Completing FOP Applications - Additional Guidance

The following topics are covered in this guidance:

Area Map

The area map must show the location of the property relative to prominent geographical features such as highways and roads. If the property is located within a city or town, a city map may be used to present this information. If outside a city or town, use a U.S. Geological Survey or county map provided the requested information appears on the map.

Plot Plan

A plot plan should show, at a minimum, groups of emission units and/or processes with their corresponding emission points. Group identification numbers and/or process identification numbers identified on Form OP-SUM may be used on the plot plan to represent groups of emission units and/or processes. If a collection of equipment cannot be represented as a group or process on Form OP-SUM, it can still be graphically represented as a collection of equipment on the plot plan. However, each emission unit and emission point identification number should be listed on the plot plan or attached to the plot plan to represent the content of the collection of equipment that was graphically depicted on the plot plan. For example, 10 tanks cannot be grouped together on Form OP-SUM because each tank has different unit attributes. The plot plan does not have to graphically represent all 10 tanks. The tanks may be illustrated in the plot plan by a block indicating the presence of 10 tanks by listing all the emission unit identification numbers of each tank represented in the block.

The corresponding identification numbers associated with these emission units, emission points, groups of emission units, and/or processes must also be identified on the plot plan. Identification numbers on the plot plan should be consistent with and correspond to other parts of the application. The plot plan should include a plant benchmark, true north, and the property lines and/or process unit boundaries. The emission units, emission points, groups of emission units and/or processes should be representative of the location respective to the property lines.

Process Description

The purpose of the process description is to give persons using the application file a general sense of the processes taking place at the site being permitted. The process description should describe the process with emphasis on the type of emission units, their applicable requirements (in general), and what types of emissions are generated. Each major step in the process should be discussed and should refer to the process flow diagram where appropriate. When necessary to verify applicability determinations (positive or negative), the applicant should provide any operating parameters (concentrations, temperatures, pressures, material flow rates, production rates) that are not otherwise documented on the standardized application forms.

Process Flow Diagram

The flow diagram should be sufficiently descriptive to enable the APD staff member reviewing the application to determine the raw materials to be used in the process, major processing steps, major equipment items, individual emission points associated with each process, major emission abatement devices, and major waste streams, including wastewater streams, that have associated emissions. Piping and instrumentation drawings are not required. Detailed block flow diagrams are usually sufficient. Process steps which should normally be indicated on the flow diagram include: raw material handling and storage, chemical reactions, mixing, separation and/or application, and product storage/loading. Reference equipment numbers, process nomenclature, and emission point numbers should be consistent with the information contained in the unit attribute forms, the process description, and TCEQ Emissions Inventory.

Potentially Applicable Requirements and Applicability Determinations

A potentially applicable requirement is any applicable requirement that may apply to the unit. However, a requirement for an obviously different unit type should not be considered a potentially applicable requirement. For example, a tank subject to the requirements of 40 CFR Part 60, Subpart Ka is not potentially subject to the 40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, requirements for steam generating units. The permit application should address all potentially applicable requirements for all emission units at the site.

Attribute questions on the UA forms are arranged according to the potentially applicable requirements for the unit. In SOP applications, unit attribute questions provide information that is sufficient to make applicability determinations for the requirements. However, for GOP applications, unit attribute questions only provide information to determine a correct permit table index number.

Two types of applicability determinations are shown by the information presented on the UA forms. In SOP applications, if the unit attribute information indicates that a potentially applicable requirement applies to the unit, “positive applicability” is deemed for the requirement toward the unit. The potentially applicable requirement then becomes an applicable requirement for the unit. For SOP applications, “negative applicability” is deemed if the unit attribute information presents a basis to indicate that a potentially applicable requirement does not apply to the unit.

When the unit attribute information indicates positive applicability, the specific regulatory requirement (emission limitation or standard) and the associated monitoring, recordkeeping, reporting, and testing (MRRT) requirements are determined for the unit from the unit attribute information. The specific regulatory requirement and the associated MRRT requirements are then shown on Form OP-REQ3 (Applicable Requirements Summary). If negative applicability for a potentially applicable requirement is indicated by the unit attribute information, the regulatory requirement that represents the underlying basis for this determination is shown on Form OP-REQ2 (Negative Applicable Requirement Determinations). For example, a tank is located at a site for which an owner or operator is submitting an SOP application. One potentially applicable requirement for storage tanks and vessels is 40 CFR Part 60, Subpart Kb. On the Form OP-UA3, applicability of this particular regulation is based upon the unit attributes of construction date, vessel size, and product stored. If 40 CFR Part 60, Subpart Kb is determined to apply based on these tank attributes, the specific regulatory requirement and associated MRRT is then identified using the other unit attribute information of the tank. The tank, a specific regulatory requirement, and associated MRRT are then shown on Form OP-REQ3 in the permit application. However, if the construction date, vessel size, or product stored indicates that 40 CFR Part 60, Subpart Kb does not apply, the Form OP-UA3 instructions will indicate that additional unit attribute information is not necessary. The regulatory requirement that represents the underlying basis for the negative applicability to 40 CFR Part 60, Subpart Kb is then shown on Form OP-REQ2.

New regulations continue to be developed and promulgated by the TCEQ and EPA, including a number of 40 CFR Part 63 subparts. In order to allow time for these rules to be fully incorporated into an operating permit, applicants will initially address the requirements at a high level only in the permit application. In some cases, Requirements Reference Tables (RRT) and other documentation will be under development at the time of application submittal. If a facility is subject to one of these regulations, the high level citation should be listed on Form OP-REQ3. It is not necessary to provide unit attribute information at the time of application submittal. A list of regulations to be addressed at a high level will be maintained on the APD Internet site.

In other instances, forms and RRT for certain regulations may not be developed by the agency because of the small number of subject facilities in the state. If a facility is subject to one of these regulations, the applicant's determination of the applicable requirements should be listed on Form OP-REQ3. Any technical information the applicant feels is necessary to determine applicability should be provided on Form OP-UA1. The APD staff member assigned to review the application will work with the applicant to review the applicability of these requirements. A list of regulations for which RRT and forms will not be developed will be maintained on the APD Internet site.

In GOP applications, positive and negative applicability determinations are indicated by the index number entered with the corresponding unit attribute information. By indicating a permit table index number for a unit, positive applicability is generated for the specific regulatory requirement and MRRT requirements associated with the index number. In addition, by indicating an index number for a unit, negative applicability is generated for all other permit table index numbers

As previously mentioned, occasionally, very similar questions are repeated for different potentially applicable requirements. This is necessary to address subtle differences in the content and structure of the potentially applicable requirements. Applicants are reminded that definitions of terms can vary significantly between potentially applicable requirements. When making applicability determinations, be certain to use the definition from the appropriate potentially applicable requirements.

Site-Wide Requirements

The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to the units or activities at the site. As an example, the TCEQ has designated specific requirements of 30 TAC Chapter 111, such as the opacity limits for stationary vents less than 100,000 acfm, as site-wide requirements. The 30 TAC Chapter 111 requirements were designated as site-wide, since many sites have numerous stationary vents and each must comply with the appropriate opacity limit. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed on a UA form or Form OP-SUM.

Some units may have both site-wide requirements and unit specific requirements. The site-wide requirements for the unit and specific unit information will then be addressed on Form OP-REQ1 and the appropriate UA form, respectively. In SOP applications, positive applicability determinations based on the UA form information should be identified on Form OP-REQ3, however, the site-wide requirements need not be shown on the Form OP-REQ3. Form OP-REQ1 will indicate which units may need to complete unit attribute information. It will also indicate the site-wide requirements for which additional unit attribute information in not necessary

Multiple permit applications may be submitted for a site, these site-wide requirements and their applicability then become specific to the application area. Applicability of these site-wide requirements is then done on an area-wide basis. When a single permit application is submitted for the entire site, these site-wide requirements and their applicability again become specific to the application area; that area is the entire site**.**

Groups and Processes

All units that will be addressed in the permit application should be listed on Form OP-SUM based on the criteria contained in the form instructions. This form also allows the listed units to be addressed in terms of “groups” or “processes” elsewhere in the permit application.

A “group” is a collection of units or devices that have identical applicability (or non-applicability) determinations, and may, or may not, have a physical relationship. For purposes of the operating permit application, flares may not be grouped. Groups may be used on UA forms only if all unit attributes are identical. Groups may be used on potentially applicable requirement forms, even if attributes differ, as long as all of the resulting applicability determinations are identical. Grouping is optional. All groups must be mutually exclusive. Groups are assigned an identification number by the applicant, which must begin with the prefix “GRP,” followed by up to seven characters (GRP*XXXXXXX*).

A “process” is a collection of units or devices that have a physical relationship, or source cap with a regulatory requirement that applies to the process as a whole. A process should not be defined for a set of units that do not have a potentially applicable requirement for the whole. Processes are assigned an identification number by the applicant, which must begin with the prefix “PRO” followed by up to seven characters (PRO*XXXXXXX*). All units that have potentially applicable requirements unto themselves and are parts of a process shall use multiple lines to distinguish the information.

Fugitives

Fugitive units are treated differently than groups. Fugitive units usually represent areas in which fugitive equipment is located or groupings of fugitive equipment according to function or process. Furthermore, most regulations governing fugitive equipment apply to “all equipment located within a process unit” which is typically defined as the “affected facility” under 40 CFR § 60.630(a). Thus, an “affected facility” is also a fugitive unit. The emissions from fugitive units shall be included in the permit application and the permit in the same manner as stack emissions, regardless of whether the source category in question is included in the 30 TAC § 122.10(14)(C) list of sources under the “major source” definition. There may be numerous affected facilities/fugitive units within the application area or just one that covers the entire area.

Applicants may group fugitive components into fugitive units according to applicable rule (40 CFR Part 60, Subpart KKK Fugitive Unit; 30 TAC Chapter 115, Subchapter D, Division 2 or Division 3 Fugitive Unit; 40 CFR Part 61, Subparts J and V Fugitive Unit). Since a component may be subject to more than one of these rules, it may belong to more than one rule-based fugitive unit.

Applicants may also elect to group fugitive components based on other criteria (location, process association,) and it is possible for these groups to contain some components which are subject to a requirement and others which are not. Some components may be subject to multiple requirements. When indicating “Subpart KKK Fugitive Unit Components” and “Subpart J and V Fugitive Unit Components,” specify only components subject to 40 CFR Part 60, Subpart KKK and 40 CFR Part 61, Subparts J and V, respectively. After identifying the fugitive units the forms have a column in which the applicant provides a description of the area donating the fugitive equipment or the grouping of equipment.

Input from meetings with operating permit applicants has also indicated that many sites are subject to most, if not all, of the fugitive regulations and that the sites usually contained all of the constituent components referenced in these regulations. Additionally, since this situation is common at many sites, it was requested that a streamlined mechanism for completing Form OP-UA12 be developed such that component type identification be unnecessary. Pre-filled Form OP-REQ3 tables were then developed by the APD to help reduce the time required to complete Form OP-UA12 and the portion of Form OP-REQ3 applicants will devote to fugitive unit applicable requirements in a permit application. These pre-filled Form OP-REQ3 tables are available on the APD Internet site.

The pre-filled Form OP-REQ3 tables contain the applicable requirements for all fugitive components referenced in a regulation. These tables also contain the applicable

requirements for components that are exempted from control, but which are subject to recordkeeping and/or reporting requirements to maintain the exemption. Applicable requirements in the tables are associated with an SOP Index Number (61VALL, 60VVALL, 63HALL) for each regulation and this number should be entered on the appropriate page of Form OP-UA12. No other entry on Form OP-UA12 is necessary to indicate applicability for these. All information in the pre-filled Form OP-REQ3 should then be associated with the unit identification number shown on Form OP-UA12 and entered onto a Form OP-REQ3 that will be submitted in the permit application. An issued permit will then contain all applicable requirements associated with an SOP Index Number. However, the fugitive unit will only be subject to the requirements for the constituent components located in the fugitive unit.

Operating permit applicants also indicated during the meetings that alternate means of control, alternate means of emission limitation, or closed vent systems and control devices were not being used for general control of fugitive emissions. Therefore, these pre-filled OP-REQ3 tables do not identify these requirements. If an applicant is using any alternate means of control, alternate means of emission limitation, or closed vent system and control device, the applicant must indicate this in the appropriate place on Form OP-UA12. The Form OP-REQ3 to be submitted in the permit application should then contain the applicable requirements for such a case in lieu of, or in addition, to the applicable requirements shown on the pre-filled Form OP-REQ3 tables.

Alternate or Equivalent Requirements

In some situations, the applicant has the option of selecting an alternate or equivalent requirement, limitation, and/or practice for a unit in the permit application. These include but are not limited to:

- an alternate means of emission limitation;
- alternate control requirements, monitoring, or opacity limitations;
- alternate test methods or test procedures;
- alternative standards;
- emission limitations (30 TAC § 117.223, Source Cap);
- equivalent control methods; and
- an equivalent means of emission limitation.

Please note that an alternate or equivalent requirement, limitation, and/or practice must have the required approval from the TCEQ Executive Director and/or the EPA Administrator before it can be incorporated into the permit. A copy of the approval letter must be submitted to APD for inclusion in the permit.

Shared Control Devices

An applicant may be submitting multiple permit applications for a site where an emission unit and control device reside in one application area and the control device is also used for an emission unit that resides in another application area. To ensure that the control device will be properly included in the issued operating permits, the applicant should highlight this detail in the Project Overview and the Process Description portions of the permit application. For situations where the control device is contained in an issued permit, the UA form in the application containing the emission unit that is also using the control device should reference, in the Control Device Identification (ID) Number

attribute column, the control device ID number, permit number and permit issuance date. If the permit has not been issued then the project name/number in which the control device resides, should be submitted in lieu of the permit number, for the control device. Situations may also exist where an applicant is submitting a permit application for a site where the control device for an emission unit is located at another site owned/operated by a different company. However, this should not matter, because each project/permit is unique to a specific application. The control device will always reside in a single permit, and be referenced in the others. The UA form Control Device ID Number attribute column for the emission unit that is also using the control device should reference the company name in addition to the other required information previously mentioned.

Preconstruction Authorizations

All 30 TAC Chapter 106, Subchapter A requirements, any permit-by-rule (PBR) registered or claimed for the site, 30 TAC Chapter 116 requirements, and any term or condition of any preconstruction permit issued for the site is considered an applicable requirement. Therefore, the permit application should include all PBRs and 30 TAC Chapter 116 preconstruction authorizations at the site including: permits, standard permits, special permits, special exemptions, Prevention of Significant Deterioration (PSD) permits, and Nonattainment (NA) permits. These authorizations should then be listed, as appropriate, on Form OP-SUM and Form OP-REQ1. All units listed in the FOP must have a preconstruction authorization. A preconstruction authorization can not be included in the FOP until after it has been issued.

Site Operating Permit Index Numbers

Purpose: SOP Index Numbers are used to distinguish different "operating scenarios" for a given unit and applicable rule. Different numbers must be used when entering more than one line of attributes on a Unit Attribute form for the same unit (or group of units) and rule. They provide an index of the requirements that apply while the unit is operating under the conditions expressed in the unit attribute form.

Index numbers indicate the operational flexibility inherent to permit holders that are allowed to operate their equipment in different authorized scenarios so that interested parties will know what requirements apply, and when.

Where Used: Index Numbers are used on the OP-UA series of forms, with a corresponding entry on the OP-REQ3 form. The index number used on the OP-REQ3 form should reflect the requirements that the applicant believes applies when the unit is operating under that same index number as described by the attributes on the corresponding OP-UA form. Both the unit attribute forms and the OP-REQ3 form have detailed instructions on the entering of index numbers.

Index numbers used on OP-UA forms where the results are "non-applicability" do not follow to the OP-REQ2 (because this form does not use index number) or OP-REQ3 form (because this form is not used for "non-applicability" results).

Index numbers also follow the applicable requirements generated from the OP-UA application forms to the permit. Specific information resulting from the use of index numbers are found on the permit's Unit Summary and Applicable Requirements Summary attachments.

How Used: In addition to the specific forms instructions, the generation and use of index numbers are governed by certain rules and guidance described below. Applicants must follow the rules listed below for index numbers. The guidance (that follows the rules) is not mandatory, but represents generally-accepted practice in applications and drafting of permits.

Rules for using Index Numbers:

- An SOP Index Number may be duplicated for different emission units and/or different rules, but the combination of unit identification number, regulation, and SOP Index Number must be unique.

- Operating conditions represented by the unit attribute values for each index number must be authorized under an existing NSR authorization.

- Index numbers must not exceed 15 ASCII-recognized characters.

- SOP applicants shall not use GOP index numbers on SOP application forms.

Guidance for using Index Numbers:

- Index numbers should follow the format provided in the following table: SOP Index Number Format Examples. Note that the table is not all inclusive. Any non-alphanumeric characters used (such as <space> and dash) should not be the first character.

- Applicants may use the same index number for different units that represent the same set of unit attribute values (same operating conditions). However, the UA form must still be filled-out in full because unit attribute values are not assumed in an SOP application.

With the exception of the “all” index numbers for fugitives, a change to an index number alone (with no other changes to attributes or requirements that result from them) on an issued SOP would qualify as an administrative revision in an issued permit

Table: SOP Index Number Format Examples

SOP Index Number Prefix (Note 1)	Applicable Requirement (Note 2)
R1111	30 TAC Chapter 111, Subchapter A, Division 1: Visible Emissions, Stationary Vents/Flares
R1121	30 TAC Chapter 111, Subchapter A, Division 2: Incineration
R200	30 TAC Chapter 112: Sulfur Compounds
R3206	30 TAC Chapter 113, Subchapter D, Division 1: Municipal Solid Waste Landfills
R3207	30 TAC Chapter 113, Subchapter D, Division 2: Hospital/Medical/Infectious Waste Incinertors
R5112	30 TAC Chapter 115, Subchapter B, Division 1: Storage of Volatile Organic Compounds
R5211	30 TAC Chapter 115, Subchapter C, Division 1: Loading and Unloading of VOC
R5311	30 TAC Chapter 115, Subchapter D, Division 1: Process Unit Turnaround and Vacuum-Producing Systems in Petroleum Refineries
R7101	30 TAC Chapter 117, Subchapter B, Division 1: Utility Electric Generation in Ozone Nonattainment Areas
R7131	30 TAC Chapter 117, Subchapter B, Division 2: Utility Electric Generation in East and Central Texas
R7201	30 TAC Chapter 117, Subchapter B, Division 3: Industrial, Commercial, and Institutional Combustion Sources in Ozone Nonattainment Areas
60A	40 CFR Part 60, Subpart A (§ 60.18): General Provisions (Flares)
60AA	40 CFR Part 60, Subpart AA: Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983
60AAa	40 CFR Part 60, Subpart AAa: Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983
61BB	40 CFR Part 61, Subpart BB: National Emission Standard for Benzene Emissions from Benzene Transfer Operations
61C	40 CFR Part 61, Subpart C: National Emission Standards for Beryllium
61E	40 CFR Part 61, Subpart E: National Emission Standards for Mercury
63M	40 CFR Part 63, Subpart M: National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities
63N	40 CFR Part 63, Subpart N: National Emission Standards for Chromium Emissions
63OO	40 CFR Part 63, Subpart OO: National Emission Standards for Tanks - Level 1

1 - begin the index number with this prefix, and add additional characters to distinguish between index numbers for the same rule.
2 - The list of applicable requirements is provided for example purposes only. These designations are considered “rules” and tables on UA forms have been made for each of them.