

## Questions and Answers

No./N°

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Project Description / Description de projet

**Solicitation No. 16-22151: Water treatment Services for the National Research Council 1200 Montreal rd. campus, Ottawa**

Solicitation No./ N° de sollicitation

Project No./N° de projet

W.O. No./N° d'ordre de travail

**16-22151**

Departmental Representative /  
Représentant Ministériel

Date

**Steve Cassidy**

**March 14, 2017**

**Questions:**

1. For the cooling towers what is the annual water makeup either in usg or m3?
2. For the cooling towers what are the operating hours (summer only or year round)?
3. How many cooling towers are involved?
4. For the steam boilers how many exist?
5. For the steam boilers what is the annual water makeup?
6. For the steam boilers what are the pretreatment systems (softeners, RO or dealkalizers)?
7. For the steam boilers what are the ratings in Boiler horse power
  
8. For the steam boilers what are the operating pressures?

**Answers:**

1. **150 km<sup>3</sup>/yr approx.**
2. **There are 17 cooling towers that operate year round and 3 that are seasonal.**
3. **There are 20 cooling towers total.**
4. **There are 5 boilers in total. One at 60Klb/hr, 2 at 40Klb/hr, 1 at 10Klb/hr (low water volume) and 1 at 20Klb/hr (HRSG).**
5. **900,000 liters**
6. **City water is passed through a zeolite cation softener before being used as feed water make up.**
7. **#1 Boiler: 1,160 BHP (40 kpph)**  
**#2 Boiler : 300 BHP (10 kpph)**  
**#3 Boiler : 1,160 BHP (40 kpph)**  
**#4 Boiler : 2,320 BHP (80 kpph)**  
**#5 Boiler (HRSG) : 640 BHP (22 kpph)**  
**Total Boiler Plant Rating: 5580 BHP (192 kpph)**
8. **The boilers supply steam to the campus distribution system at 100psi.**

<p>9. For the steam boilers what are the operating hours (winter or year round)?</p> <p>10. For the closed loops what is the present corrosion inhibitor in each system (nitrite, molybdate, organic etc)?</p> <p>11. Are there any glycol loops?</p>	<p><i>9. The plant operates 24hr/day year round.</i></p> <p><i>10. Sodium Hydroxide Solution</i></p> <p><i>11. There are a few but are not part of the contract.</i></p>

**Upon request, the text above can be provided in French.**



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