

## Diesel Engine Permitting and ATCM FAQs (Ver. 1.5)

1. *Will the APCD limit the maintenance and testing operations for stationary backup generators (BUGs) to those limits identified in the ATCM? (VAFB)*

*Will the APCD limit the maintenance and testing operations for emergency electrical standby compression ignition engines (CIEs) to those limits identified in the ATCM? (WSPA)*

Yes. The Maintenance & Testing (M&T) hours are directly tied to the Diesel PM Standards in the ATCM (see Tables 1 and 2). It is important that the operator keeps within the annual M&T hours for their engine(s) to ensure compliance with the ATCM and to not create an unmitigated health risk to the public. The operator of an Emergency Standby (E/S) engine chooses the hours consistent with the ATCM.

2. *Will the APCD allow for unlimited use for emergency occurrences? (VAFB)*

*In addition, will the District allow for unlimited use of these engines for emergency occurrences as provided for in the ATCM regulations? (WSPA)*

The ATCM allows for unlimited usage of an E/S engine during emergencies. The ATCM clearly defines what emergency use is (see definitions of “Emergency Standby Generator” and “Emergency Use”) and under what conditions the engine can be operated. The APCD will enforce the emergency operation provisions of the ATCM and will allow unlimited emergency use as that term is defined in the ATCM.

3. *Will the APCD maintain permit exemptions for emission units categorically exempted in the Airborne Toxic Control Measure (ATCM)? (VAFB)*

Engines that are exempt under APCD Rule 202 and that are exempt from all provisions of the ATCM will maintain their Rule 202 exemption status. This specifically applies to:

- Portable CI Engines (202.F.2)
- CI Engines used to provide motive power for on-road and off-road vehicles (202.F.1.c)
- CI Engines used for the propulsion of marine vessels or associated auxiliary engines used on the marine vessel (202.F.1.b)
- Engines used in aircraft and in locomotives (202.F.1.a)
- Spark-ignited backup generator engines (202.F.1.d)
- CI Engines used for construction activities (202.F.3)
- CI Engines used for aircraft shows or amusement rides (202.F.4)
- CI Engines used for drilling on the OCS or in state waters (202.F.6)

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Section (c) of the ATCM addresses Exemptions from the ATCM. However, engines that are partially or wholly exempt from the ATCM are not necessarily exempt from APCD permit. An APCD permit is required if an engine is only exempt from select sub-sections of the ATCM. The permit ensures that the APCD can properly implement and enforce the ATCM per Section (b)(3)(a).

4. *Will the APCD issue permits for individual BUGs or one permit for multiple units used at a stationary source? Approximately 30 BUGs exist at UCSB and 60 BUGs at VAFB. Hospitals and schools also may have multiple units. (VAFB)*

The APCD will follow its existing permitting procedures for handling these applications. This means that we will strive to issue a single permit for each “facility”. If a facility has two or more engines, these would be included in a single permit. Depending upon case-specific situations, we may further issue permits for engines with similar requirements {e.g., engines meeting the Compliance Schedule under (f)(1) or (g)(1) versus engines complying with (f)(2) or (g)(2)}.

5. *Will the APCD accept one application and associated filing fee or require a separate application and filing fee for each individual BUG? For sources with multiple BUGs, fees could be significant. (VAFB)*

*Will the District accept one application and associated filing fee for all CIEs at a stationary source or require a separate application and filing fee for each individual CIE requiring a permit? (WSPA)*

A single application filing fee will be accepted for multiple engines applied for at any one time for each facility. We will develop an *Emergency Standby Engine Summary Form* and expect that one of these will be completed for each engine as part of the application process.

6. *Once the “permit template” is completed, will the APCD reduce their permit fees to cover actual work or will the fee schedule for combustion equipment continued to be applied? For reimbursable source, how will the APCD charge fees for BUG applications and permit processing? (VAFB)*

*Will the District provide tiered evaluation fee schedules that provide for cost savings for multiple-engine applications? (WSPA)*

No revisions to Rule 210 are proposed. Permit evaluation fees will be based on our existing Rule 210 fee structure. For fee schedule sources, Schedule A.3 is used. For Cost Reimbursement sources (e.g., VAFB, WSPA-represented sources), the existing cost reimbursement accounts will be used.

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For initial permitting of previously exempt E/S engines only, sources that are currently assessed fees on a reimbursable basis may elect to have their permit processing fees done on a fee schedule basis (and sources that are on a fee basis may elect to go on a cost reimbursement basis). Permit fees charged after this initial permit issuance (e.g., the permit reevaluation fee), will revert to the original basis for the stationary source.

To reduce the initial costs to permit *in-use* (as defined in the ATCM) E/S engines complying with the 20 hours per year maintenance and testing limitation in the ATCM, the APCD will assess only the application filing fee for the initial permitting of all such engines at the same facility. (The permit evaluation fee for this initial permitting effort of such engines will be waived.) Thus, for a facility with several in-use emergency standby engines where each is to be limited to 20 hours per year of maintenance and testing, one initial application with one filing fee will be required for the entire group of engines at the facility and the initial permit evaluation fee will be zero for such in-use emergency standby engines. The staff report provides further details regarding permit fees for the permitting of these engines.

7. *Will the APCD provide a cost analysis that discusses New Source Review (NSR) implications under the provisions of these rule revisions? Previously exempt emission units may be subject to Regulation VIII NSR requirements if replacements/additions occur after rule promulgation. Facilities may trigger offsets for their stationary source. In addition to triggering offsets, a new emission unit could trigger BACT, an air quality impact analysis (AQIA) and a health risk analysis (HRA). Requiring BACT, offsets, an HRA, and/or performing an AQIA (with the associated increment fee) for BUG maintenance and testing that operates less than 20, 50 or 100 hours per year appears excessive. (VAFB)*

The only rule revision accompanying the implementation of the ATCM is changes to Rule 202 to remove certain existing permit exemptions. Thus, a cost analysis regarding NSR is not in the scope of this project. The removal of these permit exemptions is necessary in order for the APCD to effectively implement and enforce the ATCM's requirements. So, for existing engines, the permit process involves the issuance of an operating permit (PTO). Per Rule 801.B (New Source Review), NSR provisions,

*"... shall not apply to any existing stationary source which was previously exempt from the permit provision of these Rules and Regulations and a Permit to Operate is required solely because of a change in Permit exemptions".*

See Question #11 for a discussion regarding new engines or non-routine replacements.

8. *How will the APCD perform their California Environmental Quality Act (CEQA) analysis to the permit applications? (VAFB)*

*What ... California Environmental Quality Act (CEQA) analysis methods will the District utilize for CIEs subject to permitting? (WSPA)*

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The permit actions involve obtaining operating permits (PTO) for previously exempt equipment. The APCD's CEQA Guidelines Document (*Environmental Review Guidelines for the Santa Barbara County APCD*) specifically exempts

*"...projects submitted by existing sources or facilities pursuant to a loss of a previously valid exemption from the APCD's permitting requirements"*

as well as,

*"Projects undertaken for the sole purpose of bringing an existing facility into compliance with newly adopted regulatory requirements of the APCD or any other local, state or federal agency".*

9. *Will the APCD provide in the staff report a detailed account of the anticipated fees in this rule revision and how those fees will be applied to the APCD budget? In addition, will the APCD provide an explanation of the costs for the health risk analysis, an indication of who can perform the analysis (industry, APCD) and how it will be performed (APCD-approved models)? (VAFB)*

*What Health Risk Assessment (HRA) procedures ... analysis methods will the District utilize for CIEs subject to permitting? (WSPA)*

The Board Letter does not provide details regarding the APCD Budget. The APCD work and associated fees are anticipated to fall within the current budget's parameters. The budget for FY 05/06 will address any additional impacts due to the implementation of the ATCM.

Health Risk Assessment costs are affected by many factors. For example, the costs for a new operator with a single engine versus an existing permitted facility with multiple engines will be much different. Before undertaking an HRA, the APCD will use screening tools to address smaller facilities and conservative assumptions for the larger existing facilities to assess whether a full refined HRA will be required. If a refined HRA is necessary, we will use the ARB-approved HARP model. The APCD will recover our costs for HRA-related work using the cost reimbursement provisions of Rule 210. Historically, the APCD has performed the HRAs at a significant cost savings to industry stakeholders. Alternatively an operator may choose to perform their own HRA. However, the APCD will still need to closely review the details of that HRA which, as noted above, will be done under the cost reimbursement provisions of Rule 210. See also Question #51.

10. *Will the APCD consider extending the 90 day complete application submittal date limit to 180 days for the purposes of this rule revision? What if the APCD fails to issue a complete application as required by the APCD regulation? Some of the larger sources and/or the APCD may not be able to meet the 90 day complete application submittal deadline and district rules do not allow for variances from permits. (VAFB)*

This is clearly addressed in the existing language of Rule 202.E (*Compliance with Rule Changes*), states:

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“The provisions of this section shall apply when an exemption for existing equipment is removed by revision of this Rule. The equipment owner shall file a complete application for a permit required by the exemption change within ninety (90) days after adoption of the revised rule; or for sources on the Outer Continental Shelf, within 90 days after the date the revision to this Rule is added to the Outer Continental Shelf Air Regulations (40 CFR Part 55). If no application is filed within the ninety (90) day period, the application filing fee prescribed in Rule 210 shall be doubled and the equipment owner shall be subject to a Notice of Violation and to the penalty provisions set forth in California Health and Safety Code Sections 42400 et seq.

If an application is filed within the ninety (90) day filing period after adoption of the revised rule but the application is deemed incomplete by the District, the applicant shall be notified by the District that a complete application must be filed within thirty (30) days of the notification. If a complete application is not received within thirty (30) days after the notification, the prescribed filing fee shall be doubled and the owner of the equipment shall be subject to the penalty provisions set forth in California Health and Safety Code Sections 42400 et seq”.

As can be seen, the operator has 90 days to submit the application. The APCD has 30 days to review it for completeness and if incomplete, the applicant has 30 days from receipt to address the incompleteness issue(s). Thus, the outer bound of the process already extends to 150+ days. The APCD believes that this provides sufficient time for sources of any size to submit permit applications. Please also note that the APCD will be preparing a new application form for E/S Engines units that will help expedite the application preparation and review process. In any case, because the language of the rule is clear, we do not anticipate extending the compliance dates that apply.

11. *The APCD internal policy regarding routine equivalent and identical replacement of emission units provides a very strict interpretation of the exemptions for such replacements in Rule 202.9. Larger stationary sources may have contractor operators that are periodically transferred and/or replaced along with the associated equipment. In the past, these changes did not involve permit issues for emergency generators because the equipment qualified for the APCD permit exemptions identified in Rule 202. This may also apply to small sources that rent stationary BUGs. Will the APCD provide clarification in the staff report regarding routine replacements of this kind? (VAFB)*

For the purposes of implementing the ATCM and the APCD’s permitting program, we intend to use the definition of what a “New CI Engine” is from Section (d)(44) of the ATCM. An engine replacement that meets the criteria in Section (d)(44)(A)(1) will be considered a *routine* replacement by the APCD. If the engine does not meet the exceptions provided for under Section (d)(44), then it is a new engine requiring compliance with the ATCM and a permit. The permit will contain a permit condition addressing the temporary replacement of a permitted E/S engine while it is being maintained offsite. The permit condition allows for the use of a replacement engine until such time the permitted engine returns. A separate permit will not be required for the replacement engine; however the permit condition does have certain parameters that must be met in order for the temporary engine to be used without the need for a permit. Contract operators that bring an engine on-site will need a permit for that E/S engine

prior to coming on site. These engines will be considered new under the ATCM and NSR. See also Questions #27 and #54.

12. *The APCD should address time limits for obtaining permits for emergency equipment. Since this equipment is intended for emergency use, permit application delays (e.g., **completeness determinations**) could be critical and result in APCD enforcement actions. Can the APCD add language in the staff report allowing relief to operators in order to operate the equipment after a **complete application** is submitted and processed similar to that allowed for in complete PERP applications? (VAFB) {emphasis added}*

The stated concern cites a slow application completeness determination as an example of a delay by the APCD and suggests that the ARB PERP process be used. However, the ARB process provides the requested relief upon that agency first making its own completeness determination. It makes sense that no relief should be granted unless the application is complete. Using that “premise”, the APCD believes its current permitting system is capable of handling source-specific situations where a fast track permit is needed. There is a fundamental difference between the levels of customer service that our agency can provide versus the ARB’s statewide PERP system. Further, the APCO has additional authority under Rule 107 (*Emergencies*) to suspend APCD rules, regulations and orders during a local, state or federally declared State of Emergency or State of War Emergency.

13. *Permits for BUGs might be tailored to their unique operations. If the permit restricts the BUG to emergency power, would the APCD consider the following:*

- (a) Exemptions from Rule 333 regardless of the number of hours operated for emergency power outage. There is no exemption in Rule 333 for emergency operations exceeding 200 hours.*
  - (b) Recordkeeping equal to that of current PERP engines.*
  - (c) A permit review protocol similar to that applied to PERP engines. (VAFB)*
- (a) There are two existing processes to address the Rule 333 question. First, an operator could seek Variance Relief per Regulation V. Second, the APCO has the authority under Rule 107 (*Emergencies*) to suspend APCD rules, regulations and orders during a local, state or federally declared State of Emergency or State of War Emergency. Rule 333 is slated for revision in the near future and this request can also be addressed at that time.
- (b) Section (e)(4) of the ATCM will be used as the basis for recordkeeping, reporting and monitoring. If deemed necessary to ensure permit compliance, the APCD may enhance these requirements during the permit process.

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- (c) The APCD believes it is best suited to develop its own “local” permit review protocol that is geared towards local needs and fits into current (and to be developed) permit systems.

14. *Will the APCD consider any emission reductions obtained from the control of these engines be included in the Clean Air Plan? At the Board of Directors meeting regarding the Clean Air Plan approval, the Board argued that any increase in the baseline is significant. Any emission reductions that can be included in the Plan are also significant. (VAFB)*

The 2004 Clean Air Plan does not take credit for emission reductions that may be achieved from the implementation of the ATCM. Once we have implemented the ATCM and understand how it impacts emissions from affected engines, we will reflect any emission reductions achieved in the emission inventories for future Clean Air Plans.

15. *Under the provisions of District Rule 801.B., will the District only require PTO applications for CIEs because the Rule 202 exemption has been eliminated? (WSPA)*

Loss of a permit exemption is governed directly by Rule 202.E (*Compliance with Rule Changes*). As such, an operating permit (PTO) application is required for existing equipment items that lose their Rule 202 exemption status. Further, this previously exempt equipment is not subject to NSR provisions (per Rule 801.B) during the processing of the PTO.

16. *Will the District allow Title V permits to be reopened to modify the permit for Title V facility CIEs that have lost their exemption, as opposed to requiring the operator to submit a PTO and Title V application to the District to permit the CIEs? (WSPA)*

The APCD will allow for permit re-openings. Section D.10.a of Rule 1304 addresses the District’s reopening of the Part 70 permit for cause. Section D.10 states

“Administrative requirements to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists.”.

This process would require both EPA and public review periods. As such, a Part 70 source may wish to utilize the process typically used by the APCD for modifying Part 70 permits by applying for a Part 70 Minor modification (i.e., submittal of a PTO and Part 70 application with EPA review only).

17. *The CARB-approved ATCM for emergency electrical standby CIEs provides an exemption from emissions control for those engines that have PM emissions of greater than 0.40 g/bhp-hr and limit annual maintenance and testing hours of operation to 20 hours. Will CIEs meeting this criteria be exempt from permit? (WSPA)*

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*Will CIEs which qualify for ATCM categorical exemptions, be exempt from permit under the District's proposed Rule 202 revisions. (WSPA)*

Emergency Standby engines that are exempt under APCD Rule 202 and that are exempt from all provisions of the ATCM will maintain their Rule 202 exemption status. Section (c) of the ATCM addresses Exemptions from the ATCM. An APCD permit is required if an engine is only exempt from select subsections of the ATCM. The permit ensures that the APCD can properly implement and enforce the ATCM per Section (b)(3)(a). Thus permits are required for engines complying with the requirements of subsections (e)(2)(B) solely by maintaining or reducing the current annual hours of operation for M&T.

18. *Will the District provide cost effective alternative source testing fees for the permitting of the CIEs? (WSPA)*

For those engines subject to source testing, the APCD will use the existing Fee Schedule C for fee permits and reimbursement method for existing cost reimbursable sources. Additionally, ARB is working to develop acceptable and affordable field methods for quantifying diesel PM. If these methods come to fruition and are approved for use, the APCD will use these, as well.

19. *If a source opts to replace an older dirtier engine with a newer cleaner engine rather than installing a PM control device on the older dirtier engine in order to comply with the ATCM PM emission standard, will NSR be triggered for that engine replacement? (VAFB)*

Two issues arise when replacing an existing diesel engine with a new diesel engine after January 1, 2005. First, by definition under the ATCM, the new "replacement" is considered a "New CI Engine" per the definitions under Section (d)(44). This means that the emission standards for a new engine must be met. If this is an E/S engine, then the requirements of Table 1 would apply rather than Table 2. Second, the question raises an NSR issue. NSR is triggered when a non-routine replacement occurs. (See also the answer to Question #11). However Rule 804.D.8 implements H&SC 42301.2:

"42301.2. PROHIBITED EMISSION OFFSETS FOR EMISSION INCREASE AT SOURCE; IMPLEMENTATION OF CONTROL DEVICE OR TECHNIQUE. A district shall not require emission offsets for any emission increase at a source that results from the installation, operation, or other implementation of any emission control device or technique used to comply with a district, state, or federal emission control requirement, including, but not limited to, requirements for the use of reasonably available control technology or best available retrofit control technology, unless there is a modification that results in an increase in capacity of the unit being controlled.."

This H&SC section does not directly address compliance by equipment replacement. The APCD believes that for this specific case ("new CI engine" replacements to comply with the stationary diesel ATCM) that the provisions of H&SC Section 42301.2 apply

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and that offsets would not be required due to the installation of the new engine (note: the engine must also have the same or lower rating). This specific case only applies to initial ATCM compliance determinations per Section (e)(4)(A)(4) and Sections (f) and (g).

20. *Why not implement the ATCM through an APCD prohibitory rule, rather than requiring permits for engines subject to the ATCM? (Plains Exploration)*

The ATCM specifies numerous requirements that apply to both Prime and E/S stationary engines. The APCD is required by the Health and Safety Code to implement this ATCM, once it is approved by the state (H&SC 39666). The APCD costs to implement this ATCM must be recovered, and the mechanism established to recover our costs is the fee system that is found in APCD Rule 210 and implemented via the APCD's permit system. Further, issuance of permits to engines subject to this ATCM will allow compliance, enforcement, tracking and inventory of these units in a more effective way than trying to accomplish these elements of the ATCM through a prohibitory rule approach. It is also important to note that, unlike the Santa Barbara County APCD, every district we have polled throughout the state indicates that they require permits for the engines subject to this ATCM.

21. *Does the Health and Safety Code require the district to evaluate the cost effectiveness of a rule change? (VAFB)*

The cost effectiveness of employing the emission control strategies in the Stationary DICE ATCM has been addressed in the support documents developed by ARB during the ATCM process. The removal of the Rule 202 exemption for these engines will mean that permits are required. The costs for permitting are addressed in APCD Rule 210, which has undergone significant public review and Board approval.

22. *When an E/S engine is replaced after the ATCM effectiveness date, it will be subject to BACT, which could be costly. (VAFB)*

If the existing engine operates within the 20 hr per year limit, there is no emission standard to meet. Additionally, the ATCM contains provisions for replacing engines. If a new model year E/S engine were to be installed, the ATCM requires that it meet at least Tier 2 emission limits, which exceed current BACT standards for a diesel-fired backup generator. Thus, BACT for this situation (a new E/S engine meeting Tier 2 engine standards and operating 50 hours per year) would not be an issue.

23. *Whose rules and regulations take precedence, the state's or the district's? (MF Strange & Associates)*

Generally, state law and regulations trump local law and regulations.

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24. *Sources that are exempt based on the 202.D.7 “one ton exemption” will lose their exemption if they are required to permit their E/S engines. (URS).*

By its language, the one ton per year exemption in 202.D.7 is not available to sources that are subject to an ATCM. Thus, it is not the permit requirement for an E/S engine that will cause the operation to lose the exemption, but the fact that the engine is subject to the ATCM. The state’s Diesel Risk Reduction Program and associated ATCMs have caused this exemption to be unavailable for such sources.

25. *This ATCM will not go before the APCD’s Board of Directors for adoption. (WSPA)*

That is correct. The ATCM is a state measure which local districts are required to either implement as approved by ARB, or to pass an equally stringent or more stringent measure (such as South Coast AQMD’s Rule 1470). In this case, as with other ATCMs, the APCD will implement the ATCM as approved by ARB.

26. *Is there a provision in APCD rules that says NSR is not required when an exemption is removed? (Greka)*

Yes. This provision is found in APCD Rule 801.B, as noted in Response #7 above.

27. *What happens if a new engine replaces an old engine (for example, the old engine broke), a permit is required, and the new engine is needed immediately? Can the new engine be operated? (URS)*

The ATCM (sec. D.44.A.1) allows temporary replacement of a unit that is undergoing *routine* maintenance. APCD has developed a policy addressing temporary replacements of engines undergoing *routine* maintenance, and we will implement this provision in conjunction with the ATCM’s replacement provisions. A condition in the source’s operating permit will allow for this temporary replacement without the need to obtain a permit or a permit modification. (see Question #11).

In this case, the original permitted engine is not being repaired and will not return to service. A new engine will be needed along with an ATC permit prior to installation. The APCD recognizes that in certain instances a source cannot wait for the permit process to be completed without having a temporary engine in place. To handle this situation, the APCD will allow for the temporary installation and operation of an engine when the permitted engine breaks and cannot be replaced. This will only be allowed for E/S engines, fire-water pump engines and engines used for essential public services (as determined by the APCD). A permit condition similar to the one that addresses *routine* replacements will be added to the permits to allow for such temporary replacements while an ATC permit is obtained for the installation of a new ATCM and NSR compliant engine.

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28. *Is the APCD exceeding the state mandate in implementing this ATCM? (A. Caldwell)*

No. The APCD intends to implement the ATCM as written. In addition, we are actively coordinating with other districts and the Air Resources Board to ensure our implementation approach is consistent with other agencies.

29. *Will agricultural sources be permitted by farm, or by farm owner? (A. Caldwell)*

This ATCM does not apply to in-use agricultural engines. SB700, which removed the statewide exemption for agricultural sources, can not be implemented for non-Major sources until the APCD Board of Directors makes certain findings. The revision to Rule 202 that is discussed herein will not affect the exemption status of agricultural sources. This question will also be provided to APCD staff working to implement the agricultural permitting program.

30. *The ATCM says districts have 120 days to implement the ATCM or 180 days to adopt their own control measure. (Metcalf & Eddy)*

The compliance dates identified in the ATCM begin with January 1, 2005. ARB has advised us that this is the date by which ATCM implementation begins.

31. *What will happen if an in-use E/S engine has accepted the 20-hour operating limit, but runs over that limit? Will this force the engine into a more stringent operating scenario?*

This is a compliance and enforcement matter for which options, including variance protection, are likely available. If there is a reasonable expectation that the engine can meet the 20 hour limit in succeeding years, there is no reason to modify the operating limits for the engine. However, if the engine clearly needs additional operating hours for maintenance and testing, the permitting and ATCM applicability requirements should be reassessed.

32. *New Source Review can require an AQIA, which will look at the max hourly emissions from the engine, which may be high, but on the annual average, will be very low for the BUGs. The high hourly emissions could result in high increment fees, plus HRA fees. (VAFB)*

The APCD will assume a 2-hr/day and 50 hour/yr maximum operating scenario for new E/S engines doing testing and maintenance. (At the time of permit application, sources may request a higher daily limit if they feel that these assumptions are not sufficient for their operations). This will establish the PTE on a daily and annual basis, as well as the permitted emissions of the unit. As an example, under this scenario, a 500 hp E/S engine

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would have daily emissions of approximately 11 lb NO<sub>x</sub>/day, which is far below the 120 lb/day AQIA threshold. In practical terms, only larger facilities that currently trigger AQIA requirements will need to address this AQIA concern, and we note that AQIA is a case-by-case consideration. The reality is that AQIAs are very infrequently required. An E/S engine that breaks down and is replaced by a new E/S engine of the same or lesser rating (bhp), emissions (based on the potential to emit) and having the same or a lesser emissions factor will not be subject to an AQIA.

33. *CFR 30 requires firewater pumps to be in place at all times. If a firewater pump breaks and a new one is required, the source does not have time to go through an extensive NSR process. (Plains Exploration)*

As noted above (see Q. 27), our temporary equipment replacement policies contain provisions that allow the temporary replacement of a broken firewater pump engine while an ATC permit is being pursued.

34. *There is a disconnect between the definitions in the ATCM. Definition 41.c says the utility company can take you offline the time you have to operate your BUGs while the utility company is off line counts towards your maintenance/testing hour limits, while definition 25.a says emergency is anything the operator has no control over. (Cox Communications)*

ARB was contacted for clarification on this issue. Their reply is that it basically comes down to what is in the contract between the engine owner and the utility company. If there is a provision in the contract that says the utility company will take you offline for maintenance or transmission line maintenance or whatever, then the owner has notice and and operation of the engine would be considered maintenance and testing. If the utility company shuts off the power, and there is nothing in the owner/utility company contract stipulating that the power may be shut-off by the utility company for maintenance, or whatever, then operation of the engine would count as emergency use.

35. *If an operator is in an ISC contract but they do not operate outside of the testing and maintenance limits, do they still need to meet the 0.15 g/bhp-hr emission standard? (MF Strange & Associates)*

If an operator is enrolled in an ISC, the engine must meet the emission and hourly operating limits specified in the ATCM for an ISC-enrolled E/S engine, whether or not the engine operates during Demand Reduction periods.

36. *Is a catalytic converter going to be part of the ATCM? Are there different standards for the fuel used by mobile and stationary diesel engines? For small sources with only one fuel tank used by mobile and stationary diesel engines, will they be required to use the ARB approved diesel fuel for all of their equipment (because it would be costly to*

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*purchase a second fuel tank)? (City of Carpinteria)*

Diesel particulate filters, including catalytic conversion, are considered control techniques in this ATCM. The ARB has also passed an ATCM that codifies diesel fuel specifications, and the DICE ATCM indicates that engines subject to the ATCM must use this fuel beginning 1/1/06. Since the fuel specification will apply to diesel engines in the state, operators will need to use compliant fuel.

37. *What is the difference between the portable and stationary ICE? At what point does a portable engine become stationary?(Cox Communications)*

The definitions of portable and stationary engines are contained in sec. D.50 (portable) and D.63 (stationary). As a general rule, an engine that remains in place for one year or more is considered a stationary engine. However, there are other circumstances and uses that modify this, so the operator should look closely at the above-cited definitions.

38. *What direction has ARB given the districts on incorporating the ATCM into the OCS Regulation (CFR 55)? (WSPA)*

ARB has indicated that they expect portions of this ATCM (e.g., fuel standards, recordkeeping and reporting) to apply to OCS operations. ARB will have to submit the ATCM to the EPA for inclusion into 40 CFR Part 55 for the ATCM to apply on the OCS.

39. *How will the district assure that operators are in compliance with the ARB diesel fuel? Fuel suppliers can provide invoices and other documentation regarding fuel drops. (MF Strange & Associates)*

The ATCM specifies that the owner/operator must document fuel use through the retention of fuel purchase records. The documents noted in the question would appear to meet this need. As is already provided for in the ATCM, these records shall be kept on site, either at a central location or at the engine's location.

40. *If units must be source tested (assuming they are not EPA certified units), how frequently must testing occur? (URS)*

The APCD has established the following criteria for requiring emission source testing:

- (a) Emission source testing is not required for in-use E/S engines meeting the 20 hour/year M&T limit.
- (b) Emission source testing is not required for new E/S engines meeting the 50 hour/year M&T limit and which have a PM certification standard of 0.15 g/bhp-hr.

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- (c) Emission source testing will be required every two years for prime engines subject to the emission standards in Tables 3 or 4 of the ATCM and Rule 333. Prime engines permitted for less than 200 hours per year may be tested every 5 years.
- (d) Emission source testing may be required for any new or in-use E/S engine that uses add-on emission control equipment and/or fuel additives to demonstrate compliance with Tables 1 or 2 of the ATCM. The frequency of testing will be every two years.
- (e) Emissions source testing may be required for in-use E/S engines that request more than 20 hours per year of M&T operations and where the source indicates that add-on emission control equipment and/or fuel additives are not required. Testing will not be required if the in-use E/S engine is certified to meet Tier 2 standards and M&T hours are limited to 30 or less (higher if District approved per Table 2).
- (f) Emissions source testing may be required for sources that wish to permit their engine below the applicable ATCM standard. This may occur if a source wishes to lower the engine's PTE due to offset concerns.
- (g) Emissions source testing may be required for ISC engines that require add-on control equipment and/or fuel additives to meet the 0.15 g/bhp-hr or 0.01 g/bhp-hr PM standard (p. 30).
- (h) Emissions source testing may be required for in-use E/S engines that select the 0.01 g/bhp-hr PM standard for operating at or near a school.

Testing may occur on engines that are EPA certified according to the criteria above.

41. *Where did the 20 hr/year limit come from? (Inamed)*

The 20-hour limit for in-use E/S engines resulted from significant give-and-take negotiations between ARB and stakeholders during the ATCM's development.

42. *Some operations are partially exempt like fire water pumps (FWP). How does the district intend to permit FWPs? The hours are limited by the National Fire Protection Association. How will firewater pumps be treated? (Plains Exploration)*

The ARB has clarified that in-use direct-drive firewater pump assemblies that are operated only the number of hours necessary to comply with NFPA 25 are not subject to the emission limitations set forth in Section e.2.b.3. This applies to in-use firewater pump assemblies complying with NFPA 25 when located in buildings to pressurize sprinkler systems, as well as firewater pump engines used by other entities (e.g., POTWs) only if the engines are used solely for fire suppression and are operated in accordance with NFPA 25. The in-use exemption would not apply if the engine is called into service for reasons other than fire suppression (e.g., POTW pumps that pressurize water lines due

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to a pipe break)., The maintenance and testing hours for operating an in-use direct drive firewater pump engine are dictated by NFPA standards, per sec. C.16 of the ATCM. There are no exemptions for new firewater pump engines, so such units must comply in full with the ATCM.

43. *Have we had any pushback from the hour meter requirement? (WSPA)*

No, we have not had complaints from operators regarding the ATCM-required installation of hour meters on all engines subject to this regulation.

44. *Sources seem to be getting the message from ARB that if their engines meet the requirements of the ATCM then they will be meeting AB 2588. Why is the district stating that they may not meet AB 2588 requirements? (Metcalf & Eddy)*

ARB has specifically told the district that meeting the ATCM does not necessarily mean that the engine or the facility in which it is installed won't be subject to AB 2588 requirements. In a November 5, 2004 phone call, ARB stated that implementation of the ATCM (e.g., adding emissions controls, reducing hours) may result in being exempt from AB 2588 requirements if the health risk assessment shows the facility is a "low-level" facility (i.e., cancer risk < 1 and Hazard Index < 0.1). However, fulfillment of the ATCM requirements does not necessarily mean a facility is exempt from AB 2588 or has fulfilled the AB 2588 requirements.

45. *What triggers an HRA under NSR? Is it AB 2588? (URS)*

Consistent with most other districts in the state, it is agency policy not to issue NSR permits that would allow the installation of equipment that creates significant toxic risk to the surrounding community. Thus, equipment that has the potential to emit toxic air contaminants is subject to a screening-level risk analysis. If this screening analysis indicates risk levels below the APCD's significance thresholds, no further risk analysis is necessary. If the screening analysis indicates risk levels above the APCD's significance thresholds, a refined health risk analysis (HRA) is indicated.

46. *Will a BUG engine be treated the same as a Prime engine for the HRA. Will all emissions be used evaluated in a short time frame? (acute vs. chronic issue) (VAFB)*

Both E/S and Prime engines will be evaluated in the same manner. If an initial screening analysis indicates significant risk then a refined HRA will be necessary. The refined HRA will look at the acute non-cancer risk (based on maximum hourly emissions), and the chronic non-cancer and cancer risks (based on annual average emissions) for both types of engines, taking into account normal operating loads, engine size, and actual hours of operation. (Note that emergency hours of operation for E/S engines do not count towards Hot Spots analysis). For large sources with many E/S engines, the setting up of

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the HRA model will require case-by-case determinations as to what may constitute the reasonable worst case scenario for the short-term acute analysis. See also Question #51.

47. *Is the APCD concerned about acute non-cancer effects from diesel PM? Will the APCD be speciating the diesel PM? What emission factors will be used? What are the pollutants of concern? (ENSR)*

Yes, the APCD is concerned about the acute non-cancer effects of diesel PM. The APCD will speciate the diesel PM. The APCD is evaluating the best emission factors to use. We are currently using Ventura County APCD's AB 2588 Combustion Emission Factors. Pollutants of the largest concern include acrolein and heavy metals that have an acute acceptable exposure level (AEL).

48. *We have some BUGs onsite that have not been used for years and we do not anticipate ever using them again. Is there a way to avoid permitting these engines? (DuPont Displays)*

Yes. If a source can demonstrate to the APCD's satisfaction that the engine does not have the potential to operate, a permit is not required. Demonstration may include disconnecting the fuel line or other such definitive and enforceable act. However, if there is the possibility that these engines may be used in the future, it may be prudent to apply for a permit now. Otherwise, the engines will be subject to New Source Review if a permit is applied for at a later time.

49. *What is the expected APCD inspection frequency for newly permitted E/S units? (VAFB)*

APCD expects the inspection frequency for newly permitted E/S engines to be once per year to confirm that each unit is operating according to the hour limits specified in its permit. If compliance problems are identified over time with individual engines and/or operators, this frequency may be adjusted accordingly.

50. *VAFB suggests that engines operated less than 20, 30, 50 or 100 hours/year be allowed a grace period to come into compliance if they exceed the anticipated hours operation for maintenance and testing. VAFB suggests that this grace period be 180 days, similar to the Notification of Loss of Exemption in the ATCM. For example, an engine that initially plans to voluntarily operate less than 20 hours per year and permits accordingly, but later finds that need to operate between 21 and 30 hours per year must modify its permit and control PM to 0.4 g/bhp-hr. Will this engine be allowed to operate while installation and verification of controls are put onto the engine? Also will this increase in operation trigger NSR requirements (particularly offsets) for the engine due to the increased throughput? (VAFB)*

To obtain the "grace period" described in the question, the operator should apply for a variance from the APCD Hearing Board. The Hearing Board is empowered to grant such

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relief, and for such time periods as would allow the permitting and installation of control systems described in the question. Yes, an increase in hours would be subject to NSR. However, the increased throughput described in the question is not likely to trigger offset requirements for most sources.

51. *How will AB2588 limitations affect the replacement of existing backup diesel generators? In particular, for sources that are currently below significance thresholds for 2588 and propose to replace an existing diesel engine with a new engine, will the source be limited to remain below threshold limits as determined by a Health Risk Assessment? (VAFB)*

Existing E/S engines will receive permits to operate and provide emissions information to the APCD by July 2005, as required by the ATCM. The APCD will use that emissions information to perform risk screening and, if necessary, more detailed Health Risk Assessment modeling to ascertain the operation's overall risk. If the risk is found to exceed the APCD's significance thresholds for cancer and non-cancer risk, the operator will need to perform the Notification requirements and implement a Risk Reduction Plan pursuant to the Air Toxic Hot Spots program. New engines being installed after January 1, 2005 will undergo a risk screening assessment and, if necessary, more detailed HRA modeling as part of the permitting process. The intent of this is to ensure that the APCD does not issue a permit that allows the installation of equipment that creates significant risk to the community.

To be clear, in-use engines that were previously exempt will be issued a Permit to Operate without being initially subject to a health risk assessment (HRA). After the emissions information required by Section (e)(4)(A) is submitted on July 1, 2005, the APCD will then assess the need to do health risk screening and possibly HRAs as part of the AB-2588 process. New engines, on the other hand, will be evaluated for health risk as part of the ATC permit process.

52. *VAFB requests clarification on Air Quality Impact Analysis and associated increment fees. VAFB is concerned that excessive increment fees could be charged against low-operating-hour backup generators that are required to undergo NSR. (VAFB)*

While it is difficult to give a quantitative answer to this question, we can say that AQIAs are unusual events. As noted in Question #32, a new 500 hp E/S engine would be permitted at a level that is significantly below the threshold at which an AQIA would be required. More qualitatively, an operator deciding to place a 3,000 hp engine at the property boundary could conceivably trigger an AQIA to determine offsite impacts. Such an engine placement could also create problematic health risk assessment results. To reiterate part of the response to Question #32, we do not believe that AQIA's will be common occurrences. An E/S engine that breaks down and is replaced by a new E/S engine of the same or lesser rating (bhp), emissions (based on the potential to emit) and having the same or a lesser emissions factor will not be subject to an AQIA.

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53. *Would a violation of the 20-hour per year limit trigger violations, ATCM requirements and NSR based on increased throughput. Can variance and breakdown relief be available for such circumstances? (VAFB)*

As noted in Question #31, one-time violation of the permit limit is a compliance and enforcement issue rather than a NSR requirement, and variance protection may be available. If the engine has operated beyond the 20-hour limit because of equipment malfunction (e.g., timing solenoid), breakdown relief may be available, as well, as long as the requirements and procedures specified in APCD Rule 505 are followed.

54. *Multi-part Question: When an engine that is permitted for 20 hr/yr fails and a “new” engine, as defined in the ATCM, is required:*

*a) Will the new engine be allowed to operate while the NSR permit is being processed?*

*b) In this situation, could a “temporary” replacement engine be used until the NSR permitting is complete?*

*c) Would the permit for the new engine be for 20 hours or 50 hours of maintenance and testing?*

*d) If it is for 50 hours, would the increase trigger offset requirements?*

*e) If so, will credits be available from the old engine that is going out of service, and what would be necessary to qualify those credits? Will APCD require source testing and fuel use monitoring to establish a baseline use of the old engine, or are other approaches available? VAFB suggests that the APCD could simply accept that the newer, cleaner engine is offset by the older dirtier engine without going through a formal credit determination process. (VAFB)*

*f) How would the APCD determine offset requirements for a “new” E/S engine that wishes to be permitted as a 50 hr/yr engine?*

- (a) As noted in the answer to Question #27 (second paragraph), such provisions will be provided for E/S engines, fire-water pump engines and engines used for essential public services (as determined by the APCD). A permit condition similar to the one that addresses *routine* replacements will be added to the permits to allow for such temporary replacements while an ATC permit is obtained for the installation of a new ATCM and NSR compliant engine.
- (b) Yes, subject to the provisions of the permit condition and only for E/S engines, fire-water pump engines and engines used for essential public services (as determined by the APCD).
- (c) Being a new engine, the ATCM allows for up to 50 hours of maintenance and testing. The source may elect to choose a lower number if they wish.

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- (d) Yes, an increase in hours would be subject to NSR. However, the increased throughput described in the question is not likely to trigger offset requirements for the majority of sources. Only those sources that already are required to offset emission increases would be required to provide ERCs. Also, emission reductions for the removal of the existing E/S engine could be used to create ERCs per Rule 806.
- (e) ERCs can be established from the removal of the existing E/S engine. Although the APCD can not simply accept that the newer, cleaner engine as “automatically” offset by the older dirtier engine without going through a formal credit determination process, there may be other technically feasible methods in establishing the emission baseline. A typical approach used when essential data is lacking would be to use an uncertainty factor. Information needed for a diesel E/S engine to create ERCs would be M&T fuel use and the actual in-the-air emission factors for that engine. If only the hours of operation were known, an uncertainty factor for the fuel use (engine load) and emission factors would be needed. Qualitative data that can be useful in establishing the uncertainty factors include the use of portable analyzers to determine actual stack NO<sub>x</sub> and CO concentrations; prior PM and ROC source tests to ascertain percentage differences between permitted emission factors and stack emission rates. The actual sulfur content of the fuel can be helpful in determining the SO<sub>x</sub> emissions.
- (f) There are no special provisions when selecting the emission factors for engines subject to offsets. The APCD expects that sources will utilize the ATCM’s PM standard as the basis for the PM emission factor. Typically, the other criteria pollutant emission factors will be based on what the manufacturer’s “not-to-exceed” emission guarantee states for the new engine, BACT standards or other APCD-approved emission factor. See Q. #40 regarding source testing requirements.

55. *For BUGs that are subject to offset requirements, will APCD require quarterly reporting of hourly monitoring? Will the limit be the annual limit for the engine, or will it be the quarterly peak emissions? What happens if a BUG exceeds the quarterly limit but not the annual limit? (VAFB)*

Yes, offsets are based on a quarterly basis. The source should ensure that the quarterly PTE is sufficient to handle actual operating conditions. For some sources this may mean that the quarterly PTE would be greater than one-fourth than annual values.

56. *VAFB requests clarification on the initial HRA screening that will be done for each large stationary source. First, will permits be issued for engines at large stationary source who exceed HRA toxics risk thresholds? Second, what assumptions will be made in the initial screening of engines at large stationary sources with multiple engines? Will the screening and potential full scale HRA be done on an engine basis or for the entire stationary source? For example, if the analysis is done on the entire stationary source, will the APCD assume that all VAFB backup generators are operating simultaneously for*

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*acute analysis even though this is highly unlikely. If the APCD is going to address acute screening modeling in a different manner (i.e., on an engine basis) please clarify how this will be done. (VAFB)*

As noted in Question #51, in-use engines that were previously exempt will be issued a Permit to Operate without being initially subject to a health risk assessment (HRA). After the emissions information required by Section (e)(4)(A) is submitted on July 1, 2005, the APCD will then assess the need to do health risk screening and possibly HRAs as part of the AB-2588 process. New engines, on the other hand, will be evaluated for health risk as part of the ATC permit process. HRAs will be performed for the entire source (defined as a facility under AB 2588) and not for individual engines. The “assumptions” for doing HRAs are site-specific and will be determined at the HRA is being formulated. For “existing” devices, the actual engine usage data is used in the analysis. When a new engine is being permitted, the PTE from the new engine is used along with the actual usage data for the existing data (typically using the prior year as the emissions baseline).

57. *VAFB needs clear direction as to what engines can be part of a single permit application. This seems to be tied to the definition of a “Facility” or “Process”. Clarification on the meaning of these two terms and examples would help VAFB to readily comply with the intent of the APCD use of these terms. For example is a Space Launch Complex a “Facility” or a collection of “Facilities” if it includes different buildings and industrial structures. Reading the definition of “Stationary Source” it seems that a “Facility” may be interpreted to be the same as a “Stationary Source” or a subset of a “Stationary Source”, please clarify. The “facility” definition for NESHAP, AB 2588 and RCRA apply “fence line to fence line”, is this how “facility” will be applied for permitting of BUGs. Additionally, VAFB needs clarification of “process” as it relates to this new rule. For example if two 30 bhp diesel backup generators are used to provide backup power to a single “process” will permitting be required? (VAFB)*

In the context of permitting and the number of permits to be issued (see Question #4) the term “facility” is intended to correspond with the APCD’s database. Each source in the District has been assigned facility names and numbers (FID) which have no distinction in terms of NSR. In other words, the use of FIDs is purely administrative in nature.

As has been the APCD’s long standing policy regarding stacking of multiple devices to perform the same function, the use of two 30 bhp engines connected to the same electrical switching gear would be considered as a 60 bhp engine for the purposes of permitting. If these two engines fed separate parts of the process (whatever that may be) or were installed at different locations, then they would be considered separately. This policy is the same one that VAFB just recently addressed in the design of the new boilers for the Base Clinic.

58. *Please clarify why Rule 202.F.2 was revised. Does this add a new exemption for portable engines used on OCS facilities?*

Yes, the intent of the revised Rule 202.F.2 is to extend the exemption for state registered

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portable engines to the OCS. The prior version of Section F.2 was worded such that only engines that were “eligible” for the statewide portable engine registration program (PERP) could be exempt from Rule 201. Since engines located on the OCS cannot obtain a PERP registration, the exemption does not apply to the OCS. The revised language now states that if the engine has a PERP registration that it would be considered exempt from Rule 201. The provisions referring to Sections F.3 and F.6 were added to ensure that those exemptions were not affected by the change to F.2.

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