

# TITLE V OPERATING PERMITS

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## BACKGROUND:

### TITLE V PERMITS

**TITLE V PERMITS ARE REQUIRED BY TITLE V OF THE CLEAN AIR ACT, AS AMENDED IN 1990. THESE REGULATIONS ARE CODIFIED UNDER 40 CFR PART 70; HENCE, TITLE V OPERATING PERMITS ARE OFTEN REFERRED TO AS PART 70 PERMITS. THE EPA DEFINES TITLE V PERMITS AS LEGALLY ENFORCEABLE DOCUMENTS DESIGNED TO IMPROVE COMPLIANCE BY CLARIFYING WHAT FACILITIES (SOURCES) MUST DO TO CONTROL AIR POLLUTION.**

Title V permits combine all enforceable requirements, including emissions limits, monitoring, recordkeeping, and reporting provisions, into one document. Owners of sources with operating permits must certify that the source is in compliance each year, and the permits must be renewed every five years. Each proposed initial Part 70 permit, renewal, and significant modification is subject to a 30-day public comment period, with an opportunity for a hearing, and a 45-day EPA review period. EPA has delegated Title V permitting to the states, so the permitting authority is the state agency.

According to the US EPA Title V permits are required by the following sources:

#### **1. Any Major Source**

- A major source has actual or potential emissions that meet or exceed the major source threshold for their location.
- The major source threshold for any “air pollutant” is 100 tons/year (this is the “default value”).
- Lower thresholds apply in non-attainment areas but only for the pollutants that are in non-attainment (see table below).
- Major source thresholds for “hazardous air pollutants” (HAP) are 10 tons/year for a single HAP or 25 tons/year for any combination of HAP.
- EPA generally has not required non-major sources to get permits (except as shown below).

#### **2. Any Source with a Major Source Permit (under PSD or NSR)**

#### **3. “Affected Sources” under Acid Rain Rules (regardless of size)**

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**4. Solid Waste Incineration Units under Section 129 (regardless of size)**

- Municipal waste combustors (large and small)
- Hospital/medical/infectious waste incinerators
- Commercial and industrial solid waste incinerators
- Sewage sludge incinerators
- Other solid waste incinerators

**5. Non-Major Sources Subject to NESHAP (MACT or GACT) Standards**

- Hazardous waste combustors
- Portland cement manufacturers
- Mercury cell chlor-alkali plants
- Secondary lead smelters
- Carbon black production
- Chemical manufacturing: chromium compounds
- Primary copper smelting
- Secondary copper smelting
- Nonferrous metals area sources: zinc, cadmium, & beryllium
- Glass manufacturing
- Electric Arc Furnace (EAF) steelmaking facilities
- Gold mine ore processing and production

[Note that if any newly promulgated NSPS or MACT standard regulates area sources, it must clarify whether the area sources are required to obtain title V permits.]

**6. Certain Synthetic Minor Sources Subject to NESHAP Standards**

- Chemical Manufacturing

[Note that this category is for major sources that installed a control device to become a non-major source (a synthetic minor) after November 15, 1990. Also note that on December 14, 2010, EPA published a final rule, effective immediately, to stay the requirement for non-major sources subject to this standard to obtain operating permits until March 14, 2011, while EPA is reconsidering this permitting requirement. EPA also published a final rule on March 14, 2011, to extend this stay until such time as a final reconsideration rule with respect to this permitting requirement is published in the Federal Register (see 75 FR 77760 and 76 FR 13514).]

**7. Non-Major Sources Subject to MACT & NSPS Standards**

- Municipal solid waste landfills (design capacity  $\geq$  2.5 million mega-grams and 2.5 million m<sup>3</sup>)

**8. Any Source in a Source Category Designated by EPA**

- None such sources have been designated yet.

## OUR SERVICES AND APPROACH:

### HOW SAGE HELPS MEET TITLE V REQUIREMENTS

Title V permits can encompass an entire facility or be specific to a particular process unit within the facility. There are four categories of permits applications we can help with: New, Minor Modifications, Major Modifications and Renewal.

We can also help clients with case-by-case insignificant activities that result in an increase of less than 5 tpy of criteria pollutant emissions. All insignificant activities and minor permitting changes are subsequently rolled into the next permit renewal application. Permits must be renewed periodically (typically every five years) or modified whenever there are any significant changes to the process resulting in changed emission rates. We help our clients under all aforementioned conditions.

#### **PREPARING NEW AND RENEWAL PERMITS**

Most facilities need help preparing a new or renewal permit application due to the quantity of work it takes to prepare the document.

For a typical Title V permit application, we consider the process unit and identify the emission sources within the unit. We then identify the state and federal regulations applicable to the specific sources. This is usually archived within a regulatory discussion submitted as a part of the application. We also include all emission calculations within the application. In addition, Sage designs practical and economical compliance plans to include in the application.

For a Title V permit renewal application we look at the previous Title V application(s), latest and historical emission inventories, any recent stack test data, updated fugitive counts, CEMS or other relevant emissions monitoring data, available emission calculation spreadsheets, detailed descriptions of project changes, and rates. Any available historical data is also taken into account, if required, in the emission calculations. Major/minor process changes may require the facility to undertake BACT/MACT/LAER analyses, as applicable, to be included as a part of the Title V application. We also help develop site-specific strategies to meet the state and federal LAER (Lowest Achievable Emission Rate) requirements, and BACT (Best Available Control Technology) using top-down, cost-benefit and feasibility analyses, and using the U.S. EPA BACT/MACT/LAER clearinghouse.

When a new Title V permit is to be issued, or when there is a proposed major modification to the existing system, there is no existing data to use for the application. In these cases, we characterize the emissions using EPA accepted emission calculation methodologies, comparing the proposed facility to similar existing facilities, applying material balances, and using professional judgment. For a completely new permit, we may require a pre-permit meeting with the client and the regulatory agency to discuss any of the State's concerns or recommendations regarding the permit application. We will also incorporate any alternative operating scenarios to provide the maximum operating flexibility.

## HOW SAGE HELPS MEET TITLE V REQUIREMENTS

### **PERMIT LIMITS**

At this point, we should be able to advise the facility as to the expected permit limits for each pollutant of concern. If the emission calculations suggest that pollutant discharges will exceed the limit, we advise the client accordingly. We work directly with the facility and, possibly, the agency to develop alternatives for the discharge. In this process, we consider alternative control technologies, substituting chemicals in a process, and other potential solutions. Particularly in the case of a renewal, we develop a compliance plan to be incorporated into the permit.

### **MONITORING AND REPORTING**

All Title V permits have monitoring and reporting requirements. We incorporate practicable specific requirements within the Title V permits for our clients.

As per post regulations promulgated in 40 CFR part 64 and revised regulations at 40 CFR part 70 and part 71, certain pollutant-specific emission units (PSEU) are required to submit a Compliance Assurance Monitoring (CAM) plan as a part of Title V permits applications. We analyze CAM applicability and develop the CAM plan.

PSEUs that are not subject to CAM regulations include:

- Any PSEU that is subject to an NSPS or NESHAP standard that is promulgated on or after November 15, 1990
- Any PSEU that is subject to the stratospheric ozone protection requirements, acid rain program requirements, or other emissions limitations or standards that apply solely under an emissions trading program or an emissions cap
- Any PSEU whose emission limitations or standards specify a continuous compliance determination method, unless this applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device
- Municipally owned back-up utility units as defined in the CAM regulations

The CAM plan includes a detailed applicability analysis of each source based on the control technology, primary pollutants, and process units. The CAM plan also includes the indicators monitored, detailed rationale behind the monitoring approach, monitoring locations, analytical devices used, operational details of the data acquisition and measurement system, data requirements, and specific QA/QC procedures.

### **ADMINISTRATIVE DATA**

There are other parts to the permit application that we need to complete. We prepare certain administrative data, facility location information and maps, process flow diagrams, responsible officials, records of previously issued permits and permits issued to other units within the facility, emission inventory questionnaires, and other items as required by the state. We coordinate with the facility to obtain and incorporate relevant

## OUR SERVICES & APPROACH:

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### HOW SAGE HELPS MEET TITLE V REQUIREMENTS

documentation within the permit application. We also propose language to any special conditions to the permit that we might expect to ensure that they comply with the regulation and are workable for the client.

#### **ANNUAL COMPLIANCE CERTIFICATION**

We also help clients with Annual Compliance Certification by cataloging compliance procedures and any deviations or excess emissions. All facilities holding a Title V Air Operating Permit are required by 40 CFR 70.6(c)(5) to submit this Annual Compliance Certification to the Administrator (U.S. EPA), as well as to the permitting authority (State Agency). As a part of the Certification form, the facility must provide compliance certification data detailing how the facility is complying with its Title V permit. The Compliance Certification form also includes any deviations and excess emissions that the facility has undertaken in the preceding year.

#### **TIMING/PROCESS**

Title V renewal applications are accepted by most State Permitting Agencies 6 – 18 months before expiration. We usually require 1 – 3 months to process a renewal application depending on the size of the facility and the complexity of the processes. The time required can also change based on the availability of data and other factors. The time required to process a completely new Title V application depends upon the details of the concerned facility.

The State reviews the Title V permit application and returns a draft permit for review. We review all the technical aspects of the permit and correct any errors that we might find. We also negotiate any special conditions of the permit to help the facility comply more effectively and at a lower cost.

#### **SUMMARY:**

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### SAGE'S TITLE V SERVICES

According to Federal and State regulations, various industries must obtain a Title V permit. Title V permits require a complex application with plans for control of emissions and monitoring and reporting results that Sage develops. In all cases, we help our clients by preparing applications, negotiating terms of the permit, developing policies and procedures to comply with the permit, and assisting with monitoring and reporting of the emissions.