

ME 4171 – Environmentally Conscious Design & Manufacturing (Bras)

ASSIGNMENT – ENVIRONMENTAL DATA RETRIEVAL AND ANALYSIS

In the lectures, you have seen the Toxic Release Inventory. In this assignment, you will use information from the TRI Explorer and Scorecard websites to assess environmental performance of facilities and communities.

1. TRI-Explorer: Go to the EPA’s TRI-Explorer website (www.epa.gov/triexplorer/) and use the 1999 TRI data for answering the following questions:

- a. What was the most polluting county in Georgia (with respect to total releases) and what is the reported amount?
- b. Who was the largest polluter in that county and what is their largest released compound/chemical? Make a printout of their “TRI Facility Profile” and include it with your homework. You may want to download all their data (see the “Download all data” link at the bottom of the profile page).
- c. Research and explain the source of their pollutants. Be as precise as possible and provide proof, not speculation. You will have to do some research beyond the TRI-Explorer website.
- d. Discuss (as best as you can) options for pollution prevention for that specific polluter. I encourage you to do some research on “best practices” for that type of industry.
- e. Write down what you learned from this exercise.

2. Scorecard: Use the Scorecard website (www.scorecard.org) to evaluate environmental performance in a broader sense for communities.

- a. Type in your zip code (i.e., where you currently live) on the scorecard homepage, generate the information “About your community”, and print this page for inclusion in your homework.
- b. Write a report in which you analyze and evaluate your community’s environmental issues. Go beyond the basic info on the “About your community” page. For example, look at who the big manufacturing polluters are, what are the trends, how does your community rate compared to surrounding communities, look at the maps, etc. Think about WHY your community’s environmental performance is the way it is.
- c. Discuss options for improving your current community’s environmental performance in a positive sense. Also discuss the plusses and minuses of your options.
- d. Compare this community with another community (zip code) where you used to live at one point in time. What are the differences in terms of environmental performance and why?
- e. Write down what you learned from this exercise.

The **objective** of this assignment is that you a) become more familiar with publicly available environmental data resources and b) improve your data analysis and research skills. I will primarily grade you on depth and insight, so please don’t just regurgitate the basic info that you find on the specific web pages.

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If you have any questions, doubts, or you need some suggestions, please ask me! Don't wait until the last moment!

Answer: Bartow County, BOWEN STEAM ELECTRIC GENERATING PLANT.