



DNREC – Air Quality Management Section
Application to Construct, Operate, or Modify
Stationary Sources

Generic Process Equipment Application

If you are using this form electronically, press F1 at any time for help

<u>General Information</u>	
1.	Facility Name: Wolf Technology Center 1
2.	Equipment ID Number: Chiller Tower and Steam Turbine Cooling Tower
3.	Provide a brief description of Equipment or Process: Two cooling towers will be used. Steam Turbine Cooling Tower is for cooling water from the steam condensers (Steam Turbine Tower). Chiller Tower is associated with condensers from the steam driven chiller unit.
4.	Manufacturer: TBD
5.	Model: TBD
6.	Serial Number: TBD

<u>Raw Material Information</u>			
7. Raw Materials Used in Process			
If there are more than four Raw Materials used, attach additional copies of this page as needed.			
<u>Raw Material Used</u>	<u>CAS Number</u>	<u>Usage Rate (include units)</u>	<u>MSDS Attached?</u>
7.1. United Water (makeup water)	7732-18-5	2,594 gpm	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
7.2.			<input type="checkbox"/> YES <input type="checkbox"/> NO
7.3.			<input type="checkbox"/> YES <input type="checkbox"/> NO
7.4.			<input type="checkbox"/> YES <input type="checkbox"/> NO
Attach a copy of <u>all</u> calculations made to support the data in the table above. Attach a Material Safety Data Sheet (MSDS) for <u>each</u> Raw Material used.			

<u>Products Produced Information</u>			
8. Products Produced			
If there are more than four Products Produced, attach additional copies of this page as needed.			
<u>Product Produced</u>	<u>CAS Number</u>	<u>Production Rate (include units)</u>	<u>MSDS Attached?</u>
8.1. N/A			<input type="checkbox"/> YES <input type="checkbox"/> NO
8.2.			<input type="checkbox"/> YES <input type="checkbox"/> NO
8.3.			<input type="checkbox"/> YES <input type="checkbox"/> NO
8.4.			<input type="checkbox"/> YES <input type="checkbox"/> NO
Attach a copy of <u>all</u> calculations made to support the data in the table above. Attach a Material Safety Data Sheet (MSDS) for <u>each</u> Product Produced.			



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Byproducts Generated Information

9. Byproducts Generated

If there are more than four Byproducts Generated, attach additional copies of this page as needed.

	<u>Byproduct Generated</u>	<u>CAS Number</u>	<u>Generation Rate</u> (include units)	<u>MSDS Attached?</u>
9.1.				<input type="checkbox"/> YES <input type="checkbox"/> NO
9.2.				<input type="checkbox"/> YES <input type="checkbox"/> NO
9.3.				<input type="checkbox"/> YES <input type="checkbox"/> NO
9.4.				<input type="checkbox"/> YES <input type="checkbox"/> NO

Attach a copy of all calculations made to support the data in the table above.
 Attach a Material Safety Data Sheet (MSDS) for each Byproduct Generated.

General Information

10. Manufacturer's Rated Capacity or Maximum Throughput of Equipment or Process:

Recirculation Rate:

Steam Turbine Cooling Tower = 37,500 gallons per minute

Chiller Tower = 170,010 gallons per minute

Combined recirculating rate = 207,510 gallons per minute

11. Describe Important Manufacturer Specifications and/or Operating Parameters for Equipment or Process: **Not Available**

Attach the Manufacturer's Specification Sheet(s) for the equipment or process.

Control Device Information

12. Is an Air Pollution Control Device Used? YES NO

If an Air Pollution Control Device is used, complete the rest of Question 12. If not, proceed to Question 13.

12.1. Is Knockout Used? YES NO

If YES, complete Form AQM-4.11 and attach it to this application.

12.2. Is a Settling Chamber Used? YES NO

If YES, complete Form AQM-4.10 and attach it to this application.

12.3. Is an Inertial or Cyclone Collector Used? YES NO

If YES, complete Form AQM-4.5 and attach it to this application.

12.4. Is a Fabric Collector or Baghouse Used? YES NO

If YES, complete Form AQM-4.6 and attach it to this application.

12.5. Is a Venturi Scrubber Used? YES NO

If YES, complete Form AQM-4.8 and attach it to this application.

12.6. Is an Electrostatic Precipitator Used? YES NO

If YES, complete Form AQM-4.7 and attach it to this application.



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<u>Control Device Information</u>	
12.7. Is Adsorption Equipment Used?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If YES, complete Form AQM-4.2 and attach it to this application.	
12.8. Is a Scrubber Used?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If YES, complete Form AQM-4.4 and attach it to this application.	
12.9. Is an Incinerator, Afterburner or Oxidizer Used?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If YES, complete Form AQM-4.1 and attach it to this application.	
12.10. Is a Flare Used?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If YES, complete Form AQM-4.3 and attach it to this application.	
12.11. Is Any Other Control Device Used?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If YES, attach a copy of the control device Manufacturer's Specification Sheet(s).	
<i>If any other control device is used, complete the rest of Question 12. If not, proceed to Question 13.</i>	
12.12. Describe Control Device: High efficiency drift eliminators on both cooling towers	
12.13. Pollutants Controlled: <input type="checkbox"/> VOCs <input type="checkbox"/> HAPs <input checked="" type="checkbox"/> PM <input checked="" type="checkbox"/> PM ₁₀ <input checked="" type="checkbox"/> PM _{2.5} <input type="checkbox"/> NO _x <input type="checkbox"/> SO _x <input type="checkbox"/> Metals <input type="checkbox"/> Other (Specify):	
12.14. Control Device Manufacturer: TBD	
12.15. Control Device Model: TBD	
12.16. Control Device Serial Number: TBD	
12.17. Control Device Design Capacity: N/A	
12.18. Control Device Removal or Destruction Efficiency: approximately 99.9995 or greater	

<u>Stack Information</u>	
13. How Does the Process Equipment Vent: <i>(check all that apply)</i> <input checked="" type="checkbox"/> Directly to the Atmosphere <input type="checkbox"/> Through a Control Device Covered by Forms AQM-4.1 through 4.12 <input type="checkbox"/> Through Another Control Device Described on This Form	
<i>If any of the process equipment vents directly to the atmosphere or through another control device described on this form, proceed to Question 14. If the process equipment vents through a control device, provide the stack parameters on the control device form and proceed to Question 18.</i>	
14. Number of Air Contaminant Emission Points: 2	
If there are more than three Emission Points, attach additional copies of this page as needed.	
<i>For the first Emission Point</i>	
15. Emission Point Name: EP11 - Steam Turbine Cooling Tower	
15.1. Stack Height Above Grade: 45 feet	
15.2. Stack Exit Diameter: 26 feet <i>(Provide Stack Dimensions If Rectangular Stack)</i>	
15.3. Is a Stack Cap Present? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
15.4. Stack Configuration: <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Downward-Venting	



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<u>Stack Information</u>	
<i>(check all that apply)</i> <input type="checkbox"/> Other (Specify):	
15.5. Stack Exit Gas Temperature:	98 °F
15.6. Stack Exit Gas Flow Rate:	1699 ACFM
15.7. Distance to Nearest Property Line:	~480 feet
15.8. Describe Nearest Obstruction:	Chillers
15.9. Height of Nearest Obstruction:	??? feet
15.10. Distance to Nearest Obstruction:	20 feet
15.11. Are Stack Sampling Ports Provided?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>For the second Emission Point. If there is no second Emission Point, proceed to Question 18.</i>	
16. Emission Point Name:	EP12 - Chiller Tower
16.1. Stack Height Above Grade:	45 feet
16.2. Stack Exit Diameter:	38 feet <i>(Provide Stack Dimensions If Rectangular Stack)</i>
16.3. Is a Stack Cap Present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
16.4. Stack Configuration:	<input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Downward-Venting <i>(check all that apply)</i> <input type="checkbox"/> Other (Specify):
16.5. Stack Exit Gas Temperature:	98 °F
16.6. Stack Exit Gas Flow Rate:	1803 ACFM
16.7. Distance to Nearest Property Line:	~480 feet
16.8. Describe Nearest Obstruction:	Chillers
16.9. Height of Nearest Obstruction:	??? feet
16.10. Distance to Nearest Obstruction:	20 feet
16.11. Are Stack Sampling Ports Provided?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>For the third Emission Point. If there is no third Emission Point, proceed to Question 18.</i>	
17. Emission Point Name:	
17.1. Stack Height Above Grade:	feet
17.2. Stack Exit Diameter:	feet <i>(Provide Stack Dimensions If Rectangular Stack)</i>
17.3. Is a Stack Cap Present?	<input type="checkbox"/> YES <input type="checkbox"/> NO
17.4. Stack Configuration:	<input type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Downward-Venting <i>(check all that apply)</i> <input type="checkbox"/> Other (Specify):
17.5. Stack Exit Gas Temperature:	°F
17.6. Stack Exit Gas Flow Rate:	ACFM
17.7. Distance to Nearest Property Line:	feet
17.8. Describe Nearest Obstruction:	
17.9. Height of Nearest Obstruction:	feet



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<u>Stack Information</u>	
17.10. Distance to Nearest Obstruction:	feet
17.11. Are Stack Sampling Ports Provided?	<input type="checkbox"/> YES <input type="checkbox"/> NO

<u>Monitoring Information</u>	
18. Will Emissions Data be Recorded by a Continuous Emission Monitoring System?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If Yes, attach a copy of the Continuous Emission Monitoring System Manufacturer's Specification Sheets	
<i>If YES, complete the rest of Question 18. If NO, proceed to Question 19.</i>	
18.1. Pollutants Monitored:	<input type="checkbox"/> VOCs <input type="checkbox"/> HAPs <input type="checkbox"/> PM <input type="checkbox"/> PM ₁₀ <input type="checkbox"/> PM _{2.5} <input type="checkbox"/> NO _x <input type="checkbox"/> SO _x <input type="checkbox"/> Metals <input type="checkbox"/> Other (Specify):
18.2. Describe the Continuous Emission Monitoring System:	
18.3. Manufacturer:	
18.4. Model:	
18.5. Serial Number:	
18.6. Will Multiple Emission Units Be Monitored at the Same Point?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<i>If YES, complete the rest of Question 18. If NO, proceed to Question 19.</i>	
18.7. Emission Units Monitored:	
18.8. Will More Than One Emission Unit be Emitting From the Combined Point At Any Time?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<i>If YES, complete the rest of Question 18. If NO, proceed to Question 19.</i>	
18.9. Emission Units Emitting Simultaneously:	

<u>Monitoring and Alarm Information</u>				
19.	Are There Any Alarms You Would Like the Department to Consider When Drafting the Permit?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If YES, complete the rest of Question 19. If NO, proceed to Question 20.</i>				
19.1. Describe the System Alarm(s):				
If there are more than five alarms, attach additional copies of this page as needed.				
	Operating Parameter Monitored	Describe Alarm Trigger	Monitoring Device or Alarm Type	Does the Alarm Initiate an Automated Response?
19.1.1.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:
19.1.2.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:



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<u>Monitoring and Alarm Information</u>				
19.1.3.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:
19.1.4.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:
19.1.5.			<input type="checkbox"/> Visual <input type="checkbox"/> Auditory <input type="checkbox"/> Automatic (Remote Monitoring) <input type="checkbox"/> Other	<input type="checkbox"/> NO <input type="checkbox"/> YES Describe:

<u>Emissions Information</u>	
20. Do You Plan to Take Any <u>Emission Limitations</u> to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If YES, complete the rest of Question 20. If NO, proceed to Question 21.</i>	
20.1. Describe Any Proposed Emission Limitations:	

<u>Operating Information</u>	
21. Do You Plan to Take Any <u>Operating Limitations</u> to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If YES, complete the rest of Question 21. If NO, proceed to Question 22.</i>	
21.1. Describe Any Proposed Operating Limitations:	

<u>Additional Information</u>	
22. Is There Any Additional Information Pertinent to this Application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If YES, complete the rest of Question 22.</i>	
22.1. Describe:	