NEBRASKA ADMINISTRATIVE CODE

Title 129 – Nebraska Air Quality Regulations

Chapter 19 – PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY (PSD)

001 The following subsections of 40 CFR 52.21 published on July 1, 2009 are incorporated by reference into Chapter 19 of Title 129: (b) (34), (35), (36), (37), and (38) definitions related to clean coal technology demonstration projects; (e) Restrictions on area classifications; and (g) Redesignation. 40 CFR 52.21 (p), "Sources impacting Federal Class I area", as published at 75 Federal Register 64906 is incorporated by reference into Chapter 19 of Title 129.

002 The requirements of this chapter apply to the construction of any new major stationary source or the major modification of any existing major stationary source, as defined in Chapter 2, section 008. The provisions of this chapter apply only to sources located in areas designated as attainment or unclassifiable. Sources not subject to PSD review may still require a construction permit pursuant to provisions in Chapter 17.

003 Prior to beginning actual construction of a new major stationary source or a major modification of an existing major stationary source, the owner or operator must obtain a permit, issued by the Department, stating that the source will comply with the requirements of this chapter.

004 For any construction project at an existing major stationary source, the owner or operator must determine if the project is a major modification for a regulated NSR pollutant by assessing the following criteria:

> 004.01 The status of each relevant "emissions unit", either new or existing, as defined in Chapter 1~~, section 051~~.
>
> 004.02 The baseline actual emissions (BAE) for each unit, as defined in section 005.
>
> 004.03 The projected actual emissions (PAE) or potential to emit (PTE) for each unit, as defined in sections 006 and 007.
>
> 004.04 Whether the emissions increase (PAE (or PTE) minus BAE) is significant, as defined in section 008.

004.05 If the emissions increase is significant, whether the net emissions increase, as defined in section 009, is significant as defined in section 010.

005 Baseline actual emissions (BAE) for a new unit is defined in section 005.12. BAE for an existing emissions unit means the average rate, in tons per year, at which an emissions unit actually emitted the regulated NSR pollutant during any consecutive 24-month period selected by the owner or operator that is representative of normal source operation and that meets the following criteria:

005.01 For units at an electric utility steam generating unit, within the five year period immediately preceding when the owner or operator begins actual construction of the project, unless the Department determines that a different time period within the preceding ten years is more representative of normal source operations.

005.02 For all other units, within the ten-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Department for a permit required under this section, whichever is earlier.

005.03 In no case may the consecutive 24-month period begin before January 1, 1996.

005.04 The average rate per unit shall include emissions associated with startups, shutdowns, and malfunctions.

005.05 Fugitive emissions

005.05A The average rate per unit shall include fugitive emissions, to the extent quantifiable, for sources belonging to one of the categories listed in Chapter 2, sections 002.01 through 002.27. Fugitive emissions shall be considered quantifiable if emission factors are available or if emissions can be calculated using mass balance equations or other means deemed acceptable to the Department.

005.05B The average rate per unit shall not include fugitive emissions for sources not belonging to one of the categories specified in section 005.05A.

005.06 The average rate per unit shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.

005.07 The average rate per unit shall be adjusted downward to reflect any regulatory changes becoming effective since the beginning of the consecutive 24-month period that would have required reduced emissions for any of the emissions units being changed if the regulatory changes had been in effect during the consecutive 24-month period.

005.08 When a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the BAE for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

005.09 The average rate per unit shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions or for measuring non-compliant emissions, in tons per year.

005.10 BAE shall be calculated using the following methodologies in this order of preference where possible:

005.10A Continuous Emissions Monitors (CEMS) complying with requirements in Chapter 34.

005.10B Predictive Emissions Monitors (PEMS) complying with requirements in Chapter 34.

005.10C Source-specific stack test data, if such stack test occurred during the baseline period~~,~~.

005.10D Emission factors as defined in Chapter 6, sections 003.03 and 003.04.

005.10E Mass Balance

005.11 Other methodologies or a different order of preference of methodologies than those listed in 005.10 may be used to calculate the BAE with prior concurrence of the Department~~,~~.

005.12 For a new emissions unit, the BAE for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's PTE.

005.13 For a PAL for a stationary source, the BAE shall be calculated in accordance with the procedures contained in section 005.01 through 005.12.

006 Projected actual emissions (PAE) is the maximum annual rate, in tons per year (consecutive 12 month period), at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the five years following the date the unit resumes regular operation after the project. If the project involves increasing the emissions unit's design capacity or its potential to emit the regulated NSR pollutant, and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source, the PAE is the maximum annual rate in any one of the ten years following the date the unit resumes regular operation after the project. To determine PAE, the owner or operator:

006.01 Shall consider all relevant information, including but not limited to the source's historical operational data, its own representations, expected business activity and highest projections of business activity, compliance plans, and filings with state or federal regulatory authorities; and

006.02 Shall include emissions associated with startup, shutdown, and malfunctions.

006.03 Shall consider fugitive emissions as follows:.

006.03A The average rate per unit shall include fugitive emissions, to the extent quantifiable, for sources belonging to one of the categories listed in Chapter 2, sections 002.01 through 002.27. Fugitive emissions shall be considered quantifiable if emission factors are available or if emissions can be calculated using mass balance equations or other means deemed acceptable to the Department.

006.03B The average rate per unit shall not include fugitive emissions for sources not belonging to one of the categories specified in section 006.03A.

006.04 Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the BAE and that are also unrelated to the particular project, including any increased utilization due to product demand growth. The Department shall provide guidance for use by the owner or operator to determine the amount of emissions that may be attributed to demand growth.

006.05 May, in lieu of using the method set out in sections 006.01, 006.02, 006.03, and 006.04, elect to use the emissions unit's potential to emit (PTE), in tons per year, as defined in section 007.

007 Potential to emit (PTE) is the maximum capacity of a major stationary source to emit a regulated NSR pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit such a pollutant, including

air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

008 Calculating significant emissions increase of a regulated NSR pollutant.

008.01 Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between PAE and BAE, for each existing emissions unit, equals or exceeds the significant amount for that pollutant, as described in section 010.

008.02 As an alternative to section 008.01, the actual-to-potential test may be used for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the PTE from each existing emissions unit following completion of the project and the BAE of these units before the project equals or exceeds the significant amount for that pollutant, as described in section 010.

008.03 Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the PTE from each new emissions unit following completion of the project and the BAE of these units before the project equals or exceeds the significant amount for that pollutant, as described in section 010.

008.04 Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for all emissions units involved in the project (using the methods specified in sections 008.01, 008.02, and 008.03) equals or exceeds the significant amount for that pollutant, as described in section 010.

008.05 For any major stationary source with a Plant-wide Applicability Limit (PAL) for a regulated NSR pollutant, the major stationary source shall comply with the requirements in section 011.

009 If a project results in a significant emissions increase as calculated in section 008, then a determination must be made as to whether the project also results in a significant net emissions increase. The net emissions increase is the amount over zero of the sum of the emissions increase and any other increases and decreases in actual emissions at

the major stationary source that are contemporaneous (as defined in section 009.01) with the project and are otherwise creditable. BAE for calculating such increases and decreases shall be as defined in section 005.

009.01 An increase or decrease in actual emissions is contemporaneous with the increase from the project for which an emissions increase has been calculated in section 008 only if it occurs between the date five years before the source begins actual "construction" (as defined in Chapter 1~~, section 023~~) of the project and the date that the increase from the project occurs.

009.02 An increase or decrease is creditable only if the Department has not relied on it in issuing a PSD permit for the source which was in effect when the increase from the project occurred.

010 Significant means, in reference to an emission increase or a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

010.01 Carbon monoxide: 100 tons per year;

010.02 Nitrogen oxides: 40 tons per year;

010.03 Sulfur dioxide: 40 tons per year;

010.04 Particulate matter (PM): 25 tons per year;

010.05 PM_{10}: 15 tons per year;

010.06 $PM_{2.5}$: 10 tons per year of direct PM2.5 emissions; 40 tons per year of sulfur dioxide emissions; 40 tons per year of nitrogen oxide emissions~~.~~;

010.07 Ozone: 40 tons per year of volatile organic compounds or nitrogen oxides;

010.08 Lead: 0.6 tons per year;

010.09 Fluoride: 3 tons per year;

010.10 Sulfuric acid mist: 7 tons per year;

010.11 Hydrogen sulfide (H_2S): 10 tons per year;

010.12 Total reduced sulfur compounds (including H_2S): 10 tons per year;

010.13 Reduced sulfur compounds (including H_2S): 10 tons per year

010.14 Municipal waste combustor organics (measured as total tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans): 3.2×10^{-6} megagrams per year (3.5×10^{-6} tons per year).

010.15 Municipal waste combuster metals (measured as particulate matter): 14 megagrams per year (15 tons per year);

010.16 Municipal waste combuster acid gases (measured as sulfur dioxide and hydrogen chloride): 36 megagrams per year (40 tons per year);

010.17 Municipal solid waste landfills emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year).

010.18 For any regulated NSR pollutant not listed in sections 010.01 through 010.17: any increase is significant.

011 Actuals PALs. The term “Plantwide Applicability Limitations” (PAL) refers to an “actuals PAL” in the following sections. The Department may approve a PAL in accordance with the following requirements:

011.01 A PAL may only be approved for an existing major stationary source.

011.02 The PAL shall impose an annual emission limitation in tons per year that is enforceable as a practical matter, for the entire major stationary- source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month average, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.

011.03 Any physical change or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets all requirements in section 013 and complies with the provisions of the construction permit establishing the PAL:

011.03A Is not considered a major modification for the PAL pollutant; and

011.03B Is not subject to the provisions in Chapter 19, sections 024.02.

011.04 Except as provided under section 011.03B, a major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations and work practice requirements that were established prior to the effective date of the PAL.

011.05 Permit application to establish a PAL. An owner or operator of a major stationary source wishing to establish a PAL must submit to the Department the following information:

011.05A A list of all emissions units at the source and each unit's designation as small, significant or major based on its PTE.

011.05B An indication of which, if any, Federal or State applicable requirements, emission limitations, or work practices apply to each unit and, if any do so, whether such requirements, emission limitations, or work practices were taken to comply with BACT.

011.05C Calculations of the BAE with supporting documentation.

011.05D The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by 011.12.

011.06 The PAL shall be established in a construction permit in accordance with Chapter 17. The construction permit establishing the PAL shall include the following information and conditions:

011.06A The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.

011.06B Each PAL shall regulate emissions of only one pollutant.

011.06C Each PAL shall have an effective period of 10 years.

011.06D The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in sections 011.12, 011.13, and 011.14 for each emissions unit under the PAL throughout the PAL effective period.

011.06E The PAL pollutant and the applicable source-wide emissions limitation in tons per year.

011.06F The PAL effective date and expiration date.

011.06G Specification that if the owner or operator of the source with a PAL applies to renew a PAL in accordance with section 011.15 before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised permit renewing the PAL is issued or denied by the Department.

011.06H A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns and malfunctions.

011.06I A requirement that, once a PAL expires, the major stationary source is subject to the requirements under section 011.18.

011.06J The calculation procedures that the owner or operator of the source shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by section 011.12.

011.06K A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provision under section 011.12.

011.06L A requirement to retain the records required under section 011.13 onsite. Such records may be retained in an electronic format.

011.06M A requirement to submit the reports required under section 011.14 by the required deadlines.

011.06N At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under Chapter 17, section 013.03, unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

011.06O Any other requirements that the Department deems necessary to implement and enforce the PAL.

011.07 Setting the PAL emissions level. The PAL level for a major stationary source shall be established as the sum of the BAE of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under section 010 or under the Act, whichever is lower. Emissions associated with units that were permanently shut down after the 24-month period used for the BAE must be subtracted from the PAL level. Emissions from units on which actual construction began after the 24-month period must be added to the PAL level in an amount equal to the PTE of the units. The Department

shall specify a reduced PAL level in tons per year in the construction permit establishing the PAL to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the Department is aware of prior to issuance of the construction permit establishing the PAL.

011.08 During the PAL effective period, the Department is required to reopen the construction permit to:

011.08A Correct typographical or calculation errors made in setting the PAL or to reflect a more accurate determination of emissions used to establish the PAL.

011.08B Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under Chapter 17, section 013.03.

011.08C Revise the PAL to reflect an increase in the PAL as provided in section 011.11 of this Chapter.

011.09 During the PAL effective period the Department may, at its discretion, reopen the construction permit to:

011.09A Reduce the PAL to reflect newly applicable Federal requirements with compliance dates after the PAL effective date.

011.09B Reduce the PAL consistent with any other requirement, such as statute, rule, or court decision that is enforceable as a practical matter.

011.09C Reduce the PAL if the Department determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an Air Quality Related Values (AQRV) that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.

011.10 Except for the permit reopening to correct typographical errors or calculation errors that do not increase the PAL level, all reopenings shall be carried out in accordance with public participation procedures in Chapter 14.

011.11 Increasing a PAL emission limitation during the PAL effective period.

011.11A A PAL emission limitation may be increased during the PAL effective period only if the owner or operator of the major stationary source complies with the following:

011.11A1 The owner or operator shall submit a complete construction permit application to request an increase in the PAL limit for a PAL major modification. The application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.

011.11A2 As part of this application, the owner or operator shall demonstrate that the sum of the BAE of the small emissions units, plus the sum of the BAE of the significant and major emissions units (assuming application of BACT equivalent controls), plus the sum of the allowable emissions of the new or modified emissions unit(s), exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT with which that emissions unit must currently comply.

011.11A3 The owner or operator must obtain a major PSD permit for all emissions unit(s) identified in section 011.11A1, without regard to whether the increase in emissions for the unit will be significant. These emissions unit(s) shall comply with any emissions requirements resulting from the major PSD process, even though they have also become subject to the PAL or continue to be subject to the PAL.

011.11A4 The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

011.11B The Department shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the BAE of the significant and major emissions units (assuming application of BACT equivalent controls), plus the sum of the BAE of the small emissions units.

011.11C The construction permit reflecting the increased PAL level shall be issued pursuant to compliance with requirements for public participation in Chapter 14.

011.12 Monitoring requirements for PALS. Each operating permit that includes a PAL must contain enforceable requirements for the monitoring system that accurately determines plant-wide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for a PAL must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the permit that includes the PAL. Failure to use a monitoring system that meets the requirements of section 011.12 renders the PAL invalid. The PAL monitoring system must employ one of the monitoring approaches listed in sections 011.12A through 011.12D or an alternative approach approved by the Department~~:~~:

011.12A CEMS which meet the following requirements:

011.12A1 CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B; and

011.12A2 CEMS must sample, analyze, and record data at least every 15 minutes while the emissions unit is operating.

011.12B PEMS which meet the following requirements:

011.12B1 Any PEMS must be approved for use by the Department in accordance with Chapter 34, section 009.

011.12B2 Any PEMS approved for use in accordance with Chapter 34, section 009 must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Department, while the emissions unit is operating.

011.12C Emissions factors which meet the following requirements~~:~~:

011.12C1 All emissions factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;

011.12C2 The emissions unit shall operate within the designated range of use for the emissions factor if applicable; and

011.12C3 If technically practicable, the owner or operator of a significant emissions unit that relies on an emissions factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emissions factor in accordance with Chapter

34, section 007, unless the Department determines that such testing is not required.

011.12D Mass balance calculations for activities using coatings or solvents which meet the following requirements:

011.12D1 Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;

011.12D2 Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and

011.12D3 Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Department determines there is site-specific data or a site-specific monitoring program to support another content within the range.

011.12E An owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the permit.

011.12F Notwithstanding the requirements in sections 011.12A through 011.12D, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Department shall, at the time of permit issuance:

011.12F1 Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or

011.12F2 Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.

011.12G Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid

means approved by the Department. Such testing must occur at least once every five years after issuance of the PAL.

011.13 Recordkeeping requirements. The construction permit which contains the PAL shall require the owner or operator to retain a copy of all records necessary to determine compliance with any requirement of section 011 and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for five years from the date of such record. Such permit shall also require the owner or operator to retain a copy of the following records, for the duration of the PAL effective period plus five years:

011.13A A copy of the permit application requesting a PAL and applications for revisions to the PAL; and

011.13B Each annual certification of compliance pursuant to Chapter 8, section 012.05 and the data relied on in certifying the compliance.

011.14 Reporting and notification requirements. The owner or operator shall submit the following reports to the Department in accordance with Chapter 8, sections 004.03 and 004.04:

011.14A Semiannual report. The semiannual report shall be submitted to the Department within 30 days of the end of each reporting period. This report shall contain the following information:

011.14A1 The identification of the owner or operator and the permit number.

011.14A2 Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to section 011.13.

011.14A3 All data relied upon, including but not limited to, any quality assurance or quality control data, in calculating the monthly and annual PAL pollutant emissions.

011.14A4 A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.

011.14A5 The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.

011.14A6 A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for

the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit- monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by section 011.12E.

011.14A7 A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report-.

011.14B Deviation report. The owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to Chapter 8, section 004.03B including time limits, shall satisfy this reporting requirement. The reports shall contain the following information:

011.14B1 The identification of the owner or operator and the permit number;

011.14B2 The PAL requirement that experienced the deviation or that was exceeded-;;

011.14B3 Emissions resulting from the deviation or the exceedance; and

011.14B4 A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.

011.14C Re-validation results. The owner or operator shall submit to the Department the results of any re-validation test or method within 45 days after completion of such test or method.

011.15 PAL Renewal. The owner or operator of a source with a PAL may apply for PAL renewal no sooner ~~that~~ than 18 months and no later than six months prior to the end of the PAL effective period. If the owner or operator submits a complete application for renewal within this time period, the PAL shall continue to be effective until the revised permit with the renewed PAL is issued or denied. A complete application shall consist of the following:

011.15A All of the information required for an initial application as listed in section 011.05.

011.15B A proposed PAL level.

011.15C The sum of the PTE of all emissions units under the PAL, with supporting documentation.

011.15D Any other information the owner or operator wants the Department to consider in determining the appropriate level for renewing the PAL.

011.16 The Department shall follow the procedures specified in Chapter 14 in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Department

011.17 Adjusting the PAL at the time of renewal

011.17A If the emissions level calculated in accordance with section 011.07 at the time of renewal is equal to or greater than 80 percent of the currently permitted PAL level, the Department may renew the PAL at the currently permitted level without considering the factors set forth in section 011.17B.

011.17B At the Department's discretion, it may set the PAL at a level that it determines to be more representative of the source's BAE, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Department in its written rationale.

011.17C Notwithstanding the discretion allowed in sections 011.17A and 011.17B,

011.17C1 If the PTE of the source is less than the PAL, the Department shall adjust the PAL to a level no greater than the PTE of the source.

011.17C2 The Department shall not approve a renewed PAL level higher than the current PAL, unless the source has complied with the provisions of section 011.11.

011.17D If the compliance date for a State or Federal requirement that applied to the PAL source occurs during the PAL effective period, and if the Department has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL renewal or operating permit renewal which ever occurs first.

011.18 Expiration of a PAL. Any PAL that is not renewed in accordance with the procedures in section 011.15 shall expire at the end of the PAL effective period and the requirements in section 011.18 shall apply. If an application for PAL renewal is denied, the PAL shall expire on the date the application is denied and the requirements in section 011.18 shall apply:

011.18A Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emissions limitation under a new construction permit established as a major modification, as specified below:

011.18A1 Within the time frame specified for PAL renewals in section 011.15, the source shall submit a proposed allowable emissions limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Department) by distributing the PAL allowable emissions for the source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under section 011.17D, such distribution shall be made as if the PAL had been adjusted.

011.18A2 The Department shall decide whether and how the PAL allowable emissions will be distributed and issue a construction permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Department determines is appropriate.

011.18B Each emissions unit(s) shall comply with the allowable emissions limitation on a 12-month rolling basis. The Department may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS or PEMS to demonstrate compliance with the allowable emissions limitation.

011.18C Until the Department issues the new construction permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under section 011.18A, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emissions limitation.

011.18D Any physical change or change in the method of operation at the major stationary source will be subject to major PSD requirements if such change meets the definition of "major modification" in Chapter 1~~, section 076~~.

011.18E The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements that may have applied either during the PAL effective period or prior to the PAL effective period except for those emissions limitations that had been established pursuant to section 024.02, but were eliminated by the PAL in accordance with section 011.11.

012 Ambient air increments. For any period other than an annual period listed below, the applicable maximum allowable increase may be exceeded during one such period per year at any one location. In any area of the state, increases in pollutant concentration over the baseline concentration shall be limited to the following:

012.01 $PM_{2.5}$ annual arithmetic mean: 4 micrograms per cubic meter

012.02 $PM_{2.5}$ 24 hour maximum: 9 micrograms per cubic meter

012.03 PM_{10}, annual arithmetic mean: 17 micrograms per cubic meter

012.04 PM_{10}, 24 hour maximum: 30 micrograms per cubic meter

012.05 Sulfur dioxide, annual arithmetic mean: 20 micrograms per cubic meter

012.06 Sulfur dioxide, 24 hour maximum: 91 micrograms per cubic meter

012.07 Sulfur dioxide, 3 hour maximum: 512 micrograms per cubic meter

012.08 Nitrogen dioxide, annual arithmetic mean: 25 micrograms per cubic meter

013 Ambient air ceilings. No concentration of a pollutant shall exceed:

013.01 The concentration permitted under the national secondary ambient air quality standard, or

013.02 The concentration permitted under the national primary ambient air quality standard, whichever concentration is lowest for the pollutant for a period of exposure.

014 Exclusions from increment consumption. The concentrations listed in sections 014.01 through 014.04 shall be excluded in determining compliance with a maximum allowable increase. No exclusions of concentrations referred to in sections 014.01 and 014.02 shall apply more than five years after the effective date of the applicable order or plan.

014.01 Concentrations attributable to the increase in emissions from stationary sources which have converted from the use of petroleum

products, natural gas, or both by reason of an order in effect under section 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) over the emissions from such sources before the effective date of such an order.;

014.02 Concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of natural gas curtailment plan in effect pursuant to the Federal Power Act over the emissions from such sources before the effective date of such plan;

014.03 Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources; and

014.04 The increase in concentrations attributable to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration.

015 Stack heights. Requirements for control of pollutants under this chapter shall be in accordance with Chapter 16.

016 Exemptions for particular major stationary source or major modification. The requirements of sections 017 through 024 shall not apply to a particular major stationary source or major modification if:

016.01 The source or major modification would be a nonprofit health or nonprofit educational institution, or a major modification would occur at such an institution and the Governor of the State of Nebraska requests that it be exempt from those requirements;

016.02 The source or major modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the PTE of the stationary source or modification and the source does not belong to any of the categories listed in Chapter 2, sections 002.01 through 002.27.

016.03 The source or major modification is a portable stationary source which has previously received a permit under requirements equivalent to those in sections 017 through 024, if

016.03A The owner or operator proposes to temporarily relocate the source so that emissions at the new location would be temporary; and

016.03B The emissions for the source would not exceed its allowable emissions; and

016.03C The emissions from the source would impact no Class I area and no area where an applicable increment is known to be violated; and

016.03D Notice of relocation is given to the Department in accordance with Chapter 10.

016.04 Requirements equivalent to those in sections 017 through 024 do not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or major modification is located in an area designated as nonattainment under section 107 of the Act.

016.05 Requirements equivalent to those contained in sections 018, 020, and 022 do not apply to a proposed major stationary source or major modification with respect to a particular pollutant, if the allowable emissions of that pollutant from a new source, or the net emissions increase of that pollutant from a major modification, would be temporary and impact no Class I area and no area where an applicable increment is known to be violated.

016.06 Requirements equivalent to those contained in sections 018, 020, and 022 as they relate to any maximum allowable increase for a Class II area do not apply to a modification of a major stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each regulated NSR pollutant from the modification after the application of BACT would be less than 50 tons per year.

016.07 The Department may exempt a proposed major stationary source or major modification from the requirements of section 020, with respect to monitoring for a particular pollutant, if:

016.07A The emissions increase of the pollutant from a new stationary source or the net emissions increase of the pollutant from a major modification would cause, in any area, air quality impacts less than the following amounts:

016.07A1 Carbon monoxide – 575 micrograms per cubic meter, 8-hour average;

016.07A2 Nitrogen dioxide – 14 micrograms per cubic meter, annual average;

016.07A3 $PM_{2.5}$ – 4 micrograms per cubic meter, 24-hour average;

016.07A4 PM_{10} – 10 micrograms per cubic meter , 24-hour average;

016.07A5 Sulfur dioxide – 13 micrograms per cubic meter, 24-hour average;

016.07A6 Ozone – no de minimis air quality level is provided for ozone. However, any net increase of 100 tons per year or more of VOCs subject to PSD would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.

016.07A7 Lead – 0.1 micrograms per cubic meter, 3-month average;

016.07A8 Fluorides – 0.25 micrograms per cubic meter, 24-hour average;

016.07A9 Total reduced sulfur – 10 micrograms per cubic meter, 1-hour average;

016.07A10 Hydrogen sulfide – 0.2 micrograms per cubic meter, 1-hour average;

016.07A11 Reduced sulfur compounds – 10 micrograms per cubic meter, 1-hour average; or

016.07B The concentrations of the pollutant in the area that the source or major modification would affect are less than the concentrations listed in section 016.07A; or

016.07C The pollutant is not listed in section 016.07A.

016.08 Permitting requirements equivalent to those contained in section 018.01B do not apply to a stationary source or modification with respect to any maximum allowable increase for nitrogen oxides if the owner or operator of the source or modification submitted an application for a permit under the applicable permit program approved or promulgated under the Act before the provisions embodying the maximum allowable increase took effect as part of the plan and the Department subsequently determined that the application as submitted before that date was complete.

016.09 Permitting requirements equivalent to those contained in section 018.01B shall not apply to a stationary source or modification with respect to any maximum allowable increase for PM_{10} if the owner or operator of the source or modification submitted an application for a permit under the applicable permit program approved under the Act before the provisions embodying the maximum allowable increases for PM_{10} took effect as part of the plan, and the Department subsequently determined that the application as submitted before that date was complete. Instead, the

applicable requirements equivalent to section 018.01B shall apply with respect to the maximum allowable increases for TSP as in effect on the date the application was submitted.

017 Control technology review.

017.01 A major stationary source or major modification shall meet each applicable emissions limitation under the SIP and each applicable emission standard and standard of performance under Chapters 18 and 23.

017.02 A new major stationary source shall apply best available control technology (BACT) for each regulated NSR pollutant that it would have the potential to emit in significant amounts.

017.03 A major modification shall apply BACT for each regulated NSR pollutant for which it would be a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.

017.04 For phased construction projects, the determination of BACT shall be reviewed and modified as appropriate at the earliest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of BACT for the source.

018 Source impact analysis.

018.01 Required Demonstration. The owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions, (including secondary emissions) would not cause or contribute to air pollution in violation of:

018.01A Any national ambient air quality standard in any air quality control region; or

018.01B Any applicable maximum allowable increase over the baseline concentration in any area.

018.02 Significant impact levels. For purposes of $PM_{2.5,}$ the demonstration required in section 018.01 of this chapter is deemed to have been made if the emissions increases of the new stationary source alone or from the

modification alone would cause, in all areas, air quality impacts less than the following amounts:

018.02A $PM_{2.5}$ – 0.3 micrograms per cubic meter, annual average;

018.02B $PM_{2.5}$ - 1.2 micrograms per cubic meter, 24-hour average.

019 Air quality models.

019.01 All applications of air quality modeling referred to in Chapter 19 shall be based on the applicable models, data bases, and other requirements specified in 40 CFR 51, appendix W (Guideline on Air Quality Models).

019.02 Where an air quality model specified in 40 CFR 51, appendix W (Guideline on Air Quality Models) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis adopted by the Department. Written approval of the Administrator must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures set forth in Chapter 14.

020 Air quality analysis.

020.01 Pre-application analysis.

020.01A Any application for a major PSD permit shall contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants:

020.01A1 For the source, each pollutant that it would have the potential to emit in a significant amount;

020.01A2 For the major modification, each pollutant for which it would result in a significant net emissions increase.

020.01B With respect to any pollutant for which no NAAQS exists, the analysis shall contain such air quality monitoring data as the Department determines is necessary to assess ambient air quality for that pollutant in any area that the emissions of that pollutant would affect.

020.01C With respect to any pollutant (other than nonmethane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of

determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase.

020.01D The continuous air monitoring data that is required shall have been gathered over a period of one year and shall represent the year preceding receipt of the application, except that, if the Department determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not less than four months), the data that is required shall have been gathered over at least that shorter period.

020.01E The owner or operator of a proposed major stationary source or major modification of volatile organic compounds (VOCs) who satisfies all conditions of Chapter 17, section 013, may provide post-approval monitoring data for ozone in lieu of providing preconstruction data as required under section 020.01.

020.02 Post-construction monitoring. The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or major modification, conduct such ambient monitoring as the Department determines is necessary to determine the effect emissions from the stationary source or major modification may have, or are having, on air quality in any area.

020.03 Operation of monitoring stations. The owner or operator of a major stationary source or major modification shall meet the requirements of 40 CFR 58, Appendix B during the operation of monitoring stations for purposes of satisfying the requirements of section 020.

021 Source information.

021.01 The owner or operator of a proposed source or major modification shall submit all information necessary to perform any analysis or make any determination required under procedures established in accordance with Chapter 19. Such information shall include:

021.01A A description of the nature, location, design capacity, and typical operating schedule of the source or major modification, including specifications and drawings showing its design and plant layout;

021.01B A detailed schedule for construction of the source or major modification;

021.01C A detailed description as to what system of continuous emission reduction is planned by the source or major modification, emissions

estimates, and any other information as necessary to determine that BACT as applicable would be applied.

021.02 Upon request by the Department, the owner or operator shall also provide information on:

021.02A The air quality impact of the source or major modification, including meteorological and topographical data necessary to estimate such impact; and

021.02B The air quality impacts and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or major modification would affect.

022 Additional impact analyses.

022.01 The owner or operator shall provide an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or major modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.

022.02 The owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial, and other growth associated with the source or major modification.

023 Notification to permit applicants and public.

023.01 The Department shall determine if a permit application is complete within 60 days after receipt of the application and so notify the applicant. If the Department determines that the application is ~~not incomplete~~ incomplete and additional information is necessary to evaluate or take final action on the application, the Department may request such information in writing and set a reasonable deadline for a response. The Department may determine that an application is complete, but later determine that additional information is needed to evaluate or take final action on the application.

023.02 If the Department does not determine that the application is ~~not incomplete~~ incomplete, the application is automatically deemed to be complete 60 days after it was received by the Department. Nothing in this section shall prohibit the Department from requesting additional

information that is necessary to evaluate or take final action on the application or release the applicant from providing such information.

023.03 Within one year after receipt of a complete application, the Department shall make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.

023.04 The Department shall provide opportunity to the public to submit comments or request a public hearing on every PSD permit application approved or approved with conditions, in accordance with section 010 of Chapter 14.

024 Source obligation.

024.01 Approval to construct and issuance of a major PSD construction permit shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the SIP and any other requirements under local, state or Federal law.

024.02 At any time that a source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of sections 016 through 024 shall apply to the source or modification as though construction had not yet commenced on the source or modification

024.03 The following provisions apply to projects at existing emissions units at a major stationary source where the project is not a part of a major modification and where the owner or operator elects to use the method specified in sections 006.01 through 006.04 for calculating projected actual emissions

024.03A Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:

024.03A1 A description of the project;

024.03A2 Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and

024.03A3 The applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the BAE, the PAE, and any netting calculations if applicable. The owner or operator must also include the amount of emissions

excluded due to demand growth, as defined in section 006.04, and an explanation for why such amount was excluded.

024.03B Before beginning actual construction, the owner or operator shall meet face-to-face with a Department representative to discuss the PAE determination, and shall provide a copy of the information set out in section 024.03A to the Department. The owner or operator of such a unit is not required to obtain any determination from the Department before beginning actual construction.

024.03C The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in section 024.03A2 and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity- or potential to emit of that regulated NSR pollutant at such emissions unit.

024.03D If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the Department within 60 days after the end of each calendar year during which records must be generated under section 024.03C, setting out the unit's annual emissions during the calendar year that preceded submission of the report.

024.03E If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the Department if the annual emissions, in tons per year, from the project identified in section 024.03A exceed the BAE (as documented and maintained pursuant to section 024.03A3) by 80 percent of the significant amount for that regulated NSR pollutant, as listed in section 010. Such report shall be submitted to the Department within 60 days after the end of such calendar year. -The report shall contain the following:

024.03E1 The name, address and telephone number of the major stationary source;

024.03E2 The annual emissions as calculated pursuant to section 024.03E-; and

024.03E3 An explanation as to whether the emissions differ from the preconstruction projections, and, if so, why.

024.03F A PSD construction permit is required for each unit with annual net emissions of a regulated NSR pollutant exceeding the significant level listed in section 010 notwithstanding PAE below the significant level.

024.04 The owner or operator shall make the information required to be documented and maintained pursuant to section 024.03 available for review upon request for inspection by the Department or the general public pursuant to the requirements contained in Chapter 14.

025 If any provisions of this section, or the application of such provision to any person or circumstance, is held invalid, the remainder of this section, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

026 Enabling Legislation: Neb.Rev.Stat. §§81-1504(1)(2); 81-1505(12)

027 Legal Citation: Title 129, Ch.19, Nebraska Department of Environmental Quality.