Air Quality Permitting Application
Form 6.0: Emission Point Information

INSTRUCTIONS:
Section 6.8: Cooling Tower Information

IMPORTANT: Do NOT use pencil to fill out the application. Please type responses or print using black ink. If you have any questions, feel free to contact the Nebraska Department of Environment and Energy (NDEE) via NDEE.AirQuality@nebrasaka.gov or the Air Quality Permitting Section at (402) 471-2186.

Complete the information on the top of each page. Enter the name of the company/facility as it is known in Nebraska. The facility name on every page of the application should be identical. Enter the date the form was completed. Enter the NDEE Facility Identification (ID#) number assigned by the Nebraska Department of Environment and Energy. If this is a new facility, leave this space blank. Enter the Emission Point Identification Number. Each place where emissions are emitted into atmosphere from your facility should be labeled with an individual identification number. This section should be filled out for each cooling tower, NOT each cooling tower cell. It is understood that a cooling tower may have several cells.

Cooling Tower Information

1) Enter the unit identification number(s) that is assigned to the cooling tower.
2) Enter the date this cooling tower was constructed at the facility. Include a month, day, and year. If this is a new unit, select the "New Unit" box.
3) Enter the number of cooling tower cells that are associated with this cooling tower.
4) Enter the Drift Loss percentage. This information can be obtained from the cooling tower manufacturer or vendor. Please attach vendor drift loss guarantee to the application form if one was not previously submitted to the Department.
5) Enter the circulation rate in units of gallons per hour (gal/hour) and kilo gallons per year (kgal/year). This information can be obtained from the cooling tower manufacturer. Note: 1000 gallons = 1 kilo gallon. Occasionally, manufacturers may use 1000 gallons = 1 Mgallon.

6) Total Dissolved Solid (TDS) Concentration

a) The quantity of TDS directly correlates to the amount of particulate emissions. The TDS is representative of local water quality and cooling tower water management (blow down cycles). Enter the highest single sampling event if testing was conducted on this water or provide the ppm value the facility can comply with based on the water quality.
b) Indicate the annual average TDS concentration that has occurred at this facility.

INSTRUCTIONS (continued):
Section 6.8: Cooling Tower Information

7) Additive Information

a) As part of a water quality management program, some cooling water may be treated with chemicals that may contain volatile organic compounds (VOC) and/or hazardous air pollutants (HAP). The chemical supplier and/or the water quality specialist contracted by the facility can provide this information. Additionally, Material Safety Data Sheets (MSDS) of water quality chemicals, if available, can also be reviewed to identify VOC and/or HAP compounds. If chemicals containing VOCs or HAPs will be used in this cooling tower, check the "YES" box and complete the following information about each additive. If additives will be added, MSDSs for each additive should be attached to the application as additional information.
b) Enter the additive name(s). This could be the actual chemical name, trade name or other appropriate description.
c) Enter the annual usage in gallons per year.
d) Enter the density of the additive in pounds per gallon. This value can be found on the MSDS or similar data sheet obtained from the chemical supplier or manufacturer.
e) Enter the VOC amount as a percent of total weight. This value can be found on the MSDS or similar data sheet obtained from the chemical supplier or manufacturer.
f) In the "Hazardous Air Pollutant" column, enter the names of all the HAPs contained in the additive listed. There are three columns labeled Hazardous Air Pollutants, one column for each additive listed on the page. If an additive contains more than six different HAPs, additional pages should be attached so that all HAPs are included in the application.
g) Enter the HAP amount as a percent of **total weight**. This value can be found on the MSDS or similar data sheet obtained from the chemical supplier or manufacturer. If the percentage HAP is given as percent of VOC, be sure to convert to percent of total weight of the additive.

8) Potential to Emit (PTE) Calculations

PTE calculations must be submitted with this application. If there are questions on calculating the potential emissions associated with the cooling tower, contact the Department. The Department may be able assist you in calculating the potential emissions. Calculation spreadsheets are also available on the Department's website. Be sure the potential emission calculations are attached and select the "YES" box.

9) Actual Emission Calculations

Actual emission calculations must be submitted with this application if you are applying for an operating permit (initial or renewal). If there are questions on calculating the actual emissions associated with the cooling tower, contact the Department. The Department may be able to assist you in calculating the actual emissions. Calculation spreadsheets are also available on the Department's website. Be sure the actual emission calculations are attached and select the "YES" box.

INSTRUCTIONS (continued):
Section 6.8: Cooling Tower Information

10) Additional Information

Please include any additional information associated with the cooling tower or emission point you feel should be submitted with this application. This could include information concerning any control device that may be associated with the cooling tower or manufacturer guarantee information. If additives will be added to the cooling tower water, MSDSs for the additives must be attached as additional information.