Breakout Assignment

You are the CFO of a company (congrats!) and your first order of business is to evaluate a project by appraising its NPV. Attached is a document to help you organize your data and arrive at the conclusion.

The appropriate formulae were just discussed in class and are available to you via the course website slides.

The project is to run a production line of heavy machinery components and requires an investment into equipment upgrades that costs $500,000 and will be subject to depreciation of 20% CCA rate. The equipment will last longer than the life of the project so don’t worry about depreciation to zero or salvage value for this project NPV calculation. The project’s lifespan is projected to be 3 years before another modification will need to be made and a separate appraisal will need to be conducted at that time (AKA don’t worry about anything beyond 3 years).

It is projected that there will be 10 units sold in year 1, 12 in year 2, and 16 in year 3. The price will start at $50,000 in year 1 and increase by 6% every year. Material costs of production will be 4,000 in year 1 and the fixed costs associated with production will be $300,000 each year. The corporate tax rate is 20% and will not change over the course of the project.

There is a required working capital of $125,000 at the beginning of the project. This working capital buffer is required to be maintained as 10% of the sales revenue at the end of each year.

What is the projects NPV at 15% rate of return? Should the firm take on the project? Do you need to know anything else?