

# **Proposed Permit System For Sources Of Air Pollution**

**in the  
State Of Alabama**

**November 1971**

**Prepared For  
Environmental Protection Agency**

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PROPOSED PERMIT SYSTEM  
FOR SOURCES OF AIR POLLUTION  
IN THE  
STATE OF ALABAMA

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Environmental Protection Agency

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## 1. INTRODUCTION

The following is a description of the Alabama Permit System, which is designed to fulfill the requirements delineated in §420.18, Review of new sources and modifications, and §420.19, Source Surveillance, of the Requirements for Preparation, Adoption, and Submittal of Implementation Plans (Chapter IV, Title 42, Federal Register, Vol. 36, No. 150, Saturday, August 14, 1971).

The purpose of the Permit System is the following:

1. To administer the source surveillance program.
2. To prevent construction of new sources, or modifications of existing sources, that will violate the rules and regulations of the Air Pollution Control Commission.

The key advantages of a permit system are:

1. It enhances the legal position of the control agency (Alabama Division of Air Pollution Control) vis-à-vis the courts and industry. Upon denial or suspension of a permit, the burden of proof lies with industry proving that it operates within the rules, rather than with the agency proving the converse.
2. The system provides an automatic review of new construction, thus benefiting the industrialist by preventing the construction of facilities he cannot legally operate.

## 2. GENERAL OVERVIEW

Figures 2-1 and 2-2 are flow diagrams describing the general operation of the Alabama Permit System as it applies to new and presently operating sources.

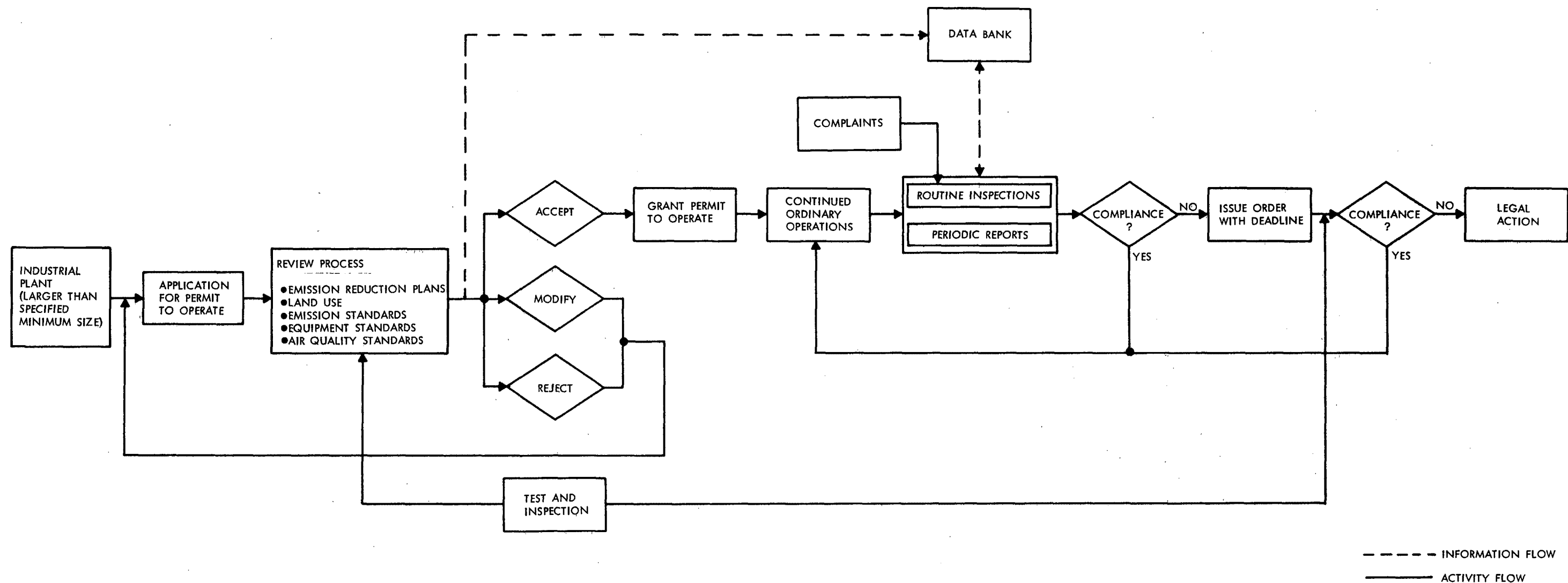
### 2.1 NEW SOURCES

In order to build a new facility (or modify an old one) which has the potential to emit dust, fumes, mist, smoke, particulate matter, vapor, gas, or any combination thereof, it will be necessary to apply for and obtain a Permit to Construct in accordance with the requirements of the Alabama Division of Air Pollution Control (DAPC). The permit application must include all information relevant to the new source's potential impact on the air environment.

The application will undergo a careful review by the staff of the Division. The review will determine whether or not the proposed facility will be constructed and operated in accordance with State and Federal laws and regulations. An affirmative decision results in the granting of a Permit to Construct, which grants the applicant the right to build the facility strictly according to the application and within a limited amount of time. If the application is rejected, the applicant will be informed as to the reasons for rejection and be granted permission to resubmit the application after necessary revisions have been made. If the application is found to be generally acceptable but requiring some minor modification, a conference will be scheduled with the applicant to accomplish the required modifications without a complete recycling of the review process.

After construction of the facility, an application will be made for a Permit to Operate. An inspector from the Division will verify that the actual construction has been in accordance with the original Permit to Construct; a satisfactory inspection will lead to a Temporary Permit to Operate, which will remain in force until a detailed inspection of the facility under actual operating conditions can be made and the results reviewed. The applicant may hasten the granting of this Temporary Permit





NOTE: ONLY MAJOR INFORMATION FLOWS TO DATA BANK ARE SHOWN

Figure 2-1. OPERATION OF A NEW POLLUTION SOURCE  
IN THE PERMIT SYSTEM

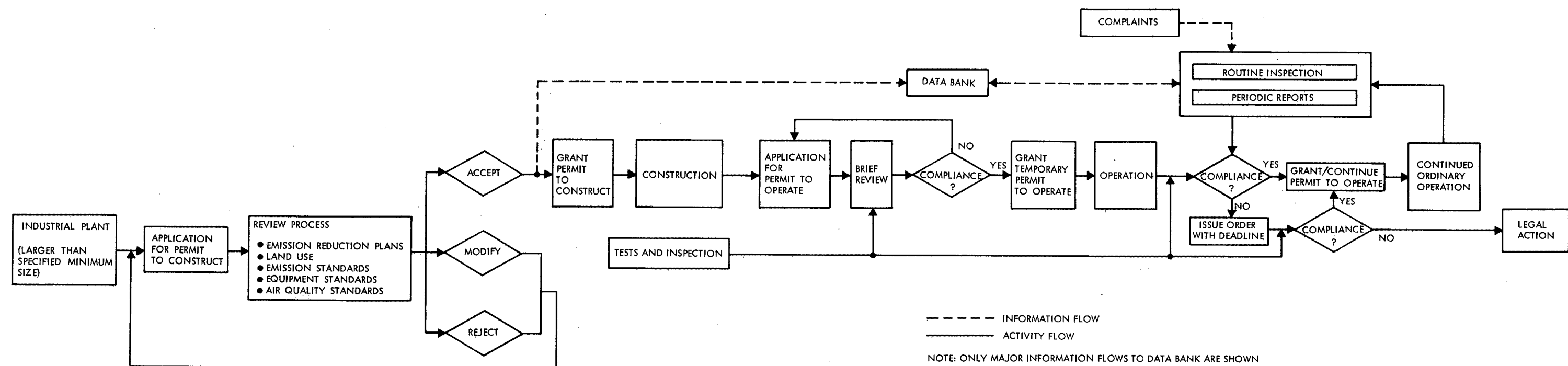


Figure 2-2. OPERATION OF AN EXISTING POLLUTION SOURCE  
IN THE PERMIT SYSTEM

by having his original application for a Permit to Construct signed by a Professional Engineer well versed in air pollution control techniques. A Temporary Permit to Operate will immediately be granted to the applicant upon receipt by the Division of Air Pollution Control of a letter from the Professional Engineer testifying that the construction has been completed and is in accordance with the plans and specifications approved by the DAPC. If there is any doubt as to the acceptability of any particular Professional Engineer's credentials, the DAPC may be contacted for a ruling as to his acceptability.

A full-scale operating inspection of the facility will be conducted by the DAPC within a reasonable time following the granting of the Temporary Permit to Operate. This inspection will determine whether a Permit to Operate shall be granted to the facility. In addition, prior to this time the DAPC may require the facility to substantiate, by the submission of data or the conducting of tests in the presence of officers of the DAPC, the adequacy of its control equipment. These data and tests will consist of stack sampling and/or continuous monitoring of emissions. If either the inspection or the data submitted by the source indicates a lack of compliance with the specifications in the permit application, the DAPC will issue an order requiring compliance with these specifications within a limited period of time. Continued non-compliance past the deadline of the order will result in suspension or revocation of the Temporary Permit to Operate, and legal action by the DAPC if the facility fails to cease operations.

If the facility is found to conform to the specifications of the permit, a Permit to Operate shall be granted and the facility will enter the routine source surveillance loop of the Permit System.

Source surveillance includes the issuing of periodic reports by the source and routine inspections of the source by the DAPC. Periodic reports may range from production reports and notification of unusual operations, chemical spills, etc., to detailed emission reports required of the larger

sources in the region. The inspections will be conducted at regular intervals by agents of the DAPC and will be similar to but less detailed than the original operating inspection noted above.

If either the periodic reports or inspections indicate non-compliance with conditions specified by the Permit to Operate, the DAPC may repeat the "order to comply with deadline" procedure outlined above. A fine may be levied against the facility whose amount will depend on the plant size, degree of non-compliance, previous record of the facility, and the nature of the non-compliance, i.e., whether it was deliberate or accidental, known or unknown to the plant operators.

## 2.2 EXISTING SOURCES

The procedure for registering presently operating sources into the Permit System is identical to that already described for new sources, except that the review process focuses on an existing source rather than merely on a set of blue prints and process descriptions. In this case, the application for a Permit to Operate is the equivalent, in level of detail, to the Permit to Construct application in the previous discussion. The inspection to determine permit status can be an extraordinary one conducted at the time of the application submittal, or else it can simply be the first of the routine inspection in the "normal operation" cycle. The latter is preferable where the control agency has limited personnel for the task, but it is likely that a staggered permit application schedule will be initiated anyway in order to avoid a sharply discontinuous demand for engineering personnel in the agency. At any rate, once the Permit to Operate has been granted to the source, operation in the system is identical to that described above for new sources.

Under the Alabama Permit System, existing facilities which do not satisfy the emission standards and/or equipment and operational specifications defined in this Implementation Plan AT THE TIME OF ITS PROMULGATION may be permitted to continue operating under Conditional Permits to Operate. These permits specify certain conditions under which the facilities must operate, and certain schedules under which the facilities must systematically reduce

their emissions to satisfactory levels. The DAPC will require the facilities to submit control plans with permit applications, but it may impose additional conditions and schedules. In the latter case, if the facilities continue operation under such permits, they will be considered legally to have accepted the conditions and schedules specified.

Conditional Permits may also be granted to a new source which has been granted a Permit to Construct and Temporary Permit to Operate but cannot pass operational inspection. In these circumstances, the permits will be granted to a period of time from 30 days to one year, provided that a compliance plan has been agreed to by the facility and the DAPC. However, under no circumstances will the DAPC grant a Conditional Permit (including renewals) for a period of time greater than one year.

In order for the Conditional Permit to remain in effect, periodic progress reports must be supplied by the facility to the DAPC. A failure to submit these reports or lack of satisfactory progress will be grounds for revocation of the permit. If the emission reduction plan includes the addition of control devices to the facility, then an important milestone in the reduction plan shall be the granting of a Permit to Construct the devices. Upon satisfactory completion of the emission reduction program, a Permit to Operate will be issued and the facility will enter the routine source surveillance loop.

In cases where a facility cannot obtain a Permit to Operate from the DAPC, it may appeal to the Air Pollution Control Commission for a variance, which would exempt the facility from the requirement that it satisfy one or more of the air pollution rules, regulations, and laws. The process of granting a variance will often include a public hearing called by either the Commission itself or any citizen who files an objection. The variance itself will often include conditions and schedules similar to those in a Conditional Permit, but a key difference is that the end result of such conditions and schedules in a variance need not be compliance with regular air pollution emission standards or other regulations.

### 2.3 DATA BANK

All operations in the Permit System create information to be fed into a central Data Bank. In Figures 2-1 and 2-2, the major sources of information from the permit system are seen to be permit applications, periodic reports, and the routine inspections. In addition, of course, other sources of information both inside and outside the Permit System exist, e.g., legal action proceedings, air quality surveillance inputs, old emission inventories, etc.

Because of the great number of air pollution sources to be included under the Permit System, and the requirement for speed of data processing for use during emergency episodes, the air pollution data bank will eventually be computerized.

### 3. LEGAL AUTHORITY

The Alabama Air Pollution Act of 1971, Act #769, Regular Session, 1971, provides full legal authority to the Air Pollution Control Commission and its agent, the Division of Air Pollution Control, to initiate and maintain a permit system in satisfaction of the new source review and source surveillance requirements in the Federal Register. The following passages of the bill are relevant:

#### 3.1 REVIEW OF NEW SOURCES AND MODIFICATIONS

##### 1. To deny construction:

- §18 The Commission may operate a permit system.
- §18,3 It is able to deny a permit.
- §8,a It may prohibit construction of a new source if it finds the source to be in violation of the rules.

##### 2. To require sufficient information:

- §18,2 The Commission is able to require applicants for a permit to furnish information necessary to grant a permit.
- §5,f It may institute requirements for reporting information on processes, stacks, fuels, etc.
- §8a It may require, prior to construction, the submission of plans, specification, etc., to allow it to determine whether such construction should be allowed.

#### 3.2 SOURCE SURVEILLANCE

##### 1. To require reporting by owners:

- §7,0 It may require owners to install, use, and maintain monitoring equipment; sample emissions; maintain records of emissions; and report the results.
- §18,2 As described above.

2. To provide for periodic testing and inspection:

- §9,b The Commission may conduct tests on the equipment of sources and take necessary samples. It may require owners to provide sampling and testing facilities.
- §9a Its agents have the right of entry into any business during proper hours to inspect and find out what's happening.

3.3 ENFORCEMENT

- §17,a The Commission may fine violators of the Control Act.
- §17,d The Act establishes any knowing violation of the Act or of the rules adopted under it as a misdemeanor.
- §17,c The Commission may commence prosecution of violators.
- §17,e It may authorize the Director of the DAPC to issue citations commanding appearance at a hearing.
- §17,i It may conduct hearings, and sign, issue, and serve subpoenas.
- §17,j It may seek injunctive relief.
- §18,3 It may suspend or revoke permits.



#### 4. APPLICABILITY

All equipment, machines, devices, articles, contrivances, or installations presently operating, under construction, or in planning in the State of Alabama that emit, or have the potential to emit, any form of air pollution--dust, fumes, mist, smoke, other particulate matter, vapor, gas, or any combination thereof--are subject to the Alabama Permit System. However, the DAPC will exempt several categories of air pollution sources from the requirement that they obtain permits; furthermore, the DAPC shall establish size limitations on facilities, based on factors such as yearly emissions, process rate, heat input, and others, such that those facilities smaller than the established limit shall also be exempt from the application requirement. (Exemption from the permit system does not, of course, exempt a pollution source from complying with all other rules and regulations, including all applicable emission standards, of the air pollution program.)

Because it is evident that a relatively small number of very large pollution sources play a significant role in determining the quality of the air environment in the State of Alabama, the DAPC will establish increased permit application and emission monitoring and reporting requirements for these sources. For instance, a "long" and "short" permit application form will be used for registering fuel-burning sources into the permit system--the short form for the many small boilers in Alabama, and the long form for the larger sources, including power plants.

## 5. PERMIT APPLICATIONS

Applications for Permit to Operate and Construct must include all information relevant to the facility's potential impact on the air environment. This information includes:

- Facility identification - name, address, owner, etc.
- Details of construction procedures
- Description of the facility
- Description of air pollution control devices
- Details of operating procedures
- Plans for emission reduction during emergency episodes
- Emission estimates/measurements or information with which to estimate emissions
- Plans for permanent reduction of emissions, if necessary
- Signature of responsible party

For a given type of facility, one form will normally serve as an application for a Permit to Construct or Operate and, when approved, as the Permit itself. This will decrease the amount of paperwork to be processed by the system.

The DAPC will establish a Permit Advisory Unit to assist applicants in filling out satisfactory permit applications. This unit is primarily designed to aid owners of small facilities. Owners of larger facilities will be encouraged to obtain the services of a Professional Engineer to assist them in filing the proper forms.

The signature of the applicant will constitute an agreement that the applicant assumes the responsibility for any alterations, additions, or changes in operation that may be necessary to achieve and maintain emission standards or compliance with any other applicable regulations.

The DAPC has the right to request the applicant to furnish any additional information necessary to evaluate the facility's effect on the air environment.

## 6. PERMIT UNITS

All facilities not exempt from the Permit System must apply for separate permits for each "permit unit" of equipment under operation or construction, or in planning. A permit unit is defined as a piece of equipment, or an equipment grouping, which operates together as a functional unit. In any and all cases where confusion exists as to what constitutes a permit unit, the DAPC shall decide.

In the case of an equipment grouping involved in a process, the grouping will be considered a permit unit if each separate piece of equipment is united to the others by conveyor or pipe or chute or hose, provided that no item of the group will operate separately with process material not common to the group operation. For instance, a small concrete batching plant may be divided into 2 permit units - a cement receiving and storage system (hopper, conveyor, elevators, vibrators, aerators, and storage silos) and a batching unit (conveyor or receiving hopper, vibrators, elevator, hoppers) and truck loading. If a control device is used, this constitutes a third separate permit unit. A rock crushing plant might only consist of 1 permit unit (2 of a control system is included), including charging hopper, various crushers, and storage. If the storage bin is physically separated from the crushers, it will be considered a separate permit unit.

Spare or standby equipment which forms a separate permit unit in itself (e.g., a standby boiler in a hospital) will require a separate permit even if it is almost never used. When spare equipment forms a part of a permit unit, it should be described in the permit application for the unit.

Equipment items or groupings in parallel, operated independently and not physically united for the flow of material, will be considered as separate permit units.

## 7. REVIEWING PERMIT APPLICATIONS

### 7.1 REVIEW PROCESS

An application for a Permit to Operate or Construct will undergo a rigorous review by a committee composed of members of the staff of the DAPC. In order for a source to successfully gain a Permit, it must satisfy the review committee that:

1. The source does, or will, conform to all emission standards formulated by the DAPC.
2. The construction and/or operation of the source will not cause air quality standards to be violated.
3. The source has established a satisfactory emission reduction schedule for emergency episodes.

One result of the second condition is that any newly constructed source in an air quality "saturated" area\* will have to emit at a lower rate than the source it replaces. This condition can easily be stricter than the established source emission standards, especially in heavily developed areas.

Characteristics of the review process will be:

- Full documentation of all findings, for every permit application
- Standardized review procedures
- Procedures which are in accordance with existing legal authority for control, and the existing DAPC charter
- Availability to all applicants of clear standards for acceptance or rejection of permit applications

Staff members reviewing permit applications will be graduate engineers (or have equivalent experience), specially trained in air

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\* Saturated in the sense that any increase in emissions will cause a violation of air quality standards, assuming a violation does not already exist.

pollution control. Since the State has a considerable variety of process sources of air pollution, it is likely that staff members specializing in different types of industries will have to be available.

The review process will proceed as follows:

1. The application will be checked to insure that all information requirements have been met. Plant size and type will be checked to insure that the equipment is not exempt.
2. Data contained in the application will be checked for internal consistency. If old emission inventories or other information on the source are available, they will be compared to the application.
3. An emission estimate will be derived using available emission factors. If measured emissions are included in the application, these will be compared to the estimates.
4. Allowable emissions will be calculated using data contained in the application and compared to the estimated or measured emissions. If emission standards are not met, the additional control needed will be specified and compared to that called for in the emissions reduction plan included in the application.
5. If the application is for a new facility, an estimate will be made of the source's potential impact on the air quality at its selected site. An allowable emission rate based on air quality will be calculated. If this rate is lower than that calculated in step 4, it becomes the determinant of the applications's acceptability, and a new control efficiency is specified.
6. Plans for emission reductions during emergency episodes will be reviewed.
7. Operational and equipment standards will be reviewed as they pertain to the source.
8. The application is either accepted, rejected, or else, if only minor modifications are necessary, the applicant will be called in for consultation and, if he is agreeable, these modifications will be made. For a presently operating source, a Conditional Permit will be issued if the source does not satisfy emission standards but has submitted a satisfactory plan for emission reduction.

The DAPC will establish a time limitation on the review process outlined above, so as to insure that no applicant shall suffer a hardship because of a delay in obtaining a permit. However, this time limit will immediately be extended in the event of any obstruction or delay in forwarding requested information on the part of the applicant.

## 7.2 CONDITIONAL PERMITS

The main purpose of the Conditional Permit is to provide a mechanism whereby an air pollution source will be required to adhere to or surpass a fixed schedule by which it must reduce its pollutant emissions to the legal limits. As outlined in the Federal Register<sup>1</sup>, the emission reductions scheduled by the State must achieve primary ambient air quality standards within 3 years after approval of the Implementation Plan. Since a considerable proportion of the air pollution sources in Alabama will have to resort to various means of control--fuel switches, stack devices, etc.--to meet the new emission standards, and since these means will require some time for their implementation, the Conditional Permit provides an efficient means for both granting this time and legally requiring adherence to schedules.

Although a variance can obtain the same effect as a Conditional Permit, the variance is much too cumbersome a device to use extensively in the early years of the program. However, it should be made clear that the Conditional Permit is not meant to circumvent the variance procedure. Rule 10 (see Appendix B) is written expressly so as to eliminate the use of Conditional Permits for establishing long-range reduction schedules (and allowing operation above the emission standards for considerable lengths of time) after the program is two years old. After this time, the Conditional Permit will merely provide a means whereby the DAPC can specify conditions to be taken immediately, or within 90 days, in order for a source to continue legal operations. If a source cannot operate within the standards and cannot correct this within a very short period of time, it will have to petition for and obtain a variance or else shut down.

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<sup>1</sup> Federal Register, Vol. 36, No. 150 - Saturday, August 14, 1971, Part 420 - Requirements for Preparation, Adoption, and Submittal of Implementation Plans.

## 8. VARIANCES

The Alabama Air Pollution Act of 1971, Act #769, Regular Session, 1971, grants the Air Pollution Control Commission the right to exempt individual sources of pollution from certain of the limitations imposed by the Act and by the rules and regulations adopted by the Commission. In order to obtain a variance, a source must show that:

1. Compliance with the limitation(s) in question "would impose serious hardship without equal or greater benefits to the public," and
2. The emissions occurring or proposed to occur with the variance "do not endanger or tend to endanger human health or safety, human comfort, and aesthetic values."

The Act provides several safeguards against misuse of the Commission's power:

1. Every petition for a variance must be published in a local newspaper.
2. Receipt by the Commission of a written objection from any person within 21 days of the notice will require a public hearing to be held, with the burden of proof being on the petitioner.
3. Any person adversely affected by a variance or renewal may appeal to the civil courts to have the variance disallowed.

## 9. FACILITY INSPECTIONS

The key enforcement tool of the Permit System will be the facility inspection, conducted on both a regular and an extraordinary basis by trained inspectors.

During the inspection, the DAPC inspector will inventory all equipment in the facility, noting serial numbers, equipment types and location in plant, physical condition and operating procedures. This inventory will be immediately checked against the information provided on the operating permits on file at the facility. If the inspection has been scheduled, the inspector will carry with him copies of the facility's permits to provide an added check.

An inspection will cover one primary activity (for instance, steel-making, rendering, etc.). When more than one activity appears in a single facility, each merits a separate inventory form and inspection.

The frequency of inspection will depend upon the following factors:

- available personnel
- history of complaints against the facility
- total emissions of the facility
- complexity of the facility
- facility's room for expansion
- history of violations
- time required to conduct inspections

The DAPC shall establish a list of facilities which shall be subject to a minimum of one inspection per year. It will be considered undesirable to permit any source to go uninspected for a period greater than two years. However, if adequate personnel are not available, the DAPC shall establish an inspection schedule based on selective coverage of sources, bypassing those sources which have minimum impact on the air environment of the State of Alabama. Also, inspections conducted in response to a specific complaint or air pollution problem will concentrate only on the equipment involved in the problem and will not constitute a complete inspection.



## 10. AIR POLLUTION CONTROL AGENCIES

### 10.1 STATE/LOCAL JURISDICTION

The Permit System shall be jointly run by the Alabama DAPC and the local control agencies, with the former playing the central, and major, role.

In practice, all permit applications will be reviewed by both the local and the State agencies. The local agency will collect the applications and perform an advisory service to the applicant. The depth of the local review will be determined by the local agency itself, since the State DAPC will perform a standardized review regardless of the local agency's actions. The DAPC will also perform a second-level advisory function for matters that the local agency cannot handle. If either the State or local agency rejects a permit application, then a permit shall be denied; however, the permit applicant may appeal to the Control Commission to override the rejection. Although the Commission, and through it the DAPC, may override the local agency (Section 15d of Act #769) in such matters, it may be expected that this will rarely, if ever, occur.

The source surveillance portion of the system will also be conducted jointly by the State and local agencies. The local agency shall perform the majority of routine inspections; the State DAPC will inspect facilities requiring special expertise that should properly be concentrated in the central (State) agency.

### 10.2 STAFF LOGISTICS

The impact of the Permit System on the DAPC staff manpower and capability needs will be considerable. The following new groups within the Division will have to be formed:

- Permit Review Section
- Permit Advisory Unit
- Permit Inspection Unit

The Permit Review Section will consist of engineers and technicians who will review permit applications. The engineers in this section will also provide technical support to the Permit Advisory Unit, which will consist of one or two engineers who will provide help to permit applicants and will draw on all agency personnel for help on specific problems. The Permit Inspection Unit will handle the non-operational and operational inspections necessary to the permit granting process; this unit will be a subsection of the field operations staff of the DAPC.

In addition to the increase in the permanent staff necessitated by the System, there will be a sharp peak in manpower requirements during the first year or two after the System is initiated. This peak will be caused by the fact that every facility in Alabama subject to the requirement to obtain a Permit to Operate must apply during this initial period.

The DAPC shall put the following policies into effect in order to lessen the impact of initiating the Permit System:

1. Although it is anticipated that sources of air pollution below some specified size will never be required to obtain a Permit to Operate from the DAPC, the Director will designate an intermediate size limitation such that those sources below that limit but are still above the minimum will be exempt from the permit requirement for one year, or until such time, not to exceed two years past the promulgation of this Implementation Plan, that the Director shall decide that the Permit System staff is fully trained and able to handle the additional influx of new permit applications. This policy will apply to existing sources only; new sources in the above category will be required to apply for Permits to Construct and Operate in the same manner as those larger non-exempt sources.
2. The DAPC will establish a schedule whereby existing sources subject to permit requirements may apply for Permits to Operate on a staggered basis during the first year that the Permit System is in operation.
3. The Permit Staff will schedule permit reviews so as to favor applications for Permits to Construct, to minimize any hardships to individuals and corporations seeking to install new equipment.
4. The DAPC will establish a source-location priority system to first concentrate manpower resources on sources located in urban areas in Alabama, where the problem is most acute.

### 10.3 PERSONNEL

The following is a brief description of the types of technical personnel needed, job requirements, and job descriptions for implementation of the Permit System.

#### 10.3.1 Field Operations

##### 1. Patrol Inspector

a. Job Requirements - No formal academic requirements, good basic writing skills and intelligence. Training in combustion processes and equipment operation will be needed (can be done by DAPC). Possibly training in stack sampling and smoke reading.

b. Job Description - General patrolling duties, investigation of complaints against non-industrial polluters, simple inspections of small pollution sources, surveillance of suspected violators, smoke observations, stack testing, etc.

##### 2. Industrial Engineering Inspector

a. Job Requirements - Bachelor's degree in chemical or mechanical engineering or equivalent experience; detailed knowledge of industrial processes and equipment, control devices and procedures, etc.; specialized training in stack sampling and smoke reading.

b. Job Description - Conduct full-scale inspections of major pollution sources, investigate breakdowns of control equipment, advise owners as to proper operation of equipment, handle complaints against industry, take opacity readings, conduct air quality sampling, etc.

##### 3. Special Industry Inspectors

Same requirements and job descriptions as Industrial Engineering Inspector, but with training concentrated on a few complex processes.

#### 10.3.2 Office Staff

##### 1. Air Pollution Control Officer

a. Job Requirements - Bachelor's degree in chemical or mechanical engineering or equivalent experience; detailed knowledge of industrial processes and equipment, control devices, and procedures, etc.

b. Job Description - Review applications for permits to operate or construct, consult with applicants on procedures for applying, consult with plant owners and operators on effective control techniques, review reports from Field Operations, review regular source reports, etc.

## 2. Technical Aide

a. Job Requirements - High school graduate or equivalent, with excellent reading and writing skills and intelligence, ability to make independent judgements. Basic training in combustion and industrial processes and equipment, use of emission factors.

b. Job Description - Conduct preliminary review of all permit applications, handle complete review for small source applications, code information in application forms for computerization, record results of sampling stations, etc.

## 3. Systems Analyst/Programmer

a. Job Requirements - Master's degree in Operations Research or equivalent experience; background in air pollution control; programming ability in language selected for data information system (probably COBOL).

b. Job Description - Supervise operation of data information system; perform incremental program changes to allow generation of new kinds of reports as their need becomes apparent; revise permit application forms and design new forms; perform statistical analyses of available data as necessary; etc.

Since the Alabama DAPC is a relatively small agency, a key feature of the staff members must be their flexibility in handling a variety of tasks. Thus, it is entirely conceivable that an Air Pollution Control Officer may handle the duties of an Industrial Engineering Inspector, or vice versa. The job descriptions above should not, therefore, be considered as creating rigid boundaries between separate staff positions, but instead as defining broad areas of expertise which must be filled.

## 11. DATA MANAGEMENT

The purpose of this section is to identify the functional organization of the Permit System, the data sources and information generated and used by the functional organizations, and the structures necessary to accommodate the data handling.

### 11.1 FUNCTIONAL ORGANIZATION

There are four functional organizations involved in using the data generated in a permit system. They are: (1) administrative operations, (2) field operations, (3) engineering evaluation operations, and (4) data management operations. Figure 11-1 graphically depicts this organization with sub-functions and responsibilities. They are as follows:

#### Administrative Operations

- a. Responsible for program and budget requirements
- b. Responsible for permit system personnel requirements
- c. Responsible for submitting required Federal reports
- d. Responsible for procedures to process applications
- e. Responsible for actual issuance of permits
- f. Responsible for administrative details and coordination of legal actions

#### Field Operations

- a. Responsible for conducting tests as prescribed by statutes
- b. Responsible for conducting routine inspections of registrants
- c. Responsible for conducting visitations, interviews, special tests and investigations, as required for exceptional applicants and/or registrants

#### Engineering Evaluation Operations

- a. Responsible for technical review and analysis of applications
- b. Responsible for approval or disapproval of applications for permits
- c. Responsible for recommendations for legal action as required

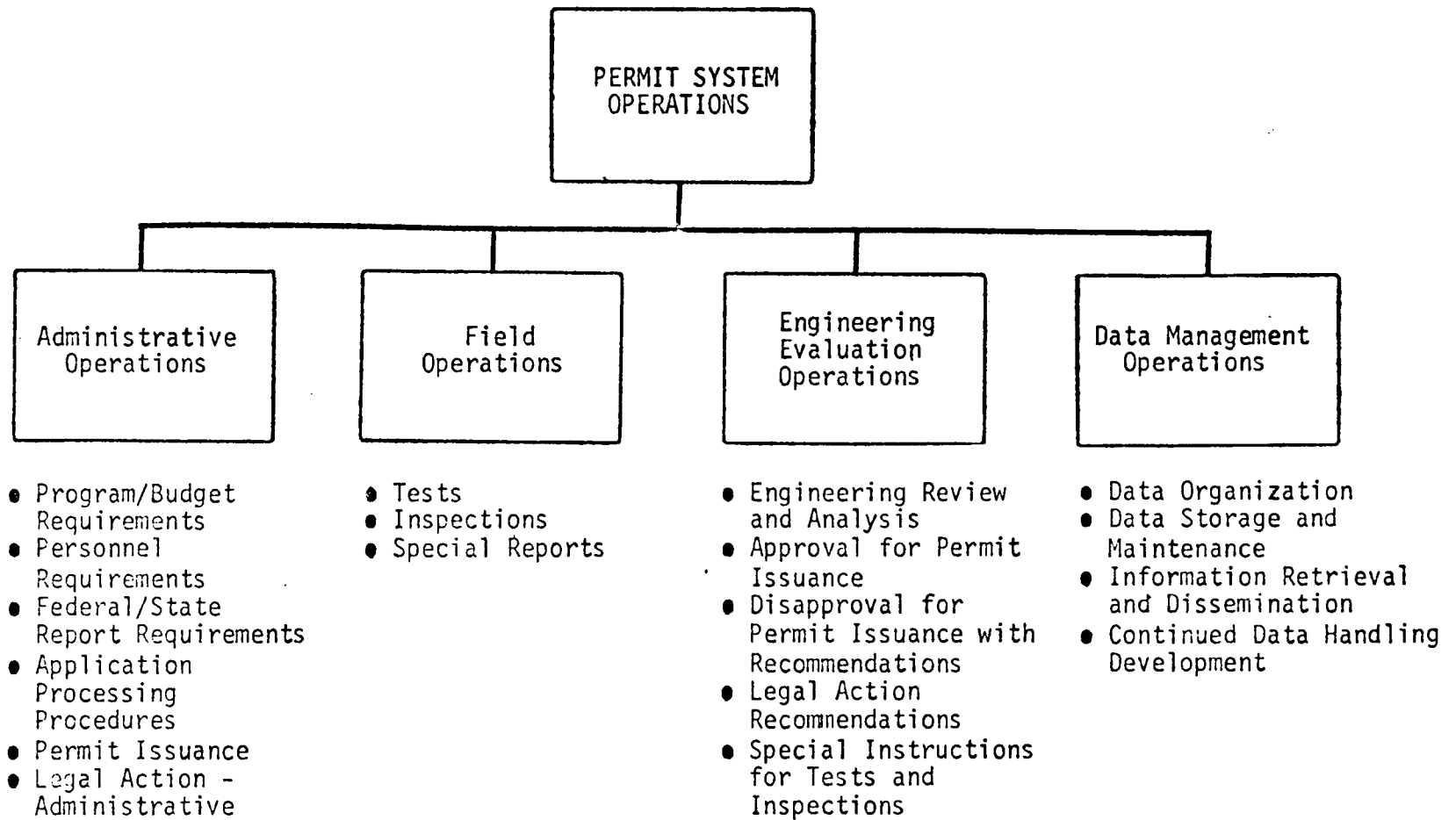


Figure 11-1. PERMIT SYSTEM FUNCTIONS

- d. Responsible for requesting special tests and/or inspections as required

#### Data Management Operations

- a. Responsible for proper organization of data associated with applications and permits
- b. Responsible for data storage and maintenance of files associated with applications and permits
- c. Responsible for information retrieval and dissemination
- d. Responsible for continued system development of data handling and management techniques

## 11.2 DATA OPERATIONS

### Data Sources

The primary data sources within the permit system are applications for Permits to Construct, applications for Permits to Operate, issued permits, and routine tests, inspections, and source reporting requirements.

Secondary data sources consist of special reports generated for exceptional applicant/registrant cases, engineering review evaluation, and analysis reports, special tests and inspections that may occur, and reports generated due to legal actions.

### Information Generated

The following data generated by primary sources are as follows:

- Resume of pertinent information of the applying business organization
- Engineering data on plant equipment and processes
- Emission data on pollutants
- Schedule of plant operations
- Inventory of air pollution control devices
- Emergency episode procedures and plans
- List of businesses approved and disapproved for permits
- Test and inspection data
- Source periodic reports

The information generated by secondary sources include the following:

- Special reports on equipment, control devices and emissions for exceptional cases
- Engineering evaluations, analyses, and recommendations on applications requiring modifications and those which were denied permits.
- Reports on special tests and inspections
- Legal action information giving offense, pertinent dates of inquiries or hearings, and related company and violation information

#### Information Files

To assure access of information to the users identified in Figure 11-1, a central depository is necessary for all applications, issued permits, and the generated reports related to them. A manual system can accommodate the initial requirement of storing a hard copy of the application and maintaining a simplified system of tracking the application, and its related documents, through the permit-granting process. However, data generated in the permit system will be used in future air pollution control and prevention analysis. This will require that permit system data be readily accessible and in a usable form as a possible data source input in modeling studies, comparative analysis, and control procedures during emergency episodes. Therefore, the intent of the data handling procedures set forth in this description is to identify how to begin manual operations, yet allow the basic structural and procedural flexibility for a transition to computerized phases of operation.

The organization of information generated by primary data sources must accommodate three basic categories: (1) applications for Permits to Construct, (2) applications for Permits to Operate, and (3) Registrants, that is, a category for issued Permits to Operate.

The information generated by secondary data sources will be used to update the files within the three categories previously mentioned. The files associated within each category are shown in Figure 11-2. A description of each file follows:



| PERMIT TO CONSTRUCT FILES            | PERMIT TO OPERATE FILES            | REGISTRANTS FILES             |
|--------------------------------------|------------------------------------|-------------------------------|
| Application to Construct Master File | Application To Operate Master File | Registrants Master File       |
| Review and Approval File             | Review and Approval File           | Test/Inspection Schedule File |
| Modify-Reject File                   | Modify-Reject File                 | Legal Action File             |

Figure 11-2. PERMIT DATA FILES

## 1. Permit to Construct Category

- Application to Construct Master File

This file maintains a hard copy of the original application. All actions, until issuance of a Permit to Construct, are recorded in this file to maintain a current status of the application. Each application is filed alphabetically-chronologically by the name of the company and date of application. Any action through the permit-granting process is updated in this master file. After issuance of a Permit to Construct, the application may be purged and stored in an inactive historical file for reference purposes.

- Review and Approval File

This file is primarily a control device to assist the engineering review board in scheduling applications for review. It contains only the name of the applicant, date of application, and date of the scheduled review. The company and date of application are supplied by data management operations to the appropriate engineering review board authority; the company is scheduled for review and this information is returned to data management for updating. After approval or disapproval, the application is purged from the file upon notification by the engineering review board to data management operations.

- Modify-Reject File

This file is maintained in order to have ready access to the number of modifications and rejections and the reasons for them. Only the applicant's name, date of application, and date of the review board's conclusions need appear. Details of the review board can be obtained from the Application to Construct Master File since all actions affecting an application update this file. The Modify-

Reject File should assist in ready access of information in field operations when special tests and/or inspections are required and, in addition, in any legal action processes. The file may be purged after the applicant has resubmitted an application for a Permit to Construct and received approval.

## 2. Permit to Operate Category

- Application to Operate Master File

This file has the same relationship to the application for a Permit to Operate as does the application to Construct Master File has to the application for a Permit to Construct. An application is received and a hard copy is maintained in the Application to Operate Master File. All actions, until issuance of a permit, are recorded in this file, giving a current status of the application. Each application is filed alphabetically-chronologically by the name of the company and the date of application. Any action through the permit-granting process is updated in the master file. After issuance of a Permit to Operate, the application with all updates and date of permit issuance is transferred to the Registrants-Master File.

- Review and Approval File

The file operates in conjunction with the Application to Operate Master File exactly as the Review and Approval File operates with the Application to Construct Master File described in the Permit to Construct Category.

- Modify-Reject File

This file operates in conjunction with the Application to Operate Master File exactly as the Modify-Reject File operates with the Application to Construct Master File described in the Permit to Construct Category.

### 3. Registrants

- Registrants Master File

This file is created by the transfer of applications, and all related information, from the application to Operate Master File upon issuance of a Permit to Operate. The data is filed alphabetically by company name; each permit unit will be assigned a file number indicating site location, SIC number, process type, site number and a one digit code signifying relative impact on the air environment. The Master File becomes the permanent record of sources operating with permits, contains periodic tests and inspection reports, assists in the scheduling of these tests and inspections, and contains all critiques, evaluations, etc., that may lead to legal actions due to non-compliance with regulations. Purging of this file would occur when a need for a new permit arises, e.g., change of ownership or expiration of the old permit, or if the source goes out of business.

- Test/Inspection File

This file contains only the name of the company due for testing and/or inspection, the date of issuance of a Permit to Operate, and the scheduled date for the test and/or inspection. It is used primarily as a control device to assist field operations. Field personnel may develop schedules based on the date of issue obtained from the Registrant Master File and cross-reference the registrant in the Test/Inspection File by date of test and/or inspection and the alphabetical filing of the registrants. This file can be maintained by assigning a new schedule date after a test/inspection in the Test/Inspection File. The registrant would be purged from the File only if his permit was revoked or expired.

- Legal Action File

This file contains only the name of the registrant and the fact that legal action is pending. Details of the legal action can then be obtained from the Registrant Master File.

### 11.3 AUTOMATED SYSTEM REQUIREMENTS

The Alabama Permit System will be run on a manual basis at the onset of operations. However, because of the sheer bulk of the data to be collected and stored, and the processing speed necessary when handling an Emergency Episode, an automated information system will eventually be placed into operation.

This information system will require computer software capable of rapid updating and retrieval of information, i.e., a real-time capability. An on-line terminal will be utilized for retrieval of specific information requirements and for updating the status of applications throughout the permit-gathering process. Bulk data will be loaded via punched cards read through a card reader; this stored information will be accessible either through the on-line terminal by specific inquiry or by reports processed using application programs and printed by a high-speed printer.

The tasks required to develop and implement the permit information system are identified in Figure 11-3. This effort will require six information systems specialists (full time) for twelve months. Additional personnel within DAPC will be involved in the development and implementation of this system as required.

| TASKS                                      | MONTHS |   |   |   |   |   |   |   |   |    |    |  |
|--|--------|---|---|---|---|---|---|---|---|----|----|--|
|  | 1      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |  |
| I. SYSTEM DEFINITION AND DESCRIPTION       |        |   |   |   |   |   |   |   |   |    |    |  |
| A. COMPUTER SUBSYSTEM                      |        |   |   |   |   |   |   |   |   |    |    |  |
| B. DATA OPERATIONS SUBSYSTEM               |        |   |   |   |   |   |   |   |   |    |    |  |
| II. SYSTEM REQUIREMENTS ANALYSIS           |        |   |   |   |   |   |   |   |   |    |    |  |
| A. USER REQUIREMENTS ANALYSIS              |        |   |   |   |   |   |   |   |   |    |    |  |
| 1. INFORMATION REQUIREMENTS ANALYSIS       |        |   |   |   |   |   |   |   |   |    |    |  |
| 2. DATA SOURCE REQUIREMENTS ANALYSIS       |        |   |   |   |   |   |   |   |   |    |    |  |
| 3. DATA MANIPULATION REQUIREMENTS ANALYSIS |        |   |   |   |   |   |   |   |   |    |    |  |
| B. SOFTWARE REQUIREMENTS ANALYSIS          |        |   |   |   |   |   |   |   |   |    |    |  |
| 1. INFORMATION SYSTEM REQUIREMENTS         |        |   |   |   |   |   |   |   |   |    |    |  |
| 2. EXISTING PROGRAM ANALYSIS               |        |   |   |   |   |   |   |   |   |    |    |  |
| 3. APPLICATION PROGRAM REQUIREMENTS        |        |   |   |   |   |   |   |   |   |    |    |  |
| C. SOFTWARE SYSTEM ANALYSIS AND DESIGN     |        |   |   |   |   |   |   |   |   |    |    |  |
| D. HARDWARE REQUIREMENTS ANALYSIS          |        |   |   |   |   |   |   |   |   |    |    |  |
| 1. COMPUTER                                |        |   |   |   |   |   |   |   |   |    |    |  |
| 2. PERIPHERAL EQUIPMENT                    |        |   |   |   |   |   |   |   |   |    |    |  |
| 3. TERMINAL                                |        |   |   |   |   |   |   |   |   |    |    |  |
| III. IMPLEMENTATION                        |        |   |   |   |   |   |   |   |   |    |    |  |
| A. FILE DESIGN                             |        |   |   |   |   |   |   |   |   |    |    |  |
| B. FILE TEST                               |        |   |   |   |   |   |   |   |   |    |    |  |
| C. FILE IMPLEMENTATION                     |        |   |   |   |   |   |   |   |   |    |    |  |
| D. OPERATING PROCEDURES DEVELOPMENT        |        |   |   |   |   |   |   |   |   |    |    |  |
| E. USER TRAINING                           |        |   |   |   |   |   |   |   |   |    |    |  |

Figure 11-3. PERMIT INFORMATION SYSTEM DEVELOPMENT/IMPLEMENTATION TASK SCHEDULE

APPENDIX A  
SAMPLE PERMIT APPLICATIONS  
AND INSTRUCTIONS

The following sets of sample permit applications and instructions include the following:

- Sample letter to equipment owners
- General identification form, to be included with all permit applications
- "Short form" for small fuel combustion equipment
- "Long Form" for large fuel combustion equipment
- "Short Form" for small incinerators
- "Long Form" for small incinerators
- Form for "general processes"
- Form for stone quarrying operation
- Form for wood processing operation
- Form for air pollution control devices
- Emergency Episode Questionnaire for key fuel combustion sources

These forms are neither all inclusive .... separate forms should be designed for special process types, for instance .... nor final and complete. Filing information formats will be evolved with further development of the data management system. Evolution of both the kinds of information asked for, and the precise manner in which it is asked for, will continue with further development work and with information gained by using the Permit System.

The application forms are to be used as follows:

The general application form, "Application for a Permit to Construct/ Permit to Operate," will be sent to each potential applicant along with whatever additional specialized forms apply to him. Thus, an asphalt batching plant will be sent a process form, (possibly) a storage pile form, (possibly) some control device forms, some boiler forms (for space heating, at the very least), and general forms for each.

Each completed application--general form plus specific form--will be assigned a 12-digit file number of the following form:

- (2-digit political jurisdiction number)
- (4-digit Standard Industrial Classification)
- (2-digit process code)
- (3-digit site code)
- (1-digit "pollution significance" code depending upon emission potential)

It is conceivable that a 4- or 5-digit site code may be necessary if the Permit System is to include very small pollution sources. In any case, the file number will uniquely identify each and every "permit unit" in Alabama and also provide important information at a glance. The file number, coupled with the "type of pollutant" box on the general form, will provide a means by which the computerized system can assemble various reports for any future pollution control needs.

The notation "required \_\_\_\_optional \_\_\_\_" appears on several of the forms. This refers to specialized information that shall be required from major sources only; the DAPC officer issuing the application form (or his counterpart in the local agencies) shall check the appropriate space and sign his name.



### Sample Letter to Owners of Equipment

Dear Sir:

Under the laws of the State of Alabama (Act #769, General Session, 1971 Section 18§4), operators of equipment which has the potential to emit dust, fumes, mist, gas, or any other contaminant into the air must obtain a Permit to Operate with the Alabama Division of Air Pollution Control (DAPC). In addition, a Permit to Construct must be obtained from the DAPC in order to build a new facility or modify an existing facility in any way that might affect the location, amount, or type of its emissions of contaminants. Since certain types and/or sizes of equipment are exempt from this obligation, please check the enclosed list to determine your eligibility.

If you operate, intend to operate, or plan to construct, modify, purchase, or relocate any equipment as described above, you must obtain the proper permit application forms from the DAPC and fill them out according to the accompanying instructions. The DAPC has established special units to advise operators on the proper procedures for completing these forms; a telephone number to call is included with the instructions.

I urgently request your complete cooperation in joining with us to make the air of Alabama a natural resource we may all be proud of. We have earnestly attempted to make the air pollution permit system as fair to both the industry and the people of Alabama as is possible. We welcome any comments or suggestions you may have concerning how we may improve our system to better serve Alabama.

Thank you for your cooperation.

Sincerely yours,

(Signature)

(Name)

Director, Division of Air Pollution  
Control

STICKER TO VALIDATE A PERMIT TO OPERATE  
(Place over "Application For ....")

|  |
|--|
| <p>PERMIT TO OPERATE XXXX<br/><u>                    </u><br/>                    (equipment type)</p> <p>Alabama Division of Air Pollution Control<br/>Approved <u>          </u> (date), Valid Until <u>          </u> (date)<br/>Owner <u>                    </u> (name)<br/>Equipment Address: <u>                                    </u><br/><u>                                    </u><br/>Official Signature <u>                                    </u></p> |
|--|

## PERMIT TO CONSTRUCT/PERMIT TO OPERATE

Deviations from approved plans and specifications are not permissible without securing the formal approval of the Alabama Division of Air Pollution Control

1. Firm Name: \_\_\_\_\_ Address of Premises: \_\_\_\_\_  
Telephone: \_\_\_\_\_
2. Present Legal Owner: \_\_\_\_\_ Address of Legal Owner: \_\_\_\_\_
3. Date Business Acquired: \_\_\_\_\_ Former Owner: \_\_\_\_\_
4. Nature of Business at this Location: \_\_\_\_\_

5. Responsible Person to Contact/Applicant: \_\_\_\_\_ Title: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Signature of Above: \_\_\_\_\_

6. Reason for Application:

Initial Application:          Construct New Unit          Modify Existing Unit          Change Owners         

Renewal      Change Location

If "Construct New Unit" or "Modify Existing Unit" are checked, indicate starting date of construction/modification \_\_\_\_\_. Indicate expected completion date \_\_\_\_\_. Indicate the year for which data applies \_\_\_\_\_.

DO NOT WRITE BELOW THIS LINE

| TYPES OF POLLUTANTS |  |
|---------------------|--|
| Part.               |  |
| SO <sub>2</sub>     |  |
| NO <sub>2</sub>     |  |
| HC                  |  |
| CO                  |  |

[illegible]

DATE RECEIVED

Initial check by

Reviewed \_\_\_\_\_ by \_\_\_\_\_

Inspected \_\_\_\_\_ by \_\_\_\_\_

INSTRUCTIONS FOR COMPLETION  
APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT

PLEASE NOTE: You may contact your regional air pollution control office to obtain advice in filling out permit application form.

IN THE

{ Area Name }

AREA, CALL

{ Telephone  
Number }

All applicable sections on the forms must be completed. Incomplete forms will be returned for further action. Please type or carefully print all answers. Separate forms must be filed for each collection of equipment that form a "permit unit." A permit unit is defined as equipment which operates together as a single functional unit and constitutes a separate emission source or operates independently from other equipment within a plant. Examples of independent equipment which can be considered as permit units are:

- boilers
- metal melting furnaces
- galvanizing kettles
- cookers
- paint spray booths

In the case of an equipment grouping involved in a process, the grouping will be considered a permit unit if each separate piece of equipment is united to the others by conveyor or chute or pipe or hose, provided that no item of the group will operate separately with product material not common to the group operation. Any questions as to what constitutes a permit unit may be referred to the Division of Air Pollution Control.

NOTE: "Equipment" should be interpreted in the broadest possible way, e.g., a storage pile is a possible source of air pollution and is considered process equipment ... and thus requires a Permit to Operate.

If there is information in this application that you feel is of a confidential nature, indicate this by lightly circling the appropriate sections and noting their confidential nature.

Sections 1 - 3 are self-explanatory.

#### Nature of Business

Describe the activity of which this equipment is a part (i.e., quarry/rock-crushing if the equipment is a hammermill. For a boiler, describe the business it is associated with--hospital, apartment house, etc.--rather than "space heating.").

### Responsible Person

Name the person who has managerial responsibility for the operation of this piece of equipment. This person may be telephoned in the event of an air pollution emergency episode to verify compliance with the Episode Plan. This person is responsible for the accuracy of the Permit Application.

### Reason for Application

Initial application indicates the first application for a Permit to Operate by an existing facility. New unit indicates an application for a Permit to Construct a proposed facility. Change on existing unit indicates an application for a Permit to Construct major modifications on an existing facility. Change of ownership indicates an application for a Permit to Operate by an existing facility under new ownership. Renewal indicates an application to extend the present Permit to Operate for another permit period.

Indicate the expected starting and completion data of any construction. Where data from records are given--for instance, fuel burned per year--indicate the year in which the data are recorded.

NOTE: In the portions of the permit applications that call for descriptions of operating procedures and/or equipment, if the application is for a Permit to Construct, be sure to include a description of construction procedures sufficiently detailed to allow the DAPC to determine the dust and spray emissions that may be caused in the construction process.

APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
FUEL BURNING EQUIPMENT RATED AT  
LESS THAN \_\_\_\_\_ BTU/HR

7. Type of Equipment: \_\_\_\_\_

8. Fuel Usage: Percent of total fuel used for space heating \_\_\_\_\_? Process heating \_\_\_\_\_?

| Fuel Used | Amount/Year | Heat Content | Sulfur Content (%) | Ash Content (%) | Unit Cost |
|-----------|-------------|--------------|--------------------|-----------------|-----------|
|           |             |              |                    |                 |           |
|           |             |              |                    |                 |           |
|           |             |              |                    |                 |           |
|           |             |              |                    |                 |           |

9. Height of Stack above ground, feet: \_\_\_\_\_

10. Maximum Firing Rate (Rated Capacity): Input \_\_\_\_\_ Million BTU/hr, \_\_\_\_\_ lbs/hour coal,  
\_\_\_\_\_ gallons/hour oil, \_\_\_\_\_ ft<sup>3</sup>/hour gas

11. Operating Schedule: \_\_\_\_\_ hours/day, \_\_\_\_\_ days/week, \_\_\_\_\_ weeks/year,  
Peak Periods: \_\_\_\_\_ Periods of Zero Operation \_\_\_\_\_

12. Gas Cleaning or Emission Control Device: \_\_\_\_\_

Estimated Efficiency: \_\_\_\_\_ Basis: \_\_\_\_\_

Date of Installation: \_\_\_\_\_

13 EMERGENCY EPISODE PROCEDURES:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode:

- Alert:
- Warning:
- Emergency:

14. Plans for permanent reduction of emissions (if installation of control devices or modifications of equipment are contemplated, an application for a Permit to Construct must be submitted):

A-10

Date of planned reduction(s): \_\_\_\_\_



INSTRUCTIONS FOR COMPLETION  
APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
FUEL BURNING EQUIPMENT RATED LESS  
THAN \_\_\_\_\_ BTU/HOUR

7. Type of Equipment

Describe fully the type of equipment operated, both by its common name (e.g., spreader stoker, pressure type oil burner) and by its manufacturer's model name and number, its date of installation and condition. Enclose a drawing to scale showing its location in your facility.

8. Fuel Usage

Estimate the percentages of fuel used for space heating and process heating.

Indicate the type of fuel used, the amount per year, the heat content in BTU's per unit quantity (coal - tons; oil - gallons; gas - cubic feet), sulfur and ash (for coal) content as a percentage by weight, and the average cost in dollars per unit capacity. If you do not know the heat content and/or sulfur and ash content of the fuel you use, ask your local distributor. As a last resort, give the name and address of the distributor. For a Permit to Construct, estimate these values based on the actual fuel suppliers you intend to use. For a Permit to Operate, use the values incurred during the last 12 months of operation. If you have reason to believe that you will be forced to utilize a lower grade fuel mix in the coming year, enclose a statement detailing the expected change and giving the reasons for the change.

9. Height of Stack

Give the height above ground level of the stack to which the equipment is connected.

10. Maximum Firing Rate

Indicate the maximum input firing rate in BTU's per hour. If this is unknown, indicate either the input horsepower or maximum fuel firing rate.

11. Operating Schedule

Indicate the average number of hours/day, days/week, and weeks/year that the equipment operates. Give the starting and closing dates of peak periods of operation. If operation is fairly constant over the complete operating period, indicate "none." Indicate the starting and closing dates of periods where the equipment is not in operation.

12. Gas Cleaning or Emission Control Device

Specify the general type of control device installed on the equipment (settling chamber, baghouse, etc.) and the manufacturer's model name and number. Give the estimated control efficiency for each pollutant and the basis for the estimate. Indicate the date of installation or last major modification.

If you take any measures for the control of air pollution that would not be strictly considered a "device," enclose a statement describing the measures.

13. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

14. Plans for Permanent Reduction of Emissions

This question applies ONLY to presently operating sources applying for an initial Permit to Operate. If the source does not conform to State air pollution control regulations, an implementation plan for reducing emissions to below legal limits must be outlined here. If the plan is judged to be acceptable by the Division of Air Pollution Control and if the remainder of the application is satisfactory, a Conditional Permit to Operate will be issued to the applicant which will remain in

force as long as satisfactory progress towards emission reduction is demonstrated. Under no circumstances shall a Conditional Permit be granted for a period greater than one year; and under most circumstances, a considerably shorter period will be granted.

The plan as outlined here must briefly describe the operational changes, installation of new control devices, fuel switches, and other measures, and their control efficiencies which will reduce emissions to satisfactory levels. No product of any specific supplier of control devices need be mentioned here UNLESS the device type described does not normally achieve the efficiencies claimed. In the latter case, the applicant should supply detailed justification for such claims.

If a facility is operated under a Conditional Permit, the applicant is considered legally to have formally agreed to abide by the conditions attached to the permit and, thus, is legally responsible for carrying out those conditions.

APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
FUEL BURNING EQUIPMENT RATED AT  
GREATER THAN \_\_\_\_\_ BTU/HOUR

7. Equipment Description:

8. Rated Capacity (in BTU/hour): \_\_\_\_\_

9. Fuel Usage: Percent of total fuel used for space heating \_\_\_\_\_? Process heating \_\_\_\_\_? Power generation \_\_\_\_\_?

| Fuels Used | Amount/Year | Heat Content | Sulfur Content | Ash Content | Cost |
|------------|-------------|--------------|----------------|-------------|------|
|            |             |              |                |             |      |
|            |             |              |                |             |      |
|            |             |              |                |             |      |
|            |             |              |                |             |      |

10. Stack Data:

Height above ground, feet: \_\_\_\_\_ Inner Diameter at Exit, feet: \_\_\_\_\_

Gas Temperature at exit, °F \_\_\_\_\_ Gas Velocity at exit, f/s: \_\_\_\_\_

Moisture Content of exit gas, % \_\_\_\_\_

Basis: \_\_\_\_\_

Are sampling ports available: \_\_\_\_\_ Describe: \_\_\_\_\_

11. Operating Schedule:

\_\_\_\_\_ hours/day, \_\_\_\_\_ days/week, \_\_\_\_\_ weeks, year

From \_\_\_\_\_ to \_\_\_\_\_ on: M T W T F S S

Peak Periods: \_\_\_\_\_ to \_\_\_\_\_ Periods of little or no operation: \_\_\_\_\_ to \_\_\_\_\_

12. Description of Control Equipment:

Manufacturer's Rated Efficiency: \_\_\_\_\_ Actual Measured Efficiency: \_\_\_\_\_

13. Emissions:

| Type            | Total Yearly Tons |            | Peak, Tons/Hr |            |
|-----------------|-------------------|------------|---------------|------------|
|                 | Uncontrolled      | Controlled | Uncontrolled  | Controlled |
| Part.           |                   |            |               |            |
| SO <sub>2</sub> |                   |            |               |            |
| NO <sub>2</sub> |                   |            |               |            |
| HC              |                   |            |               |            |
| CO              |                   |            |               |            |

Basis of estimates: \_\_\_\_\_

14. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode:

- Alert
- Warning:
- Emergency:

15. Plans for permanent reduction of emissions (if installation of control devices or modifications of equipment are contemplated, an application for a Permit to Construct must be submitted):

Date of planned reductions: \_\_\_\_\_

INSTRUCTIONS FOR COMPLETION  
APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
FUEL BURNING EQUIPMENT RATED  
GREATER THAN \_\_\_\_\_ BTU/HR

7. Type of Equipment

Describe fully the type of equipment operated, both by its common name (e.g., spreader stoker, pressure type oil burner) and by its manufacturer's model name and number, its date of installation and condition. Enclose a drawing to scale showing its location in your facility.

If so indicated by the DAPC, supply an assembly drawing, dimensioned and to scale, in plan and elevation. Show all details including locations, sizes and shapes of all internal chambers, and all doors, holes, vents, and other openings. Show all stack details.

If the application is for a Permit to Construct (construct new unit, modify existing unit), include a statement describing how this construction will be accomplished. Specify in particular those operations which may cause contaminants to be injected into the air, e.g., blasting and demolition, concrete mixing, spraying operations, etc.

8. Rated Capacity

Give the maximum input firing rate in BTU's per hour.

9. Fuel Usage

Estimate the percentages of fuel, by heat capacity, used for space heating and process heating.

Indicate the type of fuel used, the amount per year, the heat content in BTU's per unit quantity (coal - tons; oil - gallons; gas - cubic feet), sulfur and ash (for coal) content as a percentage by weight, and the average cost in dollars per unit quantity. For a Permit to Construct, estimate these values based on the actual fuel suppliers you intend to use. For a Permit to Operate, use the values incurred during the last 12 months of operation. If you have reason to believe that you will be

forced to utilize a lower grade fuel mix in the coming year, enclose a statement detailing the expected change and giving the reasons for the change.

10. Stack Data

Give the height of the stack above the ground and the inner diameter at the uppermost part (exit), in feet. Give the temperature, velocity, and moisture content of the exit gas, and indicate the basis for these figures. Indicate whether sampling ports for stack tests are available.

11. Operating Schedule

Indicate the average number of hours per day, days per week, and weeks per year the equipment is in operation. Indicate the normal starting and ending times, and circle the days of the week the equipment is in operation. If there is a period when operations are increased over the average, indicate the approximate starting and ending date of this period. Indicate starting and ending dates for periods when operations are curtailed or stopped altogether (ignore short periods of a week or two, or less).

If the schedule varies seasonally, include an additional sheet showing the operating hours and days of the week for each period or season.

12. Description of Control Equipment

Specify the general type of control device installed on the equipment (settling chamber, baghouse, electrostatic precipitator, etc.) and the manufacturer's model name and number. Indicate the manufacturer's rated efficiency and actual measured efficiency (and its basis). If an Application for a Permit to Operate/Construct Air Pollution Equipment for this control device is submitted with this application, no further information is necessary. Otherwise, enclose a detailed assembly drawing, dimensioned and to scale, in plan and elevation, of the device. Enclose a discussion of the maintenance procedures used for the device, including a schedule of standard maintenance actions.



13. Emissions

Indicate the estimated annual emissions, in tons, of particulates, sulfur dioxide, nitrogen dioxide, hydrocarbons, and carbon monoxide, both before and after control. Indicate the peak rate, in tons per hour, for the same pollutants. Give the basis for the estimate.

14. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

The following information must be included:

- type of air pollutant
- amount of reduction of contaminants
- time involved in the reductions
- procedures used in achieving the reductions

15. Plans for Permanent Reduction of Emissions

This question applies ONLY to presently operating sources applying for an initial Permit to Operate. If the source does not conform to State air pollution control regulations, an implementation plan for reducing emissions to below legal limits must be outlined here. If the plan is judged to be acceptable by the Division of Air Pollution Control and if the remainder of the application is satisfactory, a Conditional Permit to Operate will be issued to the applicant which will remain in force as long as satisfactory progress towards emission reduction is demonstrated. Under no circumstances shall a Conditional Permit be granted for a period greater than one year; and under most circumstances, a considerably shorter period will be granted.

The plan as outlined here must briefly describe the operational changes, installation of new control devices, fuel switches, and other measures, and their control efficiencies which will reduce emissions to satisfactory levels. No product of any specific supplier of control devices need be mentioned here UNLESS the device type described does not normally achieve the efficiencies claimed. In the latter case, the applicant should supply detailed justification for such claims.

If a facility is operated under a Conditional Permit, the applicant is considered legally to have formally agreed to abide by the conditions attached to the permit and, thus, is legally responsible for carrying out those conditons.

APPLICATION FOR PERMIT TO OPERATE/CONSTRUCT  
SMALL INCINERATORS (< \_\_\_\_ LBS/HR)

7. Equipment Description:

a. Type of Incinerator

Single chamber \_\_\_\_\_ Single chamber \_\_\_\_\_ Multiple chamber \_\_\_\_\_  
(without primary burner) (with primary burner)

Teepee \_\_\_\_\_ Pathological \_\_\_\_\_ Open pit \_\_\_\_\_

Others (Describe): \_\_\_\_\_

b. Manufacturer: \_\_\_\_\_ Model name and/or number: \_\_\_\_\_

Date of first operation: \_\_\_\_\_

c. Waste Feed Method

Flue fed \_\_\_\_\_ Chute fed \_\_\_\_\_ Continuous direct \_\_\_\_\_ Batch direct \_\_\_\_\_

d. Rated Capacity = \_\_\_\_\_ pounds/hour

e. Condition of incinerator - describe: \_\_\_\_\_  
\_\_\_\_\_

8. Operating Schedule:

Normally operates (or will operate) about \_\_\_\_\_ hours per day, \_\_\_\_\_ days per week, \_\_\_\_\_ weeks per year

9. Type of Waste Burned/Amount:

(Check as many as are appropriate; write in the amount burned last year, or during a normal year if this is more representative or if this application is for a Permit to Construct.)

Wood Waste \_\_\_\_\_ ( \_\_\_\_\_ tons/year)  
Moist organic waste \_\_\_\_\_ ( \_\_\_\_\_ tons/year)  
General municipal-type waste \_\_\_\_\_ ( \_\_\_\_\_ tons/year)  
Liquid waste \_\_\_\_\_ ( \_\_\_\_\_ tons/year) (type: \_\_\_\_\_)  
Other \_\_\_\_\_ ( \_\_\_\_\_ tons/year) (type: \_\_\_\_\_)

10. Height of stack above ground: \_\_\_\_\_ feet

11. a. Pollution Control Device: None \_\_\_\_\_ Settling Chamber or Bafflers \_\_\_\_\_ Afterburner \_\_\_\_\_  
Simple Cyclone \_\_\_\_\_ Other \_\_\_\_\_ (Type: \_\_\_\_\_)

b. Rated efficiency = \_\_\_\_\_%

c. Date installed: \_\_\_\_\_

12. Emergency Episode Procedures:

Describe what actions you shall take to comply with requirements for reducing emissions during an air pollution episode?

- Alert Stage
- Warning Stage
- Emergency Stage

13. Do you plan to install new pollution control equipment? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, { What kind? \_\_\_\_\_  
When will it be in operation? \_\_\_\_\_

APPLICATION FOR PERMIT TO OPERATE/CONSTRUCT  
INCINERATORS  
(INCLUDE TEEPEE BURNERS)

7. Equipment Description:

Type: \_\_\_\_\_ Rated Capacity: \_\_\_\_\_ Auxiliary Burners? \_\_\_\_\_  
Location: \_\_\_\_\_ Waste Feed Method: \_\_\_\_\_ Manufacturer: \_\_\_\_\_  
Model No.: \_\_\_\_\_ Date of Installation: \_\_\_\_\_ Condition: \_\_\_\_\_

8. Operating Schedule:

\_\_\_\_\_ hours/day, \_\_\_\_\_ days/week, \_\_\_\_\_ weeks/year

From \_\_\_\_\_ to \_\_\_\_\_ on M T W T F S S

Peak Periods: \_\_\_\_\_ to \_\_\_\_\_ Periods of little or no Operation: \_\_\_\_\_ to \_\_\_\_\_

9. Type of Waste Burned:

10. Amount of waste burned per peak day of operation: \_\_\_\_\_, per year: \_\_\_\_\_

11. Auxiliary Burners:

Capacity: \_\_\_\_\_ Fuel Type \_\_\_\_\_ Amount/Year

12. Stack Data:

Height above ground, feet: \_\_\_\_\_ Inner Diameter at exit, feet: \_\_\_\_\_

Required: \_\_\_\_\_ Optional \_\_\_\_\_

Gas temperature at exit, °F: \_\_\_\_\_ Gas velocity at exit, f/s: \_\_\_\_\_

Moisture Content of exit gas, % \_\_\_\_\_ Basis: \_\_\_\_\_

Are sampling ports available? \_\_\_\_\_ Describe: \_\_\_\_\_

13. Description of Gas Cleaning or Emission Control Device:

Required: \_\_\_\_\_ Optional: \_\_\_\_\_

Manufacturer's Rated Efficiency \_\_\_\_\_  
 Actual Measured Efficiency \_\_\_\_\_  
 Date of Installation \_\_\_\_\_  
 Model Name and Number \_\_\_\_\_

14. Emissions

| Required _____  |                   | Optional _____ |                 |            |
|-----------------|-------------------|----------------|-----------------|------------|
|                 | AMOUNT            |                |                 |            |
| Type            | Total Yearly Tons |                | Peak, Tons/Hour |            |
|                 | Uncontrolled      | Controlled     | Uncontrolled    | Controlled |
| Part.           |                   |                |                 |            |
| SO <sub>2</sub> |                   |                |                 |            |
| NO <sub>2</sub> |                   |                |                 |            |
| HC              |                   |                |                 |            |
| CO              |                   |                |                 |            |

Basis of Emissions:

15. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode:

- Alert:
- Warning:
- Emergency:

16. Plans for permanent reduction of emissions (if installation of control devices or modifications of equipment are contemplated, an application for a Permit to Construct must be submitted):

Date of planned reductions: \_\_\_\_\_

INSTRUCTIONS TO COMPLETE  
APPLICATION FOR PERMIT TO CONSTRUCT/OPERATE  
INCINERATORS  
(INCLUDING TEEPEE BURNERS)

7. Equipment Description

Indicate the general type of incinerator (single chamber, teepee, etc.). Indicate the rated capacity of the unit in pounds per hour. Give the location of any auxiliary burners. Indicate the waste feed method (flue fed, chute fed, continuous direct, batch direct). Give the manufacturer's name, his model name and number. Indicate the date of installation and present condition of the unit. Enclose a diagram indicating the unit's location on the premises and its relation to surrounding roads and lots. If the unit is larger than \_\_\_\_\_ pounds/hour capacity, include an assembly drawing, dimensioned and to scale, in plan and elevation, of the unit and stack. and. if the application is for a Permit to Construct (construct new unit, modify existing unit), include a statement describing how this construction will be accomplished. Specify in particular those operations which may cause contaminants to be injected into the air, e.g., blasting and demolition, concrete mixing, spraying operations, etc.

8. Operating Schedule

Indicate the average number of hours per day, days per week, and weeks per year the equipment is in operation. Indicate the normal starting and ending times, and circle the days of the week the equipment is in operation. If there is a period when operations are increased over the average, indicate the approximate starting and ending date of this period. Indicate starting and ending dates for periods when operations are curtailed or stopped altogether (ignore short periods of a week or two, or less).

If the schedule varies seasonally, include an additional sheet showing the operating hours and days of the week for each period or season.

9. Type of Waste Burned

Indicate the major type of waste burned in the unit. If a mix is burned, indicate different types and percentages (if Permit to Construct, estimate).



10. Amount of Waste

Indicate amounts burned on a peak day and per year (estimate if Permit to Construct, otherwise use records from last 12 months).

11. Auxiliary Burners

Indicate the total rated capacity, in BTU/hour, and fuel burned per year, or any auxiliary burners.

12. Stack Data

Give the height of the stack above ground level and the inner diameter at the top (exit), in feet. If required, indicate the gas temperature (degrees Fahrenheit), velocity (feet per second), and moisture content (%) at the exit, and give the basis for these data. Describe any stack sampling ports available.

13. Description of Gas Cleaning or Emission Control Device

Indicate the general type of control device (settling chamber, cyclone, multicyclone, etc.). Give the manufacturer's rated efficiency and, if required, the actual efficiency. Indicate the date of installation and manufacturer, model name, and number. If the incinerator has a rated capacity greater than \_\_\_\_\_ pounds per hour, include a detailed assembly drawing, dimensioned and to scale, in plan and elevation, of the control device. Enclose a discussion of the maintenance procedures used for the device, including a schedule of standard maintenance items. (The assembly drawing and maintenance discussion may be omitted if an Application for a Permit to Operate/Construct an Emission Control Device is filed simultaneously with this application.)

14. Emissions

Indicate the estimated annual emissions, in tons, of particulates, sulfur dioxide, nitrogen dioxide, hydrocarbons, and carbon monoxide both before and after control. Indicate the peak rate, in tons per hour, for the same pollutants. Give the basis for the estimates.

15. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

The following information must be included:

- type of air pollutant
- amount of reduction of contaminants
- time involved in the reductions
- procedures used in achieving the reductions

16. Plans for Permanent Reduction of Emissions

This question applies ONLY to presently operating sources applying for an initial Permit to Operate. If the sources do not conform to State air pollution control regulations, an implementation plan for reducing emissions to below legal limits must be outlined here. If the plan is judged to be acceptable by the Division of Air Pollution Control and if the remainder of the application is satisfactory, a Conditional Permit to Operate will be issued to the applicant which will remain in force as long as satisfactory progress towards emission reduction is demonstrated. Under no circumstances shall a Conditional Permit be granted for a period greater than one year; and under most circumstances, a considerably shorter period will be granted.

The plan as outlined here must briefly describe the operational changes, installation of new control devices, fuel switches, and other measures, and their control efficiencies which will reduce emissions to satisfactory levels. No product of any specific supplier of control devices need be mentioned here UNLESS the device type described does not normally achieve the efficiencies claimed. In the latter case, the applicant should supply detailed justification for such claims.

If a facility is operated under a Conditional Permit, the applicant is considered legally to have formally agreed to abide by the conditions attached to the permit and, thus, is legally responsible for carrying out those conditions.

APPLICATION FOR A PERMIT TO OPERATE  
OR PERMIT TO CONSTRUCT  
PROCESS EQUIPMENT

7. Type of Equipment:

8. Organic solvents used \_\_\_\_\_ or produced \_\_\_\_\_ by this installation:

| Type | Quantity/Year | Used or Produced |
|------|---------------|------------------|
|      |               |                  |
|      |               |                  |
|      |               |                  |
|      |               |                  |

9. Process Fuels:

| Type | Quantity/Year |
|------|---------------|
|      |               |
|      |               |
|      |               |

10. Materials Input (process rate):

| Type | Quantity/Year | Peak Rate (per hour) |
|------|---------------|----------------------|
|      |               |                      |
|      |               |                      |
|      |               |                      |

11. Products Produced:

| Type | Quantity/Year | Peak Rate (per hour) |
|------|---------------|----------------------|
|      |               |                      |
|      |               |                      |
|      |               |                      |

12. Description of Gas Cleaning or Emission Control Device:

Required \_\_\_\_\_ Optional \_\_\_\_\_  
 Manufacturer's Rated Efficiency \_\_\_\_\_  
 Actual Measured Efficiency \_\_\_\_\_  
 Date of Installation \_\_\_\_\_  
 Model Name and Number \_\_\_\_\_

13. Operating Schedule: \_\_\_\_\_ hours/day, \_\_\_\_\_ days/week, \_\_\_\_\_ weeks/year

From \_\_\_\_\_ to \_\_\_\_\_ on: M T W T F S S

Peak Periods: \_\_\_\_\_ to \_\_\_\_\_ Periods of little or no Operation \_\_\_\_\_ to \_\_\_\_\_

14. Stack Data:

Height above ground, feet: \_\_\_\_\_ Inner Diameter at exit, feet \_\_\_\_\_ No stack \_\_\_\_\_

Required \_\_\_\_\_ Optional \_\_\_\_\_ Gas temperature at exit, °F \_\_\_\_\_ Gas velocity at exit, f/s \_\_\_\_\_

Moisture Content of Exit Gas, % \_\_\_\_\_ Basis: \_\_\_\_\_

Are sampling ports available? \_\_\_\_\_ Describe: \_\_\_\_\_

15. Emissions Data:

| Type            | Required _____    |            | Optional _____  |            |
|-----------------|-------------------|------------|-----------------|------------|
|                 | AMOUNT            |            |                 |            |
|                 | Total Yearly Tons |            | Peak, Tons/hour |            |
|                 | Uncontrolled      | Controlled | Uncontrolled    | Controlled |
| Part.           |                   |            |                 |            |
| SO <sub>2</sub> |                   |            |                 |            |
| NO <sub>2</sub> |                   |            |                 |            |
| HC              |                   |            |                 |            |
| CO              |                   |            |                 |            |

Basis of estimates:

16. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode?

- Alert:
  
- Warning:
  
- Emergency:

17. Plans for permanent reduction of emissions (if installation of control devices or modifications of equipment are contemplated, an application for a Permit to Construct must be submitted):

Date of planned reductions: \_\_\_\_\_

INSTRUCTIONS TO COMPLETE  
APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
PROCESS EQUIPMENT

If the process equipment is in the following categories, this form is not the proper application for a permit. Consult the Alabama Division of Air Pollution Control for the proper forms.

- Manufacture of organic solvents
- (To be filled
- in by the
- DAPC)

7. Type of Equipment/Process

Describe each process to be carried out in the equipment and the function of the equipment itself in the process. In particular, carefully describe all stages in the process where the discharge of any materials might contribute to air pollution. Use additional sheets where necessary. Include a flow diagram of the process indicating equipment capacities.

Include a drawing, to scale, showing the location of the equipment in the facility.

Give the manufacturer's name, model name, and number of each equipment item in the "permit unit." Indicate date of installation and condition of equipment.

If so indicated by the DAPC, include an assembly drawing, dimensioned and to scale, in plan and elevation of the equipment.

If the application is for a Permit to Construct (construct new unit; modify existing unit), include a statement describing how this construction will be accomplished. Specify in particular those operations which may cause contaminants to be injected into the air, e.g., blasting and demolition, concrete mixing, spray operations, etc.



8. Organic Solvents Used

Specify the chemical nature of all solvents used in or produced by the equipment in excess of 50 gallons per year. Specify the quantity per year. If more than 50 gallons are used or produced, a special form for regulating users/producers of solvents must be completed.

9. Process Fuels

Indicate types and quantities of fuels used for direct heating or as a process charge in this equipment. If this form is for a Permit to Operate, use data from the last consecutive 12 months' period. Otherwise, estimate usage.

10. Materials Input

Specify the type of materials input to this equipment, the total quantity per year, and the peak hourly rate.

11. Products Produced

Specify the type of all materials or products which are produced by this equipment, the total quantity per year, and the peak hourly rate. If the units selected may be ambiguous, supply a conversion factor (e.g., 10,000,000 bricks per year, 6.5 pounds per brick).

12. Description of Gas Cleaning or Emission Control Device

Specify the general type of control device attached to this equipment. Indicate the manufacturer's rated efficiency, his name, and model name and number. If required, indicate the actual measured efficiency of the device(s). Indicate the date of installation and the condition of the device. If an application for a Permit to Construct/Operate Air Pollution Control Equipment is submitted along with this application, no further information is required. Otherwise, if so indicated by the DAPC, submit an assembly drawing of the device and a discussion and schedule of the maintenance procedures utilized.

APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
STONE QUARRYING OPERATION

This application is divided into two parts: quarrying and rock processing. It may be necessary to fill out additional forms; CHECK INSTRUCTIONS CAREFULLY.

A. QUARRYING

7. Description of Operation:

8. Raw Material Produced: Type of Rock \_\_\_\_\_ Production \_\_\_\_\_ tons/year

Maximum One Day's Production \_\_\_\_\_ tons

9. How much raw material is stored at one time? \_\_\_\_\_ tons Is it wetted down? \_\_\_\_\_

Covered? \_\_\_\_\_ If yes, describe:

10. Operating Schedule: \_\_\_\_\_ hours/day, \_\_\_\_\_ days/week, \_\_\_\_\_ weeks/year

Peak Period \_\_\_\_\_ to \_\_\_\_\_ Periods of little or no operation \_\_\_\_\_ to \_\_\_\_\_

11. Dust control procedures used now: \_\_\_\_\_  
\_\_\_\_\_

12. Plans for further reduction of dust:

If more than one device and/or more than one piece of equipment are involved, indicate in (7) which equipment is attached to each device.

13. Operating Schedule

Indicate the average number of hours per day, days per week, and weeks per year the equipment is in operation. Indicate the normal starting and ending times, and circle the days of the week the equipment is in operation. If there is a period when operations are increased over the average, indicate the approximate starting and ending date of this period. Indicate starting and ending dates for periods when operations are curtailed or stopped altogether (ignore short periods of a week or two, or less).

If the schedule varies seasonally, include an additional sheet showing the operating hours and days of the week for each period or season.

14. Stack Data

If there is no stack, check the appropriate line. Otherwise, indicate the height above ground level and the inner diameter at the top (exit), in feet. If required, indicate the gas temperature ( $^{\circ}\text{F}$ ), velocity (feet/second) and moisture content (%) at the exit, and give the basis for these data. Describe any sampling ports on the stack.

If the permit unit contains more than one stack, include an additional sheet describing each stack separately. Indicate which equipment units are connected to each stack in a Flow Chart for question (7).

15. Emission Data

Indicate the estimated annual emissions, in tons, of particulates, sulfur dioxide, nitrogen dioxide, hydrocarbons, and carbon monoxide, both before and after control. Indicate the peak rate, in tons per hour, for the same pollutants. Give the basis for the estimates.

16. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators

of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

The following information must be included:

- type of air pollutant
- amount of reduction of contaminants
- time involved in the reductions
- procedures used in achieving the reductions.

#### 17. Plans for Permanent Reduction of Emissions

This question applies ONLY to presently operating sources applying for an initial Permit to Operate. If the source does not conform to State air pollution control regulations, an implementation plan for reducing emissions to below legal limits must be outlined here. If the plan is judged to be acceptable by the Division of Air Pollution Control and if the remainder of the application is satisfactory, a Conditional Permit to Operate will be issued to the applicant which will remain in force as long as satisfactory progress towards emission reduction is demonstrated. Under no circumstances shall a Conditional Permit be granted for a period greater than one year; and under most circumstances, a considerably shorter period will be granted.

The plan as outlined here must briefly describe the operational changes, installation of new control devices, fuel switches, and other measures, and their control efficiencies which will reduce emissions to satisfactory levels. No product of any specific supplier of control devices need be mentioned here UNLESS the device type described does not normally achieve the efficiencies claimed. In the latter case, the applicant should supply detailed justification for such claims.

If a facility is operated under a Conditional Permit, the applicant is considered legally to have formally agreed to abide by the conditions attached to the permit and, thus, is legally responsible for carrying out those conditions.

B. ROCK PROCESSING (Number \_\_\_\_)

13. Equipment Description:

14. Production and Emissions:

| Type of Operation | Equipment | Material In<br>Tons/Year | Product Out<br>Tons/Year | Product Size<br>Diameter, Inches | Control Device<br>Type |
|-------------------|-----------|--------------------------|--------------------------|----------------------------------|------------------------|
| a.                |           |                          |                          |                                  |                        |
| b.                |           |                          |                          |                                  |                        |
| c.                |           |                          |                          |                                  |                        |
| d.                |           |                          |                          |                                  |                        |
| e.                |           |                          |                          |                                  |                        |
| f.                |           |                          |                          |                                  |                        |

| Efficiency<br>% | Emissions<br>Tons/Year | Stack Height<br>Feet | Stack Dia.<br>Feet | Exit Velocity<br>F/S |
|-----------------|------------------------|----------------------|--------------------|----------------------|
| a.              |                        |                      |                    |                      |
| b.              |                        |                      |                    |                      |
| c.              |                        |                      |                    |                      |
| d.              |                        |                      |                    |                      |
| e.              |                        |                      |                    |                      |
| f.              |                        |                      |                    |                      |

15. List storage piles, size of rock stored, and average amount in pile. For each pile, note whether the rock is wetted down or covered.

a. \_\_\_\_\_ inches, \_\_\_\_\_ tons, wetted? \_\_\_\_\_ covered? \_\_\_\_\_

b. \_\_\_\_\_ inches, \_\_\_\_\_ tons, wetted? \_\_\_\_\_ covered? \_\_\_\_\_

c. \_\_\_\_\_ inches, \_\_\_\_\_ tons, wetted? \_\_\_\_\_ covered? \_\_\_\_\_

16. Any additional process information not described above:

17. Operating Schedule:

\_\_\_\_\_ hours/day, \_\_\_\_\_ days/week, \_\_\_\_\_ weeks/year

Peak Period \_\_\_\_\_ to \_\_\_\_\_

Periods of little or no operation \_\_\_\_\_ to \_\_\_\_\_

18. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode?

- Alert:
  
- Warning:
  
- Emergency:

19. Plans for permanent reduction of dust. (If installation of control devices or modifications of equipment are contemplated, an application for a Permit to Construct must be submitted and approved before construction begins):

Date of planned reduction: \_\_\_\_\_

INSTRUCTIONS FOR COMPLETION  
APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
STONE QUARRYING OPERATION

The applicant should fill out the Quarrying application for each location where blasting, drilling , etc., of rock is carried out. Part B, Rock Processing, should be filled out for each size reduction system, starting with the discharge from storage (or with the charging hopper or grizzly) and ending with storage or packaging. If there are two or more systems in parallel, each requires a separate Rock Processing form. Fill out an Application for Permit to Operate/Construct Air Pollution Control Equipment for each control device.

A. QUARRYING

7. Description of Operation

Describe how the rock is quarried and stored. Note blasting and drilling operations, use of machinery, etc. Be brief, but be sure to cover all aspects of the operation which affect the production of dust.

8. Raw Material

Indicate the kind of rock quarried and the total amount produced in a year. Use data from the past 12 months if the quarry was in operation then; if the production shown is for some other year, indicate the year in parenthesis. If the production shown is not representative of expected production in the near future -- i.e., if production is going to be expanded or curtailed, attach a statement to this application indicating the expected change in production.

Indicate the maximum number (approximately) of tons of rock produced in one day during the production year used for data.



9. Storage Piles

How much rock is stored in piles (or otherwise) at any one time? Is the rock wetted down or covered to prevent dust? If the rock is trucked to a separate storage area removed from the quarry site, a separate Storage Pile application should be filled out.

10. Operating Schedule

Indicate the average number of hours per day, days per week, and weeks per year the quarry is in actual operation. If there is a period when operations are increased over the average, indicate the approximate starting and ending date of this period. Indicate starting and ending dates for periods when operations are curtailed or stopped altogether (ignore very short periods).

11. Dust Control Procedures

Describe any procedures presently used to curtail dust at the site.

12. Dust Reduction Plans

Indicate your plans for further reduction of dust for future operation of the quarry. The staff of your local air pollution control agency and/or the Alabama Division of Air Pollution Control will assist you in formulating such plans.

B. ROCK PROCESSING

13. Equipment Description

Describe each piece of equipment used in the operation. Include a flow diagram showing how the rock is processed, which equipment belongs where, etc. For all equipment, indicate the generally recognized name,

manufacturer, model name and number, and year of installation or manufacture. Include a drawing showing where each piece of equipment is located on the site. Use separate sheets when necessary.

#### 14. Types of Rock Crushing Operations

List each type of rock crushing operation -- primary, secondary, and tertiary crushing, fines milling, and recrushing and screening -- and the associated equipment. (If these operation names are unfamiliar to you, simply list the equipment.) Indicate the input and output to the equipment and the average size of the product from this operation (even if it is only an intermediate product.) Note any control devices, and their efficiencies, attached to the equipment and indicate, if known, the annual emissions and exit velocity of the exhaust. Indicate the stack height and diameter in the appropriate columns. (If there is no stack, indicate "none." If there is an exhaust, write "exh" and the height and diameter in place of the stack data.)

#### 15. Storage Piles

How much rock, either as final or intermediate product, is stored in piles (or otherwise) at any one time? Is the rock wetted down or covered to suppress dust? If the rock is trucked to a separate site for storage, a Storage Pile application should be filled out.

#### 16. Other Information

Any processing information that is not covered by any of the categories above should be described here.

#### 17. Operating Schedule

Indicate the average number of hours per day, days per week, and weeks per year the quarry is in actual operation. If there is a period when operations are increased over the average, indicate the

approximate starting and ending date of this period. Indicate starting and ending dates for periods when operations are curtailed or stopped altogether (ignore very short periods).

18. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

19. Dust Reduction Plans

Outline the operational changes or installation of new control devices planned in order to reduce dust emissions to satisfactory levels. Estimate the efficiency of these changes or devices. No specific product of any specific supplier need be mentioned here UNLESS the device-type described does not normally achieve the efficiencies claimed. In the latter case, the applicant should supply a justification for such claims.

APPLICATION FOR PERMIT TO OPERATE/CONSTRUCT  
WOOD PROCESSING OPERATION  
(Sawmills, Planer Mills, Veneer Mills, Plywood Mills)

This application is divided into three parts - Wood Processing, Boilers and Furnaces, and Waste Disposal. Fill out all three parts.

A. WOOD PROCESSING

7a. Type of Mill: (Check one only)

Sawmill \_\_\_\_\_ Veneer Mill \_\_\_\_\_ Planer Mill \_\_\_\_\_ Plywood Mill \_\_\_\_\_

7b. Equipment Description:

8. Operating Schedule:

\_\_\_\_\_ hours/day          \_\_\_\_\_ days/week          \_\_\_\_\_ weeks/year

Peak Periods \_\_\_\_\_ to \_\_\_\_\_          Periods of Little or No Operation \_\_\_\_\_ to \_\_\_\_\_

9. Production/Input:

● SAWMILL

Annual production = \_\_\_\_\_ thousands board feet green lumber

Maximum daily production = \_\_\_\_\_ thousands board feet green lumber

\_\_\_\_\_ % hardwood          \_\_\_\_\_ % softwood          average log diameter = \_\_\_\_\_ inches

- PLANER MILL

Annual intake = \_\_\_\_\_ thousand board feet lumber

Maximum daily intake = \_\_\_\_\_ thousand board feet lumber

\_\_\_\_\_ % hardwood                      \_\_\_\_\_ % softwood

- VENEER AND PLYWOOD MILLS

Annual intake = \_\_\_\_\_ thousand board feet, log scale, Doyle rule

Maximum daily intake = \_\_\_\_\_ thousand board feet, log scale, Doyle rule

\_\_\_\_\_ % hardwood                      \_\_\_\_\_ % softwood

10. Wood Was Produced:

(Estimate total wood waste produced at this site annually.)

Sawdust: \_\_\_\_\_ tons              Bark: \_\_\_\_\_ tons              Chips, shavings, etc.: \_\_\_\_\_ tons

11. Dust Control Devices and Procedures:

• DEVICES

| Type | Attached To | Manufacturer | Model Name<br>and Number | Date<br>Installed | Efficiency<br>% |
|------|-------------|--------------|--------------------------|-------------------|-----------------|
|      |             |              |                          |                   |                 |
|      |             |              |                          |                   |                 |
|      |             |              |                          |                   |                 |
|      |             |              |                          |                   |                 |

| Basis | Stack Height | Emissions<br>Tons/Year |
|-------|--------------|------------------------|
|       |              |                        |
|       |              |                        |
|       |              |                        |
|       |              |                        |

- PROCEDURES

12. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode:

- Alert

- Warning

- Emergency

13. Plans for further reduction of emissions ( if installation of control devices or modifications of equipment are contemplated, an application for a Permit to Construct must be submitted and approved before construction or installation):

Date of planned reductions: \_\_\_\_\_

B. BOILERS AND FURNACES

(Use this form only if major fuel used is wood waste -- otherwise, fill out standard boiler form.)

14. Equipment Description:

Boiler Type: \_\_\_\_\_ Manufacturer's Name, Model Name & Number: \_\_\_\_\_

Date of Installation: \_\_\_\_\_ Base diameter, ft: \_\_\_\_\_ Top diameter, ft: \_\_\_\_\_

Rated Capacity (maximum firing rate): Input \_\_\_\_\_ Million BTU/Hr

or \_\_\_\_\_ pounds of wood waste/hour

or \_\_\_\_\_ input boiler horsepower

% Excess air used in firing \_\_\_\_\_

Type overfire: tangential \_\_\_\_\_ or radial \_\_\_\_\_ (check one)

Method of charge: bulldozer \_\_\_\_\_ conveyor \_\_\_\_\_ or other \_\_\_\_\_

Explain:



## 15. Fuel Use:

## a. Wood Waste

- Sawdust/Chips/Shavings \_\_\_\_\_ tons/year OR \_\_\_\_\_ percent of total produced in (A. WOOD PROCESSING)
- Bark \_\_\_\_\_ tons/year OR \_\_\_\_\_ percent of total produced in (A. WOOD PROCESSING).

## b. Auxiliary Fuels

| Fuel Used | Amount/Year | Heat Content | Sulfur Content | Ash Content |
|-----------|-------------|--------------|----------------|-------------|
| a.        |             |              |                |             |
| b.        |             |              |                |             |

## 16. Operating Schedule:

\_\_\_\_\_ hours/day      \_\_\_\_\_ days/week      \_\_\_\_\_ weeks/year

Peak Periods \_\_\_\_\_ to \_\_\_\_\_

Periods of little or no operation \_\_\_\_\_ to \_\_\_\_\_

## 17. Stack Height:

Height of stack above ground, feet: \_\_\_\_\_

## 18. Gas Cleaning or Emission Control Device: \_\_\_\_\_

Estimated efficiency: \_\_\_\_\_ Basis: \_\_\_\_\_

Date of Installation \_\_\_\_\_ Manufacturer's Name, Model Name and Number: \_\_\_\_\_

\_\_\_\_\_

19. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode?

- Alert
  
- Warning
  
- Emergency

20. Plans for reduction of emissions (if installation of control devices or modifications of equipment are planned, an application for a Permit to Construct must be approved before construction begins):

Date of planned reduction (s): \_\_\_\_\_

C. WASTE DISPOSAL

21. Method of Disposal (Check one or more)

- a. Open Pit Burning \_\_\_\_\_
- b. Off-Site Disposal \_\_\_\_\_
- c. Incinerator \_\_\_\_\_
- d. TeePee Burner  
(conical metal burner) \_\_\_\_\_

- If c or d are checked, fill out Form \_\_\_\_\_, Application for Permit to Operate/Construct Incinerators. Also, answer question 22.
- If b is checked, indicate type of disposal -- landfill, municipal incinerator, etc. -- and site:  
\_\_\_\_\_
- If a is checked, complete the remainder of the questionnaire.

22. Waste Burned:

- a. Sawdust \_\_\_\_\_ tons/year OR \_\_\_\_\_ percent of total produced in (A. WOOD PROCESSING)
- b. Chips/Shavings \_\_\_\_\_ tons/year OR \_\_\_\_\_ percent of total produced in (A. WOOD PROCESSING)
- c. Bark \_\_\_\_\_ tons/year OR \_\_\_\_\_ percent of total produced in (A. WOOD PROCESSING)

Total amount of wood waste burned per peak day of operation: \_\_\_\_\_

23. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution episode?

- Alert
  
- Warning
  
- Emergency

24. Plans for reduction of emissions (if plans include construction of an incinerator or teepee burner, an application for a Permit to Construct must be approved before construction or installation can begin):

Date of planned reductions: \_\_\_\_\_

INSTRUCTIONS TO COMPLETE  
APPLICATION FOR PERMIT TO OPERATE/CONSTRUCT  
WOOD PROCESSING OPERATION

Fill out all three sections of the questionnaire. Any mill that has more than one "process" -- sawmill, planer mill, etc. -- must fill out a separate Wood Processing section for each process. Fill out a separate Section B. - Boiler and Furnaces for each boiler or furnace operated. Boilers of a capacity greater than \_\_\_\_\_ tons of wood waste per hour should file Form \_\_\_\_\_, Application for a Permit to Operate/Construct Fuel Burning Equipment Greater than \_\_\_\_\_ BTU/Hr.

A. WOOD PROCESSING

7a. Type of Mill

Check the appropriate mill type. If the site contains more than one sawmill, planer mill, etc., separate forms should be filed.

7b. Equipment Description

List and describe each piece of equipment used in each mill. Include a flow diagram showing how the wood is processed, which equipment belongs where, etc., for all major equipment, indicate the generally recognized name, manufacturer, model name and number, and year of installation. Include a drawing showing where each piece of equipment is located on the site. Use separate sheets where necessary.

8. Operating Schedule

Indicate the average number of hours per day, days per week, and weeks per year the mill is in actual operation. If there is a period when operations are increased over the average, indicate the approximate starting and ending date of this period. Indicate starting and ending dates for periods when operations are curtailed or stopped altogether (ignore periods of two weeks or less).

9. Production/Input

Indicate either the production or intake, as called for, of lumber on an annual and maximum daily basis. For a sawmill, indicate the average diameter of logs processed. Indicate the percentage of hardwood and softwood used (e.g., if only hardwood is processed, indicate 100 and 0 percent).

10. Wood Waste Produced

If estimate is based on some conversion factor rather than from actual weighing, indicate the assumptions used.

11. Dust Control Devices and Procedures

List the general types of control devices used, the equipment to which they are attached (refer to 7b), and the device manufacturer, model name and number, date installed, and efficiency. Indicate the basis for the efficiency estimate -- i.e., stack test, manufacturer's rating, or other means. Indicate the stack height and, if known, the dust emissions per year.

Describe any dust control procedures you use at the mill.

12. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators of potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

13. Dust Reduction Plans

Outline the operational changes or installation of new control devices planned in order to reduce dust emissions to satisfactory levels. Estimate the efficiency of these changes or devices. No specific product of any specific supplier need be mentioned here UNLESS the device-type described does not normally achieve the efficiencies claimed. In the latter case, the applicant should supply a justification for such claims.

## B. BOILERS AND FURNACES

### 14. Equipment Description

Give the information called for. Enclose a drawing showing the location of the boiler on the site (or show the boiler on the drawing included for 7b). If you need any help with this section (or for any section), contact either your local air pollution control agency or else the Alabama Division of Air Pollution Control.

### 15. Fuel Use

Indicate the amount of wood waste burned in the boiler annually. If this figure is unknown, estimate the percent of the total wood waste produced in the wood processing that is used in this boiler. List any auxiliary fuels used, their amounts, heat contents, and sulfur and ash contents.

### 16. Operating Schedule

Indicate the average number of hours per day, days per week, and weeks per year the mill is in actual operation. If there is a period when operations are increased over the average, indicate the approximate starting and end date of this period. Indicate starting and ending dates for periods when operations are curtailed or stopped altogether (ignore periods of two weeks or less).

### 17. Stack Height

### 18. Emission Control Device

Indicate the general type of control device used -- scrubber, cyclone, etc. -- its estimated efficiency, and the basis for the estimate. Indicate the date the device was installed, and the manufacturer's name, model name, and number.

19. Emergency Episode Procedure

A strong requirement for the protection of the health and safety of people living and working in the State of Alabama is that operators of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

20. Plans for Reduction of Emissions

Outline the operational changes, installation of new control devices, or equipment modifications planned in order to reduce emissions of air pollutants. Estimate the efficiency of these changes or devices.

C. WASTE DISPOSAL

21. Method of Disposal

Check those disposal methods used. For off-site disposal, indicate the type of disposal and the site. You do not have to complete the remainder of the questionnaire if all wastes are disposed of off site. Note: include on-site landfill in this category.

22. Waste Burned

Either estimate the amounts of waste burned, for each category, per year or else give the percent of all waste produced in the processing operation disposed of by burning (open pit, incinerator, or teepee burner).

23. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.



24. Plans for Reduction of Emissions

Outline the operational changes, installation of new control devices, or equipment modifications planned in order to reduce emissions of air pollutants. Estimate the efficiency of these changes or devices.

APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
BULK STORAGE OF PETROLEUM PRODUCTS

7. Equipment Description: above \_\_\_\_\_ or below \_\_\_\_\_ ground  
Fixed \_\_\_\_\_ or floating \_\_\_\_\_ roof  
Paint color of outside walls \_\_\_\_\_ (if exposed)  
Storage capacity, 1000 gallons \_\_\_\_\_ Diameter, feet \_\_\_\_\_
8. Product Stored: \_\_\_\_\_  
Vapor pressure \_\_\_\_\_  
Average temperature, °F \_\_\_\_\_  
Throughput, 1000 gallons/day \_\_\_\_\_  
Loading Procedure:

A-60

9. Average wind velocity of area where facility is located, mph \_\_\_\_\_ (if exposed)
10. Working Schedule:  
Hours facility is usually loaded/unloaded \_\_\_\_\_ to \_\_\_\_\_  
— Days of week facility is usually loaded/unloaded (circle)  
S M T W T F S
11. Emission control procedures/devices (vapor recovery system):

12. Emergency Episode Procedures:

How do you intend to comply with the requirements for reduced emissions during an air pollution emergency:

- Alert:
- Warning:
- Emergency:

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13. Plans for permanent reduction of emissions (if installation of control devices or modifications of equipment are contemplated, an application for a Permit to Construct must be submitted and approved before construction begins):

Date of planned reductions: \_\_\_\_\_

INSTRUCTIONS FOR COMPLETION  
APPLICATION FOR A PERMIT TO OPERATE/CONSTRUCT  
BULK STORAGE OF PETROLEUM PRODUCTS

A separate application form should be filled out for every tank with over \_\_\_\_\_ gallons storage capacity.

7. Equipment Description

Give the data asked for. Include with the permit application a schematic diagram of the tank showing all construction details: label all significant dimensions.

8. Product Stored

Give the type of produce stored, both by its common name--gasoline, crude oil, etc.--and its chemical composition. Indicate the vapor pressure and average temperature of the product in the tank, and give the throughput in 1000's gallons per day. Describe the loading procedure, i.e., connected directly to pipeline, etc.

9. Average Wind Velocity

If the tank is above the ground and exposed, indicate the average wind velocity in the area.

10. Working Schedule

Unless the loading schedule is random, indicate the normal schedule (starting and finishing time) for a working day. Indicate days of the week the tank is normally loaded or unloaded.

11. Emission Control

Specify the type of control device on the tank and give the manufacturer's name, model name and number. Indicate the date installed and efficiency (actual and rated, if both are known). Indicate any special procedures taken to minimize vapor loss.

12. Emergency Episode Procedures

A strong requirement for the protection of the health and safety of the people living and working in the State of Alabama is that operators of all potential air pollution sources be aware of the procedures to be taken during all stages of a declared Air Pollution Emergency. List here the procedures that will be used during the three stages of an Emergency Episode.

APPLICATION FOR PERMIT TO OPERATE/CONSTRUCT  
AIR POLLUTION CONTROL EQUIPMENT

7. Description of Control Equipment:

Manufacturer: \_\_\_\_\_ Model Name & Number : \_\_\_\_\_  
Ins  
Installation Date: \_\_\_\_\_ Manufacturer's Rated Efficiency: \_\_\_\_\_  
Condition of Equipment: \_\_\_\_\_  
Required. \_\_\_\_\_ Optional: \_\_\_\_\_ Actual Measured Efficiency: \_\_\_\_\_

8. Type of equipment to which control equipment is attached?

9. Operating Conditions:

- a. Gas flow rate: \_\_\_\_\_ ACFM at \_\_\_\_\_°F and \_\_\_\_\_ inches W. G. pressure
- b. Inlet pressure: \_\_\_\_\_ Outlet pressure: \_\_\_\_\_
- c. Moisture content of gas: \_\_\_\_\_ volume percent Dry bulk temperature \_\_\_\_\_°F Wet bulb temperature \_\_\_\_\_°F
- d. If scrubber, Inlet gas temperature \_\_\_\_\_°F  
Outlet gas temperature \_\_\_\_\_°F  
Water flow rate \_\_\_\_\_ gallons/minute, Pressure \_\_\_\_\_ PSIG

e. Gas Dust Loading:

Inlet \_\_\_\_\_ grain/ACFM

Outlet \_\_\_\_\_ grain/ACFM

10. Stack Tests: \_\_\_\_\_ conducted? \_\_\_\_\_ to be conducted? \_\_\_\_\_ date: \_\_\_\_\_

11. Device Efficiency:

| Pollutant | Manufacturer's<br>Rated Efficiency | Measured<br>Efficiency |
|-----------|------------------------------------|------------------------|
|           |                                    |                        |
|           |                                    |                        |
|           |                                    |                        |
|           |                                    |                        |

INSTRUCTIONS TO COMPLETE  
APPLICATION FOR PERMIT TO OPERATE/CONSTRUCT  
AIR POLLUTION CONTROL EQUIPMENT

7. Description of Control Equipment

Indicate the type of equipment this is and any special features. Give the data called for. Include a drawing showing the location of the control device in the facility. Include an assembly drawing, dimensioned and to scale, in plan and elevation showing clearly each part of the device. Describe the operational and maintenance procedures used with the device, including schedules of maintenance actions. Include a flow diagram showing the progress of exhaust gas from the process or boiler to the stack exit.

If the application is for a Permit to Construct (Construct new unit; Modify existing unit), include a statement describing how this construction will be accomplished. Specify in particular those operations which may cause contaminants to be injected into the air, e.g., blasting and demolition, concrete mixing, spraying operations, etc.

8. Type of Equipment to Which Control Equipment is Attached

Briefly describe the equipment being controlled; give some indications as to its size, rated capacity, or process rate. If the equipment has a permit, indicate its permit identification number.

9. Indicate the data called for.

10. Stack Tests

If stack tests have been or will be conducted, answer yes in the appropriate space and specify the date.

11. Device Efficiency

Indicate the manufacturer's rated and actual efficiency for each pollutant the device is designed to control.

EMERGENCY EPISODE INFORMATION  
FUEL COMBUSTION EQUIPMENT

I. Dual Fuel Capacity

1. How much advance notice is needed for you to begin switch to alternate fuel? \_\_\_\_\_
2. Ash \_\_\_\_\_ and sulfur \_\_\_\_\_ content of normal fuel.
3. Ash \_\_\_\_\_ and sulfur \_\_\_\_\_ content of alternate fuel.
4. How much time does it take for you to switch fuels? \_\_\_\_\_
5. Describe the seasonal availability of the alternate fuel:

|                          |                 |
|--------------------------|-----------------|
| Available: January _____ | July _____      |
| February _____           | August _____    |
| March _____              | September _____ |
| April _____              | October _____   |
| May _____                | November _____  |
| June _____               | December _____  |

6. What is the added (or reduced) costs of dual fuel capability to you?

Capital Costs:

Operating Costs:

II. Curtailment of Business

1. How much advance notice is needed for you to being curtailing operations (lowering firing rate or shutting down)?
2. Given an emission time-history during curtailment (if known):
3. Indicate emission rate after shutdown: \_\_\_\_\_
4. Indicate the most desirable rate of achieving curtailment (indicate total time): \_\_\_\_\_
5. How fast could you achieve curtailment in the event of an emergency: \_\_\_\_\_



6. How many employees would be released upon curtailment: \_\_\_\_\_
7. What is the curtailment period allowable without substantial loss: \_\_\_\_\_
8. What is your estimated economic loss per day of curtailment:  
\_\_\_\_\_

## APPENDIX B

### RULES

The following rules are meant to supplement the regulations in the Alabama Air Pollution Control Act of 1971, Act #769, Regular Session, 1971, where they concern the operation of a Permit System by the Air Pollution Control Commission and its agent, the Division of Air Pollution Control.

Since in some areas the Control Act is very specific, it is not necessary to cover certain territory twice by including it in these rules. Thus, these rules do not form a complete working set of rules for the Permit System but must be combined with the appropriate regulations established by the Act.

Rule 1. DEFINITIONS

- "Air Contaminant" means any dust, fumes, mist, smoke, particulate matter, vapor, gas odor, or any combination thereof, from whatever source.
- "Emission" means the release into the outdoor atmosphere of air contaminants.
- "Director" means the Director of the Division of Air Pollution Control of the Department of Public Health.
- "Commission" mean the Air Pollution Control Commission.
- "DAPC" is used to refer to the Division of Air Pollution Control.
- "Person" means the State, any individual, partnership, firm, municipality, public or private corporation or institution, political subdivision or agency of the State, any trust, agent, or agency of the foregoing, the United States or any department, agency, or instrumentality of the executive, legislative, or judicial branches of the Federal government.
- "Control Act" means the Alabama Air Pollution Control Act of 1971, Act #769, Regular Session, 1971.

Rule 2. PERMITS REQUIRED

a. Permit to Construct

Any person, building, erecting, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause the issuance of or an increase in the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, shall first obtain authorization for such construction from the DAPC in the form of a Permit to Construct. A Permit to Construct shall remain in effect until the permit to operate the equipment for which the application was filed is granted or denied or the application is canceled.

b. Permit to Operate

Before any article, machine, equipment or other contrivance described in Rule 2a may be operated or used, a written permit shall be obtained from the DAPC. No permit to operate shall be granted for any article, machine, equipment or contrivance described in Rule 2a, constructed or installed without authorization as required by Rule 2a, until the information required is presented to the DAPC and such article, machine, equipment or contrivance is altered, if necessary, and made to conform to the standards established by the Commission.

Any article, machine, equipment or other contrivance described in Rule 2a which is presently operating (or which is not presently operating but which is capable of being operated) without a Permit to Operate, may continue to operate (or may restart) only if its operator obtains a Permit to Operate prior to a date to be set by the Director (or prior to restarting).

The Director shall have the authority to decide cases where an article, machine, equipment, or other contrivance is not clearly subject to nor exempt from the Permit System. In addition, The Director may rule that a particular article, machine, equipment or other contrivance is subject to the Permit System even though it is exempt from the system according to Rules 2a, 2b, and 3. The operator or builder of such an article, machine, equipment or other contrivance may appeal the Director's classification to the Commission, which shall overrule the Director only if it is shown that he acted arbitrarily and contrary to the purposes of the Control Act.

c. Display of Permit to Operate

A person who has been granted a Permit to Operate any article, machine, equipment, or other contrivance shall keep such Permit under file or on display at all times at the site where the

article, machine, equipment, or other contrivance is located and will make such a permit readily available for inspection by any and all persons who may request to see it.

Rule 3. EXEMPTIONS

From time to time the Director may specify certain classes or sizes of articles, machines, equipment, or other contrivances which would normally be subject to the requirement to obtain Permits to Operate or Construct, as being exempt from the requirement to obtain such permits. Exempt sources are subject in every other way to the Rules and Regulations of the Commission.

Rule 4. TRANSFER

A Permit to Construct or Operate shall not be transferable whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another.

Rule 5. APPLICATIONS

Every application for a Permit to Construct or Operate required under Rule 2 shall be filed in the manner and form prescribed by the DAPC and shall give all the information necessary to enable the DAPC to make the determination required by Rule 9 hereof.

Rule 6. CANCELLATION OF APPLICATIONS

A Permit to Construct shall expire and the application shall be canceled two years from the date of issuance of the Permit to Construct if the construction has not begun.

Rule 7. ACTION ON APPLICATIONS

DAPC shall act, within a reasonable time, on an application for authority to construct, Permit to Operate or permit to sell or

rent, and shall notify the applicant in writing of its approval, conditional approval or denial.

Rule 8. PROVISION OF SAMPLING AND TESTING FACILITIES

A person operating or using any article, machine, equipment or other contrivance for which these rules require a permit shall provide and maintain such sampling and testing facilities as specified in the Permit to Construct or Permit to Operate.

Rule 9. STANDARDS FOR GRANTING APPLICATIONS

- a. DAPC shall deny a permit except as provided in Rule 10, if the applicant does not show that every article, machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment, that it may be expected to operate without emitting or without causing to be emitted air contaminants in violation of these Rules and Regulations.
- b. The DAPC shall deny a permit if the applicant does not present, in writing, a plan whereby the emission of air contaminants by every article, machine, equipment, or other contrivance described in the permit application, will be reduced during periods of an Air Pollution Alert, Air Pollution Warning, and Air Pollution Emergency in accordance with the Emergency Episode Plan.
- c. Before a Permit to Construct or Permit to Operate is granted, the DAPC may require the applicant to provide and maintain such facilities as are necessary for sampling and testing purposes in order to secure information that will disclose the nature, extent, quantity or degree of air contaminants discharged into the atmosphere from the article, machine, equipment or other contrivance described in the Permit to Construct or Permit to Operate. In the event of such a requirement, the DAPC shall

notify the applicant in writing of the required size, number and location of the sampling platform; the access to the sampling platform; and the utilities for operating the sampling and testing equipment.

- d. The DAPC may also require the applicant to install, use and maintain such monitoring equipment or methods; sample such emissions in accordance with such methods, at such locations, intervals and procedures as may be specified; and provide such information as the DAPC may require.
- e. Before acting on an application for Permit to Construct or Permit to Operate, the DAPC may require the applicant to furnish further information or further plans or specifications.
- f. In acting upon a Permit to Operate, if the DAPC finds that the article, machine, equipment or other contrivance has been constructed not in accordance with the Permit to Construct, and if the changes noted are of a substantial nature in that the amount of air contaminants emitted by the article, machine, equipment or other contrivance may be increased, or in that the effect is unknown, then it shall deny the Permit to Operate. The DAPC shall not accept any further application for a Permit to Operate until the article, machine, equipment or other contrivance has been reconstructed in accordance with the Authority to Construct, or until the applicant has proven to the satisfaction of the DAPC that the change will not cause an increase in the emission of air contaminants.

#### Rule 10. CONDITIONAL APPROVAL

The DAPC may issue a Permit to Construct or a Permit to Operate subject to conditions which will bring the operation of any article, machine, equipment or other contrivance within the standards of Rule 9, in which case the conditions shall be specified in writing. Commencing work under such a Permit to

Construct or Operate such a Permit to Operate shall be deemed acceptance of all the conditions specified. The DAPC shall issue a Permit to Construct or a Permit to Operate with revised conditions upon receipt of a new application, if the applicant demonstrates that the article, machine, equipment or other contrivance can operate within the standards of Rule 9 under the revised conditions.

A Conditional Permit may allow an article, machine, equipment, or other contrivance to be operated in violation of the conditions of Rule 9 if one of the conditions of the permit is a definite schedule by which the article, machine, equipment, or contrivance may attain the conditions of Rule 9 and be granted a Permit to Operate. A Conditional Permit will be revoked if the applicant does not submit progress reports to the DAPC according to the schedule established by the Conditional Permit. The DAPC may further revoke the Conditional Permit if the progress reports do not show satisfactory progress as specified by the terms of the Conditional Permit or if the progress reports are found to be inaccurate.

A Conditional Permit that allows an article, machine, equipment or contrivance to operate in violation of the Standards of Rule 9 may not be granted for a period of time greater than one year, including all renewals. In addition, no Conditional Permit issued on or after a date one year after the promulgation of the Implementation Plan may allow the article, machine, equipment or contrivance to operate in violation of the Standards of Rule 9 for a period of time longer than the greatest of the following two periods:

1. 60 days
2. The period from the granting of the permit to a date two years after the promulgation of this Implementation Plan.  
(Thus, when two years have passed after the promulgation



of the Implementation Plan, any article, machine, equipment or contrivance will require a variance to legally operate in violation of the Standards of Rule 9 for a period of time greater than 60 days.)

#### Rule 11. TEMPORARY PERMIT TO OPERATE

Upon application for a Permit to Operate by a new facility, the Director shall, within a reasonable period of time, dispatch an inspector to the facility in question. If the inspector determines that the facility has been constructed according to the specifications as set forth under the Permit to Construct, or else that any changes to the facility would reduce or effect to an unsubstantial degree the quantity of air contaminants emitted by the facility, and if a reviewing officer of the Division agrees with this conclusion, then the Director shall issue a temporary Permit to Operate which will remain in force until an official inspection of the facility under actual operating conditions can be made and the results reviewed, or until the Temporary Permit is suspended or revoked by the Director. The Director may issue a Temporary Permit to Operate without an inspection if the applicant fulfills the following requirements:

- The application for a Permit to Construct is filled out and countersigned by a Professional Engineer familiar with air pollution control as it relates to the equipment under application.
- Upon completion of the construction, the Professional Engineer noted above submits a letter to the Director, signed and sealed with his professional stamp, testifying that the construction under application has been completed and is in accordance with the specifications as set down in the Permit to Construct. The Director is empowered to reject the testimony of the Professional Engineer if the Director decides that the Professional Engineer's qualifications are insufficient to allow him to accurately and completely assess the equipment

the equipment in question. A Professional Engineer may appeal any such judgement to the Commission.

#### Rule 12. DENIAL OF APPLICATIONS

In the event of denial of a Permit to Construct or Permit to Operate, the DAPC shall notify the applicant in writing of the reasons therefor. Service of this notification may be made in person or by mail, and such service may be proved by the written acknowledgement of the persons served or affidavit of the person making the service. The DAPC shall not accept a further application unless the applicant has complied with the objections specified by the DAPC as its reasons for denial of the Permit to Construct or the Permit to Operate

#### Rule 13. APPEALS

Within 10 days after notice by the DAPC of denial or conditional approval of a Permit to Construct or Permit to Operate, the applicant may petition the Commission, in writing, for a review. The Commission may sustain or reverse the action of the DAPC; such order may be made subject to specified conditions.

The applicant may also petition the Commission for a variance, as prescribed by the Control Act. A petition for a variance must state the following:

- a. The name, address and telephone number of the petitioner, or other person authorized to receive service of notices.
- b. Whether the petitioner is an individual, co-partnership, corporation or other entity, and names and address of the officers, if a corporation, and the names and address of the persons in control, if other entity.
- c. The type of business or activity involved in the application and the street address at which it is conducted.

- d. A brief description of the article, machine, equipment or other contrivance, if any, involved in the application.
- e. The signature of the petitioner, or that of some person on his behalf, and, where the person signing is not the petitioner, the authority to sign.
- f. The requirement, rule, or order complained of.
- g. The facts showing why compliance with the requirement, rule or order would impose serious hardship on the petitioner or on any other person or persons without equal or greater benefits to the public.
- h. The facts showing why the emissions occurring or proposed do not endanger or tend to endanger human health or safety, human comfort, and aesthetic values.
- i. For what period of time the variance is sought and why.
- j. The requirements the petitioner can meet and the date when petitioner can comply with such requirements.
- k. Whether or not any case involving the same identical equipment or process is pending in any court, civil or criminal.

All petitions shall be typewritten, double spaced, on legal or letter size paper, on one side of the paper only.

#### Rule 14. FAILURE TO COMPLY WITH RULES

The Clerk of the Commission shall not accept for filing, any petition which does not comply with these Rules relating to the form, filing and service of petitions unless the chairman or any two members of the Commission direct otherwise and confirm such direction in writing. Such direction need not be made at a meeting of the Commission.

The Chairman or any two members, without a meeting, may require the petitioner to state further facts or reframe a petition so as to disclose clearly the issues involved.

Rule 15.

A person may file a written objection to the grant of a variance within 21 days from initial public notice and thus insure that a public hearing will be held, according to Section 12d of the Control Act.

An objection to the grant of a variance must state:

- a. The objector's name, address, and telephone number.
- b. Whether the objector is an individual, co-partnership corporation or other entity, and names and address of the partners if a co-partnership, names and address of the officer, if a corporation, and the names and address of the persons in control; if other entity.
- c. A specification of which petition for a variance is being objected to.
- d. A statement indicating why the objector believes that the variance should not be granted.

All objections should be typewritten or carefully printed in ink on legal or letter size paper.

Rule 16. RULES OF EVIDENCE AT A HEARING

- a. Each party shall have these rights: to call and examine witnesses; to introduce exhibits; to cross-examine opposing witnesses on any matter relevant to the issues even though that matter was not covered in the direct examination; to impeach any witness regardless of which party first called him to testify; and to rebut the evidence against him. If respondent does not testify in his own behalf he may be called and examined as if under cross-examination.
- b. The hearing need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence

shall be submitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule which might make improper the admission of such evidence over objection in civil actions. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions. The rules of privilege shall be effective to the same extent that they are now or hereafter may be recognized in civil actions, and irrelevant and unduly repetitious evidence shall be excluded.