Professional Ethics

INSTRUCTIONS
1. Read Scenario A & fill out a professional ethics worksheet (see end of this document).
2. Read Scenario B & fill out a professional ethics worksheet.
3. Staple your work.
4. Write your name an major on the back of your assignment, but nowhere else.
5. Submit your work to DFE in class on Thursday Sept 8.
6. You work will be kept for ABET. Thus, make your own copy before submission (optional).

Scenario A
The info below is a scan from a past Capstone project report. Imagine that you are working on this project early in phase zero. At a team meeting, your project manager asks you—what are the ethical issues you need to be thinking about right now? In responding, fill out a professional ethics worksheet.

1.0 Background

The Idaho Aquaculture Center desires to mass produce Angoumois Moth eggs because of their high protein content and possible success as salmon food. Because these moths were viewed as a pest, there was very little research involving their mass production. While entomological suppliers produce large quantities of moths and moth eggs, these techniques are highly guarded by the company for business purposes. As a result, known current methods of producing these moth eggs through incubation are inefficient and labor intensive.

The production of moth eggs is separated into subdivisions: incubation and separation. The incubator must accommodate the moth's specific biological system for the thirty day cycle of the moth. The separator must remove inert matter from the eggs and deliver them to a container for use. The former methods of incubation have resulted in the recovery of an inadequate amount of eggs, and previous methods of separation had required many hours of labor. Existing technology instated by the client will be redesigned to optimize egg production rates and minimize cost.

In order for the production of moth eggs to render success as an alternative fish food, the client must have the ability to produce a large quantity of eggs through a process of continual recovery. The objective of the Egstractorz team was to design and manufacture this system using existing resources, thorough analysis, and innovative concepts.

Scenario B
You are working for Company XYZ in an entry-level engineering position. Your team has completed the concept design and all calculations on a computer-controlled system that provides thermal energy (heat) to cure a wood/plastic composite part. The system is powered by a 440V service. Your system will be added on to an existing machine that sits on the product floor of a regional company. During your calculation, you discover two significant issues: (a) there are surfaces with temperatures in excess of 250 deg-C and there are electrical safety issues. However, there are no problems so long as the end users follow the instructions. That is, the only way
that people might be injured is if they misuse the machine that is being retrofitted. You plan to put safety warnings on your part. In addition, you will meet all electrical safety codes and your literature search revealed no codes or standards governing the thermal hazards. Your project is behind schedule and a big fight has erupted in your team meeting. Half of the team thinks you need to move on so you get back on schedule. Their idea is that the safety issue is the clients concern because he is an engineer and the machine will be in his factory. The other half thinks you should do something about potential electrical and thermal safety issues. An intern who is working for your company asks--what does the professional code of ethics say? In responding to this question, fill out a professional ethics worksheet.
PURPOSE

This worksheet provides:
- a structure to apply ethical thinking to real world scenarios
- a means of collecting data for ABET assessment

INSTRUCTIONS

1. State your answers in the context of the scenario.
2. Use any printed resources that you have available.
3. If you are bothered by incomplete information or knowledge, recognize that ambiguity & uncertainty are inherent in engineering, then proceed!
4. When requested, work individually so that the ABET data collection is accurate. You will not be graded on this worksheet.
5. Avoid busywork--write high-quality, action-oriented, engineering thinking.
6. If it serves your needs or approach, you may use your own paper.

OVERVIEW. [List the title of the scenario and a short summary (1 to 3 sentences).

ISSUES. [List the 2 most significant ethical issues. For each choice, explain why this issue is important]

1. 

2. 

DECISIONS. [For issue #1 (above), describe the decision you would make & explain why you would make this decision. Repeat for issue #2]

1. 

2. 