

NE 421 Test #2
Take Home: Due Midnight, April 27, 2024
(Saturday midnight)

Using YOUR canister and location from the final project, perform the following tasks. Present your response in the form of a draft version of the final NCSE—in the WORD format like ExampleCSE.docx in the Public area. (IMPORTANT: Your submission must be in the form of an email with a SINGLE WORD (or PDF) attachment that is no larger than 3 MB.) No zips or jars, EXCEL spreadsheets, etc.

1. Provide the Cover sheet and Section 1.
2. Provide a draft of the Section 2 description of the process, the equipment, and the location, including:
 - A digital photograph of your canister
 - A digital photograph of your location
 - All process details needed to support the Normal column of your contingency table in Question 4.
3. Revise Section 3 and 4 of the report to fit your situation. (Be sure your quoted USL agrees with your results of Appendix G.)
4. Provide a draft contingency table with all columns included (Normal, Contingency, Controls). Document as Table 5.1 but THAT TABLE is the only part of your Section 5 that I will look at, so don't worry about changing any of the text outside that table. (Just put in 'x' for values in the table that you don't know yet—limiting concentrations, spacings, stacking allowed, etc., but I want all the words there so that I will know what you intend to use as contingencies.)
5. Provide Appendix G: Using the spreadsheet provided in the public area (Valid2019), perform the following:
 - Modify the wording of Appendix G to fit your situation.
 - Trim the list of experiments down to the 30-50 that you think are most appropriate for your configuration (no more than 5 from the same series)
 - Assuming a 3% MSM and a 3 sigma bias uncertainty, determine your upper subcritical limit. Document the cases by completing Table G-1
 - Fill out the "Experiments" column of Table G-2 (with the exception that row 5 should read "Moderation: Energy of the Average Lethargy Causing Fission").