

1. For the story in my website, I use the characters, Edward Tulane and Ernest, from the book (DiCamillo, 2006). However, the content of story is all made up.
2. For most part of educational contents, They are from the book (Pfeffer, 1992). Some of them have been reorganized so that they could be more easily understood. Here are the educational contents used in website.

(1).

WHY SOLID WASTE MANAGEMENT IS IMPORTANT

The public health problems associated with the improper disposal of solid waste, especially food waste, have long been the driving motivation for the removal of these materials from human environments. The attraction of rats and other animals made solid waste a source of significant health problems, especially with regard to diseases associated with rats and flies.

Figure 1. Screenshot from website

The original content is from book (Pfeffer, 1992) page 3. Below is the screenshot from the book.

Protection of public health. The public health problems associated with the improper disposal of solid waste, especially food waste, have long been the driving motivation for the removal of these materials from human environs. The attraction of rats and other vermin made solid waste a source of significant health problems, especially with regard to diseases associated with rats and flies.

Figure 2. Screenshot from the book

(2).

A good solid waste management should not only consider the aspect of human beings. Traditional solid waste disposal was to render the waste either by moving it to remote locations where human contact was unlikely, or attempting to burn the combustible fraction. These disposal practices were contributing to the deterioration of environmental quality. Therefore, resource recovery and conservation are recommended now. However, cost is another problem. Next let's explore general processes of solid waste management.

Figure 3. Screenshot from the website

The original content is from book (Pfeffer, 1992) page 3.

Environmental acceptability. Initially the objective of solid waste disposal was to render the waste innocuous either by hauling it to remote locations where human contact was unlikely, or attempting to burn the combustible fraction. The resulting environmental insults were tolerated. The quantity of waste was limited both by the per capita production as well as by the total population. Also, the environmental insults from other societal activities were significantly greater than from solid waste disposal. As the concern for improving the quality of the environment began to be expressed in the 1960s and 1970s, it was clear that solid waste disposal practices were contributing to the deterioration of environmental quality. Since then there has been a steady increase in the control exercised over solid waste disposal.

Figure 4. Screenshot from the book

(3).

RECYCLING

Brief: The commonly accepted definition of solid waste recycling would be to utilize one or more components in such a way that they are not deposited in a sanitary landfill.

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Figure 5. Screenshot from the website

The original content is from book (Pfeffer, 1992) page 72.

cycling because the container is never discarded. The commonly accepted definition of solid waste recycling would be to utilize one or more components in such a way that they are not deposited in a sanitary landfill. With this definition, the uses discussed below may be available for a refuse component.

Figure 6. Screenshot from the book

(4).

Now paper is the major commodity recycled, with glass and metals a distant second. Certain metals have a much higher recycle rate than the general category. Plastics, rubber, and leather make a small contribution to the recycled stream. Plastics are receiving considerably more attention as the proportion of plastics in the solid waste increases.

Today, recycled materials are commonly used as a raw material for the production of other products. Recycled paper has a large market for use in manufacturing building materials, such as insulation, and wallboard. It has also been used to manufacture special containers such as egg cartons. It could see a bigger market in this area, especially if the legislative bans on the use of plastic foams expand. Recycled plastic has been used to produce fiberfill, an insulating material used in lightweight cold-weather clothing and gear. It has also been used to manufacture structural plastics for playground and park equipment. As the quantity of recycled plastics increases, it will continue to provide a raw material for a low price. There will be many new uses found.

Figure 7. Screenshot from the website

The original content is from book (Pfeffer, 1992) page 73 and page 74.

The data in Table 5.1 show the extent of recycling in 1984. Paper is the major commodity recycled, with glass and metals a distant second. Certain metals have a much higher recycle rate than the general category. Plastics, rubber, and leather make a small contribution to the recycled stream. Plastics are receiving considerably more attention as the proportion of plastics in the solid waste increases. The

Figure 8. Screenshot from the book page 74

Some refuse components have been used as a raw material for the production of other products. Recycled paper has a large market for use in manufacturing building materials, such as roofing felt, insulation, and wallboard. It has also been used to manufacture special containers such as egg cartons. It could see a bigger market in this area, especially if the legislative bans on the use of plastic foams expand. Recycled plastic has been used to produce fiberfill, an insulating material used in lightweight cold-weather clothing and gear. It has also been used to manufacture structural plastics for playground and park equipment. As the quantity of recycled plastics increases, it will continue to provide a raw material for a low price. There will be many new uses found.

Figure 8. Screenshot from the book page 73

(5).

Combustion is a chemical reaction involving the rapid combination of oxygen with the combustible components in a fuel. All of the organic material present in the solid waste stream contains significant quantities of energy. Incineration of solid waste with energy recovery is currently used in many large communities. Sometimes it is accompanied with a central power generation station. As the separation of paper, plastics, and yard and garden waste at the source increases, the value of the solid waste as a fuel decreases. This is a case where the recycling and resource recovery schemes are incompatible.

Sanitary landfill is a well-design waste disposal facility. The site of this facility is very important because this facility may create some pollutants which could contaminate the local environment. Most of solid wastes are managed by this method now and it is the oldest form of solid waste management.

Figure 9. Screenshot from the website

The original content is from book (Pfeffer, 1992) page 73 and 223.

All of the organic material present in the solid waste stream contains significant quantities of energy. Incineration of solid waste with energy recovery is currently used in many large communities. The material is burned in a steam boiler dedicated to refuse combustion, or burned along with another fuel in a central power generation station. As the separation of paper, plastics, and yard and garden waste at the source increases, the value of the solid waste as a fuel decreases. This is a case where the recycling and resource recovery schemes are incompatible.

Figure 10. Screenshot from the book page 73

Condition 7 is contained in the legislation, but would not generally apply to new sanitary landfill sites since hazardous wastes would not be accepted along with normal urban refuse. The regulated recharge area referenced in condition 9 are the areas where significant surface water infiltration occurs and recharges the aquifers that are groundwater resources.

Figure 11. Screenshot from the book page 233

3. And a few contents are from the website Wikipedia.

Reference

DiCamillo, K. (2006). *The Miraculous Journey of Edward Tulane*. United State: Candlewick Press.

Pfeffer, J. T. (1992). *Solid Waste Management Engineering*. Englewood Cliffs, New Jersey: Prentice Hall.

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