

Cases for the 2011 Boeing Scholars Academy Ethics Bowl

Case 1: Pollution Points

Under the Federal Clean Air Act, private businesses and governmental agencies that succeed in keeping their emissions below the permissible limits dictated by the Environmental Protection Agency can earn pollution credits. Holders of these credits can sell them to other organizations that have trouble keeping their emissions within limits, or can retire them permanently, thus reducing the potential of future pollution. State agencies in New York have amassed millions of dollars in pollution credits. Recently the state has sought to lure businesses to New York by offering them pollution credits for free. That is, if a company agrees to set up a plant or office in New York then the state will give them some of the pollution credits that it (the state) has earned. This new approach for attracting business into the State of New York is highly controversial. Widespread protests forced the state of Maine to back away from a similar approach.

You are a state legislator in Illinois. Legislation has recently been proposed that would adopt the New York approach for Illinois. Do you vote in favor of it or against it, and why?

Case 2: Waste Transfer Stations

In the Friday July 1st 2011 edition of the *New York Times*, an article reported on the controversy surrounding a decision to reactivate a waste transfer station on the East River at 91st Street in New York City.¹ Waste transfer stations are used to unload trash from garbage trucks and transfer it to other trucks that then take it for disposal outside the city. The proposed site for this new station is extremely close to a public housing project, and in a neighborhood that is 80% minority, though in general the Upper East Side is one of the more affluent areas of the city. Residents near the proposed site are protesting this decision. Lorraine Johnson, a long-time resident of the public housing project in the neighborhood remembered the smell from the trucks heading towards the transfer station before it closed. “They made noise, spewed diesel fumes, attracted rats and smelled bad- like dead bodies.”

In lawsuits, rallies, and lobbying in the State Legislature, residents argue that economically disadvantaged residents, already struggling, should not be saddled with additional problems. In the article, the *New York Times* reported that most waste transfer stations in New York City are in moderate to extremely low-income neighborhoods. On average, people living near transfer stations have a median income of about \$40,000 compared with a city median of \$50,000.

In Chicago, similar situations exist. The Altgeld Gardens Phillip Murray Homes community is a housing project located on the far south side of the city. One journalist visiting the area described it as “a trapped 190 acre island between highways, trash heaps, pollution and industry.”² The residents are 97% African American, according to the 2000 U.S. census, and the housing project was actually built on an old landfill. The area is also one of the densest concentrations of potentially hazardous pollution sources in North America. Many of the 120 landfills that surround the area are unregulated, and some of these are still in use. Since most of these landfills as well as the many industrial plants in the area are located along waterways surrounding the area, many of the lakes and rivers are unfit for human consumption and recreation.

The Chicago Department of Recycling and Waste Management has asked you, an engineer, to be part of a council who is charged with developing a new plan for waste disposal in the city, set to go into effect by 2020. You know from your calculations that you will have to open at least 3 new landfills around the city to accommodate the estimated amount of garbage the city will be handling by that time.

What factors should you as a member of the council consider when choosing the locations for these new landfills?

¹ Navarro, Mireya. “In Fight Against Trash Station, Upper East Side Cites Injustice.” *New York Times* July 1, 2011. A15-A16

² Ehmkeand, Layton and Justine Jablonska. “The Desert of Altgeld Gardens. *Medill Reports*. October 28, 2009. <http://news.medill.northwestern.edu/chicago/news.aspx?id=143727>

Case 3: Hydrofracking

Hydrofracking (hydraulic fracturing) is a process used in drilling for natural gas. It involves injecting large volumes of water, mixed with sand and chemicals, deep into the ground to break up shale formations and release natural gas.³ Environmental organizations have voiced concern that hydrofracking creates vast amounts of waste water containing toxic materials buried underground, including naturally occurring radioactive elements and carcinogens, such as benzene, that pose great risk of contaminating sources of fresh water. Spokespersons for the natural gas industry contend strenuously that, to the contrary, hydrofracking is safe. They stress as well that natural gas burns much more cleanly than coal, can reduce dependence upon imported oil, and drilling for it provides desperately needed employment opportunities.

In 2010 at an auction sale the State of Michigan sold rights to hydrofrack drilling for natural gas on State land for 186 million dollars (a record amount for a State auction sale), even though Michigan is surrounded by the Great Lakes, holding 21 per cent of the world's surface fresh water (and providing the city of Chicago its drinking water supply). Michigan environmental organizations have called for a moratorium on hydrofracking until the State can develop and implement adequate safeguards.⁴

Should Michigan permit the use of hydrofracking to drill for natural gas? If so, why, and subject to what safeguards, if any? If not then why not?

³ <http://www.scientificamerican.com/article.cfm?id=hydrofracking-and-drinking-water-co>

⁴ <http://michigan.sierraclub.org/issues/greatlakes/hydrofracking.html>