Guidance & Deliverables for Final Design Oral Report

- This guidance is for the Oral Report only.

- Your oral presentations will be approximately 60 minutes in length. During that time, I will expect to see you open and run your three final ChemCAD simulations (SU, GTL/FTR, and SEP). This will take some time, so your powerpoint slides are limited to the following:

- Process Chemistry – Required, 2 slide limit, including any fade-ins and animations; show the SU equilibrium chemistry and GTL chemistry and FT mechanism. Discuss how they work. Include process conditions.

- Economics – Required, 3 slide limit; include TCI for the process, with separate numbers (subtotals) for the GTL reactor, separators, and HI; compare TCI total with existing commercial plants; discuss ROI and DCFR for your plant.

- Details of Reactor Design – Required, 1 slide limit; include an engineering drawing showing catalyst configuration and temperature control. Indicate pressure drop, amount of catalyst, number and configuration of reactors if more than one are used.

- Details of Separator Design – Required, 1 slide limit; include an engineering drawing (PFD) showing the configuration of individual separators in the plant and location of temperature and pressure control points. Show recycle streams. Indicate number of trays, tray type, tray diameter, reboiler cost, condenser cost, and column cost for each column.

- Safety and environmental analysis – Required, 1 slide limit.

- Utilities and utility costs – Required, 1 slide limit. I want to see a list of all utilities used as well as a short descriptive phrase for each.

- Controls – Required, 2 slide limit; locate primary analyzers and control valves.

- Energy efficiency and lowest environmental impact – Required, limit 1 slide.

- You are allowed 1 slide for your title page, 1 slide for conclusions and recommendations, and 1 slide for references. Since your agenda is given here, you will not need to do that.

Slide limits will be strictly enforced. (big point deductions for violations.)