UPDATE ON CLEAN AIR AND STATE IMPLEMENTATION OF TITLE V

P. J. Wakelyn and P. K. Adair
National Cotton Council
Washington, DC

Abstract

Under the Clean Air Act cotton gins are subject to the requirements for particulate matter (PM) and Title V federal operating permits (FOP). Following its own interpretation of the federal guidelines, each state has developed its own State Implementation and Permit Program. Due to these variations in the interpretation of federal guidelines, gins in different states have different requirements. It is, therefore, necessary to know what your local state regulators are doing and have input into the process. There are many issues affecting the timing and requirements for Title V, which are discussed as well as the EPA review and potential updating of the air quality criteria for PM.

Introduction

Congress amended the Clean Air Act (CAA; P.L. 101-349, Nov. 15, 1990) in 1990 (1-4). Title V of the 1990 amended CAA established a new operating permit program to be administered by state agencies in accordance with the federal guidelines. It is the funding authority for implementing the CAA. Annual fees from Title V are intended, by the U.S. Environmental Protection Agency (EPA), to pay for the permitting process and to apply only to major sources and significant area sources. However, in some states all emission sources are required to pay fees and the fees in some cases are being used to fund the whole state air quality program.

Under Title V each state is required to develop its own permit program. Since each state develops its own program (e.g., timing, fee structure, determination of potential to emit and minor sources, etc.), gins in different states, and sometimes in different counties of the same state, can have different programs. You should know what is happening in your state and how gins are treated. Unfortunately for gins there has been much confusion about filing deadlines and requirements. Some states are already charging Title V fees and others will not have approved permits for almost three years.

Reprinted from the *Proceedings of the Beltwide Cotton Conference*
Volume 1:571-577 (1996)
National Cotton Council, Memphis TN

Title V Permit Program

Timetable:

The following list was the intended Title V timetable for states, but many of the permit approval and application dates have been extended:

- Statute enacted: November 15, 1990
- EPA Title V guidance: July 21, 1992 (57 FR 32250)
- State required to submit programs to EPA: November 15, 1993
- EPA approval/disapproval of state programs: November 5, 1994
- Permit applications due: November 15, 1995 or one year after program approval.
- States have to act on permit application within 18 months of receiving them; and have to act on: 1st 1/3 of permit applications by November 15, 1995; 2nd 1/3 by November 15, 1996; 3rd 1/3 by November 15, 1997

Initially, 56 states, territories and the District of Columbia were to have submitted their permit programs to EPA by November 15, 1993. By December 1995, most state agencies and local programs had complied. As of January 1996, federal EPA has approved many state programs and given interim approval to others. See Table 1 (at the end of the paper) for the status of Title V programs in cotton growing states.

During each of the three years following EPA approval of a state plan, the state agency is required to act on at least one third of all permit applications. States have chosen a variety of mechanisms for establishing staggered application due dates. Some states already have application due dates for gins and others require the FOP changes to be incorporated into permit renewals. States have considerable discretion on issues ranging from filing deadlines, permit fees and renewal schedules, to determining the number of pollutants regulated, whether or not to grant permit shields, and how to treat so-called insignificant sources.

While federal EPA does not require facilities to note compliance with National Ambient Air Quality Standards (NAAQS) in their operating permit, some states have this requirement. This is usually for new sources or significantly modified sources. Non-attainment or non-compliance with NAAQS relates to the level of pollution that is occurring in the geographic area and is not a site-specific requirement. If the amount of pollution in your region is above the federal daily and yearly primary and secondary standards, your area/region is a non-attainment area. Where NAAQS compliance is required, the applicant would need to analyze the impact of plant operations on ambient air quality to show that the integrity of the area was being maintained. This usually calls for air-dispersion modeling, like the EPA SCREEN models, which can be very conservative and are not necessarily accurate for gins

(6) or for meeting the requirement of process weight tables (9). [Only the particulate matter (PM) requirements are of concern to gins.]

What to do about so-called insignificant activities that are exempt from monitoring and reporting requirements can be confusing. These include fuel-burning units that consume less than a certain amount of fuel per hour, or operations with consistently small emission limits, such as maintenance procedures. The list of acceptable insignificant sources varies from state to state. In some cases, all must be listed but not quantified, while in others, they don't have to be included in the permit at all. Most cotton belt states are only concerned with PM for cotton gins, although some states may also consider NOx and CO emissions.

Requirements (4):

Federal EPA requires federal operating permits for all major sources (i.e., Title V facilities) and could eventually require permits for all sources. A major source for PM is any stationary source or group of stationary sources located within a contiguous area and under common control, that emits 100 tons/year or more in an attainment area or 70 tons/year or more in a non-attainment area. The only cotton growing state areas that are non-attainment for PM are in AZ and CA; only CA has serious non-attainment areas (4). Attainment plans for PM-10 areas must contain quantitative milestones to achieve the standard. EPA can waive any requirement for a serious area where the agency determines that human-caused sources of PM-10 do not contribute significantly to the problem. EPA can waive an attainment date where the agency determines that natural sources contribute significantly to the problem.

A major source facility is determined by the amount of regulated pollutant that a facility has the "potential to emit". Potential to emit is based on uncontrolled emissions (i.e., as if no control devices are used) for maximum capacity of a stationary source to emit any air pollutant under its physical and operational design for 24 hours a day, 365 days/year (i.e., for 8,760 hours), unless there are permit limitations (40 CFR 70.2). Any pollutant emission controlled with a control device must be considered.

Unless truly small sources, all facilities, according to their potential to emit, must have some type of federally enforceable operation permit that has been noticed to the public for comment. However, if the actual emissions of a facility are less than the major source level (1-4), because of permit limitations, the facility will be considered a "conditional major", "synthetic minor", "prohibitory small", small or minor source (i.e., not a Title V facility). Facilities that are not Title V facilities are not required to get Title V federal operating permits and generally are subject to fewer requirements, such as less paperwork as well as smaller or no permit fees.

Regulated Pollutants (4):

All seven criteria pollutants, which are regulated as National Ambient Air Quality Standards (NAAQS), and 189 hazardous air pollutants, which are regulated as National Emission Standards for Hazardous Air Pollutants (HAPs), are regulated pollutants under the CAA (4). Particulate Matter (PM) is the generic term for dust and other diverse types of airborne particulate (1) and is the only regulated pollutant of concern for most gins unless the gin has a large industrial boiler with NOx emissions.

Issues Affecting Title V Requirements

AP-42:

AP-42, "Compilation of Air Pollutant Emission Factors" (5), is the principle means the EPA, Emission Factor and Inventory Group (EFIG) uses to document emission factors based on source sampling. An emission factor is a representative value that attempts to relate the quantity of pollutant released to the atmosphere associated with an activity. The 1990 CAA authorized funds to obtain and update emission factors. The 5th edition of AP-42 was published in 1995. The cotton gin section (Sec. 6.3) indicated that a new revised section was a "work in progress".

The current emission factors for gins were part of the 1978 edition of AP-42 (Table 2). Several times over the last 5 years the National Cotton Council and National Cotton Ginners Association have had inputs in draft revisions. In October 1995 we received a draft for comments that had many mistakes. With the help of Ed Hughs, Roy Baker, Bill Mayfield and others, revised comments were submitted to EPA. These comments considered all of the available data and developed "interim" emission factors (Table 2). The most important consideration for gins appears to be what kind of controls a gin has on its external exhausts. If a gin has cyclones on all exhausts there is one set of emission factors, and another for gins with cyclones on all seed cotton exhausts and screen drums or cages on lint cleaners and battery condensers.

The revision could be published this year although the EPA budget and government shutdowns will affect the timing and review.

Table 2. AP-42 Emission Factors for Gins

Current:	Interim:
with no controls: • TSP: 7.0 lbs/bale	with cyclones on all exhausts: • TSP: 1.97 lbs/bale • PM-10: 0.58 lbs/bale
with controls: • TSP: 2.24 lbs/bale • PM-10: 1.1 lbs/bale (estimated)	with cyclones on all seed cotton exhausts and screen drums or cages on lint cleaner and battery condenser: • TSP: 2.52 lbs/bale • PM-10: 1.10 lbs/bale

EPA FY96 Appropriations:
Appropriations passed the House July 31, the Senate September 17 and were vetoed by President Clinton December 18, 1995. They called for a 14% cut for FY95 funding and would limit or delay Title V enforcement. An appropriations bill is likely not to pass. EPA is operating under a continuing resolution with a 24% reduction in funding from FY95. Funds for contractors will be limited. This would effect AP-42 and also delay other positive changes that are trying to be accomplished this year.

EPA Legislation:
EPA wants to issue "guidance" directives to prevent legislation to reopen the CAA. Congress, on the other hand, wants to codify any changes, for simplification and improvement to the CAA. Legislation being considered:

- Rep. Nussle (R-IA) and Sen. Grassley (R-IA) bills would limit potential to emit (PTE) to maximum realistic operation of a facility and require the use of PM-10 as the indicator for PM.

- Sen. Faircloth (R-NC) draft contains technical revisions for seven main issues, including permitting, enhanced monitoring and PTE.

- Rep. Barton (R-TX) bill to be introduced in the next several months would cover all issues addressed by the Faircloth draft bill and may require that cost-benefit analysis be used in the process for setting NAAQS.
- Other House potential revisions could contain 170 different amendments.
- Any efforts this year to reform the CAA will be limited by political pressures of an election year.

EPA Rulemaking:
Title V Permits: EPA promulgated formal guidelines, containing the minimum elements of the FOP program, on July 21, 1992 (57 FR 32250), which are codified in 40 CFR 70. EPA is proposing to give more flexibility and streamline Title V permits. On August 29, 1994, (59 FR 4460) EPA proposed revisions to the operating permit program rule. These proposed changes concern the permit revision procedure and incorporate changes and other revisions on "how to fashion a more workable permit system" (59 FR 59974). However, the proposed changes actually appear to give less flexibility rather than more flexibility, which is evidenced by EPA twice extending the comment period (Nov. 21, 1994, 59 FR 59974; and Jan. 10, 1995, 60 FR 2569). A new proposal is scheduled in January or February 1996 with a final rule by the end of March 1996 (60 CFR 59672, Nov. 28, 1995). This most likely will be delayed.

Air Quality Criteria for PM Rulemaking/Review: EPA is reviewing and updating the air quality criteria for PM to incorporate new scientific and technical information that has become available since the review in 1987. EPA feels that the current standard is not protective of public safety. PM is a broad term that encompasses thousands of chemical species of atmospheric particles that originate from a variety of sources, including combustion-generated particles, photochemically produced particles, salt particles and soil-like particles. PM is reported to cause increased morbidity and mortality if in high enough concentrations (10).

The PM standard since 1987 (52 FR 24624; July 1, 1987) regulates PM-10 emissions (particulates with an aerodynamic diameter less than or equal to a nominal 10 micrometers) as the indicator for PM rather than total suspended particulate (TSP). Since TSP is still a regulated pollutant because of new sources performance standard (NSPS) requirements, TSP can still be regulated. The EPA Guidance on PM issued in October 1995 should help clarify that PM-10 should be used as the indicator for PM.

The current national primary (protects the public health) and secondary (protects welfare -- prevent environmental and property damage) 24hr ambient air quality standards for PM are identical (40 CFR 50.6). An area cannot exceed in a 24hr period a PM-10 concentration of 150 micrograms/cubic meter ($\mu g/m^3$), 24hr average concentration, more than once per year. The primary and secondary annual arithmetic mean standard for PM is 50 $\mu g/m^3$ of PM-10. In CA the 24hr standard is 50 $\mu g/m^3$ and the annual is 30 $\mu g/m^3$.

EPA is presently required by a court order to review the PM standard (10). EPA was required to complete its review and any revision of the NAAQS by January 31, 1997. The court (Order of Oct. 6, 1994 as amended Sept. 1, 1995) required EPA to adhere to a schedule with the following deadlines:

- external review Draft of Criteria Document (CD) completed -- 4/30/95.
- external review Draft Staff Paper (SP) reflecting Clean Air Science Advisory Council (CASAC) comments on CD -- 11/3/95
- CASAC meeting on CD and SP -- 12/14-15/95
- CASAC review of CD and SP completed -- 1/19/95
- Final CD and SP completed -- 2/29/96
- Federal Register Proposal -- 6/30/96
- FR Promulgation of Final Standard -- 1/31/97

The Clean Air Science Advisory Council (CASAC), whose approval is key to the agency's progress on the review, met in December 1995 to review the draft CD and the draft SP, but were unable to make a decision. CASAC feels the CD needs strengthening and there is disagreement on the SP. Some support, and others feel EPA does not have the necessary information to change to the new standard recommended in the draft SP. These problems could take months to iron out and have caused extensions in the court

ordered timetable. The new court-ordered deadlines (24) are:

- CD: Finish CASAC Review — March 15, 1996
  Finish CD — April 12, 1996
- SP:Finish CASAC Review — June 15, 1996
  Complete SP — July 15, 1996
- Proposal: — November 29, 1996
- Close of Public Comment: — January 29, 1997
- Final Standard: — June 28, 1997

The criteria document (CD) (10), draft completed, analyzes the scientific material that will be used to support the review. The staff paper (SP) (11) describes the EPA air program's position on a new standard and what limits should be set. In November 1995 a draft SP was issued that expressed a preference for revising the standard to make it more responsive to controlling fine particulate and had the following recommendations (11):

- Primary Standard:
  (24 hour)PM-2.5: 25 to < 85 $\mu g/m^3$ arithmetic mean
  (Annual)PM-10: 50 $\mu g/m^3$ and PM-2.5: 15 to < 30 $\mu g/m^3$
- Secondary Standard:
  establish regional haze regulation

The staff concluded that the fine fraction of PM-10 (i.e., PM-2.5) is more likely to contain those physical and chemical properties and components associated most strongly with a broad array of adverse public health affects.

Cotton gin emissions are (8):
- PM-10: about 30-70%
- PM-2.5: about 0.4 to 2.5%

The main source of particles 2.5 µm and under are from utilities (combustion generated and photo-chemical processes -- NOx and SO_2) and mobile sources (auto exhausts). Any changes to the PM standard could cause many areas (estimated to be as high as 83% of the country) that are now attainment to be non-attainment depending on what level and particle size are chosen. This could cause additional problems for gins and increase complaints from the community.

New Source Regulations: EPA has a rulemaking underway on new source regulations to reduce the burden and streamline requirements, which is scheduled to be completed by the end of September 1996.

Federal EPA Guidelines (Table 3):
EPA wants to prevent legislation to reopen the CAA. EPA has told Congress that through administrative means -- "guidance" directives -- problems with the CAA permits program can be clarified and simplified. EPA has put out several guidance directives that are meaningful to gins.

Table 3. EPA Guidances

Options for Limiting the Potential to Emit (PTE)	01/25/95
White Paper on Title V	07/25/95
Definition of a Regulated Pollutant for Parti culate Matter for Purposes of Title V	10/16/95
EPA Guidance on Grain Elevators	11/14/95
EPA Guidance on Cotton Gins	In preparation
EPA Interim Policy on Federal Enforceability of Limitations of PTE	1/22/96

Options for Limiting Potential to Emit (PTE) (16): Potential to emit (PTE) has caused much confusion to states. EPA has put out additional guidances on potential to emit and an interim policy that states may adopt. Potential to emit can be limited by the permit limitations (40 CFR 70.2), e.g., hours of operation (including seasonality) and amount of material processed (number of bales of cotton) on a case-by-case basis, or through construction permits or existing permits. Also states can put limitations in their operating permit regulations by including rules in their state implementation plan (SIP), designed specifically to limit potential to emit, that are approved by federal EPA (e.g., "prohibitory" or "exclusionary" rules); or by issuing general permits, general rules, or "permit by rule" regulations for a group of sources subject to that permit, that are approved by federal EPA. An interim policy guidance, outlined in a January 25, 1995 memorandum to EPA regional air directors, would allow facilities to avoid major source requirements, if they limit emissions to a level that is half the major source threshold.

White Paper on Title V (17): The "white paper" issued on Title V in July was meant to give more flexibility and reduce the amount of information that industry must include in a Title V permit application. It does not give gins very much. EPA is following this with a second "white paper" (draft Jan. 29, 1996) that is intended to provide guidance to states and industry on how they can use the permitting process to shed layers of duplicative, redundant and conflicting administrative requirements.

EPA Guidance, Definition of a Regulated Pollutant for PM for Purposes of Title V (18): The Guidance Memorandum issued October 16, 1995 clarifies that the federal minimum for applicability of Title V to sources of PM should be based on the amount of emissions of PM-10, instead of total suspended particulate matter (TSP), for a source's potential to emit. This clarification explains current EPA policy that PM-10 is considered to be the only regulated form of PM. If the EPA guidance for PM is followed it is clearly evident that cotton gins are minor sources and do not come under Title V unless they are very large and in a non-attainment area. This information was conveyed to the various state EPA agencies.

Cotton gins are seasonal agricultural operations which operate about 8-10 weeks per year. EPA has established

AP-42 emission factors for cotton gins, based on material throughput and control methods. For cotton gins, this means:

- Using the current AP-42 emission factors (2.24 lbs/bale TSP; about 1.1 lbs/bale PM-10 [if PM-10 is considered to about 50% of TSP]), a gin with cyclones on high pressure exhausts and other controls on low pressure exhausts should be able to process about 180,000 bales/year (125,000 bales/year in non-attainment areas) before it would be major source; and

- Using "interim" AP-42 emission factors (Table 2) that Dallas Safriet of EPA is considering for AP-42 revisions (0.58 lbs/bale PM-10 or 1.10 lbs/bale PM-10, depending on emission controls), a gin with cyclones on all exhausts should be able to process about 340,000 bales/year and a gin with cyclones on high pressure exhausts and other controls on low pressure exhausts should be able to process about 180,000 bales/year before they would be considered a major source.

EPA Guidance on Grain Elevators (19): The Guidance for Grain Elevators issued in November 1995 was issued to clarify PTE and prevent the Nussle and Grassley bills with an administrative fix. PTE is based on material throughput set at 1.2 times the highest year in the last 5 years and new AP-42 interim emission factors.

EPA Guidance for Cotton Gins (20): EPA was working on a guidance for cotton gins next but the federal government shutdown has delayed this. If a similar approach is used for the gins guidance it could be very helpful with the states and would clearly show that almost all gins are minor sources.

EPA Interim Policy on Federal Enforceability of Limitations on PTE (21): This memorandum (Jan. 22, 1996) clarifies the immediate impacts of two decisions by the U.S. Court of Appeals for the D.C. Circuit regarding EPA regulations requiring federal enforceability limitations of a source's PTE. The policy will remain in place to Jan. 1997, but may be extended if necessary to coincide with the promulgation of revised regulations. The immediate impacts of the court decisions are that EPA plans to propose rulemaking amendments in spring 1996 that would address the federal enforceability issue as it relates to Section 112, Title V, and Prevention of Significant Deterioration & New Source Review ("PSD/NSR") regulations. Pending this rulemaking, the immediate impacts are as follows:

- *Effects on Title V:* Although neither court case addressed the Title V regulations, industry challenges to the part 70 requirements are pending. Because the federal enforceability provision of the Title V regulations are closely related to the regulations addressed in the two decided cases, EPA will ask the court to leave part 70 in place as the rulemaking amendments are being developed.

- *Effects on PSD/NSR*: Because the court vacated the rules, the requirements in the nationwide rules for PSD and major source NSR concerning federal enforceability are not in effect. In many cases, however, individual State rules implementing these programs have been individually approved in the State Implementation Plan (SIP). The court did not vacate any requirements for federal enforceability in these individual State rules, and these requirements stay in place. The immediate practical impacts on the PSD/NSR programs are not substantial for newly constructed major sources. Greater impacts may exist for existing major sources seeking to avoid review by demonstrating a net emissions decrease.

- *Effects on January 25, 1995 Transition Policy:* The transition policy remains in effect with one change. For sources emitting more than 50% of the major source threshold, and holding State-enforceable limits, EPA is no longer requiring that the source submit a certification to EPA.

Two alternatives EPA is considering proposing for PTE determination (23) are: 1. EPA would allow sources to use state and locally enforceable emission limits, as opposed to only federally enforceable limits, in limiting their PTE; and 2. EPA would retain provisions in existing EPA regulations that require that limits on a source's PTE be federally enforceable, meaning that EPA and citizens could sue the source in a federal court to ensure compliance with the limits.

Update of State Title V Programs

The following are updates of state Title V programs (also see Table 1 for the status of state Title V programs).

North Carolina:
Gins with controls, that gin less than 62,400 bales/year are considered "small" (minor sources) and gins without controls are considered small, if they gin less than 28,600 bales/year. Gins will have to keep a record of the total bales ginned per year. A general permit is being developed that will use the PM-10 guidance (12). A draft is expected in February 1996 and a hearing in March 1996, with a final rule by summer 1996. This should at least double the number of bales that can be ginned and still be a minor source.

South Carolina:
In South Carolina gins will be considered "conditional major sources" for permitting purposes (same as small). The "conditional major" source permits provisions in the South Carolina SIP, which will allow SC to issue general permits for conditional major sources, have already been

approved by federal EPA. The general permit for cotton gins is being prepared (13). It will use the PM-10 guidance. There was a draft in November 1995. Gins will have to keep records of bale production. The state operating permit and the federal operating permit in South Carolina will be the same.

Georgia:
In Georgia cotton ginning operations are deemed to have a "Permit by Rule" if the annual production is 65,000 standard bales or less of cotton during any 12 consecutive months. A log of monthly production must be kept. Facilities under a "permit by rule" are considered to be minor sources and minor or "synthetic minor" sources have no annual fee.

If gins are above this bale limit they can still qualify as a "synthetic minor" facility by doing testing and taking permit limits on emissions and numbers of hours of operations. Permit by rule and synthetic minor permit applications were due February 1, 1995 but gins will not be in violation until June 1996.

Alabama, Tennessee, Mississippi, Arkansas:
These states consider all gins, with production of about 89,285 bales or less (based on AP-42 or state process weight tables), to be minor/small and therefore, not Title V facilities. Gins, unless their production is above this amount, are not required to have Title V permits or pay fees. Tennessee has an annual $100 fee for all facilities but it is not collecting the fee presently. Mississippi is preparing a general permit (which has been held up by the EPA shutdown) (14) and will use the EPA PM-10 guidance. AL has revised the Air Permits part of their Air Pollution Control Program to incorporate federal guidelines for using PM-10 as the indicator for PM (61 FR 5285).

TN recently revised their current regulations (paragraph 1200-3-7-.08 (3), Specific Process Emission Standards) concerning process emission standards for new and existing cotton gins (22). The owner or operator of the cotton gin has to meet the standards set for in their Table 4, "Allowable Rate of Particulate Emissions Based on Process Weight Rate for New and Existing Cotton Gins". This table establishes the allowable emissions based on the process weight rate for new and existing cotton gins. These allowable emission rates have not been amended. The revised subparagraph alternatively allows the owner or operator of a cotton gin to utilize defined control devices, rather than demonstrating compliance with the emission standards. "The control devices which are allowed include screens with a mesh size of 80 by 80 or finer, or perforated condenser drums with holes of .045 inches in diameter or less, or dust houses for emission control from low pressure exhausts. For emission control from high pressure exhausts, high efficiency cyclones may be used to demonstrate compliance." Also the burning of cotton gin waste at a gin site in a wigwam or any other type of enclosed burner is prohibited.

Virginia:
The Virginia SIP was disapproved (12/94). Virginia has challenged the disapproval the court. This will delay the program and federal EPA has the authority to take over the program. Virginia is using the EPA PM-10 guidance and considers all gins in Virginia minor sources not subject to Title V permitting (15).

Florida:
Florida got interim approval in September 1995 for their program.

Louisiana:
Full approval in September 1995 for their program. For permit application submittal, oil and gas production and chemical processing units are due first, then all remaining facilities.

Missouri:
Missouri got proposed interim approval 12/95 and expects final interim approval of their Title V program in April 1996.

MO has not had a statewide operating permit program. Cotton gins (except in Kansas City) are exempt from process weight table requirements. MO uses PM-10 as the indicator for PM; they don't use TSP anymore. MO is considering a draft permit for gins. The principle mechanism for informing the air agency of changing operations is the construction permit program. A construction permit and state operating permit (unified into one document) are required for installations with PTE for PM-10 of 15 tons/yr. Title V permits are required for major sources: facilities that have PTE of 100 tons/yr. for particulate. Large intermediate (synthetic minor) have actual emissions $\geq$ 50 tons/yr., small intermediates have actual emissions < 50 tons/yr.; and basics have PTE greater than 15 tons/yr. PM-10. All gins in MO have emissions less than 50 tons/yr. so they would be small intermediate or basics (only require a state permit). Applications for operating permits for major sources and large intermediates are due 60 days after the effective date of interim approval in MO (July 1996); applications for small intermediates are due one year after approval (probably April 1997); and for basics, 2 years after approval (probably April 1998) (26).

Oklahoma:
Permits are required for cotton gins for emissions of criteria pollutants (including TSP) above 1 lb/hr for: modification, construction and operation (gins built before 1972 are grandfathered out). Opacity requirements are 20% (except to account for chock ups, etc. where 60% for 5 minutes in 1 hour or 20 minutes in 24 hours is allowed). Emission control equipment required for gins is: 1. 70 by 70 mesh screens or finer; 2. 2D2D cyclones or higher efficiency

cyclones; and 3. 2D2D cyclones must be replaced with 1D3D cyclones when repair and maintenance costs exceed 50% of the cost for new cyclones. Fugitive dust controls are required. Emission factors that can be used are AP-42 and manufacturer's data for emission control devices. (25)

Under Title V gins will be permitted as "synthetic minor" sources, based on actual emissions, using AP-42 or manufacturer's data for emission controls.

New Mexico:
For FOP purposes, gins are minor, not Title V facilities, with no fee. New gins most likely are required to obtain a state operating permit and pay a one time fee.

Texas:
Texas has a variable system, determined by whether a gin is grand-fathered under the old program (no changes since about 1972), or is a modified or new gin (4).

Arizona:
Pinal County, Maricopa County and the state of Arizona have separate programs. Gins most likely will be minor sources based on AP-42 and PM-10 with an 80% factor on the 100 tons limit or 70 tons limit in non-attainment areas. The Pinal County program will be the last facilities to have permits finalized and approved -- permit applications should be finalized in about two years.

California:
In California, the state air pollution agency, the CA Air Resources Board (CARB), is only an oversight agency. There are six air pollution control districts in the state which implement the air pollution rules and regulations for gins (7). In non-attainment areas where the limit is 70 tons for a major source, the bale limit for a minor source will be about 125,000 bales/year based on AP-42 and PM-10 (2.24 lbs/bale TSP, 1.1 lbs/bale PM-10). With actual stack emission measurements this number can be changed. CA has had a program in place with annual fee requirements for years.

Conclusion

The implementation of the Clean Air Act permitting requirements and other requirements is a continually changing situation, with different requirements in each state, and with many events affecting the process. By the end of 1996 the picture should be much more settled and most states should have their programs in place. At that time it should be clear that most gins should easily be minor sources that do not come under Title V.

References

1. Wakelyn, P.J. 1994. Federal environmental overview. Cotton Gin and Oil Mill Press 95 (10): 14-18.
2. Wakelyn, P.J. 1991. Overview of the Clean Air Act of 1990: Cottonseed oil mills. Cotton Gin and Oil Mill Press 92 (12): 12-15, 18.
3. Wakelyn, P.J. 1991. Update on federal and state air quality regulations. In Proc. Beltwide Cotton Prod. Res. Conf. Herber, D.J. and Richter, D.A., eds. National Cotton Council, Memphis, TN, pp. 504-506.
4. Wakelyn, P.J. 1995. Status Report of State Implementation of Title V, 1990 Clean Air Act. Cotton Gin and Oil Mill Press 96 (May 13): 14-18. and in Proc. Beltwide Cotton Res. Conf. Richter, D.A. and Armour, J., eds. National Cotton Council, Memphis, TN, pp. 461-464.
5. EPA. 1985. Compilation of air pollution emission factors, AP-42, Section 6.3, Cotton Ginning. pp. 6.3-1-6.
6. Williams, L.M., N. Turner and C.B. Parnell, Jr. 1994. Evaluating the ISC SCREEN Model for use in determining allowable emissions from cotton gins. ASAE 1994 Int. Winter Mtg., Paper No. 944538.
7. Personal Communication, Roger Isom, 1995.
8. Hughs, S.A. and P.J. Wakelyn. 1996. Physical Evaluation of Cyclone Emission Characteristics. In Proc. Beltwide Cotton Res. Conf. In Press.
9. Parnell, C.B., Jr., and P.J. Wakelyn. Regulation of Agricultural Operations Using Emission Factors and Process Weight Table. Conf. on Air Pollution from Agricultural Operations, Kansas City, MO, Feb. 1996. In Press.
10. Air Quality Criteria for Particulate Matter (External Review Draft). 1995. EPA/600/AP-95/001a (Criteria Document).
11. EPA, OAQPS Staff Paper. 1995. Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information. (External Review Draft).
12. Personal Communication. 1995. Booker Pullan, State of NC.
13. Personal Communication. 1995. Robert Brown, State of SC.
14. Personal Communication. 1995. Randy Wolf, State of MS.
15. Letter to P. J. Wakelyn from Karen Sismour, Permit Manager, Virginia Dept. of Environmental Quality, January 8, 1996.

16. EPA Memorandum to EPA Regional Directors, January 25, 1995. J.S. Seitz.

17. EPA Guidance to EPA Regional Directors, July 10, 1995.

18. EPA Memorandum to EPA Regional Directors, October 16, 1995. L.N. Wegman, OAQPS, "Definition of Regulated Pollutant for Particulate Matter for Purposes of Title V".

19. EPA Memorandum, November 15, 1995. J.S. Seitz, "Calculating Potential to Emit for Grain Handling Facilities".

20. Personal Communication. 1995. Tim Smith, EPA.

21. EPA Memorandum to EPA Regional Offices, Jan. 22, 1996. J. S. Seitz, OAQPS, "Release of Interim Policy on Federal Enforceability of Limitations on Potential to Emit".

22. Approval and Promulgation of Implementation Plans Tennessee: Approval of Revisions to Process Emission Standards for New and Existing Cotton Gins. (61 FR 3318; Jan. 31, 1996).

23. EPA issue paper released Feb. 12, 1996 (dated Jan. 31, 1996), "Effective" Limits on Potential to Emit: Issues and Options.

24. Justice Department, Unopposed motion to modify court ordered deadlines for the PM NAAQS review, Feb. 5, 1996; Final order Feb. 7, 1996.

25. Hal Wright, State of Oklahoma, Talk at the Conf. on Air Pollution from Agricultural Operations, Feb. 1996.

26. Randy Raymond, State of Missouri, Talk at the Conf. on Air Pollution from Agricultural Operations, Feb. 1996.

Table 1. Status of Title V Programs (40 CFR Part 70) as of February 5, 1996

	Program Approval Status				
State	**Submittal**	**Proposed Action in FR**	**Final Action in FR**	**Effective**	**Expires**
NC	3/11/94	8/29/95, 60 FR 44805, Interim approval	11/15/95, Interim approval, 60 FR 57357	12/15/95	12/15/97
-- Forsyth	6/1/94	8/29/95, 60 FR 44805, Interim approval	11/15/95, Interim approval, 60 FR 57357	"	"
-- Mecklenburg	11/12/93	8/29/95, 60 FR 44805, Interim approval	"	"	"
-- Western	3/11/94	8/29/95, 60 FR 44805, Interim approval	"	"	"
SC	11/16/93	1/24/95, 60 FR 4583, Full approval	6/26/95, 60 FR 32913, Full approval	7/26/95	NA
GA	11/12/93	9/26/95, 60 FR 49533, Interim approval	11/22/95, Interim approval, 60 FR 57836	12/22/95	12/22/97
AL	12/15/93	9/13/95, 60 FR 47522, Interim approval	11/15/95, Interim approval, 60 FR 57346	12/15/95	12/15/97
-- Jefferson County	12/15/93	9/13/95, 60 FR 47522, Interim approval	11/15/95, Interim approval, 60 FR 57346	12/15/95	12/15/97
FL	11/16/93	6/21/95, 60 FR 32292, Interim approval	9/25/95, 60 FR 49343, Interim approval	10/25/95	10/25/97
VA	11/19/93	6/17/94, 59 FR 31183, Disapproval	12/5/94, 59 FR 62324, Disapproval		
TN	11/10/94				
-- Knox	7/11/94	11/08/95, 60 FR 56281, Interim/Full approval			
-- Hamilton	11/10/94	11/08/95, 60 FR 56285, Interim/Full approval			
-- Shelby	6/26/95				
-- Davidson	4/19/94	10/11/95, 60 FR 52890, Interim approval			
MS	11/15/93	10/3/94, 59 FR 50214, Full approval	12/28/94, 59 FR 66737, Full approval	1/28/95	NA
LA	11/15/93	8/25/94, 59 FR 43797, Interim approval; 4/7/95, 60 FR 17750, Full Approval	9/12/95, 60 FR 47296, Full approval	9/12/95	NA
AR	11/15/93	9/19/94, 59 FR 47828, Interim approval	9/8/95, 60 FR 46771, Interim approval	10/10/95	10/08/97
MO	1/13/95	12/15/95, 60 FR 64404, Interim approval	3/96 (est.), Interim approval	4/96 (est.)	
KA	12/12/94	07/03/95, 60 FR 34493, Full approval	1/30/96, 61 FR 2938, Full approval	2/29/96	NA
OK	1/12/94	3/10/95, 60 FR 13088, Interim approval	2/5/96, 61 FR 4220, limited interim approval	3/6/96	3/5/98
TX	11/15/93	6/7/95, 60 FR 30037, Interim approval			
NM	11/15/93	5/19/94, 59 FR 26158, Interim approval	11/18/94, 59 FR 59656, Interim approval	12/19/94	12/19/96
AZ	11/16/93	7/13/95, 60 FR 36083, Interim approval			
-- Pinal-Gila	11/15/93	"			
-- Maricopa	11/16/93	"			
-- Pima	11/15/93	"			
CA Counties *(counties have the authority)*					
-- Imperial	3/24/94	12/8/94, 59 FR 63289, Interim approval	5/3/95, 60 FR 21720, Interim approval	6/2/95	6/3/97
-- Colusa	2/24/94	12/8/94, 59 FR 63289, Interim approval	5/3/95, 60 FR 21720, Interim approval	6/2/95	6/3/97
-- Tehama	12/06/93	11/29/94, 59 FR 60931, Disapproval/Interim approval	7/13/95, 60 FR 36065, Interim approval	8/14/95	8/13/97
-- Glenn	12/27/93	11/29/94, 59 FR 60931, Disapproval/Interim approval	7/13/95, 60 FR 36065, Interim approval	8/14/95	8/13/97
-- San Joaquin Unified	4/8/94	11/01/95, 60 FR 55516, Interim approval			
-- Mohave Desert	3/10/95	07/03/95, 60 FR 34488, Interim approval	2/5/96, 61 FR 4217, Interim approval	3/6/96	3/5/98
-- Butte	12/16/93	12/8/94, 59 FR 63289, Interim approval	5/3/95, 60 FR 21720, Interim approval	6/2/95	6/3/97