MET 330 – Fluid Mechanics Joey Cantrell

Peer Review Activity (Team 6 Progress Report):

1. Team 6 completed tasks 1 through 7, 10, and 11. They did not complete tasks 8 and 9 in this progress report. However, the professor provided an extension for those two tasks. Therefore, team 6 completed all of the assigned tasks.

   Grade 1 = **100**

2. See the table for the grade breakdown per assignment:

	Task								
Rubric	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**10**	**11**
Purpose	100	100	70	100	100	100	100	70	100
Drawings/ Diagrams	100	100	100	70	100	100	100	100	100
Sources	100	100	100	100	100	100	100	100	100
Design Considerations	100	100	70	70	100	100	100	70	100
Data & Variables	100	100	100	40	100	100	100	100	100
Procedure	70	100	70	70	70	70	70	70	70
Calculations	40	40	40	70	100	40	100	70	100
Summary	70	100	70	70	70	40	100	70	100
Materials	100	100	100	100	100	40	100	100	100
Analysis	40	70	40	70	70	40	70	70	70
Total Score	**73.0**	**85.0**	**68.5**	**73.0**	**88.0**	**70.5**	**89.5**	**77.5**	**89.5**

   Grade 2 = **79.4**

   For the most part, the tasks were in good shape. In my opinion, the team fell short in the areas of their calculations, summary, and analysis sections. They could have been more descriptive in their summaries and analyses. Also, some of the calculations used incorrect equations and assumptions. In task 6, there were no calculations where they should have calculated the pressure being applied to the flange using the P = F/A equation and determine if the flange selected is sufficient to withstand this force.

3. Grade 3 = 5 + 1.25 + 1.25 + 2.50 + 2.50 + 5 + 5 + 35 + 10 = 65/80 (points possible based on parts completed) = **81.3**

4. Grade = (100 + 79.4 + 81.3) = **86.9**

5. The basics of the procedure is correct and the design should perform adequately for the intended purpose. However, the tank design is very expensive and will cost the company a tremendous amount of money to build and operate long term. Once the tank is scaled back to a more reasonable size, the project will be easier to maintain and the design and procedure will become more manageable. The main operational concern is the large amount of water needed and the tank size. Also, I am not sure that the blind flange is sufficient since the calculations were not performed to verify it can stand up to the force applied.

6. The Engineering Head will see the scale of the tank and be somewhat intimidated at the cost for the project. The company can see that team 6 understands the general idea of what is needed, but may ask for a scaled down version of the system. The Engineering Head may recognize some of the faults in assumptions and calculations and may question the methods used in the design. The company will be happy with the professionalism of the report and this will aid in the team being asked to continue knowing that they are young engineers just starting in the industry.

7. I respect the amount of effort put into the report format and the detailed schematics of the report. The drawings are the most important part for most companies as they need to see what they are getting at the end of the project. Most company executives do not understand the technical details and will need the schematics for their understanding. My biggest concern is that these same executives will be intimidated by the significant cost of this project design and seek a more economical design. One additional comment would be to perform a thorough peer review of your writing. Some suggestions would be not to use contractions (don’t, won’t, etc.), proper punctuation, capitalization and general grammar mistakes. This can be a real detriment when a company is reviewing your proposal.