



Important Information to know before applying

Can I purchase an engine before obtaining an Authority to Construct permit?

Yes.

However, the Air District does not recommend it since the proposed engine may need to be changed. In many cases, when this happens, the engineering review finds that a proposed engine does not meet Air District requirements. This will result in:

- Significant financial loss to the applicant
- Further delays to the project timeline

I purchased an engine before submitting a permit application and have been told that the engine will not comply with Best Available Control Technology (BACT) requirements. What are my options?

The Air District is required by Air District Section 2-1-304 to deny a permit application for a project that does not comply with BACT requirements.

Please discuss available options with the engine supplier. Some options that may be available include modifying the engine such that it complies with or avoids BACT or purchasing a different engine that complies with or avoids BACT.

Why are BACT / TBACT requirements based on when a permit application is submitted and deemed complete rather than when equipment is purchased?

Section 2-1-409 of Air District Regulation 2 (Permits), Rule 1 (General Requirements) states:

"The decision as to whether an authority to construct shall be granted or denied shall be based on federal, state and District BACT, offset, TBACT, and project risk regulations or standards in force on the date the application is declared by the [Air District] to be complete."

For this reason, we encourage all applicants to submit a complete permit application once an engine has been selected but prior to purchasing.

Can I install an engine before obtaining an Authority to Construct permit?

No.

Installing an engine before receiving your Authority to Construct permit is a violation of Air District regulations and will result in enforcement action by the Air District and potentially significant financial loss to the applicant. In addition, if the engine is found to not meet Air District requirements, it may need to be changed.

To avoid these risks, you must wait until your permit is issued before installing an engine.



I submitted a permit application. What are the next steps?

The submittal will be assigned an application number and assigned to an Air District staff member. A staff member will review the submittal within 30 days and determine whether the application is complete and notify the applicant in writing the status of the applicant and whether any additional information or fees are required to deem the application complete.

Once an application is deemed complete, it will be evaluated for compliance with applicable regulatory requirements. Depending on the project, a health risk assessment and/or public notice may be required. If the project complies with all applicable requirements, a permit will be issued. However, if the application does not comply with a requirement and a change to the project is not made to ensure compliance, the application will be denied.

Please see [General Permitting Instructions](#) for more details.

How long does the permit evaluation process take?

Due to the high volume of these types of permit applications, processing can take 3 to 6 months (or longer) but depends on how responsive an applicant is and whether a proposed engine will comply with applicable regulations.

Applications are reviewed in the order they are received, so we recommend submitting a complete permit application for your proposed project as early as possible to avoid delays.

Can I pay more for faster permitting?

The Air District does not have the option to submit an additional payment for faster permitting.

To reduce permitting delays, please see the Common Incomplete Items for common reasons applications are delayed.

An option may be to acquire (rent or purchase) an engine that qualifies for a permit exemption (e.g. 50 BHP or less) or has a multi-location Permit to Operate with the Air District and use this engine in the interim.

I submitted a permit application but received a letter from the Air District stating my application is incomplete. How much time do I have to respond to an Incomplete letter?

Please submit requested items within 60 days of the date of the letter. Your submittal will be reviewed within 30 days of receipt of the requested items. If the application is still incomplete, the application may be cancelled.

My engine has an attached or stand-alone fuel tank. Does it require a permit?

If the tank stores liquefied gases or has a capacity of less than 260 gallons, it may qualify for a permit exemption. Larger tanks may qualify for an exemption, but it would depend on the specifics of the fuel being stored.

If an engine or storage tank qualifies for a permit exemption, do I need to apply?

No.



If an engine or storage tank qualifies for a permit exemption (e.g., 50 horsepower or less), a facility does not need to apply for an official certificate of exemption from the Air District. However, the facility will have a burden of proof to demonstrate the equipment qualifies for a permit exemption.

I have an existing Permit to Operate that I want to renew. What steps do I take?

For existing Permits to Operate, a renewal form requesting usage information for each permitted engine will be sent to the facility contact of record. This form should be completed and submitted either through our online system (<https://myaironline.baaqmd.gov/account/login>) or via email to dataupdate@baaqmd.gov.

With this information, permit renewal fees will be assessed and an invoice sent to the facility contact of record. Once the permit renewal fees have been paid, a renewed Permit to Operate will be issued unless the Air District determines the engine is out of compliance with one or more air quality requirements.

I want to update the facility contact for an existing permitted facility. What steps do I take?

Complete and submit a [Facility Contacts Form](#) and update either online (<https://myaironline.baaqmd.gov/account/login>) or by email to permits@baaqmd.gov.

I have an existing Permit to Operate and the business was sold. What steps do I take to transfer ownership of the Permit to Operate?

Complete a [Transfer of Ownership Form](#) and submit by email to dataupdate@baaqmd.gov.

A Transfer of Ownership fee will be assessed. Once paid, a permit will be re-issued to the new owner/operator with no change in permit expiration dates. For expired permits, the new owner/operator is responsible for all outstanding fees.

I have an existing Permit to Operate and the engine no longer operates. What do I need to do?

If the engine remains onsite and is still physically connected and operational, an active Permit to Operate is required before the engine may be used. If there is a temporary pause in operation but the engine is expected to be used again in the future, it is recommended that the Permit to Operate be renewed and kept active. If there is an extended lapse in the Permit to Operate, a new application may be required, and the engine may be subject to more stringent requirements before it may be used again.

If an engine will be shutdown permanently, a [Shutdown Form](#) should be completed and submitted by email to dataupdate@baaqmd.gov.

Note that a replacement engine, even if identical, is considered a new source and will require an Authority to Construct and Permit to Operate before it may be installed and operated, unless it qualifies for an exclusion or exemption.

What emission standards will my engine need to meet?

Emergency Standby Engines

Emergency Standby Diesel Engines



Many engines trigger the requirement for BACT because their highest daily emissions for regulated pollutants (i.e. Nitrogen Oxides (NO_x) and Carbon Monoxide (CO)) exceed 10 pounds per day.

For purposes of BACT, maximum daily emissions assume 24 hours of continuous emergency operation.

Engines must meet EPA Tier 4 Final standards to be considered compliant with BACT. There are different ways to comply with this requirement:

- Certified Tier 4 Final Engine
- Compliant Tier 4 Final Engine
- Retrofit Tier 4 Final Engine

The compliance requirements vary and are least restrictive for certified Tier 4 engines and most restrictive for retrofit engines.

Emergency Standby Natural Gas or Liquefied Petroleum Gas (LPG) Engines

Most standby natural gas or liquefied petroleum engines will require a three-way catalyst unless the maximum daily emissions (assuming 24 hours of continuous operation) do not exceed 10.0 pounds per day for any pollutant.

Prime Engines

The requirements for prime engines are more stringent than those of standby engines and depend on the date a permit application is deemed complete. It is recommended that potential applicants of prime engines consult with the Air District prior to submitting a permit application and that a permit application is submitted in the design phase.

For diesel standby engines, what are the differences between a Certified Tier 4 Final Engine, a Compliant Tier 4 Final Engine, and a Retrofit Tier 4 Final Engine?

Configuration	Definition
Certified Tier 4 Final Engine	A new diesel engine that is certified by the EPA for the intended use of the engine to meet EPA Tier 4 Final emissions standards (includes inducement features).
Compliant Tier 4 Final Engine	A new diesel engine certified by the EPA to a lower tier level, that will typically use the same emissions mitigation techniques as a Tier 4 Final certified engine. Compliant engines are not certified to Tier 4 Final emission standards, not tested per EPA's certification procedures, and do not include certified Tier 4 Final features such as inducements. The difference between a compliant and retrofit engine is that the original equipment manufacturer (OEM) of the compliant engine will use the same OEM emissions mitigation techniques



as an OEM's Tier 4 Final certified engine rather than third-party equipment.

Retrofit Tier 4 Final Engine	A new or existing diesel engine certified by the EPA to a lower tier level, retrofitted with new third-party aftertreatment equipment to meet Tier 4 Final emissions standards. Retrofitted engines are not certified for Tier 4 Final emission standards, not tested per EPA's certification procedures, and do not include certified Tier 4 Final features such as inducements.
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What ongoing requirements will my engine be required to meet under my Authority to Construct/Permit to Operate?

Unless an engine qualifies for a rule exemption, all internal combustion engines are required to follow the applicable requirements listed in:

- [Air District Regulation 9, Rule 8](#) (applicable to all engines),
- [California Airborne Toxics Control Measure for Stationary Compression Ignition Engines](#) (applicable to diesel engines),
- [Title 40 Code of Federal Regulations Part 60 Subpart IIII](#) (applicable to diesel engines), and
- [Title 40 CFR Part 60 Subpart JJJJ](#) (applicable to gaseous engines).

Additional requirements will be imposed as permit conditions that vary based upon the type of engine and engine configuration.

Stationary, Emergency Standby, Diesel Engines (less than 1,000 horsepower)

Once your engine is permitted, you must follow specific operating, monitoring, and maintenance conditions. These depend on your engine type, but all Tier 4 engines (whether certified, compliant, or retrofit) must meet certain requirements to ensure compliance.

Requirements for all Tier 4 engines:

- Keep emissions controls in place and working at all times. If there is a problem with the controls, the engine cannot be used unless you have special approval from the Air District.
- Install alarms and data loggers to track any emissions control problems.
- If equipped with a diesel particulate filter (DPF) install a backpressure monitor (to check for blockages) and keep a record of any warnings and repairs.
- If equipped with selective catalytic reduction (SCR) monitor diesel exhaust fluid levels and quality to make sure the system is working properly.

Additional requirements for certain engine types:



- Certified Tier 4 engines — Usually no extra testing or usage restrictions, unless required by an Air District health risk assessment.
- Compliant Tier 4 engines — May require an initial emissions test and ongoing monitoring for specific pollutants.
- Retrofit Tier 4 engines — Stricter limits on how many hours the engine can run per year, plus more frequent testing for multiple pollutants.

Stationary, Emergency Standby, Diesel Engines (1,000 horsepower or greater)

Requirements by engine configuration:

- Tier 4 Certified Engines equipped with SCR and DPF: see Air District Permit Handbook (page 21)
- Tier 2 engines equipped with add-on SCR but no DPF
 - BACT Triggered for Pre-Abatement NO_x: see [Air District Permit Handbook](#) (Condition # 27780)
 - BACT Triggered for Pre-Abatement NO_x and POC Emissions: see [Air District Permit Handbook](#) (Condition # 27781)
- Tier 2 engines equipped with add-on SCR and DPF (CARB Verified)
 - BACT Triggered for Pre-Abatement NO_x and either BACT or TBACT triggered for PM emissions: see [Air District Permit Handbook](#) (Condition # 27782)
 - BACT Triggered for Pre-Abatement NO_x and POC Emissions and either BACT or TBACT triggered for PM emissions: see [Air District Permit Handbook](#) (Condition # 27783)
- Tier 2 engines equipped with add-on SCR and DPF (Not CARB Verified)
 - BACT Triggered for Pre-Abatement NO_x and either BACT or TBACT triggered for PM emissions: see [Air District Permit Handbook](#) (Condition # 27784)
 - BACT Triggered for Pre-Abatement NO_x and POC Emissions and either BACT or TBACT triggered for PM emissions: see [Air District Permit Handbook](#) (Condition # 27785)

Emergency Standby, Non-Diesel Engines

Requirements for all engines:

- Usage Limitations: 100 hours per year of reliability-related testing for engines at essential facilities, 50 hours per year otherwise
- Non-Resettable Totalizing Meter: engine will be required to have a non-resettable totalizing meter that measures and records hours of use.
- Recordkeeping: maintain records of hours of use, reason for use, and fuel use.



Additional requirements for certain engine types:

- Emission Limits: maximum emission limits may be imposed if engine triggers BACT and/or TBACT or uses add-on abatement to avoid BACT or TBACT.
- Source Testing: Initial and periodic source tests may be imposed if engine triggers BACT and/or TBACT.

Stationary Prime Engines

The specific requirements for prime engines will depend on the specifics of the project and the regulatory requirements that are triggered.

What are my next steps if the BACT regulation requires me to meet the EPA Tier 4 standards?

Contact your engine vendor and determine which Tier 4 engine option (certified, compliant, or retrofit) is best for your situation.

Will my project need public notice?

If your project is located within 1,000 feet of a K-12 school or if it is located within an OBC and requires an health risk assessment, your project will need to undergo a 30-day public comment period.

If my project qualifies for HRA streamlining and is located in an Overburdened Community, does it still need public notice?

Yes, streamlined projects located in an OBC will still need to undergo a 30-day public comment period.

Do you still have questions?

Contact Qi Zhang, Supervising Air Quality Engineer of the Engine Group, at qzhang@baaqmd.gov or (415) 749-4685.