. No. 1 Units x 20
Total Units

= _____ %

Sec. Min.	0	15	30	45
0				
1				
2				
3				
4				
5				

REMARKS: _____

SIGNED: _____

