MEMORANDUM

Chemistry Department

To: Bill, Nellie, Melissa, Carolyn, Randy

From: John I. Gelder

Date: February 4, 2001

Re: Grading PS2

STAFF MEETINGS...FRIDAYS, 12:30 p.m. PS117.

The answers to PS #2 are attached. After reviewing the problem sets I have decided we should grade problems PS2.2, PS2.8, and PS2.9 for 3 points. The maximum possible on the problem set is twelve points. The remaining three points are awarded on an all or nothing basis for completion of the remaining problems. Note: If the word 'Late' is written at the top of the Problem Set grade as usual but deduct 3 points from their total. Note: 'Late' means the student found me at the end of class or immediately after class. I will not accept Problem Sets more than a few minutes after class is over, and such cases will have a minimum of 3 points deducted from their score.

Please return the graded problem sets to your students in laboratory next week. Be sure to record the scores for each student.

Copies of the answers and the grading memo are on the WEB.

Grading the Review Problem Set

PS2.2 **3 points** 1 point for the three resonance structures for the carbonate ion. 1 point for discussing/recognizing the extended pi system that delocalizes the pair of electrons over all four atoms. 1 point for knowing or suggesting/implying the bond order is 1.3 between the carbon atom and each oxygen atom. This is a tough problem and I do not expect all students to get it correct. Let me know how they do.

PS2.8 **3 points** 1 point each for part a, b and c. Both calculated pressures (using the ideal gas law) must be correct. Be sure the student uses temperatures in Kelvins not Celsius. If Celsius is used deduct the point, but as long as the logic is consistent for the remainder of the problem. In part b, award the point but only with the supporting explanation. 1 point for part c. Remember both parts must be correct for the point in a, b and c. But be holistic.

PS2.9 **3 points**. 2 point each for part a and 1 point c. Award 1 point for the actual graph. Students were told to include the graph with their problem set. And do not except hand-drawn sissy graphs unless it looks better than a computer generated graph! The other point for showing the determination of a heat of vaporization for either (or both) metals. In part c award the point for the correct vapor pressure for each metal.

3 points For attempting the remaining 7 problems. Remember each problem must have an answer, an attempt. If the student writes nonsense for any of the other answers deduct the 3 points.