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Disclaimer: The Air Permits Division (APD) has developed responses to questions received in response to the presentations made at its Advanced Air Permitting Seminar in September 2006. These questions and answers are intended strictly as guidance to assist with issues regarding permitting of emissions from MSS activities. Final determinations on any specific submittals will be based on the review of this division and could be different than responses provided here. Further, responses to these questions could change as APD continues to develop procedures for processing applications.

Responses to Maintenance, Startup, and Shutdown (MSS) Questions from Advanced Air Permitting Seminar (September 26, 2006 – September 28, 2006)

Authorizations

Definitions

Can official definitions for planned and scheduled maintenances as it relates to this permitting be developed?

Following are rule definitions from Title 30 Texas Administrative Code (TAC) Chapter 101 that apply.

§101.1, Definitions

(28) Emissions event--Any upset event or unscheduled maintenance, startup, or shutdown activity, from a common cause that results in unauthorized emissions of air contaminants from one or more emissions points at a regulated entity.

(91) Scheduled maintenance, startup, or shutdown activity--For activities with unauthorized emissions that are expected to exceed a reportable quantity (RQ), a scheduled maintenance, startup, or shutdown activity is an activity that the owner or operator of the regulated entity whether performing or otherwise affected by the activity, provides prior notice and a final report as required by §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements); the notice or final report includes the information required in §101.211 of this title; and the actual unauthorized emissions from the activity do not exceed the emissions estimates submitted in the initial notification by more than an RQ. For activities with unauthorized emissions that are not expected to, and do not, exceed an RQ, a scheduled maintenance, startup, or shutdown activity is one that is recorded as required by §101.211 of this title. Expected excess opacity events as described in §101.201(e) of this title (relating to Emissions Event Reporting and Recordkeeping Requirements) resulting from scheduled maintenance, startup, or shutdown activities are those that provide prior notice (if required), and are recorded and reported as required by §101.211 of this title.

(109) Unplanned maintenance, startup, or shutdown activity--For activities with unauthorized emissions that are expected to exceed an RQ or with excess opacity, an unplanned maintenance, startup, or shutdown activity is:

(A) a startup or shutdown that was not part of normal or routine facility operations, is unpredictable as to timing, and is not the type of event normally authorized by permit; or (B) a maintenance activity that arises from sudden and unforeseeable

events beyond the control of the operator that requires the immediate corrective action to minimize or avoid an upset or malfunction.

(110) Upset event--an unplanned and unavoidable breakdown or excursion of a process or operation that results in unauthorized emissions. A maintenance, startup, or shutdown activity that was reported under §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements), but had emissions that exceeded the reported amount by more than an RQ due to an unplanned and unavoidable breakdown or excursion of a process or operation is an upset event.

The Air Permits Division (APD) won't have "official definitions" for permitting until there is a rule in place. Following are proposed definitions from a previous rulemaking for 30 TAC 116 that was not adopted but staff still support.

Proposed definitions to be included in §116.10. The proposed definition of "normal operations" establishes the type of activities that may be authorized and includes emissions from production operations and planned MSS. Production operations includes the planning, coordinating, and directing of material inputs and outputs to engage in the manufacture, storage, handling, or creation of any product for any purpose.

The definition of normal operations also specifies maintenance as discrete periods of time when activities occur to ensure the proper and continuing operation of a facility, group of related facilities, or an emission control device. Startups and shutdowns can occur when associated with maintenance or batch-style production. The definition of normal operations excludes acts of God, accidents, malfunctions, or other activities not consistent with good engineering practices.

Normal operations–Activities at a facility or group of related facilities that result in emissions that can be authorized. Excluded from this definition are acts of God, accidents, malfunctions, or other activities that are not consistent with good engineering practice. This definition includes

(A) production operation (steady-state or batch) that includes the planning, coordinating, and directing of material inputs and outputs to engage in the manufacture, storage, handling, or creation of any product for any purpose;

(B) maintenance, startups, or shutdowns (MSS) that are planned:

(i) maintenance--a planned activity at or on a facility that is necessary to ensure the proper and continuing operation of a facility, group of facilities, or emission control device. This term does not include maintenance that is necessary because of an emission event as defined in §101.1 of this title (relating to Definitions);

(ii) startup--a planned activity at or on a facility that primes, prepares, and transitions a facility or group of related facilities from zero production to normal production. This term does not include startups that are necessary following a shutdown solely due to an emission event;

(iii) shutdown--a planned activity at or on a facility that includes the period of time where the facility or group of related facilities is brought from production to the

cessation of production and includes emptying and degassing or depressurization of equipment. This term does not include shutdowns that are necessary solely because of an emission event; and

MSS emissions. If the proposed facility will have any increase or change in character of air contaminant emissions, change in method of operation, or change in method of control of emissions resulting from MSS activities as defined in normal operations, the owner or operator may obtain authorization by a permit by rule, standard permit, flexible permit, or permit amendment.

The definition of normal operations provides wide latitude to incorporate MSS emissions that are planned. The definition is meant to include the different types of activities that are part of facility operations, except for the following exclusions: acts of God, accidents, malfunctions, noncompliant operations, emissions events, and releases not consistent with good engineering practices.

All production operation emissions and emissions that are planned and therefore predictable are part of this definition. The definition excludes the following: acts of God, accidents, malfunctions, and other releases not consistent with good engineering practices. The definition provides sufficient flexibility to encompass a number of types of industries with regard to both production and MSS activities. The term "noncompliant operations" refers to activities resulting in "unauthorized emissions," which is defined in §101.1(108), Definitions. The role of good engineering practice is to ensure that both proper operation and maintenance of equipment are in place to prevent failure and is based on methods and standards recognized by industry and regulators.

The division did not include a definition of the phrase "group of related facilities" because the phrase is covered by individual applications of the term "facility." The term "facility" is defined in both the Texas Health and Safety Code, TCAA, §382.003(6), and §116.10(6) as a discrete or identifiable structure, device, item, equipment, or enclosure that constitutes or contains a stationary source, including appurtenances other than emission control equipment. Because each piece of equipment can be a facility in itself, it often takes more than one facility (group of facilities) to make a product or multiple products. In the definition of "normal operations," the division added to the specifications of startup and shutdown to clarify that those activities, like maintenance, can take place at or on a facility or group of related facilities.

Startup and shutdown are defined in 40 CFR Part 63. Will the Agency review the existing federal definitions to ensure the state definitions are consistent?

The agency does not intend to attempt to reconcile the definitions since the use of these terms differ in different regulations. The definition of these terms within the state regulations, especially in 30 TAC Chapter 101, should be used when

determining requirements under other portions of Chapter 101. EPA does not define maintenance. The EPA "M "is malfunction, which the state does not authorize. "Startup" means the setting in operation of an affected source or portion of an affected source for any purpose. "Shutdown" means the cessation of operation of an affected source or portion of an affected source for any purpose.

Does the definition of startup include any startup regardless of the reason for the prior shutdown, and does the definition include the transition from a zero production rate to a rate that is lower than the normal operating rate. Also, does the definition of startup recognize facilities, such as a startup heater, that are not involved in production?

The proposed definition includes transitions from zero production to rates lower than normal production. Authorization of the periodic operation of equipment during the defined startup of the process it serves (e.g., coincidentally named "startup heater") is also covered.

The definition of shutdown fails to recognize scenarios where an integrated process plant can have multiple individual pieces of equipment where one can be shutdown, but another part of the plant can continue to run**.**

Shutdowns can occur when associated with maintenance or because of batch style production of the facilities. This can apply to individual pieces of equipment, as well as to process units and APD acknowledge that shutdowns are not limited to a single facility. The definition of shutdown includes activities at or on related facilities, and therefore encompasses the scenario presented in this comment.

Shouldn't the phrase concerning emptying, degassing, and depressurization of equipment be moved to a list describing shutdown events. Don't applicants need to keep emission events and shutdown, maintenance, and startup as separate and distinct activities?

The emptying and degassing or depressurization of equipment is part of the shutdown process for many different industries and is included in the specification for shutdowns. Thus, a separate list describing this event is not necessary. MSS associated with emissions events will not be authorized. This decision complies with EPA's policies with regard to permitting of emissions from MSS activities and excess emissions.

General

The MSS permitting process is very restrictive and unnecessarily prescriptive. More cooperation and understanding from permit reviewers are needed to make the process less complicated.

Authorization of planned MSS emissions is voluntary. However, operators will have the ability to claim an affirmative defense for planned MSS emissions only as allowed by the schedule in §101.222. In general, the process to authorize emissions from MSS facilities and related activities is the same as the process to authorize

emissions from production operations. Flexibility can be built into the process based on application representations and how compliance with rules is proposed. MSS permitting can be a complicated process based on given operational scenarios at a site. It is up to the applicant to be aware of all scenarios and emissions and permit those emissions accordingly.

How are other states permitting MSS & the reason for it?

APD will review how other states authorize planned MSS. However, this division must authorize MSS in Texas to comply with EPA's policy regarding excess emissions, which provides that startups and shutdowns of process equipment are part of the normal operations of a source and should be accounted for in the planning, design, and implementation of operating procedures for the process and control equipment. EPA policy also states that planned maintenance is a predictable event and should be included in the permit. Therefore, predictable, quantifiable emissions associated with planned MSS activities can and should be permitted.

What additional options does TCEQ envision to authorize MSS emissions? (i.e., new permits by rule [PBRs], standard permits, others?) For planning purposes, by the middle of 2007, will there be a standard permit for MSS?

Rulemaking is on hold for any authorizations not already available (case-by-case permit, PBR 106.263, or meeting §116.119 de minimis requirements). APD is still considering options and will be briefing management as to options and recommendations, so there is no projected timetable for any rulemaking or standard permit development. In the case of facilities whose construction was claimed under a PBR, staff has reviewed whether anticipated MSS could be covered under that PBR or if PBR 106.263 should be used. Details for all PBRs and MSS can be found through the policy memo entitled "Maintenance, Start-up and Shutdown Emissions in Permits by Rule" dated September 25, 2006 through the agency's website at: http://www.tceq.state.tx.us/assets/public/permitting/air/memos/pbr_with_mss06.pdf. Periodic updates will be made to this memo until rule amendments are proposed and adopted and will be available through: http://www.tceq.state.tx.us/permitting/air/memos/pbr_memos.html

Will TCEQ allow the permitting of MSS emissions where the affirmative defense will still be available (e.g., a shutdown to address a poorly operating compressor)?

APD discourages the permitting of planned MSS emissions ahead of the established schedule. Currently, there are more than 14,000 active new source review (NSR) permits in Texas. The commission has one of the nation's largest minor source permitting programs, as well as a large number of major sources. The opportunity to seek authorization for MSS emissions is not limited to major sources. The commission's air permitting staff has limited experience permitting emissions from MSS activities, and therefore this case by case review will involve developing an

understanding of the methods and techniques available to minimize the emissions from these activities.
Texas is one of the most industrialized states in the country with large numbers of diverse industries. The state has several international ports, and one of the nation's largest complexes of refining and petrochemical companies. Furthermore, there are a wide variety of industries in the state, including a large number of oil and gas production facilities. The schedule in §101.222(h) provides time for the commission to gain a better understanding and development of Best Available Control Technology (BACT), and conduct impacts analyses. Requiring companies in various industries to submit applications at the same time as those from similar facilities will allow the commission to compare how companies plan to control MSS emissions. This will facilitate an understanding of the best ways to control and minimize these emissions.

In addition, the schedule allows for review of the most important emissions, starting with those facilities that are complex, and have large amounts of unauthorized emissions or have emissions with a greater possibility for off site impacts. This schedule will decrease the likelihood that these emissions of concern are not adequately reviewed for best available technology and protection of public health and physical property.

The schedule for the phasing out of the ability to claim an affirmative defense is based on the level of excess emissions reported by industry type in the 2002 emissions inventory. The standard industrial classification (SIC) codes specifically listed in the revised phase out schedule in §101.222(h)(1) are those that reported more than 98% of the total excess emissions reported to the commission's emissions inventory for calendar year 2002.

Why wouldn't air contaminants emitted from a permitted facility during startup and shutdown be considered authorized by the permit limits for those air contaminants, even if there is no specific statement in the permit that such limits apply to the facility's startup and shutdown emissions? Under the TCAA, §382.0518, Preconstruction Permit, the facility must have a permit, not the startup or shutdown emissions from the facility. When the permit was issued, didn't the division understand that startup and shutdown emissions would occur?

The division disagrees with the suggestion that startup and shutdown emissions should be considered authorized by the permit limits even though these emissions were not previously represented or specified in the permit. Even if current allowables have sufficient margin to accommodate startup and shutdown emissions, their initial representation would require authorization by one of various possible mechanisms (i.e., alteration, amendment, standard permit, etc.).

Can an unplanned event with a planned response be permitted? If it is planned, quantified and predictable is it authorized? Why not permit unplanned MSS activities?

The division has determined that unplanned maintenance activities that follow an emissions event should not be authorized. Maintenance emissions resulting from normal operations are those resulting from established and representable maintenance activities that can be scheduled and have predictable emissions. Maintenance activities that follow an emissions event are unscheduled and may have unpredictable emissions. The division does not support authorizing emissions for MSS activities associated with emissions events nor providing for specific operational requirements for unauthorized emissions. Startups after shutdowns attributable to unplanned emissions events, regardless of how well-controlled and orderly the startup, should not be authorized because the frequency of occurrence is unpredictable, and shutdowns and startups that follow an emissions event may have unpredictable emissions.

This decision complies with EPA's policies with regard to permitting of emissions from planned MSS activities. If planned maintenance is performed early because a unit is shutdown, the maintenance is authorized. Additionally, the startup would be authorized if planned maintenance is performed early on the facility associated with the emission event. Any MSS emissions associated with facilities that are shutdown due to an emission event and where no maintenance was performed on the facility associated with the emission event should not be authorized.

Will APD be issuing a new memo on what triggers a permit amendment when undergoing permit renewal?

There are currently no plans to issue a new memo or to revise the existing March 10, 1997 Victoria Hsu memo entitled "Permit Renewal Requirements" that addresses what triggers a permit amendment when undergoing permit renewal. Although there are some updates that could be made, the current memo is still in effect and can be found at:
http://www.tceq.state.tx.us/permitting/air/memos/nsr_memos.html

In preparation for a large maintenance event levels in tanks and other equipment for which maintenance will be performed will be brought down to minimum levels or emptied to minimum pressures prior to the plant or unit shutdown. Would any emissions from bringing the levels down be considered MSS? What if bringing the levels down was also considered part of normal operation if the unit wasn't coming down? That is, the same lowering and generation of emissions is the same for normal operations and preparation for maintenance.

Bringing the liquid levels down in a fixed roof tank would generate the same emissions as any normal production operation of the storage tank; therefore, there would not be any separate emissions listed for this activity. The MSS emissions would be associated with any degassing or cleaning activities performed with the

maintenance. However, lowering the liquid levels in a floating roof tank below the level necessary to float the roof would generate additional emissions. The emissions associated with landing the tank roof would be considered part of the MSS emissions. Each situation should be looked at on a case by case basis. If the MSS emissions are the same or lower than the normal production operation emissions, no additional entries on the Maximum Allowable Emission Rates Table (MAERT) may be necessary as long as the MSS activities are clearly represented and authorized.

Will the TCEQ have any provisions for MSS emissions that may exceed permitted limits, e.g., use of PBRs, etc.?

In those situations where the activity has not been represented in a permit review, PBR 106.263 may be used.

Is it acceptable to include abrasive blasting and painting on fixed immovable structures (e.g., on tanks or vessels) in an individual plant permit? Or does TCEQ envision a separate authorization mechanism for these types of non-process maintenance emissions?

There are some distinct types of MSS expected. There are those activities which occur "in" the unit or "process" maintenance (such as degassing and cleaning a tank) and those activities which occur "to" the unit or "non-process" maintenance (such as blasting and painting a tank). Both types should be authorized if planned. These activities can be included in a permit, or the current PBR 106.263 is an available authorization mechanism for abrasive blasting and painting on fixed immovable structures.

Why should documentation under the General Rules be required if the activity can meet BACT etc.?

Activities not authorized by a permit must comply with the General Rules, including minimization of emissions (which by coincidence may be the same as BACT). Permits will not include upsets or unplanned MSS. The inappropriate operation of badly maintained facilities or equipment is not part of good, normal permit-able operations.

Does the agency intend to cover MSS that occurs less frequently than annually? How does TCEQ plan to authorize MSS emissions that are a one-time occurrence or infrequent events?

All planned MSS emissions that occur less often than annually can be represented and authorized by permit with separate allowable emissions and special conditions. In addition, this division is reviewing options to determine how federal NSR applicability will be determined for these activities.

How will temporary control devices used during maintenance of control devices be permitted?

They can be authorized in a permit and specified in the permit conditions and MAERT, or the Pollution Control Standard Permit or PBR 106.263 may be used as authorization mechanisms provided all applicable requirements are met.

Can emission offsets from other areas (or a similar type of concept) be used to compensate for any potential emission exceedances?

They can only be used if emissions are authorized and comply with current applicable portions of §116.116(e) [SB1126] or Chapter 101, Subchapter H banking – same as today's permitted limitations.

Will testing or monitoring during MSS activities result in noncompliance for companies that use assumptions resulting in low emission limits?

All applicants should expect to submit thorough documentation for assessment of quantification, characterization, BACT, and impacts review and be prepared for APD staff to perform comprehensive audits of this information. The results of testing or monitoring during planned MSS activities will be evaluated just as they are for production operations.

Since the rule language addressing (and defining) QUAN emissions were not approved, how should QUAN emissions be handled?

Any planned emissions must be quantified and permitted. Otherwise, QUAN-type emissions will need to be recorded and/or reported under the Chapter 101 Emission Events Rules since these may be considered an emissions event.

As the regulated community delves deeper into authorizing activity emissions (rather than facility emissions), there have been some inquiries regarding "construction" related emissions. These might be dust from mobile sources, saw dust from sawing, welding emissions, hand held spray painting, etc. In the past, I'm not sure the agency paid much attention to these things other than to remind companies that the nuisance prohibition always applies. What is the current take on construction emissions?

APD authorizes facilities and activities related to the facilities.

There is still concern on industry's part over the idea of monitoring the use of WD-40.

Lubricants can volatize resulting in air emissions. If these emissions are high, they may be a health concern. As with all facilities, emissions from planned MSS, site-wide, worst-case hourly and annual emissions must be accounted for, represented, and evaluated. If these emissions are determined to be negligible or not of the same character as other emissions at the site, a de minimis determination may be available to authorize these emissions.

If a plant uses WD-40 on a piece of equipment, should the WD-40 be authorized as MSS?

If a plant uses WD-40 to keep it operational, authorization is necessary. If the use of WD-40 is not a regularly occurring activity, the amounts over time need to be documented. It may be possible for both a PBR and permit to be used as authorization mechanisms.

Changing products……Is this considered MSS?

Maybe. If it is necessary to clean equipment, purge, etc., the answer is yes. Describe if this is part of normal operations, or in addition to, as authorized since the permit may cover it if it is considered to be a part of normal operations.

So, if it isn't disclosed that WD-40 is being used now and then, and this activity is not authorized, is this an upset?

It may be considered an unplanned maintenance activity.

How is it recommended that WD-40 usage be tracked – purchase slips?

Purchase slips are one good option. APD will work with the regulated community on this issue. Fort Hood uses tons of WD-40, but if only a few cans are used at a site, APD will work with the company. The important message here is that these emissions must be authorized.

If I'm using WD-40 and similar products, I want to represent so many cans and use this to estimate emissions. Is this acceptable?

Yes, for annual emissions, but short-term emissions must also be represented. This includes estimating the number cans per hour used and estimating number of cans that will be used simultaneously.

Can a minimum threshold be established for tracking of hourly emissions? For instance, if WD-40 usage on an hourly basis doesn't come close to the Effects Screening Level (ESL) off-site, can the permittee be exempted from tracking hourly usage/emissions – i.e., only tracking annual usage? It could be assumed that if annual usage stays within representation, hourly usage/emissions stay within representations.

This is certainly an option for permitting.

Can small activities be tracked on an annual basis? There may be some physical limitation to coming up with a short term emission rate. Can there be some other measure of short term emissions besides pounds per hour (lbs/hr)?

Alternative measures may be submitted for review. Please note that APD typically requests short-term emission rates for the impacts evaluation. In addition, EPA requires practically enforceable emission rates.

Can an activity be described statistically?

Possibly. A method can be submitted for APD's review.
Regarding "unplanned" maintenance: In many cases, running a piece of equipment to failure results in less overall air emissions than shutting down for "planned maintenance" or replacing the unit prior to failure. Assuming appropriate preventative maintenance etc. is performed over the life of the equipment, could this type of repair (i.e., "after failure") be authorized?

In this case, APD would question whether appropriate preventative maintenance was done. In addition, the repair would need to be justified as BACT.

Emergency response teams are trained for firefighting. In order to do this, the following occurs: 1) a concentrated firefighting foam (low vapor pressure volatile organic compound [VOC]) is mixed with water; 2) a diesel fire is started in a shallow pan; and, 3) putting out the fire is practiced. Is this planned MSS? Does employee training require authorization?

In these cases, notify the appropriate region. No permit is required.

How should emissions from an MSS activity be calculated when a calculation methodology has not been developed?

Use best engineering judgment. AP-42 may also be consulted to review guidance on how other emission factors have been developed.

Most facilities use vacuum trucks for a wide range of MSS activities. Vacuum trucks are used to handle a wide variety of materials between cleanings, so it is difficult to predict what emissions will be generated by vacuum truck operation. Also, there is no standard procedure for estimating vacuum truck emissions. Must vacuum truck emissions be authorized? If so, how should these emissions be calculated?

There are no standardized emission rate calculations for emissions from vacuum trucks. The same procedures for determining calculation methodologies for production operations should be used.

It was stated not to worry about permitting mobile sources- what about vacuum trucks?

Don't worry about the engine part of the truck; it is the vacuum part that requires authorization.

Vacuum Trucks – How are those included in maintenance and do they need to be controlled?

Yes. These should be addressed. This is something APD is looking at. This issue needs to be addressed since it also plays a role in calculation techniques. Depending on the magnitude and frequency of the emissions, they may need to be controlled.

Can examples be provided and the Permit by Rule/Standard Permit Memo updated for clarification of issues?

APD is considering an addendum with Frequently Asked Questions (FAQs). In the case of facilities whose construction was claimed under a PBR, staff has reviewed whether anticipated MSS could be covered under that PBR or if PBR 106.263 should be used. Details for all PBRs and MSS can be found through the policy memo entitled "Maintenance, Start-up and Shutdown Emissions in Permits by Rule" dated September 25, 2006 through the agency's website at: http://www.tceq.state.tx.us/assets/public/permitting/air/memos/pbr_with_mss06.pdf. Periodic updates will be made to this memo until rule amendments are proposed and adopted and will be available through: http://www.tceq.state.tx.us/permitting/air/memos/pbr_memos.html

Can previous operational history be used for predictability?

Yes.

Production rate changes, no startup/shutdown/maintenance but there is venting-is this operational, should it be permitted?

Yes. It is startup and shutdown although no physical startup and shutdown.

Put new MSS in permit?

New MSS needs to be looked at from impacts and modeling standpoint.

Can compressors/engines be grouped together for MSS?

Yes, please group if it makes sense.

Grouping common activities, what is a reasonable number? What happens if it falls apart due to speciation?

Again, do the worst case short term scenario and group for long term emissions. Some speciation will have to be specific.

If someone turns in an application with infrequent (unplanned) activities, has controls, and meets impacts, will the state allow this in the permit?

No, not at this time. APD will not address these situations until there is further direction from the commission. The current thinking is that there would be rare situations where these activities would be included in the permit.

This is a midstream oil and gas facility. If the upstream supplier has an upset or interruption, how does this relate to the concept of "planned" or "unplanned" emissions? How can a company plan for something out of its control?

Need to coordinate with plant operators which directly affect operation of company's facilities. Present information as part of an application which shows that best practices and good operations are done by all. Planned MSS, even between entities, may be permittable. Unplanned MSS or events will continue to use Chapter 101 reporting and recording requirements.

Contracted out maintenance- must these emissions be quantified and authorized? Who authorizes?

Whoever is in control authorizes. If the contracted maintenance is under Company A's control, then Company A would apply for the authorization. Maintenance contractors would be required to have their own permits if the maintenance is not under Company A's control.

MSS seems to be a moving target. How do companies avoid trouble? Is there a guidance document for MSS?

For guidance, this FAQ list may be used as a starting point. Final determinations on any specific submittals or applications will be based on the review of this division and may be different than any responses provided here. APD will work on keeping any guidance, including this FAQ list, updated as procedures for processing these authorizations continue to develop.

What if there are no emissions associated with my MSS?

Authorization of an MSS activity only applies if the activity causes or has the potential to cause an increase in emissions.

Can planned inspections and planned repair be considered MSS?

Yes.

Should small sources of emissions be reported hourly? They are hard to track.

No. Use the worst case scenario. Purchase records may be used to determine a worse case scenario.

When the company shuts down the operation, the nitrogen oxide (NO_X)decreases. Should the contaminant still be quantified and authorized? When an oxidizer is shutdown, product of combustion emissions decrease. Should these decreases be included?

A decrease in emissions does not need to be authorized. However, any corresponding increase of another contaminant caused by the mechanism that reduced the NO_X emissions would need authorization. The option exists to specify for clarity, but it's the regulated entity's option. Regulated entities may want to clearly represent this operational scenario even if no changes are made to the MAERT. Specification is encouraged.

A company has polypropylene and polyethylene transitions resulting in venting to the flare, however the company does not know how many transitions occur yearly, how should the company evaluate this issue to ensure proper authorization?

The company will have to estimate how many transitions and ventings to have proper authorization. If these are not currently in a permit, the process can be clarified and the transitions and ventings can be quantified and included in a permit.

When representing MSS emissions, how specific does APD want applicants to be?

Group what makes the best sense (i.e., all compressors together), look at worst short term scenario, and then look at long term.

What can be used to predict maintenance emissions?

Previous operating and maintenance history may be used as well as appropriate engineering calculations.

Can I obtain a site wide MSS permit for painting, etc.?

Yes. Please submit a proposal.

Will MSS consider frequency of the activity?

Frequency will be considered.

A company was testing a halon fire suppression system and an operator accidentally set it off. The company received a Notice of Violation (NOV) for not having an air permit for the fire suppression system. Yet, the TCEQ will not give the company a permit for the fire suppression system. What can the company do?

This was a preventable accident, so no NSR authorization is required to account for accidentally setting off the halon fire suppression system.

Startup and shutdown were represented in a company's permit. But now, should these be pulled out and clarified?

It can be reviewed at the next renewal to make sure it is clarified and assure authorization.

What about welding rods and other small sources as part of maintenance activities?

Look at applicable PBR(s) and then review options to permit these sources.

For startup emissions that are identical to normal operations, is a separate authorization required?

All emissions from production operations and planned MSS must be authorized. While emissions may be identical, BACT and impacts must be addressed, but could be the same as production. Startup emissions would be listed separately in the MAERT.

For units that operate on a campaign basis to produce multiple products and frequently startup and shutdown (i.e., weekly) to swap products, is the activity of changing products considered MSS or "batch" operation?

It can be considered either or both. This will be a case by case determination. Applicants should justify why the activity is considered MSS or "batch."

What turnaround frequencies will be considered (1-yr, 5-yr)?

Both, and these reviews will include activities occurring less frequently as well (i.e., more than one every five years). Federal applicability is also an issue.

What about situations where emissions from maintenance events exceed permit allowables due to maintenance done months later (delayed impact of effect greater than normal startup/shutdown because of the event)?

If such an episode can be identified up-front, it can be discussed between APD and the applicant and an attempt can be made to address it. Otherwise, it can be discussed this with the regional office to see if an affirmative defense can be claimed or attached to the upset that lead to the situation. This is a hard question to address right now. Good question though on how to separate this as maintenance vs. upset related.

Can someone create a permit with only MSS?

This was not anticipated. APD would normally want to connect these activities with authorized units in those authorizations if possible. However, it is something this division can look into.

If a permit currently authorizes MSS emissions, how would applicants deal with activities that are not authorized as MSS related, even though they are in a permit?
At the next amendment or renewal, APD may/can take another look and potentially pull those out.

If a regulated entity quantifies MSS and remains within the current permit allowables, do the MSS activities have to be broken out now?

Yes. APD needs to identify the MSS activities and conduct a BACT review. The MSS activities may already have been reviewed for impacts, but the activities need to be identified. Separate allowables may not be necessary. This situation may be a good candidate for a permit alteration.

Can existing MSS be handled like a grandfathered facility (i.e., if emissions are below a level, are acceptable, and have always been there, authorization is not required)?

No. Emissions from MSS activities must meet BACT and impacts at the time the permit is reviewed.

How will qualified facilities be affected by the new authorization requirements for planned MSS emissions?

Qualified facility status (as specified in §116.116(e)) is considered a method of authorization. This means that the swapping of production operation emissions and emission from planned MSS activities would be allowed for qualified facilities.

De minimis

Does TCEQ plan to establish a de minimis emission level for MSS activities under which authorization is not required? Are there any MSS activities that could be exempted from permitting?

At this time, all planned MSS would need to be authorized, either through a permit, use of a PBR that explicitly addresses MSS facilities and emissions, or meet de minimis requirements in §116.119.

Can TCEQ develop a de minimis memo? Is there a de minimis rule for MSS?

The division will consider developing additional de minimis mechanisms per §116.119 (the de minimis rule). The process to amend the "List of De Minimis Facilities or Sources" is located at http://www.tceq.state.tx.us/assets/public/permitting/air/NewSourceReview/de_minimis/de_minimis_amend.pdf

How can de minimis be claimed at a permitted site? The TCEQ's unwritten policy for a special de minimis ruling has always been that emissions from the proposal de minimis unit cannot be "like emissions" emitted elsewhere in the plant. Is this policy still in effect?

The de minimis procedures for a case-by-case review are generally based on the premise cited by the applicant. APD evaluates the total impacts from all facilities at the site that emit the same contaminant of concern. APD welcomes suggestions with some solutions and supporting documentation if it is suggested that the current practice be changed.

Permits by Rule (PBRs)/Standard Permits

Facilities currently have the option of relying upon MSS PBR 106.263 -- which has limits based upon RQs -- to authorize emissions from routine MSS activities. If the TCEQ changes this PBR to make it more restrictive, many of these activities will suddenly become unauthorized. Will the TCEQ also change the schedule in §101.222(h) to allow facilities to submit a permit amendment for these activities and retain the affirmative defense?

No. There are currently no plans to alter the schedule.

Once a facility has a permit authorizing MSS emissions, will new sources installed or modified under PBR need to incorporate new or modified MSS emissions into the PBR?

Yes. Emissions from MSS activities associated with any authorized facility must also be authorized.

Should facilities plan to use PBR 106.263 for the new source's MSS emissions, or must the MSS emissions be included in the PBR for the permanent equipment?

Depends on the PBR claimed whether MSS is inherent in the PBR. In the case of facilities whose construction was claimed under a PBR, staff has reviewed whether anticipated MSS could be covered under that PBR or if PBR 106.263 should be used. Details for all PBRs and MSS can be found through the policy memo entitled "Maintenance, Start-up and Shutdown Emissions in Permits by Rule" dated September 25, 2006 through the agency's website at: http://www.tceq.state.tx.us/assets/public/permitting/air/memos/pbr_with_mss06.pdf. Periodic updates will be made to this memo until rule amendments are proposed and adopted and will be available through: http://www.tceq.state.tx.us/permitting/air/memos/pbr_memos.html

Do the domestic and comfort heating and cooling PBRs (106.101-106.103) authorize leaks in the HVAC systems?

No, they do not authorize leaks due to malfunctions. However, there may be fugitive emissions from system components, and these are authorized by the respective PBRs.

How will MSS emissions be included in PBRs?

It depends on the PBR. See memo for guidance. In the case of facilities whose construction was claimed under a PBR, staff has reviewed whether anticipated MSS could be covered under that PBR or if PBR 106.263 should be used. Details for all PBRs and MSS can be found through the policy memo entitled "Maintenance, Start-up and Shutdown Emissions in Permits by Rule" dated September 25, 2006 through the agency's website at: http://www.tceq.state.tx.us/assets/public/permitting/air/memos/pbr_with_mss06.pdf. Periodic updates will be made to this memo until rule amendments are proposed and adopted and will be available through: http://www.tceq.state.tx.us/permitting/air/memos/pbr_memos.html

Why can't tank MSS emissions be claimed in the tank PBRs?

Tank PBR MSS emissions are not the same character and quantity as emissions from production operations. PBR 106.263 for Tank MSS activities should be used.

If a PBR is unregistered, should the PBR MSS emissions be accounted for by updating the company records for MSS?

Yes, and if a PBR is registered or certified, reregistration or certification for MSS emissions should occur.

Regarding PBR 106.512 claims, the PBR NO_X limit of 2 grams per horsepower-hour (g/hp-hr) is not considered BACT for engines. Has changing PBR 106.512 to 0.5g/hp-hr instead of allowing the PBR 2g/hp-hr limit as BACT been considered?

PBR 106.512 does not require BACT, but standard permits require BACT. The Oil and Gas Standard permit will have BACT included.

For operations that have registered, and the PBR includes MSS, do these operations need to reregister?

If the PBR has MSS in it, reregistering is not necessary.

Can PBR 106.263 be stacked on an NSR permit?

Yes. With respect to MSS emissions, as much as possible should be authorized in the permit.

Can PBRs 106.261/262 be used for MSS once the site-wide, cumulative 25/250 limit of PBR 106.263 is met?

PBRs 106.261/262 are not available for MSS unless part of a project (construction of facilities or physical/operational changes to permitted facilities) is otherwise authorized under PBRs 106.261/262. These PBRs may not be used just for MSS once the PBR 106.263 emission limit is exceeded.

Does the MSS permit need to include emissions from engine-fired portable equipment such as air compressors, pumps, and generators that are used to support maintenance activities and shutdowns? Or will there continue to be a PBR that authorizes these as "temporary maintenance facilities?"

Yes, these types of activities and facilities need to be authorized. PBR 106.263 continues to authorize temporary maintenance facilities, but companies may want to permit these if emissions may exceed the cumulative rolling site-wide limits of the PBR.

Do emissions from pipeline maintenance and pigging activities need an MSS permit, or will these emissions still be authorized under PBR 106.355?

If the activities and facilities meet PBR 106.355, the PBR can be used. Otherwise, the emissions need to be permitted.

If PBR 106.263 (for maintenance) is rolled into a permit, will any special conditions be added to the permit?

Yes. The permit conditions and MAERT will specify the MSS activities and enforceable emission limits, including controls, techniques, and relevant operational parameters. If the PBR is "incorporated," the MSS activities will be subject to BACT, impacts analysis, and become permitted and the PBR voided after the permit action is issued. If the PBR is "referenced," the MSS will be included in the special conditions and MAERT. Inclusion on the MAERT will be to specify the activities, but these activities will continue to be authorized by the PBR.

If PBR 106.263 (for maintenance) is rolled into a permit, can this PBR be claimed again in the following year?

If the PBR is "incorporated," the current MSS activities will become permitted, and the PBR may be reclaimed for different activities the next year. If the PBR is "referenced," the current MSS are still authorized under the PBR and the cumulative emission limit continues to be in effect.

How can a regulated entity authorize any new maintenance activities that were not previously included in any permit or PBR authorization?

As long as the MSS activities are truly "new" and not an additional occurrence of a currently permitted MSS, options are: PBR 106.263 or permit amendment. Keep in mind, the affirmative defense is not lost for a plant type until the dates in 101.222(h) pass, and APD is discouraging early amendment or permit reviews of MSS. Currently, the refineries are the first industry type and their date is January 2007.

If PBR 106.263 (for maintenance) is rolled into a permit now, what must be done to comply with any requirements to permit maintenance emissions?

If the PBR is "incorporated," the MSS activities will be subject to BACT, impacts analysis, and become permitted and the PBR voided after the permit action is issued. If the PBR is "referenced," the MSS will be included in special conditions, and MAERT. Inclusion on the MAERT will be to specify the activities, but these activities will continue to be authorized by the PBR. For additional details, see revised consolidation memo entitled "REVISED PBR and SP Consolidation into Permits" dated September 26, 2006 and available through:
http://www.tceq.state.tx.us/permitting/air/memos/pbr_memos.html

My assumption has been that since it is allowed for MSS emissions to be claimed under PBR 106.263 or authorized via permit, regardless of what mechanism was used to authorize the facility, the incorporation of or reference of PBR 106.263 in the permit would not be required.

Not true. If the MSS occurs on or to permitted facilities, it must be at a minimum referenced in the permit at some point in the future, either based on the next amendment scope or the Chapter 101 schedule.

APD has stated that "if the PBR is 'referenced,' the MSS will be included in special conditions, MAERT only to specify the activities." Not sure what this means as far as the MAERT is concerned. Given that there is a site-wide annual limit for PBR 106.263, is APD trying to identify allowable emission rates in the MAERT?

Yes. The emissions to be quantified on the MAERT may be up to the rule limits in Chapter 106 (i.e., 250 TPY of NO_X and CO and 25 TPY of any other contaminant) if the applicant can justify the values as appropriate to the activity using acceptable calculation methods.

If the referencing of PBR 106.263 in the permit is required, is the permit reviewer expected to audit the MSS claimed to ensure it meets the PBR requirements? If so, not much reviewer time is being saved by allowing these claims under PBR 106.263 rather than in the permit.

The permit reviewer's evaluation must ensure that there is no need to trigger an amendment (i.e., emissions are not exceeding what could have been authorized under the PBR.) As with all reviews, spot-checking/auditing of information is needed to ensure consistent and appropriate calculations, clear identification of activities, and any issues for compliance demonstrations unique to that permit which may need to be included in the permit special conditions and/or MAERT. The "efficiency" gain is for applicants, not TCEQ, in that applicants can have some insignificant amount of MSS authorized without having to submit an amendment or permit application.

Has TCEQ considered a maintenance PBR for small equipment (i.e., pumps)? For example, for equipment that is less than ** gallons and liquid is cleared to closed containers or storage as much as possible, it's covered by PBR.

PBR 106.263 currently authorizes small maintenance equipment, and APD may, in the future, consider the addition of facilities to this PBR.

Is there a limit on how many PBRs can be used to authorize maintenance emissions? For example, if a site has operations distinct for Product A and Product B, can separate maintenance PBRs be used for Units A and Units B? If Unit B has two production trains that are identical, can a separate PBR be used to cover each train?

Yes. Separate PBRs claims may be made if the units are stand-alone. Multiple PBRs may be used for MSS authorizations per the policy memo entitled "Maintenance, Start-up and Shutdown Emissions in Permits by Rule" dated September 25, 2006 through the agency's website at: http://www.tceq.state.tx.us/assets/public/permitting/air/memos/pbr_with_mss06.pdf. Periodic updates will be made to this memo until rule amendments are proposed and adopted and will be available through: http://www.tceq.state.tx.us/permitting/air/memos/pbr_memos.html. Please keep in mind that cumulative site-wide emissions must be considered when claiming PBR 106.263. In addition, companies are reminded that the limits of §106.4 must be complied with at all times.

A company has claimed a PBR for normal operations. Now, it wants to add authorization for MSS. Can the company reclaim the PBR to cover normal operations and MSS? What if the MSS emissions are greater when combined with the normal emissions? Can this company claim the MSS PBR for the difference? What if this company has authorization under an old non-registration PBR or standard exemption?

Follow policy memos. In the case of facilities whose construction was claimed under a PBR, staff has reviewed whether anticipated MSS could be covered under that PBR or if PBR 106.263 should be used. Details for all PBRs and MSS can be found through the policy memo entitled "Maintenance, Start-up and Shutdown Emissions in Permits by Rule" dated September 25, 2006 through the agency's website at: http://www.tceq.state.tx.us/assets/public/permitting/air/memos/pbr_with_mss06.pdf. Periodic updates will be made to this memo until rule amendments are proposed and adopted and will be available through: http://www.tceq.state.tx.us/permitting/air/memos/pbr_memos.html. At this time, historical versions of PBRs or standard exemptions are not considered to include MSS since they have not been evaluated, so the current PBR 106.263 should be used.

PBRs which are older or simple, do they consider MSS?

At this time, historical versions of PBRs or standard exemptions are not considered to include MSS since they have not been evaluated, so the current PBR 106.263 should be used.

Wasn't there was a PBR that said all maintenance up to 25 TPY is authorized?

APD is not aware of such a PBR. Current guidance is that as each activity occurs, the PBR in effect at the time must be claimed.

For planning purposes, by the middle of 2007, will there be a standard permit for MSS?

No. At this point in time, APD is still considering options and will be briefing management as to options and recommendations, so there is no projected timetable for any rulemaking or standard permit development.

How do I claim small emissions from pump maintenance?

Small emissions from pump maintenance may still be claimed under PBR 106.263.

Can MSS be authorized through a standard permit?

Currently, the answer is No. The Pollution Control Standard Permit may be used when the proposed control is a replacement and MSS is already authorized for the existing control. As new standard permits are developed for specific industries, MSS will be addressed.

When can emissions be considered "insignificant"?

By definition, anything authorized by Chapter 106 (PBRs) is insignificant.

Flexible Permits and Plant-wide Applicability Limits (PALs)
How will the MSS activities be added to a flexible permit?

Depending on the application representations and review, in most cases separate allowables, conditions, and caps are anticipated.

How should application fees be determined when adding MSS emissions to flexible permits?

Flexible permit application fees should be based on the increase in emission cap(s) (allowable emissions) regardless of whether the emissions existed previously.

Will it be possible to apply some flexibility in the permit by reporting all MSS emissions as VOC and not chemical specific and setting up some type of reporting method that allows trading of one activity for another?

Speciation is needed to ensure protectiveness. Regarding the trading of one activity for another, if permitted and qualified, may use 116.116(e) or may apply for a flexible permit.

While the permit limits will be based on assumed numbers and types of maintenance activities, actual activities will vary widely depending upon maintenance needs. How much flexibility will the TCEQ provide for variations from the permit representations?

Applicants should use flexible permit guidance as a starting point. Representations should include all potential scenarios and combinations to cover contingencies. If a scenario or activity is not represented, it will not be authorized.

Can malfunctions be included under PAL?

No. A PAL under Texas rules does not include malfunctions. Texas rules are different than federal rules.

Federal NSR Permitting

If an upstream unit is being modified and undergoing a PSD review including BACT, the TCEQ policy is that BACT is not required for downstream units. Is this policy current? Also, will MSS BACT review affect other units?

BACT will not normally be triggered for downstream facilities, but in cases where the upstream unit was a "bottleneck" and the emissions from the downstream unit are significantly increased, then BACT review may be triggered.

How is MSS aggregated for federal review?

The division is addressing federal review on a case-by-case basis while staff works with EPA to develop a reasonable approach for this issue.

Doing retrospective reviews for MSS, actual to allowable vs. actual to future actuals, how will this be applied?

Usually, retrospective reviews are conducted under the rules existing at that time. APD staff is working with EPA to develop a reasonable approach for this issue.

40 CFR 52.21 has an exclusion for routine repair and maintenance. Seems like some of these are already covered.

Yes, if emissions from MSS were included in the emission calculations or potential to emit. If these emissions were not included, they are not automatically covered. MSS activities are not modifications, but that does not mean those emissions are excluded from netting, etc.

Applications

Administratively Complete
What about declaring the MSS application complete if an applicant has addressed those issues for which there is guidance?

If all statutory and regulatory issues have been addressed and met, the application may be declared administratively complete. Essentially, APD needs a reasonable effort from applicants. The submittal of a PI-1 with nothing addressing MSS emissions will not be acceptable.

Public Notice
Will applications for MSS incorporation with increase in allowables be subject to public notice requirements?

Yes. MSS emissions, previously reported under 30 TAC Chapter 101, which are to be included in a permit must be counted as newly authorized emissions for the purposes of public notice requirements. The need for public notice should be based on the net change in authorized emissions.

Special Conditions and the Maximum Allowable Emission Rates Table (MAERT)
The regulated community is being told emission factor changes require amendments even through there are no physical changes, no operational changes, and no change in the character of emissions.

This may depend on the particular situation. If, for example, there is an AP-42 emission factor change where the EPA has updated factors which will cause an increase in permitted allowables, this would not require an amendment. There are a number of other examples with increases in permit allowables that some might refer to as an emission factor change but that would in fact require an amendment. Such as:

- **Changing from one section of AP-42 to another section of AP-42**
- **Changing from AP-42 factors to factors based on sampling**
- **Changing from factors based on sampling to AP-42 factors**
- **Changing factors based on sampling due to new sampling**

The MAERT should only have one limit for routine and MSS emissions routed to a control device (e.g., flares, incinerators). By differentiating routine emissions from MSS emissions, TCEQ is making it very difficult for facilities to categorize the emissions in order to determine compliance with the permit limits since all the emissions exit the same control device, and are being monitored and recorded as total in terms of lb/hr and ton/yr (TPY).

In cases where the MSS are within the "noise" of the permitted production operation emissions, the MAERT would reflect one emission rate (lb/hr and TPY)

for the control device. However, if the MSS emissions are significantly higher than the production operation emissions, a separate entry would be listed on the MAERT for the MSS emissions. This will allow APD to distinguish between the sharp spikes caused by the MSS activities and potential emission events. In addition, emissions associated with an infrequent turn around would be listed separately since these emissions would not occur annually.

Previous Permit Representation used "data" for annual and peak emissions from a unit which included emissions that were MSS, but were NOT specifically identified as to what MSS in the representation. Does this mean that there are "some" authorized MSS emissions in the permit as the representation was the basis for the MAERT limits currently in the permit? Is it necessary to break these out in the MSS permitting process-understanding that the prior modeling review included these "peaks" and therefore, were previously "permitted?"

Some emission estimates for flares and other common control devices were based on sampling of common header systems and as such may have included MSS emissions when sampled. However, the MSS activities were not represented in the permit application. In these cases, the MSS activities and emissions are not authorized by the permit. The production operation emissions from the control device were over estimated.

The MSS activities must be clearly represented in the permit with an estimation of the emissions associated with each activity. However, since the MAERT reflects an emission rate based on sampling which included the MSS emissions, it may not be necessary to increase the emissions from the control device. If no changes are made to the allowable emission rates on the MAERT, it may not be necessary to revise the modeling and health effects review.

What level of speciation will be required for inclusion on a MAERT? Ex. Certain lubricants with V.P. DO2 pounds per square inch absolute (psia) are made up of many discrete carbon chain lengths from C28- C52 etc. Should ALL of the specific compounds be represented?

The major constituents of a mixture should be speciated. In some cases the mixture may already have an ESL established and it would be acceptable to list the material by the generic name. For example, there is an ESL already listed for "lube oils and additives." It would be sufficient to list lube oil on the Table 1(A) without doing additional speciation.

Will applicants have the flexibility to include MSS emission allowable rates for control devices like flares or incinerators with the existing routine emissions or must MSS emissions be listed as separate allowable limits on the MAERT?

In most cases, separate allowables and special conditions are expected for MSS activities. In certain instances, depending on representations, MSS may be

indicated in special conditions as already included or combined in current allowables. Identifying MSS emissions on the MAERT also makes them federally enforceable.

Will adding MSS activities to a permit result in additional special conditions?

In almost every case, the answer is Yes. The provisions and maximum allowable emission rates table (MAERT) needs to specifically identify the activities, duration, frequency and controls, limits, recordkeeping, and monitoring – just like any production operation activities.

What are the expectations for special conditions in NSR permits for MSS emissions?

The TCEQ will try to provide some examples, but general expectations will be based (just as with production) on application representations and how they relate to character, quantity, frequency, duration, controls, and compliance demonstrations.

Are emissions for MSS permitted by Emission Point Number (EPN) on MAERT?

The activity will be authorized, not necessarily by EPN but maybe for group(s) of EPNs.

Will there be a lb/hr and TPY number for MSS on a MAERT?

Yes.

Has TCEQ considered two standard wordings for special conditions – one for minor emissions (i.e., pump clearing) and a more extensive wording for activities with a higher potential for emissions or health impacts?

The division will consider standardized, boiler-plate special condition wording development.

Record keeping

What are the recordkeeping expectations for MSS tracking?

The TCEQ will try to provide some examples, but general expectations will be based (just as with production operation) on application representations and how they relate to character, quantity, frequency, duration, controls, and how the applicant proposes to demonstrate compliance with these representations.

Will MSS be tracked similar to FUGEM records with a general EPN for the unit or site?

It is possible to group certain facilities and activities depending on representations where similar facilities and operations are represented to be equivalent, with consideration given to demonstrating compliance with overall limits.

Rather than tracking activities, can the lb/hr and TPY allowables be used to control activities?

Yes, if compliance with impacts and other applicable requirements can be demonstrated and would not need a specific allowable rate.

Should an average emission rate be used for the hourly cases?

Use the worst case scenario and keep records unless there is a physical limitation which cannot be exceeded.

BACT

General
Does the BACT list apply state wide?

BACT is a statewide requirement.

A BACT device in a permit……..for MSS does BACT have to be 0the same device?

Control requirements for MSS could be the same as for production operation or different depending on the type of device and how control is achieved.

How will TCEQ address BACT and the impact analysis for startups of boilers, flares, etc. when equipment temperatures at not at optimal? Efficiencies and emission factors may not be correct for these startup periods.

It may be necessary to rely on the manufacturer of the equipment and/or data from existing facilities to estimate the short term emissions until the equipment is warmed up and stabilized. It is anticipated that these "excursions" will be of relatively short duration and will not significantly impact the annual emissions.

Under federal rules, if MSS uses normal production operations BACT, then facility would meet BACT considerations?

No. There may be a difference.

BACT - Federal vs. State, do they need to be the same?

In order to obtain a permit, facilities must meet BACT and impacts. TCEQ will look at the technology/costs applicable to the MSS emissions. BACT should be the same for federal and state review. The state review will include sources that do not trigger Federal review.

Will additional controls be necessary for MSS?

Not always. Sometimes, existing controls will work.

Databases/Guidance/On-line Access

Recognizing that the schedule for submitting MSS applications is set in stone and answers will not be available for every question, after submittal there may be some negotiation of what is BACT. Can there be some kind of online forum created so that as decisions on BACT are made, one can go online and see what the latest guidance is?

Current agency policy prohibits an on-line forum. However, APD will be providing BACT guidance tables on the website.

For the BACT database, can companies access this database?

APD plans on putting current, 10-year old, and MSS BACT on the web. APD is still working on how to best present this information on the Air Permits webpage.

BACT Database – will the agency post this information for MSS?

Yes, when it becomes available. Tables will most likely be on the website.

Modeling and Impacts

When will RG-324, "Modeling and Effects Review Applicability" (the MERA Flowchart) be updated to reflect the technical review required for planned MSS facilities?

The division formed a stakeholder group and held a meeting in October 2006. The group asked for a straw man proposal. The proposal will be sent to stakeholders in late December 2006. A team is scheduled to meet in February 2007. Team proposals will be sent to stakeholders before they are presented to management.

For the MERA Flowchart, do all normal operations need to be evaluated, including MSS? Will permitting MSS emissions result in the need for additional modeling, even if these emissions are now authorized under a PBR?

Impacts from normal operations (production operations and planned MSS) must be acceptable individually as well as collectively when emissions from all aspects of

normal operations could occur simultaneously. For example, if planned MSS emissions are authorized by PBR but have not been evaluated at a site, they will be included in the impacts review; however, modeling may or may not be required.

What about the development of ESLs?

RG-442 "Guidelines to Develop Effects, Screening Levels, Reference, Values, and Unit Risk Factors" was published in November 2006 and can be found at: http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/rg/rg-442_1899413.pdf

Chemical Industry

General
Would removal of filter cake be considered maintenance or operations?

Either, depending on the frequency of the removal.

A plant has 300 pieces of equipment. Once the equipment is cleared of material, there will be a film of organics on the inside. The emissions will depend on the thickness of the film. How should the thickness be estimated?

Engineering judgment should be used to determine the most appropriate method of determining the emissions associated with opening a piece of equipment. Is the piece of equipment similar to another piece which has clingage factors already developed for it which could be utilized for this case? The emissions may be approximated by taking advantage of the similarity of equipment.

Vendor "supply" via pipeline- Meter proving and maintenance is vented to facilities flare- routine/scheduled - use a permitted control device from a "non-permitted" facility (meter skid) or pipeline owned by vendor. Currently use MSS PBR for this, even though "exempt" under current maintenance rules for pipelines. Is the activity required to be "permitted" under these changes? Is the facility which has the Facility Identification Number/Emission Point Number (FIN/EPN) for the control device required to add these to the MSS permit or is it the pipeline's responsibility?

A decision on who authorizes the metering proving and maintenance could be dependent on a number of factors. Are the emissions vented to atmosphere or routed to a control device? Who controls the control device? Where does custody transfer of the pipeline material occur? Any of these could be used for a basis on deciding who authorizes the maintenance emissions. If the emissions are authorized under PBR currently, they do not have to be authorized by a permit.

A company produces HDPE, LDPE, and Polypropylene in a continuous style operation. Do startup and shutdown still need to be incorporated if the emissions are sent to a flare?

Emissions that are sent to a flare during product changes are still startup and shutdown type emissions although there is not a traditional shutdown and startup as associated with a batch style operation. If the reactor is cleaned out during a product change, these emissions would be considered maintenance.

Can lab results be used to calculate flash gas emissions?

Yes, and if lab results are used, please make sure to include the testing protocol with the calculations.

Compressor bearings are grinding, and repair is scheduled for 3 days later. Is this covered?

It depends on the equipment. If the equipment is not being maintained properly, it may not be covered. However, if everything was done that could be done to attain proper maintenance, it could be an affirmative defense claim. If the bearing change out is once every two years, it would be covered.

Tanks

For an IFR tank, there may be no option than to empty the tank. There are some API tanks that might not be able to handle the back pressure from a control device. How would this situation be evaluated?

Technical feasibility of control would be taken into consideration along with other factors such as frequency of occurrence, magnitude of emissions, off-property impacts, etc.

What is a "convenience" landing of a floating roof? Can convenience landings be conducted periodically, or are they now prohibited?

APD does not consider the uncontrolled landing of the roof of a floating roof tank for purposes other than maintenance or product change to be BACT. Therefore, "convenience" landings would not be authorized by the permit unless the associated emissions are controlled. A policy memo on the subject of floating roof landings is currently under development.

Will the TCEQ make a comparison of tank landing emissions as compared to emissions of low vapor pressure compounds from fixed roof tanks?

If a material with a vapor pressure of less than 0.5 psia is stored in a floating roof tank, APD would consider a comparison of the emissions from a fixed roof tank to those associated with landing the floating roof when making a BACT determination.

How did the TCEQ estimate short term emissions from tank landings?

The TCEQ has determined that the most conservative estimate of short term emissions is a reasonable model for both external and internal floating roof tanks. The total emissions from the refilling event are calculated using the appropriate equation found in Section 7.1.3.2 (Draft 6/30/06) of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids." The maximum short term emissions are then calculated by dividing the total quantity (pounds [lbs]) of vapor generated during the refilling event by the time it takes to refloat the roof. The time it takes to refloat the roof shall be calculated by dividing the volume of the vapor space (gallons) by the filling rate (gallons per hour). For example, the total emissions generated during the refilling event have been determined to be 2,200 lbs. of VOCs and the tank is being refilled at a rate sufficient to refloat the roof in 2 hours and 30 minutes, the estimated maximum short term emission rate would be 2200/2.5 = 880 lbs/hr. If the time it takes to refloat the roof is one hour or less, divide the total emissions generated during the refilling event by one.

If a fixed roof tank is controlled by a closed vent system (CVS) during normal operations and during maintenance, and if during maintenance (such as vessel degreasing) emissions don't exceed existing emission limits, does this MSS emission have to be permitted or will it already be considered permitted? If it does have to be authorized, in this scenario, can it be authorized as a permit alteration (since MAERT values won't be changed)?

Even if the maintenance emissions are less than the routine emissions already authorized by the permit, the permit must be amended to authorize the maintenance activity and its' associated emissions. However, since the emissions are less than those already authorized by the permit it may not be necessary to revise the modeling or impacts review.

What about filling gas/fuel tanks on emergency compressor engines, etc.?

The background for refilling must be explained. It may be considered MSS. PBR 106.412 (a one-liner PBR for fuel dispensing) may also cover the activity.

How should emissions from a multiple tank scenario be calculated?

List the possible scenarios and pick the worst case. Document all assumptions and methodology.

If the tank is authorized by a permit, can tank MSS be uncontrolled?

No uncontrolled tank maintenance will be approved if the tank permit requires control.

BACT

During a refinery shutdown, most of the material in the process equipment will be emitted from the flare. Because of equipment limitations, the last 5 pounds per square inch, gauge pressure (psig) will have to be released. Will this be BACT?

It's possible it could be with appropriate justification. The BACT decision would be based upon the technical feasibility of additional control, the amount of material to be vented, and the potential impacts associated with the vented material.

Is $5000 per ton of sulfur dioxide (SO_2) on a cat cracker considered BACT?

Yes. APD has determined that $5000 per ton is BACT for production operations. APD is in the process of evaluating BACT for MSS for cat crackers (FCCUs). At this time, there is no current evidence to suggest that another dollar per ton value should be used for MSS.

Flares

During many maintenance activities nitrogen will be purged to a flare, changing the average heating value of the flare gas. This nitrogen will typically be unmetered, and may originate from multiple sources simultaneously during a unit turnaround. Must flares meet the 60.18 limits during MSS activities? How should facilities without flare gas monitoring ensure compliance with the 60.18 heating value limits?

Flares must meet 40 CFR 60.18 limits during all normal operations, including production operations and planned MSS. Monitoring at the flare header is required and addition of assisted gas may be necessary to maintain compliance. If a flare does not have gas monitoring, it will need to be installed.

Is it appropriate to merge MSS emissions from a flare with routine emissions from normal operations? This plant has process vents going to a flare along with emissions from clearing process units going to the same flare. For a flare with an HRVOC analyzer, can there be a combined limit for MSS/routine emissions?

It may be possible if the MSS emissions are less than the production operations emissions or if the combined emission rate is close to the production operations emission rate. If the MSS emissions have a sharp spike or differ greatly in magnitude from the production operations emissions, APD may choose to list the emissions separately on the MAERT to help distinguish MSS emissions from emission events.

Combustion Industry

General

Current permit conditions state that the facility is operational at 70% load. Upon startup/shutdown, the Continuous Emissions Monitoring System (CEMS) does not start recording until 70% load is reached and stops on shutdown at less than 70% load. This is

flagged in the Data Acquisition System (DAS) startup and shutdown. Should this method of operation of the CEMS be changed? There is no statement in the permit requiring monitoring at less than 70% load. Emission Deviation Reports (EDRs) are submitted regularly.

Yes, this provision was written when APD did not specify an emission limit during startup and shutdown. APD has always recognized that emissions during startup, shutdown and low load operations were different (could be higher, but not always). APD has only looked at low load or startup and shutdown operations for BACT when the hours of operation in this mode impacted the annual emissions significantly. Now, the hourly rate must be quantified on the MAERT for MSS.

What about units with an hour of operation/inspection? Peaker units are down quite a bit and used when necessary. One hundred hours between inspections may be reached in the first six months or may take three years to reach. How should this be handled?

Maybe a permit can be set up authorizing "x" emissions every "y" hours of operating time. This is an area in which more information is needed since authorization of these types of emissions has rarely been evaluated.

Engines
Internal combustion engines, do these require a permit?

Yes. APD permits IC engines that are stationary sources. APD does not regulate mobile sources in NSR. Many IC engines will qualify for PBR 106.512 unless they are powering a generator.

Why would portable engines be considered a stationary source for Chapters 106/116, when TCEQ has a memo clarifying that portable engines are not a stationary source for 117?

There have always been differing opinions on what should be considered a portable engine. If the "portable" engine is always on site but is portable and can be moved around, then it should be authorized on the site. If the engine is portable and is only on site for a specific task and is removed after this task is accomplished it is not a stationary source. If this engine is brought on site to do maintenance on another facility, then its emissions may need to be included in the MSS emissions for the other facility. Also, 40 CFR Part 89 Control of Emissions of Air Pollution from Nonroad Diesel Engines sets standards for manufacturers of diesel engines that are often used as mobile or portable engines for construction equipment or maintenance activities, and these are not considered stationary sources unless they remain on site for 12 months.

Compressor engines at 2 g/hp-hr – TCEQ is proposing 0.5 g/hp-hr rich burn and 1.5 g/hp-hr for Chapter 117. Does this set the BACT floor?

Chapter 117 may go beyond BACT or not be as strict as BACT, so the answer is No. However, it could influence future BACT demonstrations. In addition, the Oil and Gas Standard Permit is in the process of being revised, and it will address BACT for these units.

Do mobile engines need to be included in MSS?

No. Only stationary engines are subject to permitting requirements.

Turbines
For turbine startup, what is BACT?

APD has initiated the process to determine what BACT will be for specific source types. For turbines, it is not anticipated that any additional controls will be required for most situations. If a turbine has excessively high emissions during startup or shutdown, it will be necessary to see if there is a way to mitigate them. Normally, higher MSS emissions on the hourly emissions can be accommodated as long as they are not so frequent or of such duration as to impact the annual emissions significantly.

Has APD seen turbine applications address cold start vs. warm start?

Yes, and this is usually more of an issue with combined cycle turbines requiring a longer slower startup for the HRSG.

Combined cycle unit when starting up – Selective Catalytic Reduction (SCR) units are not up to temperature yet. Should this duration be included under MSS?

Yes, and APD relies heavily on design firm information. For most combustion sources, short-term is potentially more of an issue than annual.

Shutting down a turbine/combined cycle may have no direct emissions from the unit itself but can have welding, painting, etc. Does this count?

Yes. The first recommendation is to look at PBRs for maintenance, painting, welding, etc. These emissions are not from emission events, so they need to be authorized.

Mechanical/Agricultural/Construction Industries

Between production runs of specialty chemicals, a rotary kiln normally requires extensive maintenance, often lasting 3-5 weeks, sometimes around the clock. People work inside the kiln itself, replacing worn or damaged refractory, while others work inside the ESP,

treating corrosion, correcting electrical faults, replacing sheet metal, anodes, hammers, air horns and other parts. Both the kiln and ESP are considered a "Confined Space" subject to positive ventilation when occupied by workers. Therefore, the ID fan must run to ventilate the system, but the ESP, the solitary TSP/PM-10 control device, must be de-energized whenever workers are present. How will this activity be permitted, reported, and accounted for?

The company should represent the activity's frequency, duration, and parameters for authorization consideration. The application must include:
1) quantity/character of expected emissions, 2) BACT, and 3) impacts analysis.

Title V

General

Are electronic versions of Title V permits available and is it possible to obtain the permit data in spreadsheet format?

Electronic versions are generally available through the Agency's Remote Document Server. Some permits may not be available through the Remote Document Server for various reasons. In these cases and for requests of electronic permit contents in formats other than WordPerfect, contact the TCEQ Records and Information Management Section. The section customer service line is 512/239-DATA (239-3282) during the hours of 7:30 a.m. to 5 p.m. Monday through Friday. A third alternative for obtaining a WordPerfect or Word version of the permit is for the Technical Contact to request a copy from the reviewer who processed the permit.

When will the new revision guidance be available? Industry would like to see it before it is final.

The revision guidance should be available in early 2007 but may not include MSS related actions. The plan is to send in a timely manner a draft copy to those on the Title V stakeholders' advisory list to allow them 30 days to review.

Authorizations

Chapter 122 states that administrative revisions be collected and submitted annually. Is it necessary to do that?

Chapter 122 does allow administrative revisions to be collected and submitted at least once per year. However, APD encourages applicants to submit administrative revisions as they occur.

How is a new rule added to a Title V permit?

Through a minor revision, using Forms OP-2 and OP-CRO1.

A new federal or state rule is promulgated and contains a compliance date of two years in the future. Several emission sources in existing operating permits will be subject to the new requirements. What types of revisions are needed to the operating permits?
A minor revision can be submitted to include the newly promulgated regulation in the Federal Operating Permit (FOP) as an applicable requirement, and it is due by the first compliance date.

When do I submit a Title V permit revision, given a case-by-case-NSR permit action? Also, if the case-by-case NSR permit action to authorize MSS activities, does the Title V permit revision due date follow a different schedule?

The schedule for submitting Title V applications, due to NSR permit actions, depends on the timing of the issuance of the NSR actions. Keep in mind that if a significant revision is needed, then the significant revision must be issued prior to operating the activity authorized. In the case of a minor revision, the minor revision application must be submitted prior to operating the authorized activity. If the activity has been on-going and remains on-going, then the revision (significant or minor) must be submitted no later than issuance of the NSR. If the MSS emissions are authorized while a Title V FOP is undergoing renewal, contact the FOP reviewer to discuss timing.

The above description of Title V revision submittal due dates is valid for all case-by-case NSR permit actions, including MSS activities.

I will be combining several Title V permits. Will combining Title V permits require additional notifications? Will combining Title V permits require additional time for the combined permit to be issued (and thus potentially cause a long delay in being able to void the included permits)?

Combining permits will not require additional notifications other than either a minor or significant revision of the retained permit, depending on the situation.
The APD target for all minor revisions is to complete processing within 150 days of receipt; however, delays could be cause by additional processing time to address specific issues, waiting on an NSR permit action to be completed, time required to combine all data into one permit, comments during public announcement, or EPA review. If an activity occurs, such as moving a permit shield from one permit to another, the revision will be significant and the target date is 330 days. Once the retained permit is revised the other permits may be voided.

If an NSR permit is altered and nothing is changing in the Title V permit, why must a Title V revision be submitted? Nothing is changing.

NSR is an applicable requirement for Title V, and the applicable requirement has changed. Anytime an underlying applicable requirement changes a Title V FOP revision is needed. The revision also provides the required public comment & EPA review opportunities required by Title V.

Is there a time limit for deleting units, etc. from a Title V permit?

No, there is no time limit for deleting units from a Title V permit. Undeleted units would not be a deviation.

Public Notice - General
Why is a public announcement necessary for Title V if a public notice for NSR has already been conducted?

The first NSR notice does not provide the final version of the permit, or permit changes, for the public to review and there is no opportunity for EPA review. Both are required by Title V.

Why does EPA want to comment on the Title V minor permit revision?

Federal and state regulations require the EPA review period. TCEQ must provide the EPA review period in order to maintain delegation of the FOP program.

MSS Specific Authorizations
Some MSS authorizations will be for small units. Must these authorized units be listed in the Title V permit?

The small units will only need to be listed in the Title V FOP if the small units have other applicable requirements.

If a facility is under a Title V Permit and has in the past used Chapter 111 for authorization of MSS, will the facility need to claim the proposed MSS and submit a revision of the Title V Permit? Will the facility be subject to NSR review? Will it be necessary to lump all emission sources into one MSS PBR?

Chapter 111 does not authorize MSS emissions. If MSS emissions are identified, they must be authorized by NSR. The Title V permit must be addressed by submitting the appropriate revision.

What must I do to account for the addition of firebox cleaning requirements (that could be considered planned maintenance) per 30 TAC Chapter 111 requirements in the Title V permit?

If there are firebox cleaning activities at a site, then Chapter 111 requirements are needed in the Title V permit. These requirements will appear as terms and conditions in the Title V permit based on responses to the Title V Form OP-REQ1. If a permit needs these requirements, a minor revision is required to add them. Chapter 111 does not authorize any emissions. Any emissions related to the firebox cleaning that can be identified as MSS emissions must be authorized by NSR.

Can MSS make a site major and trigger Title V requirements?

Yes, it's possible.

Case Studies/Scenarios
I have multiple PSD permits and FOPs for different areas of my site. I will be submitting an application to amend one of my existing PSD permits to authorize MSS emissions for some emission units at my site. The proposed changes will result in a Title I modification to this existing PSD permit. Also, the site has an FOP and already includes this PSD permit (the one proposed for modification) as an applicable requirement.

- What am I required to do to comply with 30 TAC Chapter 122 after I submit the PSD modification application? In other words, am I required to apply for an FOP revision? If yes, what type of FOP revision is triggered?
- What and when am I required to submit to comply with 30 TAC Chapter 122?
- When can I operate the emission unit(s) covered in the PSD amendment application?
- What is the timeframe for incorporation of the MSS as an applicable requirement in the FOP?

Any change to a PSD permit (or a non-attainment permit) that meets the criteria for a Title I (of the 1990 Federal Clean Air Act Amendments) modification triggers a significant revision of the FOP. Also, any change(s) to an existing NSR permit that meets the criteria of a Title I modification resulting in the issuance of a PSD permit (or a non-attainment permit) triggers a significant revision of the FOP. During the significant revision of the FOP, the modified or new PSD permit (or non-attainment permit) will be incorporated in the FOP as an applicable requirement.

For an FOP significant revision, the following information is required to be submitted: a description of the change, a description of the affected emission units or activities, and a description of the emissions affected by the change. This information can be submitted using Form OP-2. In addition, the submissions are required to be certified by a Responsible Official (Form OP-CRO1

A new emission unit, or change to an existing emission unit, that is covered by such a Title I modification cannot be operated unless the newly modified PSD permit is included as an applicable requirement in the FOP and the TCEQ authorizes and issues the FOP significant revision. To avoid any delays in issuing the significant revision which in turn will prevent the operation of the emission unit, APD staff recommends that FOP permit holders submit their FOP significant revision application at the same time the PSD modification application is submitted.

Certain changes to an existing PSD permit including the permitting of MSS emissions may not trigger a Title I modification. If such changes impact and alter existing applicable requirements identified in the FOP or if the NSR permitting action allows increased emissions, then such changes require a minor revision of the

FOP. Please review a related question below to obtain information on the submission of minor revision including submittal and processing timelines.

The FOP significant revision process includes APD's technical review, a public comment period, EPA review period, and public petition period. APD has a goal of 330 days to review and finalize significant revisions if no public comments or EPA comments are received during the comment period of the significant revision. The APD staff will ensure that the significant revision is issued around the same time that the PSD modification is issued if the FOP significant revision is submitted in advance as recommended above and there are no external factors beyond the control of APD staff (example, public comments, EPA review comments, etc). Please note that the FOP cannot be issued prior to the authorization of the NSR action.

I will be submitting an amendment to my existing minor NSR permit to authorize MSS emissions for some emission units at my site. Also, the site has an FOP and already includes the NSR permit (the one proposed to be amended) as an applicable requirement.

- What am I required to do to comply with 30 TAC Chapter 122 after I submit the NSR permit amendment application? In other words, am I required to apply for an FOP revision? If yes, what type of FOP revision is triggered?
- What and when am I required to submit to comply with 30 TAC Chapter 122?
- When can I operate the emission unit(s) covered in the NSR amendment application via a minor revision?
- What is the timeframe for incorporation of the MSS as an applicable requirement in the FOP?

A minor revision of the FOP (pursuant to 30 TAC Chapter 122, Sec. 122.215) is required to be submitted to incorporate the newly authorized MSS emissions as an applicable requirement in the FOP. In this case, it is possible that no physical changes will be made to the FOP if the NSR amendment was used solely to permit MSS emissions. The reason for the FOP minor revision is that the underlying applicable requirement in the FOP viz., the NSR permit, has changed and now allows new or increased emissions in the form of MSS emissions.

It is possible that the new or changed emission rates from the NSR permit action for including MSS may result in changes to other applicable requirements in the FOP (other than NSR). Also, if an NSR amendment application to permit MSS emissions includes other allowable changes to emission unit(s) or their operational parameters, such changes in the amended NSR permit may impact existing applicable requirements in the FOP for the emission unit(s). In all such cases, the newly permitted MSS emissions and any related changes to emission units and their applicable requirements can also be incorporated in the FOP as a minor revision as long as such changes meet the criteria outlined in 30 TAC Chapter 122, §122.215.

For an FOP minor revision, the following information is required to be submitted: a description of the change and the affected emission units, a statement that the change qualifies as a minor revision, identification of the provisional terms and conditions (as defined in 30 TAC Chapter 122, §122.10) if the emission units are operated without waiting for the minor revision to be finalized, and a statement that the change qualifies for minor revision. This information can be submitted using Form OP-2. In addition, the submissions are required to be certified by a Responsible Official (Form OP-CRO1).

The above-mentioned submissions are required to be sent to the TCEQ before the emission unit(s) covered by the NSR amendment is/are operated. In a case where the emission unit is continuously operated (or is an on-going activity) and its MSS emissions are authorized by an NSR permit, the FOP minor revision is due before the NSR amendment is issued. In a case where the emission unit(s) covered by the NSR amendment is/are intermittently operated, then the FOP minor revision application is due before the emission unit is operated. In all cases, the emission sources can be operated (or their operation continued) before the review and approval of the minor revision only if provisional terms and conditions (as defined in 30 TAC Chapter 122, §122.10) are established and submitted as part of the minor revision application. Alternatively, the required submissions for a minor revision can be made in advance along with the NSR amendment application.

APD has a goal of 150 days to review and finalize minor revisions if no public comments or EPA comments are received during the public announcement period of the minor revision. However, as noted above, the FOP holder is not required to wait for TCEQ's finalization of the minor revision if the permit holder chooses to select the newly amended NSR permit as a *de-facto* applicable requirement by establishing it as a provisional term and condition of the FOP. In cases where the FOP permit holder doers not identify and accept the newly amended NSR permit as an applicable requirement of the FOP, the emission unit(s) cannot be operated until the minor revision is finalized by TCEQ. Please note that the FOP cannot be issued prior to the authorization of the NSR action.

Deviation/Reporting/Compliance Issues

Affirmative Defense
Can Affirmative Defense be claimed after an application has been voided?

If the applicable date in the schedule in §101.222(h) (relating to Demonstrations) has passed for the site, and there is no current application pending for authorization of emissions stemming from planned MSS activities, no enforcement discretion is provided.

When does Affirmative Defense apply for MSS activities?

Unauthorized emissions or opacity events from a maintenance, startup, or shutdown activity that are planned and that have been reported or recorded in compliance with §101.211 are subject to an affirmative defense unless the owner/operator has failed to file an application to authorize those activities according to the schedule in §101.222(h) (relating to Demonstrations). Emissions from an unplanned maintenance, startup, or shutdown activity that are determined not to be excessive and meet the demonstration criteria in §101.222 are subject to an affirmative defense without regard for this schedule.

After the MSS permits are issued, some MSS activities will occur that were not included in the permit. These will be recorded or reported under the provisions of Chapter 101. How will the agency determine whether these events were unplanned and therefore continue to meet the requirements of the affirmative defense, despite not being in the permit? What specific criteria will be used by enforcement personnel to separate planned activities from unplanned activities? The regulated community needs to know these criteria now in order to identify which activities must be included in the permit. The regulatory definition of an unplanned MSS activity is not very specific. For example, what is "the type of event that is normally authorized by permit" when most MSS activities are not authorized by permit today?

Maintenance activities should be authorized wherever possible. However, unplanned maintenance activities will remain subject to Chapter 101, those activities that are not predictable, quantifiable, or scheduled. These would include, for example, instances where an operator notices indications that a failure of a piece of equipment is imminent. The unplanned maintenance activity would involve taking the equipment down in an orderly and expedited manner to avoid catastrophic failure and reporting the activity according to Chapter 101. These will all be evaluated on a case-by-case basis but will have the described elements in common. That is: 1) The equipment failure was not easily foreseeable; 2) maintenance was required in order to avoid catastrophic failure and/or to reduce subsequent emissions.

Reporting

An emission event occurs when a control device rolls to bypass due to a mechanical failure. The RQ for one compound is not exceeded until the unit is down for 20 hours (20 hours x 5 lbs/hr) = 100 lbs.

a) Is it required to report in STEERS within the first 24 hours from the initial event, or is it after the 20 hours (i.e., 20 hours + 24 hours)? When is the RQ met?

Within 24 hours of the discovery of an emissions event (or sooner), it must be determined as to whether the event is reportable. If so, the event must be reported. Failure to report an event according to the rules would exclude the event from being subject to the affirmative defense. However, there is no action taken by the agency for reporting an event that does not ultimately become a reportable event.

b) If an emission event is reported in STEERS, is it necessary to call the SERC and the local agency if a state-only RQ is met or exceeded?

The STEERS 24-hour notification does not satisfy these other reporting requirements. A regulated entity experiencing a reportable emissions event that also requires an initial notification under §327.3 (relating to Spill Prevention and Control, is not required to report the event electronically via STEERS provided the owner or operator complies with the requirements under §327.3 and in subsections (a) and (c) of §101.201 (relating to Emissions Event Reporting and Recordkeeping Requirements).

A routine maintenance activity is expected to result in 90 lbs. of ethylene emissions from a flare. The activity is authorized via PBR 106.263. After the maintenance activity is completed, online analyzer information is reviewed, and it is determined that 103 lbs. of ethylene emissions were emitted. The RQ for ethylene is 100 lbs. for the site in the HGB area. The company's interpretation is that this discovery would result in 3 lbs. of unauthorized emissions (i.e., 103 lbs. – 100 lbs. authorized by PBR 106.263 = 3 lbs. of unauthorized emissions). A record under the §101.201 rules is required. Please confirm this comment.

In the example, the authorized limitation during the routine maintenance activity conducted in the Houston/Galveston/Brazoria area under PBR 106.263 was exceeded by 3 lbs. of ethylene. This would be subject to Title V deviation reporting. It would not be subject to reporting under TAC 101, Subchapter F (Emissions Events, Scheduled Maintenance Startup and Shutdown Activities) since it is simply an exceedance of an authorized limitation. However, if there was a breakdown of equipment (upset) during the routine maintenance, and that is the cause for excess emissions, the entire emission quantity of 103 lbs. of ethylene would be subject to reporting under TAC §101.201, and also be subject to reporting as a Title V deviation.

If my RQ is 100 lbs. in 24 hours and my emissions are 103 lbs. in 24 hours, what do I do?

If the emissions are from an upset event, then the event must be reported according to TAC § 101.201 (relating to Emissions Event Reporting and Recordkeeping Requirements). For certain MSS activities, the owner/operator must provide prior notice of the activity and provide an estimate of the expected emissions. This would be applicable if the emissions are from scheduled maintenance, and the activity occurs prior to the deadlines in §101.222(h) (relating to Demonstrations), or the activity occurs subsequent to the deadline but a current application has been submitted prior to these deadlines to authorize those same activities. For those MSS activities, if the owner/operator predicted 100 lbs. of emissions and the actual emissions were 103 lbs., there would not be any additional requirements. If the actual emissions exceeded the predicted emissions by a quantity greater than or equal to the RQ, then the event must be reported as an upset event.

Are both planned and unplanned MSS activities reported in STEERS? Where do they go in the STEERS report table or form?

All MSS activities are reported in STEERS in the manner, but the narrative should be used to identify whether the activity was a planned or an unplanned MSS. Owners/operators should discontinue STEERS reporting for planned MSS activities once they are authorized under NSR.

If an event occurs that exceeds MSS, is this an NOV or an emissions event?

If emissions from MSS that are subject to TAC §101.211 (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements) exceed the reported predicted estimate of emissions by more than the RQ, then the emissions must be reported as an emissions event. The event would then be evaluated to determine if: it was an excessive emissions event (subject to a notice of enforcement), it is not an excessive event but does not meet the affirmative defense demonstration criteria (subject to an NOV); or it is not excessive and meets the demonstration criteria for an affirmative defense (enforcement discretion is provided).

Deviations

During a recent storm the facility experienced a power outage and a subsequent power surge that blew out the variable frequency drives (VFDs) of 3 turbines. When the technician replaced and was calibrating the new VFDs, there was an exceedance of the NO_X hourly limit. Is this considered a deviation?

If there is an indication of non-compliance with an hourly emission limitation, then it is a deviation. Unless the permit contained language addressing emissions during calibration, or referenced rules with similar allowances, this would seem to be a deviation.

An NSR permit has a permit condition that states that the baghouse differential pressure shall not exceed 6" of water, but when the cleaning cycle starts the change in pressure reaches and exceeds the 6" of water for a few seconds. Is this considered a deviation? If so, how should this be reported because the cleaning cycle kicks in several times a day?

If the permit requirement is a strict prohibition on exceeding a pressure limit, and the representation in the NSR permit application that was accepted by APD did not discuss these pressure spikes during maintenance, this would be a deviation of the permit condition. If the permit requirement was to operate the baghouse so that differential pressure did not exceed an upper limit, this may not be a deviation.

At a site with a Title V permit, it seems like unauthorized MSS emissions should be reported as a deviation. What is the Agency's view of this situation? What rules should be listed in the deviation report?

Emissions resulting from maintenance, startup and shutdown activities that are not authorized under an NSR permit, permit by rule, or other authorization must be reported according to TAC §101.211 and should be included in a deviation report.

Enforcement

Chemical plants, when past their deadline for authorizing MSS according to the schedule, will enforcement discretion follow?

Enforcement discretion will be allowed/followed as long as the company has submitted an application to authorize MSS prior to the schedule delineated in TAC §101; the company is actively pursing the authorization by submitting any deficient information in a timely manner; and, the permit application was submitted on time.

Are Field Operations investigators looking for MSS?

Investigators in the Field Operations Division conduct numerous types of investigations to ensure compliance with federal and state regulations. For example, investigators review Title V deviation reports to determine if there are violations at major source facilities. Unauthorized emissions stemming from MSS may be discovered during these reviews, and also during reviews of records during onsite investigations.

Is there a practice of issuing a Notice of Enforcement (NOE) at an emission rate of 2 times the RQ? Is this practice written down anyplace?

NOEs are issued when an emission subject to TAC 101 is determined to be an excessive emission, according to the demonstration criteria in §101.222 (relating to Demonstrations). According to the High Priority Violation (HPV) criteria, an NOE may also be issued if the unauthorized emission is of a contaminant for which the site is a major source, and the quantity exceeds the authorized limitation by 15% or more.