

# ***CITY OF CENTRAL FALLS SCHOOL RECYCLING PROGRAM FOR 2009***

## ***DIVERSION RATIO FOR THE SCHOOL DEPARTMENT 2007***

***A. The School Department pays the city \$7,000.00 per year for their solid waste tonnage***

***B. Hence, it cost \$32.00 per ton to dump the solid waste at the central landfill (RIRRC)***

***C. Calculating the solid waste tonnage for the School Department:***

$$S.W.tons = \frac{\$7000.00}{\$32.00}$$

$$S.W.tons = 219 \text{ Tons}$$

***D. The tonnage for Recyclables in year 2007 for the schools was 12.3 Tons, hence calculating the schools diversion Ratio:***

$$DR = \frac{\text{Recyclables}}{(\text{Solid Waste} + \text{Recyclables})}$$

$$DR = \frac{12.3}{(219 + 12.3)}$$

$$DR = 5.3\%$$

## **II. PROBLEM IDENTITY:**

*In October of 2008 an audit was conducted on recycling in the Central Falls Schools. The auditors consisted of Chris Radcliff from the State of Rhode Island School Recycling Program, Lynn Ahumada Facilitator of Transportation, Human Services, Grant Writing for the Central Falls School Department, and Joe Nield Director of Public Works in the City of Central Falls.*

*All of the eight schools in the city were audited and for the most part they all seemed to display the same pattern for their refuse and recycling collection.*

*The following are some of the problems that were sited during the course of the audit:*

### **-A- IN THE CLASS ROOMS:**

- 1a. Generally there were recycling bins found in the class rooms however not always both blue and green.*

- 2a. Typically the trash would be mixed in with the Recyclables.
- 3a. The recycling bins were not placed next to the trash containers making it difficult to sort the refuse on the spot
- 4a. No banners or posters in the class rooms to promote recycling.

**-B- IN THE CAFETERIA:**

- 1b. In most of the cafeterias there were no containers to empty residual liquids from the students drinks (be it: milk, soda, coffee, water, etc.).
- 2b. Hence, containers with residual liquid in them can not be recycled.
- 3b. These, “ would be recyclable containers”, will end up in the Solid Waste trash cans which costs the city \$32.00 per ton to dump at the Central Landfill.
- 4b. Again in the Cafeterias there were no slogans or PR signs to encourage recycling

**-C- EXTERIOR OF SCHOOLS REFUSE AREA:**

- 1c. Most of the schools had designated areas to store the trash and recyclables outside the building
- 2c. Generally in the containers the recyclables were mixed with the solid waste trash.
- 3c. In most refuse storage areas it appeared there was not enough green and blue containers to accommodate the amount of capacity the school should be recycling

**-D- MIXED INTERPERTATION ON THE ROOT CAUSE OF THE PROBLEM:**

- 1d. Depending on who you talked with, one would receive a different response on why recycling was so poor in the school in question.*
- 2d. When the teachers were polled on why recycling was not happening they said when the trash and recyclables leave the class room the janitorial service mixes everything together in one trash container.*
- 3d. Talking with the janitors, when they were asked why recycling was next to non-existent in the school they responded with, “the trash and recyclables are mixed in the class rooms and they do not have the time to sort it out”.*

## **II. RECYCLE PROBLEM RECIFICATION:**

*During the course of the audit there were some problem areas with regard to recycling identified in all of the schools. It is the intent of this text to offer recommendations to resolve the issues that are outstanding to date.*

*The following are some of the “Action Items” that should be implemented in order to improve the Recycling Diversion Ratio in our school system:*

### **-1- FORM A TASK FORCE:**

- 1.1 One of the major difficulties observed with all factions in the schools was the lack of focus, attention, and concern on recycling. Hence, in each school a “champion” has to be identified to lead a task force that will focus on increasing the Recycling Diversion Ratio.*
- 1.2 Members of the task force would typically be:
  - a. Teacher (Champion)**

*b. Janitor*

*c. 3 to 5 Students*

*1.3 The Charter of the task force would be:*

*⇒ Generate a Recycling Plan to achieve 35% D.R.*

*⇒ The plan should be tailored to each school*

*⇒ Implement the Plan in the school in question*

*⇒ Organize, direct, and oversee implementation*

*⇒ Maintain the plans existence continuously*

*1.4 In the concoction of the plan there should be three major areas to concentrate on:*

*✓ CLASS ROOM*

*✓ CAFETERIA*

*✓ OUTSIDE REFUSE STORAGE*

## *-2- CLASS ROOM:*

*2.1 In the Class Room a key figure is the “Teacher” it is imperative that he or she takes the initiative to promote, educate, and mandate Recycling!!!*

*2.2 Designate one of the students in the class to be the “Captain of the Recycling Team”(a different captain should be chosen each week or each month) his or her responsibilities would be:*

*○ Ensure recycling bins (both green and blue) are in the class room along with a trash container*

*○ Make certain that all three containers are together side by side (this will guarantee ease of sorting recyclables from solid waste) and in the same location of the class room*

- *Daily inspections of the containers to prevent trash being mixed with the recycling*
- *Most importantly ensures that when the recycling containers (both green and blue bins) leave the class room they are put into the proper recycling containers in the outside refuse area*

*2.3 In order to stimulate recycling motivation in the class room there should be promotional aids such as “Banners, Posters, Signs, etc.” that will constantly keep the students aware of recycling*

*2.4 On the theme of motivation, one other component that could be introduced is “awards” for best recyclers. This could be employed on an individual student basis, competition between class rooms, and even between schools . Hence, the best recyclers receive high recognition and appreciation.*

*2.5 Another area that needs to be addressed is the administrative offices. There is a great deal of paper that is generated in the course of the work day. There should be the small green and blue bins (13.5” Long X 9.5” Wide X 15.0” Deep) place under the desks of each of the workers in the admin offices and facility offices. Which makes it convenient to sort recycling.*

### **-3- CAFETERIA:**

*3.1 The cafeteria is an area that generates a enormous amount of recyclables. Just in the kitchen alone a large volume of cardboard is obtained from the boxes of can goods. In the*

*dinning room there is a huge amount of recyclable containers: milk cartons, soda cans, water bottles, paper cups, coffee cups, etc. that are dispensed. Action items should be set in place to recover all of these articles that are presently being thrown in the trash.*

*3.2 The cafeteria recycling upgrade task should be a coordinated effort entailing three factions: a. The cafeteria staff, b. Teachers, and c. Students all sharing the duties and responsibilities to make the goal successful*

*3.3 Members of the cafeteria staff will take responsibility for all the cardboard, cans, bottles, and paper generated in the kitchen. Making sure it is all categorized and sorted into the proper recycling containers in the outside refuse storage area*

*3.4 During the lunch period members of the teaching staff should have responsibility for the recycling of the students. Recycling stations will be set up in central locations in the cafeteria. Each station having the following:*

- Large Recycling Green Bin*
- Large Recycling Blue Bin*
- Large Trash Container*
- Large Container for Waste Liquids*

*3.5 The Waste Liquid Container should be placed right next to the Blue and Green Recycling Bins. This Liquid Container is there for the students to empty any residual liquid left over in the drink container: Be it soda, milk, water, coffee, tea, etc. By using this liquid waste container it will allow*

- their drinking cans, bottles, cups, to be liquid free so they can be put into the proper recycling bins.*
- 3.6 During the course of the Recycling Audit it was noticed that there were no waste liquid containers in the cafeterias for the students to empty what was leftover in their drinking containers. Hence, the drinking containers would have to be thrown in the solid waste trash. This is a bad scenario as it fills up the landfill and costs the city \$32.00 per ton to dump it at the landfill, whereas if it was recycled properly it would be free of charge.*
- 3.7 In the cafeteria (same as the class rooms) there was no PR to promote recycling. There should be Banners, Posters, Signs, etc displayed in the room to keep everyone aware of Recycling.*
- 3.8 Each lunch period students should be designated to ensure that all of the recycling that was generated will be brought out to the outside refuse storage area and placed in the proper recycling containers.*

#### **-4- OUTSIDE REFUSE STORAGE AREAS:**

- 4.1 This is a topic that needs to be addressed both for consistency and capacity. The task force teams from each of the eight school should meet and set some rules and guideline with regards to the “Outside Refuse Storage Areas”.*
- 4.2 Each of the schools in the city should assign a designated area in their school yard to store all of the refuse generated. At a minimum they should all have the following criteria:*
- Fenced-in if possible*

- *Car-port type roof (protect from elements)*
- *Area can be secured with a lock*
- *Enough Container Capacity for entire school entailing the following:*
  - ✓ *80 gal. (Green Bins) for Paper / Cardboard*
  - ✓ *80 gal. (Blue Bins) for Bottles / Cans*
  - ✓ *80 gal. (Brown Bins) for Solid Waste*
- *80 gal. Containers should have wheels at the base for ease of mobility.*

*4.3 A key element in the school recycling program is to ensure that all of the sorted recycling from the class rooms make it down to the “Outside Refuse Storage Areas”, and is placed in the proper recycling containers being ready to be brought to the Rhode Island Resource Recovery Corporation*

**-5- CONCLUSION:**

*5.1 If all of the factions mentioned work together in a concerted effort to implement the “School Recycling Program” we will have no problem increasing the Diversion Ratio from the present 5.3% to a minimum of 20% in year 2009, “Lets Make It Our Goal: 20% D.R. FOR YEAR 2009 OR BUST!!!”.*

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