You have been assigned the position of environmental engineer for one of several local plants whose water discharges flow into a lake in a flourishing tourist area. Although all the plants are marginally profitable, they compete for the same customers. Included in your responsibilities is the monitoring of water and air discharges at your plant and the periodic preparation of reports to be submitted to the Department of Natural Resources. You have just prepared a report that indicates that the level of pollution in the plant’s water discharges slightly exceeds the legal limitations. Your supervisor, the plant manager, says you should regard the excess as a mere "technicality," and he asks you to "adjust" the data so that the plant appears to be in compliance. He says that the slight excess is not going to endanger human or fish life any more than if the plant were actually in compliance. However, he says, solving the problem would require a very heavy investment in new equipment. He explains, "We can’t afford new equipment. It might even cost a few jobs. It will set us behind our competitors. Besides the bad publicity we’d get, it might scare off some of the tourist industry, making it worse for everybody."

Form the statement “… making it worse for everybody.” it appears that your supervisor is trying to make a Utilitarian justification for the “fudging” of the data.

1. (20 pts) Develop a Utilitarian argument that would support the “fudging” the data. That is, explain and justify the proposition that modifying the report will lead to consequences that are “the most good for the most people.”

2. (20 pts) Develop a Utilitarian argument that would support the position of NOT “fudging” the data. That is, explain and justify the proposition that reporting the data accurately will lead to consequences that are “the most good for the most people.”

3. (30 pts) What would you do in this case? Explain and justify your answer both from the perspective of Professional Responsibility (i.e., using a Minimalist, Reasonable Care, or Good Works argument) AND from an ethical theory point of view using Rights, Duty, or Virtue Ethics.

XYZ orders 5000 custom made parts from ABC for one of its products. When the order is originally made ABC indicates it will charge $75 per part. This cost is based in part on the cost of materials. After the agreement is completed, but before production of the part begins, ABC engineer Christine Carsten determines that a much less expensive metal alloy can be used while only slightly compromising the integrity of the part. Using the less expensive alloy would cut ABC's costs by $18 a part.

Christine brings this to the attention of ABC's Vernon Waller, who authorized the sales agreement with XYZ. Vernon asks, "How would anyone know the difference?" Christine replies, "Probably no one would unless they were looking for a difference and did a fair amount of testing. In most cases the performance will be virtually the same -- although some parts might not last quite as long." Vernon says, "Great, Christine, you've just made a bundle for ABC." Puzzled, Christine replies, "But shouldn't you tell XYZ about the change?" "Why?" Vernon asks, "The basic idea is to satisfy the customer with good quality parts, and you've just said we will. So what's the problem?"

The problem, Christine thinks to herself, is that the customer isn't getting what was promised. Further, even if XYZ would be satisfied with the different part, shouldn't it be given the opportunity to decide if it finds the change acceptable -- and to benefit from lowered cost?

(30 pts) What should Christine do in this case?

1) justify your answer using either the IEEE or NSPE Code of Ethics.

2) Cite all provisions that apply and
3) for each provision that you cite, explain why you think it applies to this case.