Senate Bill (SB) 265 Best Available Technology (BAT) Questions and Answers - March 2008

These questions and answers (Q&As) address the application of Best Available Technology (BAT) requirements to new source permits-to-install (PTIs) in light of the requirements of amended Senate Bill (SB) 265 specified in ORC 3704.03(T)(4). These requirements will also apply to future permits-to-install and operate (PTIO). SB265 specifies that BAT does not apply to an air contaminant source that has the potential to emit (PTE taking into account air pollution controls installed on the source) of less than 10 tons per year (tons/yr) of an air contaminant or precursor of an air contaminant for which a National Ambient Air Quality Standard (NAAQS) has been adopted under the federal Clean Air Act.

This guidance document has been updated since the original SB265 guidance was issued in August 2006 and the interim guidance issued in September 2006 to include newly added Q&As #33 through 48 and to reflect changes made to the OAC Chapter 31 rules since that time. OAC rule 3745-31-05(A)(3)(b) became effective on 12/1/06 and specifies the less than 10 tons/yr BAT exemption threshold. Since this rule is now an effective rule it replaces ORC 3704.03(T)(4) as the applicable requirement for these sources.

1. When does this requirement go into effect and what sources does it apply to?

The law became effective August 3, 2006. Therefore this requirement applies to new emissions units installed after that date and to OAC Chapter 31 modifications that occur after that date. Note that there are multiple other portions of SB265 that become effective at later dates. Please see the "Senate Bill 265 Effective Dates" chart for more details.

2. If I have already submitted my permit recommendation to DAPC, should I call to stop it from being issued?

No. For a "Review PTI", the central office DO/LAA permit contacts will review them and make any necessary corrections. If the permit recommendation is a "No Review PTI", then the permit will get issued with the old BAT limits listed. If the company has a problem with the subsequent permit, then we can issue a modified permit later.

3. Can a company modify their permit for a previously permitted source?

No, this change only applies to new sources installed after August 3, 2006 and to OAC Chapter 31 modifications that occur after that date.

4. Should I make these changes to any permit recommendations I submit?

Yes, beginning August 3, 2006, please make any necessary changes to the less than 10 tons/yr no BAT sources before you submit your recommendation.

5. If the permit already went draft, should I make the changes before I process the final?

Yes.

6. How do you decide what kind of PTI emission limits are needed for an air contaminant source that might qualify for the 10 tons/yr BAT exemption threshold?

Refer to the "BAT Decision Flowchart". If you are still not sure what PTI emission limits are needed you should discuss what limits are needed with your central office DO/LAA permit contact.

7. What pollutants does the 10 tons/yr BAT exemption threshold apply to?

Air contaminants (and pre-cursors) for which there is a NAAQS. These air contaminants (referred to as "criteria pollutants") include PE/PM10/PM2.5, SO2, NOx, OC/VOC, CO and Pb. BAT should still be applied to any air toxic using Ohio's current Air Toxics Policy.

[See also Q&A #s 17 and 46].

8. How do you determine if an air contaminant source has the PTE (taking into account air pollution controls installed on the source) of less than 10 tons/yr of a criteria pollutant?

PTE should be determined at 8760 hrs/yr or 365 days/yr for each criteria pollutant emitted by the air contaminant source. Next, the controlled PTE (for those sources installing control equipment or employing control measures) is determined by multiplying the PTE for each criteria pollutant controlled by the

control device or control measure by the control efficiency for that pollutant. When a federally enforceable rule limit applies (e.g., from the SIP, MACT or NSPS) then the rule limit can be applied to calculate an annual emission rate to determine if the emissions are less than 10 tons/yr.

[See also Q&A #41]

9. Can an air contaminant source restrict it's PTE to avoid BAT or State modeling?

Yes - the source can accept voluntary restrictions (either by use of operating restrictions, add-on control equipment or emission limitations) per OAC rule 3745-31-05(C) to restrict its emissions to below the 10 tons/yr BAT exemption threshold or applicable State modeling threshold.

NOTE: the original SB265 Q&A document referred to these types of restrictions as voluntary "synthetic minor **type**" restrictions. The use of this descriptor has resulted in some confusion since the voluntary restriction, control equipment or emission limitation is often not used in non-synthetic minor (i.e., regular State-only) PTIs. The original intent was to indicate that these were voluntary restrictions, control equipment or emission limitations that have the practical effect of creating a lower, artificial (synthetic) limit on the sources emissions to avoid BAT. The guidance document now refers to these types of limits as "voluntary restrictions".

[See also Q&A #38]

10. What about emissions units subject to BACT/LAER?

BACT/LAER determinations should be made using current procedures. BAT would be equivalent to BACT/LAER for those criteria pollutants for which BACT/LAER limitations are established.

11. Assume a PTI application is submitted for an air contaminant source that has the PTE (controlled or uncontrolled) for a criteria pollutant of greater than 10 tons/yr; therefore BAT would be established for that criteria pollutant. Does BAT still apply to that air contaminant source if the BAT determination in the PTI results in an emission limit under 10 tons/yr?

Yes, BAT would apply unless the permittee accepts voluntary restrictions, control equipment or emission limitations as described above.

12. Do you include both stack and fugitive emissions when determining whether the 10 tons/yr BAT exemption threshold applies?

Yes - the stack and fugitive emission rates (per criteria pollutant) should be added together to determine whether the 10 tons/yr BAT exemption threshold applies for that pollutant. If BAT applies then separate stack and fugitive emission limitations can be established through BAT in the PTI.

13. How will a company avoid OAC rule 3745-21-07(G)(2) requirements through OAC rule 3745-21-07(G)(9)(g) after August 3, 2006 since (G)(9)(g) determinations must be made through a BAT determination and BAT doesn't apply to a source with a PTE (taking into account air pollution controls installed on the source) of less than ten tons/yr (e.g., 7.3 tons/yr of OC will be the (G)(2) sources PTE)?

BAT applies if the post OAC rule 3745-21-07(G)(9)(g) determination results in emissions of 10 tons or more (i.e., if the BAT determination results in ten tons or more of OC then they can receive a (G)(9)(g) exemption). If the determination is less than ten tons then BAT does not apply and the company cannot receive a (G)(9)(g) exemption and the limits under OAC rule 3745-21-07(G)(2) would apply. This scenario only applies to new or OAC Chapter 31 Modifications as described above.

Please be aware that under new OAC rule 3745-21-07, a similar exemption provision is provided under OAC rule 3745-21-07(M)(5)(e). Although new OAC rule 3745-21-07 does not apply to sources installed after its effective date, sources installed prior to its effective date (and most likely installed prior to the 8/3/06 effective date for SB265) may have to have their BAT processed under a modified PTI. The modified PTI would have to cite OAC rule 3745-21-07(G)(9)(g) or new OAC rule 3745-21-07(M)(5)(e).

14. Our office has a BAT permitting issue not covered by these Q&As. What is the next step?

You should first discuss the issue with your central office DO/LAA permit contact. It would be helpful to other DO/LAA staff if you draft the issue as a Q&A and send it to your central office DO/LAA permit contact to be included in future updates of this guidance.

15. Is there any sample permit language to address this requirement after August 3, 2006?

Yes. DAPC has drafted several example permits under different permitting scenarios and has sent these to DO/LAA staff. Below is some suggested permit language:

A. Voluntary limits per OAC rule 3745-31-05(C) to restrict emissions to below the 10 tons/yr BAT exemption threshold
Specify OAC rule 3745-31-05(C) as the applicable requirement, specify the voluntary restriction, control equipment or control measure and include the voluntary emission limitation (e.g., 9.9 tons/yr) as an Additional Term and Condition in the permit:

"Permit to Install XX-XXXXX for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

a. list voluntary restriction
b. list voluntary control equipment or control measure for criteria pollutant XYZ; and
c. list voluntary emission limitation"

B. Clarifying statement for sources with uncontrolled PTE for criteria pollutant(s) below the 10 tons/yr BAT exemption threshold
Cite OAC rule 3745-31-05(A)(3)(b) as the applicable requirement and include the following as an Additional Term and Condition in the permit:

"The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the [list applicable criteria pollutant(s)] from this air contaminant source since the uncontrolled potential to emit for [list applicable criteria pollutant(s)] is less than 10 tons/yr."

C. Clarifying statement for sources with a calculated annual emission rate below the 10 tons/yr BAT exemption threshold due to a federally enforceable rule limit (e.g., SIP, MACT, NSPS, etc.)
Cite OAC rule 3745-31-05(A)(3)(b) as the applicable requirement and include the following as an Additional Term and Condition in the permit:

"The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the [list applicable criteria pollutant(s)] from this air contaminant source since the calculated annual emission rate for [list applicable criteria pollutant(s)] is less than 10 tons/yr taking into account the federally enforceable rule limit of [list rule limit] under [list SIP, MACT, NSPS, etc...rule limit]."

16. We are writing a PTI for a secondary aluminum processing facility with two Group 2 reverberatory furnaces. Previous stack tests for PE, NOx and CO conducted on similar furnaces gave emission factors that show calculated total emissions of each pollutant at less than 10 tons/yr, therefore BAT would not apply. The PTI will require the company to do stack testing to get the most accurate emission factors. How should permit terms and conditions be crafted to account for stack test results that could affect BAT applicability?

The clarifying statement for sources with uncontrolled PTE for criteria pollutant(s) below the 10 tons/yr BAT exemption threshold provided above should be used:

"The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, NOx and CO emissions from this air contaminant source since the uncontrolled potential to emit for PE, NOx and CO is less than 10 tons/yr."

The permit should also include the following Testing Term to provide for the possibility that the emission testing required in the PTI would result in emission factor(s) that result in the calculated total emissions of one or more criteria pollutant(s) at greater than 10 tons/yr:

Testing Term
"The results of the [list applicable criteria pollutant(s)] emission testing required in this permit to install shall be used to determine the potential to emit (PTE) on an

annual basis (i.e., 8760 hrs/yr or 365 days/yr) for this air contaminant source. If the calculated PTE is less than 10 tons/yr the Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) will not apply to the [list applicable criteria pollutant(s)] from this air contaminant source. If the calculated PTE is greater than 10 tons/yr the BAT requirements under OAC rule 3745-31-05(A)(3) will apply to the [list applicable criteria pollutant(s)] from this air contaminant source and the permittee shall either submit a written request to the director (the appropriate Ohio EPA District Office or local air agency) to revoke and reissue this permit to install to include applicable BAT requirements or submit a revised permit to install application to propose voluntary limits per OAC rule 3745-31-05(C) to restrict [list applicable criteria pollutant(s)] emissions to below the 10 tons/yr BAT exemption threshold."

17. **Does BAT apply if an air contaminant source only emits HCl or ammonia and the PTE (taking into account air pollution controls) for these pollutants is less than 10 tons/yr? Since HCl and ammonia are not criteria pollutants it does not appear that the 10 tons/yr BAT exemption threshold would apply. Do we set limits for these pollutants?**

Changes to our air toxics program due to SB265 under ORC 3704.03(F) were adopted in OAC Chapter 3745-114 which provided a list of 303 toxic air contaminants. OAC rule 3745-114-01 became effective on 12/1/06. Therefore, air toxics are covered separately and not listed under BAT anymore. Following the ORC a PTI is required only for new or modified sources that emit the following: air contaminants (and pre-cursors) for which there is a NAAQS; air contaminants for which the source is regulated under the CAA; and air contaminants of a "toxic" nature that are identified in the new rule. The ORC has taken the current "Option A" review guide and required its use by law, as well as adding additional requirements including record keeping and the establishment of a lbs/day limit when a toxic models at 80% of the MAGLC.

Current air toxics guidance and review procedures (e.g., Engineering Guides 69 and 70) are to be used. We should continue handling air toxics per our current program, and only set allowable emission rates for a given air toxic when we believe necessary (past experience is that individual air toxics limits are usually not needed, especially when OC/VOC is limited in the PTI). In response to the specific question - yes, allowable emission rates can be established for HCl since it is an air toxic (it is assumed that ammonia is not "anhydrous ammonia" listed under OAC rule 3745-114-01). Determining the need to set air toxics

allowable emission rates has been a case-by-case decision based on emission levels, modeled impacts, toxicity of the given compound and other factors. For the time being, this has not changed.

18. If a source accepts voluntary limits below 10 tons/yr to avoid BAT can the PTI be issued "direct final" if nothing else causes it to be issued draft? If a source accepts limits to avoid Title V or NSR does the permit need to be issued "draft" to make the synthetic minor limits federally enforceable?

Yes to both questions.

[See also Q&A #41]

19. What VOC content should be used to calculate PTE for coating operations when proving BAT does not apply?

Except in the case of a new sources, a facilities worst case coating it has used in the last two years should be used unless the permittee can demonstrate why the coating cannot be used anymore, the worst case coating has not been used enough in the past to be of any significance (e.g., used on a limited trial basis), or the permittee can demonstrate the trend to use lower VOC content coatings. If a source begins utilizing coatings with a higher VOC content then this change may be considered a Chapter 31 Modification per OAC rule 3745-31-01(PPP).

20. Can applicable sources utilize the exemptions in OAC rule 3745-21-09(U) to limit PTE when evaluating whether BAT applies?

Yes. As described in Q&A 15.C you would cite OAC rule 3745-31-05(A)(3)(b) as the applicable requirement and include the clarifying statement for sources with a calculated annual emission rate below the 10 tons/yr BAT exemption threshold due to a federally enforceable rule limit (i.e., the OAC rule 3745-21-09(U) exemptions) as an Additional Term and Condition in the permit.

If the source changes to coatings that are no longer exempt then the facility would need to evaluate whether the change triggers BAT to apply.

21. How should cleanup emissions be included in the PTE for a source when evaluating whether BAT applies?

If the cleanup does not occur within the emissions unit (e.g., a spray booth or spray area) then cleanup would be considered a separate emissions unit. However for those cleanup operations that occur within the emissions unit, the PTE for cleanup emissions should be based upon the highest historical solvent usage rate or highest predicted solvent usage.

22. Can we issue a General Permit (GP) if a company requests it even though it cites BAT for pollutants with a PTE of less than 10 tons/yr?

At this time, there is no affect on model general permits (MGPs). Prior to SB265, DAPC created numerous MGPs, and after public comment, they were made "available" for application. When a facility applies for a MGP we then issue them the general permit (GP) for their specific source. Although certain sources qualify for the 10 tons/yr BAT exemption threshold, ORC 3704.03(F) exempts MGPs developed prior to January 1, 2006 from the new BAT provisions. At this time, all of DAPC's MGPs were developed prior to January 1, 2006. If an owner or operator would like to apply for an MGP, they would have to continue to agree with the terms and conditions in the MGP. If they do not want the terms and conditions of the MGP, such as BAT, because they are less than 10 tons/yr, they can apply for an individual permit. Any future MGPs DAPC would develop would have to meet the new BAT provisions affected by SB265. This would also include any revisions to BAT terms and conditions in those MGPs developed prior to January 1, 2006. For example, in the future DAPC may find the BAT requirements for an existing (pre-January 1, 2006) MGP are no longer adequate. If we created a new BAT requirement in that MGP we would have to include an exemption for qualifying sources below 10 tons/yr.

23. In the proposed PTIO rules sent out in January 2006, Ohio EPA proposed removing OAC rule 3745-31-02(A)(2). If the PTIO rules are implemented, what rule would you cite to allow companies to accept voluntary limits?

The PTIO rules did not remove OAC rule 3745-31-02(A)(2); that specific provision was relocated to OAC rule 3745-31-05(E).

24. As described in Q&A #8 above, the PTE (and therefore applicability of BAT) should be determined for each criteria pollutant emitted by the air contaminant source. For OAC Chapter 31 Modifications - if there is an increase in allowable emissions for one pollutant but not for any other pollutants listed in the existing PTI, does the OAC Chapter 31 Modification (and applicability of BAT) apply to all the pollutants or just for the pollutant experiencing the increase in allowable emissions?

In most cases, when a physical change or change in the method of operation occurs to an air contaminant source, most pollutants need to increase. However, in some cases, this may not be true. For instance, if one limit is based on an OAC rule limit that does not change due to the modification, but another permit limit does change, only the one limit needs to change. Since there is an increase in allowable for one pollutant for the air contaminant source, the change is defined as an OAC Chapter 31 Modification for that source.

However, since only one pollutant is changing, we believe that a new BAT determination should only be made for that one pollutant, not for the pollutants that are not changing.

This same approach holds true for the case of fuel switching or the addition of a new fuel where certain pollutants increase and others decrease. In these cases the BAT determination should only be made for the pollutant(s) that are changing.

25. Is it mandatory to remove BAT (where applicable) for all OAC Chapter 31 Modifications or just when requested by the applicant?

If it is determined that BAT no longer applies due to the less than 10 tons/yr BAT exemption threshold, then BAT should be removed for a modification. We no longer have the authority to "establish" BAT for less than 10 tons/yr pollutants. We do not need to have the applicant ask.

26. Based on earlier guidance, BAT applies to sources installed prior to Aug 3, 2006. We are running into sources installed prior to this date, and the permit will not be issued until after the date of Aug 3, 2006 - where do we go from here?

The BAT Decision Flowchart correctly indicates that BAT applies to sources installed prior to Aug 3, 2006. The PTI should be written to include the BAT determination that applied to the source at the time of installation. DAPC is taking the position that it is the source installation date rather than the PTI issuance date that sets which BAT (i.e., "Pre-Aug 3, 2006 BAT" or "Post-Aug 3, 2006 no BAT if less than 10 tons/yr controlled PTE") applies. We are taking this position to avoid disparate treatment of companies that received their PTI prior to Aug 3, 2006 versus companies that installed a source prior to that date but did not apply for a PTI until after August 3, 2006. During this transition period it might be a good idea to indicate the source installation date in the Operations, Property and/or Equipment description of the PTI terms and conditions for those sources that have already been installed to help identify why "Pre-Aug 3, 2006 BAT" applies to the source.

27. **An emissions unit will be equipped with a control device (baghouse) and the applicant wants/needs to avoid PSD by taking a Synthetic Minor throughput limitation on the unit. The annual particulate emissions (PE) level needs to be less than 10 tons PE per rolling, 12-month period in order for the project/facility to avoid major NSR/PSD/Title V levels. Does BAT apply? What emission limits and terms can/should be included? Would a lbs/hr limit be included? If there is not a lbs/hr limit in the above example is there still a need for some sort of monitoring to ensure ongoing compliance with the annual limit?**

Since the permitted emissions will be less than 10 tons/yr (after the synthetic minor permit restriction) BAT does not apply and OAC rule 3745-31-05(A)(3) would not be cited for that pollutant. Since BAT is not applicable, and USEPA requires just the "X tons per rolling, 12-months or 365-days" emission limit, we would not have a lbs/hr limit.

When a source is avoiding PSD/NSR, OAC rule 3745-31-05(C) is cited for those pollutants that need synthetic minor limitations. OAC rule 3745-31-05(C) can also be cited in the same PTI for any other pollutants that are not synthetic minored for which the permittee wants to avoid BAT through voluntary restrictions to restrict emissions to less than 10 tons/yr. These voluntary limitations do not usually need to be established as rolling, 12-month or rolling, 365-day emission limitations. An exception to this situation is where a production limitation taken as part of a synthetic minor has the practical effect of

limiting the emissions of other criteria pollutants. An example could be an asphalt plant that takes a rolling, 12-month production limitation to avoid PSD for NOx and CO. Such a restriction would also have the practical effect of limiting the PE, SO2 and VOC emissions on a rolling, 12-month basis as well. Therefore, it is acceptable to state the emission limitation for each pollutant in the permit as a rolling, 12-month emission limit.

Periodic VE checks or baghouse pressure drop monitoring would be appropriate since the effectiveness of the control device is taken into account in the calculation of the controlled PTE and such periodic monitoring terms are necessary to ensure the continued effectiveness of the control device.

[See also the expanded guidance in Q&As #35 and 38]

28. Can emission testing be included in a Synthetic Minor PTI to ensure compliance with the annual emission limitation?

Yes. The language in the Testing section can be written to require that emission testing be conducted to determine the short term emission rate from the source (e.g., lbs/hr, gr/dscf, etc...) and that this short term emission rate be used in the compliance determination for the annual emission limitation.

29. How should a case be handled where the uncontrolled emissions are less than 10 tons/yr but the SIP allowable is greater than 10 tons/yr?

First, you would cite the applicable SIP rule and associated rule limit that would calculate to an allowable emission rate greater than 10 tons/yr (e.g., an OAC rule 3745-18-06(E)(2) source with an allowable emission rate from the rule of 31.4 lbs SO2/hr). Next you would cite OAC rule 3745-31-05(A)(3)(b) as the applicable requirement and use the standard language above to explain that BAT does not apply since the uncontrolled PTE is less than 10 tons/yr. Such a source would have a high short-term allowable under the SIP listed in the permit but would be incapable of exceeding the 10 tons/yr BAT exemption threshold based upon it's PTE.

30. How should OAC rule 3745- 21-07(G)(2) sources be addressed under SB 265? Should the use of Photochemically Reactive Materials (PRMs) be limited in PTIs considering SB265 and the new Rule 3745-21-07?

Permit writers should continue to determine OAC rule 3745-21-07(G)(2) applicability considering whether the source employs or does not employ PRMs for PTIs until the new Rule 3745-21-07 is approved into the SIP. For newly issued PTIs, the amendment of Rule 3745-21-07 will not have any significant effect on OC emissions. Sources that have the potential to emit (taking into account air pollution controls installed on the source) greater than 10 tons/yr of OC would still be subject to BAT. Some BAT requirements for specific types of sources are specified in Engineering Guides of the Division of Air Pollution Control. Such BAT guidelines would generally remain. Also, BAT requirements, if applicable, and PTI requirements for non-BAT sources cannot be less stringent than what is otherwise required by any applicable Ohio air pollution rule and federal air pollution rule. For OC emissions, the applicable Ohio air pollution rules are 3745-21-09, -12, -13, -14, -15, or -16 for VOC, and the applicable federal air pollution rules are the New Source Performance Standards (NSPS) under 40 CFR Part 60 and the National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Parts 61 and 63.

Three permitting scenarios are likely to be encountered:

1. *Source employs PRMs and is subject to OAC rule 3745-21-07(G)(2) limits of 8 lbs OC/hr and 40 lbs OC/day*

   Under this scenario the source can take advantage of the SIP-approved rule limit of 40 lbs OC/day to limit the PTE of the source to 7.3 tons/yr of OC (i.e., 40 lbs OC/day multiplied by 365 days/yr) to avoid BAT. OAC rule 3745-21-07(G)(2) and the limits of 8 lbs OC/hr and 40 lbs OC/day would be cited in the permit. Note that under the new Rule 3745-21-07 the 40 lbs OC/day limitation will be discontinued, and therefore no longer available as a restricting factor on a source's PTE after the new Rule 3745-21-07 is approved into the SIP.

2. *Source does not employ PRMs and has the PTE (taking into account air pollution controls installed on the source) greater than 10 tons/yr of OC*

   In this scenario BAT would apply unless the permittee wants to restrict their emissions to below the 10 tons/yr BAT exemption threshold. Standard methods for BAT should be used to develop a short term limit (like a lb/hr) and an annual limit. However, we should NOT specify "no

use of PRM" or "no emission of PRM" as BAT since such requirements on PRM would no longer be applicable under the new Rule 3745-21-07. Instead, we suggest citing the exemption in OAC rule 3745-21-07(G)(9) in the permit and including the following Additional Term and Condition and Reporting requirement in the permit:

Additional Term and Condition
"This emissions unit currently does not employ photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). It is, therefore, exempt from all emission limitations and control requirements contained in OAC rule 3745-21-07(G)."

Reporting
"Prior to employing any photochemically reactive material in this emissions unit, the permittee shall provide written notification to the director (the appropriate Ohio EPA District Office or local air agency). Such notification shall include information sufficient to determine compliance with the emission limits and/or control requirements specified in OAC rule 3745-21-07(G)."

3. *Source does not employ PRMs and has the PTE (taking into account air pollution controls installed on the source) of less than 10 tons/yr of OC*

In this scenario BAT would not apply. However, since OAC rule 3745-21-07(G)(2) would apply if the company employed PRMs, we suggest citing the exemption in OAC rule 3745-21-07(G)(9) in the permit and including the Additional Term and Condition and Reporting requirements given above in the permit.

31. How do we complete the "SUMMARY (for informational purposes only) TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS" table in the PTI? What should be included in the table for pollutants that do not have tons/yr limits? Should the tons/yr be the PTE or the actual emission rate?

This table is intended to give a summary of the total potential emissions from all of the emissions units associated with the permit. The permit specifically states that the tons/year values in the table are not enforceable (this statement is located in the table heading). We use this information to determine the PTE for the sources for various permitting scenarios (Title V applicability, major NSR,

etc...). Therefore, for those emissions units with a PTE of less than 10 tons/yr, you should include in the table the PTI total tons/yr value(s) for each pollutant based on the source(s) PTE. If a rule restricts the PTE (including SIP and federal rules, OAC rule 3745-31-05(C) synthetic minor or OAC rule 3745-31-05(C) voluntary limitations), then put the restricted value in the table.

32. For emissions units that will not have a tons/yr allowable (i.e., BAT is not applicable for the pollutant, and there is no other allowable pollutant limitation), should we complete the Form B?

Yes. The Form B has other useful information, including the column for source actual emissions. The BAT section of the form should be completed to state that BAT was not applicable due to listed pollutant emissions of less than 10 tons/yr.

33. How should we permit a source that emits lead (Pb)? Can a source of Pb emit up to 10 tons/yr of Pb before being subject to BAT?

Although the BAT exemption threshold of 10 tons/yr applies to Pb since it is a criteria pollutant, Ohio's current Air Toxics Policy (see Q&A #7) would apply. Pb is included in the list of toxic air contaminants in OAC rule 3745-114-01 to be evaluated for toxics impact. For a source that emits Pb at above the PTI total toxic review threshold (i.e., 1 ton/yr) the DO/LAA staff should compare the maximum ground level concentration of Pb from the source to the MAGLC in order to determine the appropriate air toxics T&Cs to include in the permit. A lbs/day Pb emission limit may be established as required by ORC 3704.03(F)(4) if the predicted impact is greater or equal to 80% of the MAGLC.

34. Some of the permit-by-rule (PBR) exemptions in OAC rule 3745-31-03(A)(4) cite 3745-31-05(A)(3), or BAT, as an applicable requirement. How are the PBRs affected by SB265 and can they still be used?

SB265 does not affect the applicability of the PBR provisions. Companies can still use the PBRs since the PBRs are exemptions from the permitting process. SB265 affects sources which need to obtain permits-to-install per OAC rule 3745-31-02, and does not have any effect on sources that are exempt from PTIs including the permanent exemptions and PBRs cited in OAC rule 3745-31-03.

(Similar to the discussion of General Permits in Q&A# 22, any new PBR provisions developed after August 3, 2006 will not cite BAT as an applicable rule unless the PBR allows emissions above 10 tons/yr for a criteria pollutant).

35. What types of monitoring, record keeping and reporting (M/R/Rp) should be specified in permit T&Cs to ensure that emissions stay below 10 tons/yr in cases where the permittee has requested voluntary restrictions, control equipment or emission limitations in order to limit criteria pollutant emissions to less than 10 tons/yr to avoid BAT?

In short, permit T&Cs should specify appropriate M/R/Rp that effectively limits annual emissions to less than 10 tons/yr. Below are a few examples:

A. Periodic visible emission (VE) checks for emissions units for controlled particulate sources: the standard VE check language for "no visible emissions" (term VE.25 from the T&Cs Library) or VE check language for a "stringent mass emission limitation (e.g., less than 5.0 lbs/hr" term VE.26 from the T&Cs Library) would be appropriate because visible emissions would not be expected for a less than 10 tons/yr source based on calculated hourly emissions. For instance, a 10 tons/yr source operating at 8760 hrs/yr would have an average hourly emission rate of 2.3 lbs/hr [10 tons/yr x 1 yr/8760 hrs x 2000 lbs/ton = 2.3 lbs/hr]. Visible emissions would not be expected at this low mass emission rate.

B. Periodic VE checks for controlled sources of fugitive particulate emissions: in most cases the permittee has relied upon a given control measure (e.g., watering of unpaved roadways and parking areas) in order to limit emissions to less than 10 tons/yr. Appropriate T&Cs should be added to the permit.

C. Thermal oxidizer temperature M/R/Rp: in cases where the uncontrolled hourly OC/VOC emission rate at 8760 hrs/yr (e.g., a coating line) is greater than 10 tons/yr and the permittee wishes to employ the thermal oxidizer as voluntary control equipment in order to limit emissions to less than 10 tons/yr and avoid BAT. Use standard language for thermal oxidizers from the T&Cs Library.

36. What is the benefit to permittees of not having BAT limits in their permit if M/R/Rp for voluntary restrictions, control equipment or emission limitations is still required?

Without a BAT limit the permittee has one less emission limit in the permit to demonstrate compliance with. Not having a short-term BAT limit usually eliminates the need to maintain records of actual emissions on an hourly or daily basis. It may also relieve the permittee of the need to conduct emission testing. In some cases this also allows a source to have a short term emission limitation (e.g., from the SIP) which is greater than it's true PTE at 8760 hrs/yr.

(See Q&A #29).

37. What is the status of incorporating the SB265 requirements into the Ohio SIP?

All of the necessary changes to OAC Chapter 3745-31 related to SB265 have been adopted and are in effect. These changes have not yet been adopted as part of the Ohio SIP.

38. What is the correct rule citation where the permittee accepts a voluntary restriction, control equipment or emission limitation to avoid BAT? We heard that this changed from the original SB265 guidance.

The original SB265 guidance indicated that OAC rule 3745-31-02(A)(2) was the correct rule citation (see the "BAT Decision Flowchart" and Q&A #'s 9, 15, 16 and 27) to use in cases where the permittee requested voluntary limitations in order to limit emissions to less than 10 tons/yr to avoid BAT. Since that time DAPC has decided that OAC rule 3745-31-05(C) is the correct rule citation. Because some permits can contain both true synthetic minor limitations for certain pollutants as well as voluntary limitations to avoid BAT for other pollutants, it is recommended that the permit include language placed along with each OAC 3745-31-05(C) rule citation that explains the basis for the emission limitation under the rule. The example below for an aggregate crusher equipped with a diesel-fired generator illustrates this:

Operations, Property, and/or Equipment - (F001) - 400 TPH aggregate crusher with screener and conveyors and 3 MMBtu/hr diesel-fired generator

Applicable Rules/Requirements	**Applicable Emissions Limitations/Control Measures**
OAC rule 3745-31-05(C) Synthetic Minor to avoid PSD	39.9 tons NOx/yr as a rolling, 12-month summation 6,045 hrs/yr as a rolling, 12-month summation of the operating hours
OAC rule 3745-31-05(C) Voluntary Restriction to avoid BAT	9.9 tons PE/yr See A.2.a.

The table below explains which types of permits typically have restricted emission limitations established and the appropriate rule citation for each case.

OAC rule 3745-31-05(C)		
	Type of permit where this rule needs cited	**Comments**
a	SMPTI to avoid Major NSR (PSD, NNSR)	
b	SMPTI to avoid Major Modeling	
c	PTI restriction to pass/avoid State Modeling	
d	SMPTI to avoid MACT	No Operational Restrictions (OR) needed, just HAPs limits
e	PTI straight limit to avoid MACT	This is mainly area sources
f	SMPTI to avoid Title V Permitting	
g	SMPTI to avoid future Major Status	
h	PTI voluntary restrictions, control equipment or emission limitations to avoid BAT	

OAC rule 3745-35-07(B)		
	Type of permit where this rule needs cited	**Comments**
a	FESOP to avoid Title V	FESOP write-up needed
b	FESOP to avoid MACT	FESOP/PTE write-up needed

OAC rule 3745-31-02(A)(2) [now OAC rule 3745-31-05(F)]		
	Type of permit where this rule needs cited	**Comments**
	This rule should not be cited in a permit	This rule allows someone to apply when a PTI is not triggered (similar to the 31-02(A)(1) rule that requires a PTI, but is not cited within the section A./I. table). NOTE: with the changes to OAC Chapter 31, this rule was relocated to OAC rule 3745-31-05(F).

39. Do voluntary restrictions and voluntary emission limitations taken to avoid BAT need to be expressed as rolling, 12-month or rolling, 365-day emission limitations?

No, however please refer to Q&A #27 for situations where it is appropriate to use rolling, 12-month or rolling, 365-day emission limitations.

[See also the expanded guidance in Q&As #27 and 38]

40. What is the correct <u>emission limitation</u> to cite in the permit where the permittee has requested voluntary restrictions, control equipment or emission limitations in order to limit emissions to less than 10 tons/yr to avoid BAT? We heard that this changed from the original SB265 guidance.

The original SB265 guidance and example permits stated the voluntary limit should be expressed as "<10 TPY" or "less than ten tons per year" following the language directly from SB265. DAPC has since decided that emission limits in permits should always be a numeric limitation or "hard number" (e.g., 9.9 TPY) versus a statement of emissions (e.g., "<10 TPY").

41. SB265 has resulted in some confusion about establishing the federally enforceable PTE for emissions units that have less than 10 tons/yr of uncontrolled emissions. How is an emissions unit's federally enforceable PTE determined in light of SB265? Can actual emission test data or AP-42 emission factors be used at 8760 hrs of operation to determine major source status, or is it always necessary to go with the PTE derived from an applicable rule limitation?

For purposes of answering this question it is useful to consider both PTE for an uncontrolled source and PTE for a controlled source in addition to whether the permits should be issued as draft or direct-final actions.

PTE for an uncontrolled source
Example: 13 MMBtu/hr natural gas-fired engine:

Uncontrolled emission rate: 7.1E-05 lb PE/MMBtu (AP-42), 0.004 ton PE/yr at 8,760 hrs/yr
Uncontrolled emission rate: 6E-05 lb PE/MMBtu (actual stack test data), 0.003 ton PE/yr at 8760 hrs/yr
OAC rule 3745-17-11(B)(5)(a): 0.310 lb PE/MMBtu, 17.7 tons PE/yr at 8,760 hrs/yr

Although AP-42 is normally used, stack test data is available for this engine and can be used to calculate emissions. Since uncontrolled emissions are less than 10 tons/yr, a BAT (e.g., lb/hr or lb/MMBtu) limit will not be established and the PTE is considered 0.003 ton PE/yr using the actual stack test data. (This ton/yr value should be included in the "SUMMARY (for informational purposes only) TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS" table in the PTI). The PTE is not affected due to the OAC rule 3745-17-11(B)(5)(a) limit being cited in the permit (this limit extrapolates to an annual emission rate greater than 10 tons/yr at 8760 hrs/yr). The permittee does not need to establish a voluntary emission limitation of less than 10 tons/yr in this case since the PTE is 0.003 ton PE/yr.

PTE for a controlled source
The PTE for a new or modified controlled source should be evaluated following current DAPC guidance of looking at PTE *after* controls, because the permit is going to require the use of the controls. This has not changed in light of SB265. If the use of the control equipment is not required by a rule, then the voluntary use of the control equipment in a permit that requires the use of the control equipment is needed if the permittee wants to establish an emission limitation of less than 10 tons/yr based on the use of that control equipment to avoid BAT. Of course, a SIP limit that gives a lower annual emission rate can also be used to establish the federally enforceable PTE. For synthetic minor permits the rolling, 12-month emission limit would represent PTE.

Draft -vs- direct-final permit issuance
The determination of PTE for major source applicability (PSD, NNSR or Title V) will dictate how to write the PTI emission limitation and whether the permit should be issued as draft or direct-final. Direct-final PTIs should not be issued to a source with control equipment that would potentially trigger PSD/NNSR at its uncontrolled emission level. It should also be noted that any proposed restrictions (e.g., control equipment, production rate or operating hours restrictions) are not federally enforceable to limit PTE for Title V purposes unless written with appropriate synthetic minor limitations and issued draft before final.

42. Can an emissions unit that has interlocked control equipment rely on the interlock to limit the PTE to less than 10 tons/yr?

Yes, with a few provisions. Interlocked control equipment means that the emissions unit and its associated control equipment have been designed and integrated in such a way as to not allow the emissions unit to operate without the proper operation of the associated control equipment. DO/LAA staff should evaluate on a case-by-case basis whether the control equipment interlock can be compromised while allowing the emissions unit to still operate. DO/LAA staff should also evaluate whether the interlock assures proper operation of the control equipment. An example might be a shotblaster controlled with a baghouse which does not allow the unit to operate if the pressure drop falls outside of the set point range. DO/LAA staff should evaluate whether a blown bag in the baghouse would still allow the unit to operate within the pressure drop range while visible emissions occur at the baghouse stack. If this were the case the interlock clearly does not serve the intended purpose of ensuring proper

operation of the baghouse and periodic visible emissions checks should be added to the permit.

43. Can the PTI for a portable source that accepts a voluntary restriction, control equipment or emission limitation to restrict emissions to less than 10 tons/yr be written in such a way that it meets the requirements associated with the relocation of a portable source?

Yes. An Additional Term and Condition should be added to the permit stating that the voluntary restriction, control equipment or emission limitation used to restrict emissions to less than 10 tons/yr is equivalent to BAT, thereby allowing the portable source to meet the criteria associated with the relocation of a portable source. (Portable source T&Cs are typically included in the "Miscellaneous Requirements" section of the permit).

44. Assume a source accepts a voluntary restriction, control equipment or emission limitation to limit PE to 9.9 tons/yr to avoid BAT. Since opacity is not a criteria pollutant, can we still set BAT opacity limits at any level of particulate emissions?

No. Since BAT does not apply if PE is less than 10 tons/yr and opacity is not a criteria pollutant we cannot establish a BAT opacity limit. However the permit will need to include any applicable rule limits for opacity (e.g., OAC rule 3745-17-07(A), 20% opacity as a 6-minute average). As discussed in Q&A #35, visible emission checks commensurate with this level of emissions should be included in the permit T&Cs to serve as a monitoring tool.

45. We are permitting a source that will emit CO at less than 10 tons/yr. Since the permit will not establish a BAT limit for CO should it still cite OAC rule 3745-21-08(B) as an applicable requirement?

There is not a need to cite this rule for a source that emits CO at less than 10 tons/yr.

46. Q&A #7 lists "VOC" as the criteria pollutant under SB265 that the less than 10 tons/yr BAT exemption threshold applies to. Should the criteria pollutant be stated as "OC" rather than "VOC"? Where can I find a recent listing of VOCs?

Because the criteria pollutant under the NAAQS is ozone (O3), the O3 precursors NOx and VOC were identified in the original SB265 guidance document as the pollutants to which the SB265 requirements applied (although "OC" is referred to elsewhere in the guidance document). Q&A #7 has been expanded to read "OC/VOC" since it is recognized that the existing OAC rule 3745-21-07 is an ozone SIP rule that pertains to OC emissions. We do not have a list of VOCs, but we do have the definitions of VOC in OAC rule 3745-21-01(B)(8) and 40 CFR Part 51.100(s)(1). The definitions include a list of OCs that are not VOCs. If any compound is exempt from the definition of "VOC" in OAC rule 3745-21-01(B)(8), we would agree that compound is not "photochemically reactive"and not subject to regulation under OAC rule 3745-21-07 as an OC. Individual compounds that would be considered neither VOCs nor OCs include acetone, methyl acetate and methylene chloride.

47. **Assume that OC/VOC emissions from a MACT source are less than 10 tons/yr and, therefore, BAT does not apply to OC/VOC. Also, when a MACT standard applies to an emissions unit, the Air Toxics Policy does not apply. What do we include in permit T&Cs if there is no emission limitation in the MACT standard?**

For an emissions unit that has an applicable MACT standard, we only cease to apply the Air Toxics Policy for the pollutant(s) that the MACT standard addresses. Application of the Air Toxics Policy would continue per our normal procedures for other pollutants. For MACT standards that do not include specific emission limitations, we should rely on whatever mechanism has been chosen to accomplish the maximum achievable control, e.g., operational restrictions, work practice standards, etc. It is not necessary to develop short-term or long-term emission limitations when the MACT standard achieves emission reductions using other methods.

48. **Based on Q&A#s 35-40 the example permits provided with the original SB265 Q&As are outdated. When will they be updated?**

The example permits have been updated and posted on the web.