



2016 Safety Award Entry: Biggest Safety Improvement



Presented by:
Rhode Island Resource Recovery Corporation

SWANA Member #: 28969
Rhode Island
Approximate Population: 1 million

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EXECUTIVE SUMMARY

How much effort and focus should an employer place on safety for its employees, customers, and contractors? That is a question that many companies, municipalities, and other agencies struggle with daily as they try to balance safety with their economic bottom line. Rhode Island Resource Recovery Corporation believes that safety is a driving factor in the economic health of a company, and without a robust program in place, you risk the well-being of your employees and the economic bottom line. For this reason, the Corporation focused a great deal of energy and resources into updating its program to provide for a safe working environment for its employees, customers, and contractors. Since 2009, we have significantly reduced on-site incidents, lowered insurance premiums, and reduced workers compensation claims, all while increasing employee morale. The Corporation is proud of its accomplishment, but not yet satisfied, there is always more to do.

Section 1

DESCRIBE YOUR SAFETY PROGRAM, INCLUDING YOUR USE OF SAFETY MONDAY AND OTHER INFORMATION PROVIDED BY SWANA?

In 2009 the Rhode Island Resource Recovery Corporation (RIRRC) overhauled its Safety Program to better promote the safety and welfare of the employees, contractors, and customers utilizing the facility. Prior to this time, the safety program included the bare minimum as required by law, and there was zero analysis performed on the measures in place and the results. Once it was determined that this overhaul was needed, the Corporation hired a Safety Manager to be dedicated to the program. Immediately, this employee attended the Occupational Safety and Health Administration (OSHA) training school located in New Hampshire to become a Certified Health & Safety Officer (CHSO). Concurrently, the program was expanded to be based on total participation from management, employees, customers and vendors with special emphasis on hazard awareness, workplace safety, and education.

Total participation starts with management committing the time, effort, and money to provide its staff with a safe and comfortable working environment realizing that it is their responsibility to provide for the safety of the workforce, customers, and vendors alike. This process started in 2007, where under the direction of a new Executive Director, the Corporation underwent a cultural shift where employees no longer work for the “dump”, as many in the industry refer to older facilities, but rather work for the RI Resource Recovery Corporation. All employees work towards the goal of the Corporation which is to promote the continued recycling efforts of the State while providing safe and effective management of the solid waste stream that enters the facility. With this overarching framework in place, the employees of the Corporation were now able to focus efforts on improving the workplace safety and lessening the issues that were observed.

A key element to any successful program is in the education of the participants. Employees at all levels of the Corporation participate in SWANA certification classes, including Landfill Gas Safety, Developing a Culture of Safety for Solid Waste Operations, Managing Compost Programs, Manager of Landfill Operations, Manager of Recycling Operations, Integrated Solid Waste Management, and many others. In addition, Senior Managers are actively involved in the local SWANA chapter, the New England Recycling Council, and many other professional organizations that routinely discuss safety issues and best operational practices. In allowing and encouraging employees to volunteer their time and efforts to these practices, they are exposed to other peoples’ thoughts, and ideas on safety topics that can be implemented at the facility.

To ensure that the employees have the tools necessary to do their jobs safely, the Corporation has incorporated various other training techniques into its programs including monthly safety topic meetings, Health & Safety Committee, contractor safety orientation, near-miss reporting, weekly safety talks, and most recently customer safety mailings. These trainings are conducted by the in-house CHSO, who is certified in training 10 hour and 30 hour OSHA classes, CPR, First-Aid, Forklift, Aerial Lift, Scissor Lift, as well as other programs. By having an in house trainer, the programs are tailored towards the Corporations activities, and we have found that by linking the employees direct job to the training program there is better employee retention of the material being presented. Some of this training is also extended to Contractors and customers of the Corporation.

All contractors who perform work on the Corporation site are required to attend a safety orientation with the CSHO to review their own health and safety plan, but to also understand the rules and hazards associated with the Corporation property. Finally, the Corporation strives to keep our customers safe by informing them of the on-site rules and consistently reinforcing them through verbal contact, mailings, e-mails, as well as other forms of communication. As an example, the Corporation developed the business card shown in **Figure 1** that outlines the basic rules of the site. This card is double sided to convey this message in both English and Spanish as we realized a great deal of our customers were Spanish speaking.

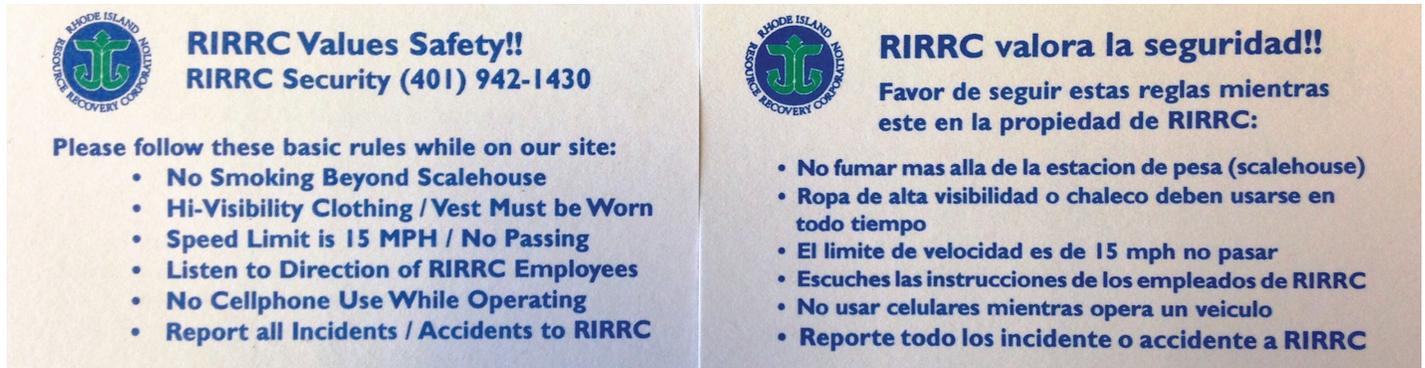


Figure 1 – Safety Card

In fact, employees, contractors, and customers all realize that safety begins at the entrance to our facility. Upon entering the site, the Corporation staffs a guard shack where the employee is available to answer any questions regarding the site or to direct the individual to the proper location utilizing color coded stripes on the pavement. On the way in, these individuals are exposed to 4'X2' banners hanging from the light poles revealing safety prompts, such as: safety vests must be worn; no cell phone use during operation, reduce speed, Enter safe-work safe-go home safe, etc. And finally upon leaving we remind all parties to be safe while outside our gates with additional banners, as we know that this industry has its perils.

To go a step further, RIRRC leverages a wide variety of media such as newspapers, magazines, radio, and online advertising to promote various safe recycling activities. We also publish a monthly newsletter, Chasing Arrows, for municipal recycling coordinators in every one of our 39 cities and towns. Chasing Arrows (see **Figure 2**) is a vehicle for making announcements, sharing-best practices, and generating discussion. Safety is not an option, it's what we are.

Another part of the Corporation safety program requires that all incidents, regardless of size, be reported. When first implemented there was an immediate increase in the number of events reported as it turned out there was a lot of things not accurately being captured. Over time, the Corporation has seen a great reduction in the number of incidents reported, the severity of the incidents, and the costs associated with the same. As part of this reporting, and in order to properly track and analyze these incidents, a database was developed--so that each event could be categorized with respect to location, incident type, personnel type, injury type, as well as numerous other factors. Upon reporting, each incident is reviewed by the immediate supervisor to ascertain the cause of the incident and to recommend any process or procedural changes that might need to be implemented. Each of these review reports are further reviewed by the Director of Operations and the Human Resources Manager to look for trends or other factors that may need to be addressed for the entire facility. This process has allowed for a consistent and timely review of all incidents and a greater focus on process change, helping to continue lowering the overall number of incidents.

As a final part to the review process, each incident is reviewed by an on-site Health and Safety Committee. This Committee consists of nine (9) Corporation employees including the CSHO, HR Director, Director of Operations, Chief of Security, and five field level employees who volunteer to be on the Committee for a 2.5 year term. This Committee reviews each incident report, supervisor evaluation, and any recommendations made to improve safety. Because these employees work directly in the field locations, they bring a unique perspective to the review process that management may not see. They are able to ask questions of senior management and offer suggestions to better improve safety on the site. Finally, this Committee performs announced and unannounced inspections of the various departments on site, which they may not normally see, to offer suggestions on operations that can be implemented to address items they may have seen on the various incident reports.

Management fully supports this Safety Committee because employee involvement and incident prevention is important to help reduce accidents, injuries and the costs associated with them. Furthermore, this process demonstrates to our employees, vendors, and customers that safety is part of our overall operational practices on site.

Finally, to keep employees focused on the importance of Safety in the Workplace, the Corporation implemented an employee incentive program where employees are rewarded with personal time off if they adhere to all safety rules and procedures individually and as a group. There is no penalty for employees who report incidents or have an incident themselves. Rather the emphasis is on acting and behaving in a safe manner and looking out for your fellow employees to do the same (buddy system). If those objectives are achieved, then the employees remain eligible for the incentive.



Figure 2 – Excerpt from Chasing arrows

Section 2

HOW DO YOU MEASURE RESULTS FOR YOUR SAFETY PROGRAM?

As mentioned earlier, the Corporation takes great measures to accurately track all incidents that occur on the site. Each incident, whether it includes an employee, a customer, or a vendor, is documented by on-site security officers, most of whom are former police officers. Because of their training, these employees realize the importance of timely investigations to gather appropriate details of the incident including statements, photos, witnesses, weather, and any other information necessary to provide a clear picture of the incident. This report is prepared within 24 hours and disseminated to the area Supervisor as well as the Director of Operations so that a review of the incident can occur and any additional information can be gathered for a thorough evaluation.

All of this information is entered into a database that allows for future reporting by department, employee, incident types, cost of incident, injury type, and other data. This database allows for an analysis of the incidents on site to assist with identifying if any future trainings are required to enhance the safety program. **Table 1** details an example of the information that can be garnered from the database.

In addition to the database, the Corporation tracks the results of its safety program by routinely reviewing its worker compensation claims with its insurer. Typically every quarter, the Director of Human Resources will meet with the insurance representative to review the active list of workers compensation claims, the amounts paid for the claims, as well as the closed claims. Based on this review, the team may recommend that additional or special training be conducted to help address issues that may be re-occurring. Since this process has begun, the Corporation has offered programs such as Stretch for Safety, Defensive Driving, and Office Ergonomics to its employees to be proactive in addressing possible claims. Employees have acknowledged that these programs offer them a different perspective and have proven beneficial to many of them.

The Corporation also uses measures such as the OSHA 300A log, total claims paid, insurance mod rate, DART (days away, restricted, or transferred) rate, incidence rate, as well as the number of incidents recorded in the database and summarized on an Excel sheet. All of these measures provide their own window into the effectiveness of the on-site safety program. However, each of these taken alone cannot be used to accurately determine if the program is successful. The Corporation believes it is important to look at all the measures combined when determining if the program is successful. For instance, if the 12 month rolling Dart rate of 13.22 (CY2014) was reviewed for safety one would believe that it was not a good year for the Corporation. However, when all the other data is reviewed, one would observe that the number of overall incidents was down, the general severity of the incidents was down, and the average workers compensation insurance rate per employee was down, all pointing to a good safety program.

Incident Type	Calendar Year				
	2011	2012	2013	2014	2015
Accident	154	155	142	214	176
Alarms	31	31	24	30	10
ATV or Trespassing	1	2	7	4	1
Disturbance/Argument	4	6	5	2	3
Hazardous Waste	4	1	1	2	
Internal	1		2	2	
Near Miss	8	8	2	2	4
Recovered Property				16	19
Rescue	3	6	8	4	
Suspicious Vehicle/Persons	2			2	
Theft	3	6	1	4	2
Unauthorized Parking			1		
Unsecured	1	2		1	2
Fire				8	14
Recovered Weapons/Amo				2	5
Grand Total	467	394	366	329	280

Table 1 - Database Summary

Section 3

WHAT RESULTS DID YOU USE AS A BASELINE FOR COMPARISON TO DETERMINE IMPROVEMENT BETWEEN 2014 AND 2015?

As previously mentioned, the Corporation looks at numerous measures to determine if the safety program is being effective at providing a safe working environment for the employees, customers and contractors on our site. The Corporation operates on a fiscal year that goes from July to June, but also measures on a calendar year. The results listed below are typical of the measures used by the Corporation and are reflective of either the FY14 or CY14 time period as identified.

OSHA 300A Log - CY14

- Total Injuries: 17
- Number of days from work: **422**

DART Rate - rolling 12 month - CY14

- 13.22

Incidence Rate - rolling 12 month - CY14

- 17.94

Workers Compensation - CY14 (Nov-Oct)

- Total claims paid: **\$143,822**
- Average claim paid per Full Time Employee: \$1,382
- Insurance Cost per Full Time Employee: \$2,392
- Loss Ratio: 58%

Insurance Experience Modification Rate

- 0.82

Number of Incidents on site - See Table 1 - as broken down by type

Section 4

HOW DID YOU MEASURE THE SAFETY IMPROVEMENT THAT YOU ACHIEVED IN 2015?

OSHA 300A Log - CY15

- Total Injuries: 7
- Number of days from work: **91**

DART Rate - rolling 12 month - CY15

- 4.55

Incidence Rate - rolling 12 month - CY15

- 7.28

Workers Compensation - CY15 (Nov-Oct)

- Total claims paid: **\$17,941**
- Average claim paid per Full Time Employee: \$168
- Insurance Cost per Full Time Employee: \$2,621
- Loss Ratio: 6%

Insurance Experience Modification Rate

- 0.84

Number of Incidents on site - See Table 1 - as broken down by type

The numbers presented above are a snapshot in time, summarizing the fiscal or calendar year 2015. The Corporation also believes it is important to look at longer term trends in safety to see the true effectiveness of the overall program at meeting the goals. For example, while the DART and Incidence rates show great improvement from CY 14 to CY15, that is based on the fact that there was a single claim in CY14 that drove those numbers high. When you look at those rates over time, as shown in **Figure 3**, you can see that the Corporation has slowly and steadily lowered the overall rate. This is true for many of the metrics used by the Corporation, for example: the insurance experience modification rate was well above 1.2 as compared to today, the loss ratio was above 200% as compared to today, and the overall number of OSHA incidents has been over 20 annually as compared to today. All of this improvement was done with a lot of hard work by the management and employees of the Corporation continually focusing on its core mission to provide for a safe environment to perform its work. While we take great pride in the year over year reduction, we take greater pride in the long term reductions and the increased safety awareness of our employees.

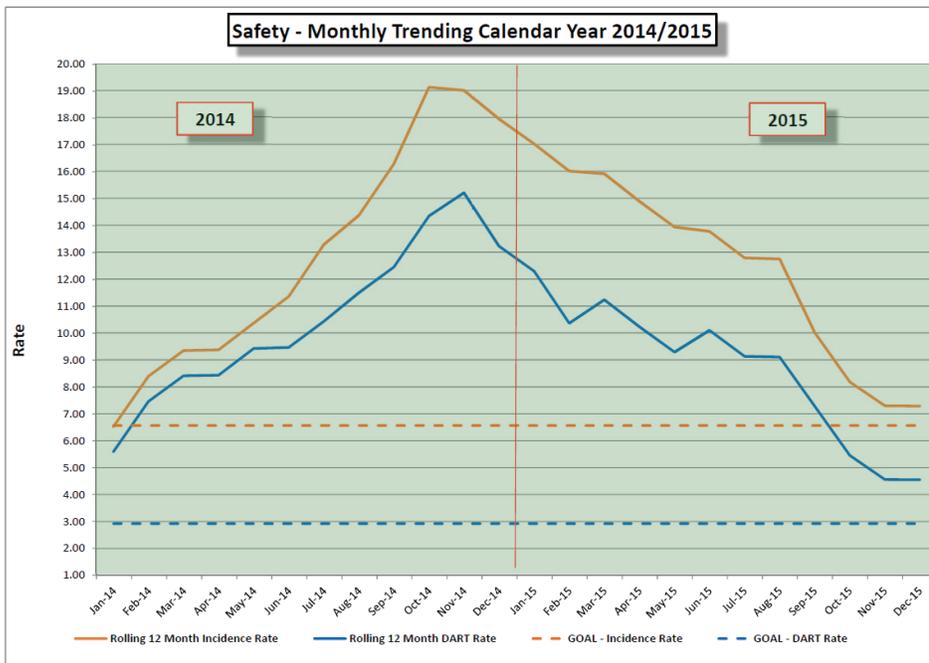
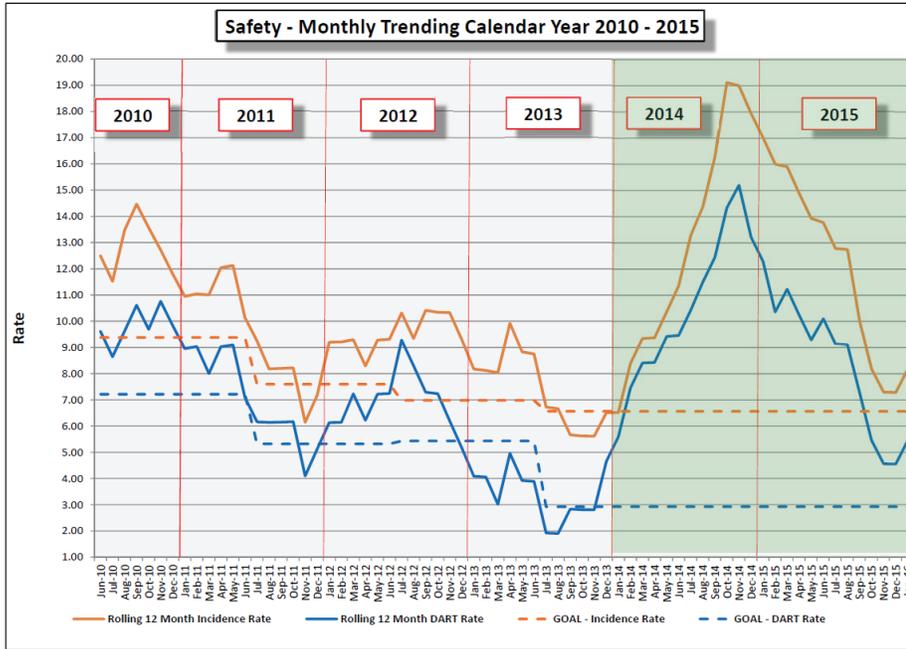


Figure 3 – 6 Year Rolling Trend

Section 5

TO WHAT DO YOU CONTRIBUTE THE IMPROVEMENT IN YOUR SAFETY PERFORMANCE IN 2015?

The reasons for improvement in safety cannot be summarized in a single word, sentence, or paragraph. As expressed throughout this document, true and lasting improvements in safety can only occur if they become part of your culture. At the Corporation, safety is part of everyone's job and is stressed at the date of hire. In fact, safety is a condition of employment. On day one, a new employee is exposed to the safety program before they even go to their assigned area. By letting them know that we value their safety first, employees realize that they are now part of the team and strive to make sure that they look out for themselves and their fellow employees. This is further exemplified in the Core Values of the Corporation (See Figure 4).

Because of these values and the programs put into place by the Corporation, we are able to be proactive in identifying re-occurring issues, are able to modify the policies/procedures to address those issues, and provide training to employees. By monitoring, recording, evaluating, and educating, the Corporation and its employees are able to effectively minimize issues that typically affect organizations such as ours. Employees have taken ownership in their and their fellow employee's, safety.

One specific example which improved our safety at RIRRC from Year 2014 to 2015 involved the Material Recycling Facility's most recent retrofit that transformed the facility into one of the largest and most technologically advanced in New England. RIRRC initiated a project to convert its existing dual stream MRF into a modern, 50 ton per hour single stream system. Of course with change, comes unfamiliarity. As a result, we observed an increase in injuries to the staff related to cuts, scrapes and needle sticks. Many of these injuries related to small cuts and punctures from the increased amount of broken glass and the increased percentage of our sorters that were exposed to broken glass. Through our diligence to duty, it was learned that process and PPE was a determining factor. Management went through a process to upgrade the PPE and to train the employees on the specific hazards, all of which greatly reduced these types of injuries in 2015.

“*RIRRC's core values guide activities at the facility and are integral to helping the organization achieve its goals of safe solid waste handling and increased recycling in Rhode Island.*”

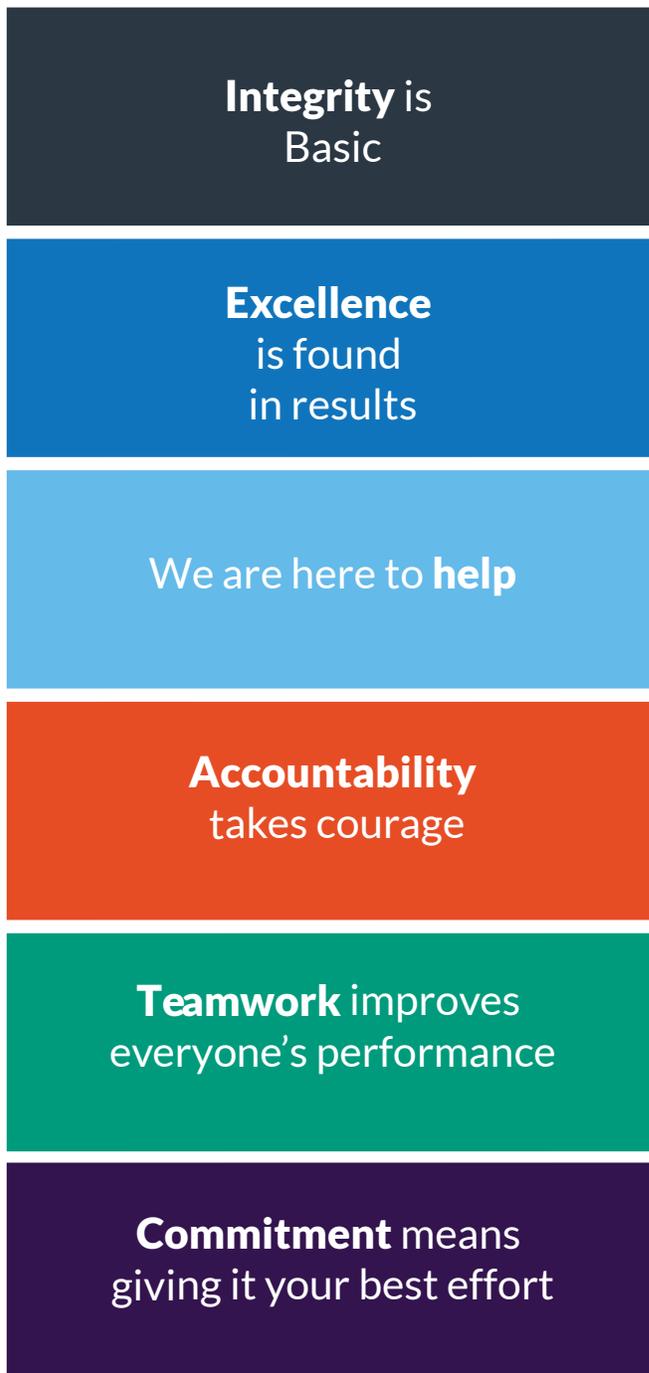


Figure 4 - Core Values of RIRRC

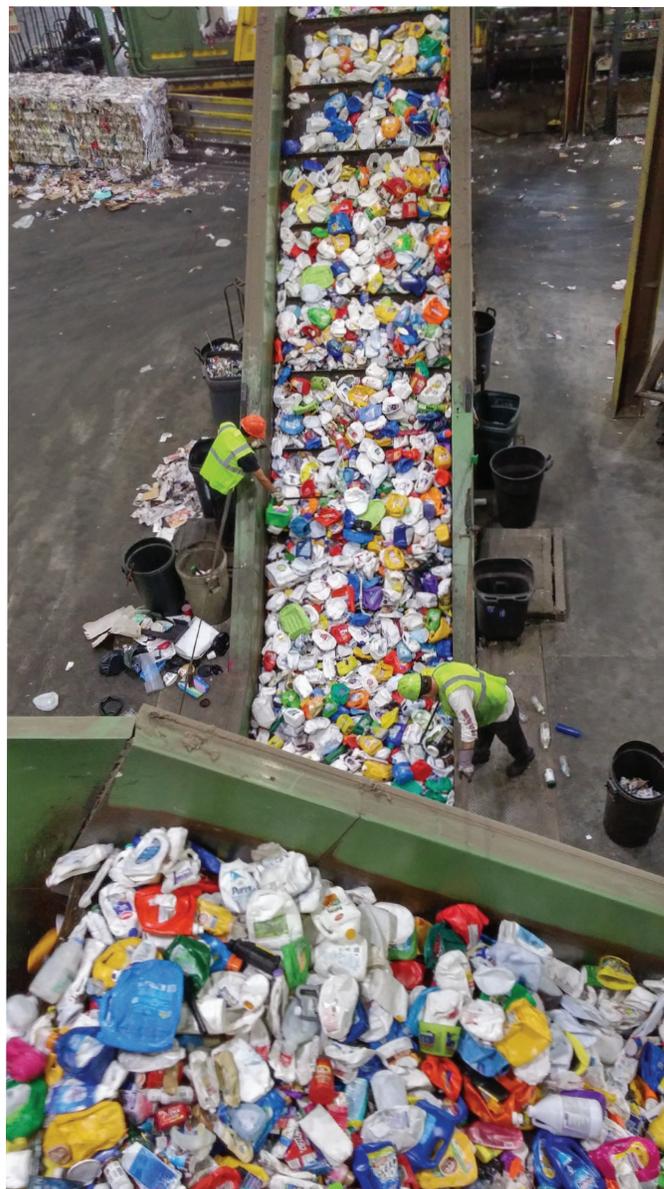
Section 6

WHY DO YOU THINK YOUR SAFETY PROGRAM DESERVES THIS IMPROVEMENT AWARD?

Since 2009, the Corporation has steadily improved its safety for its employees, customers, and contractors. Being a “quasi” state agency that had a lot of historical issues to overcome, this was no easy task. The culture shift, from that of a “state employee working at the dump” to “being an employee of RI Resource Recovery Corporation” marked the beginning of the turn and the Corporation has not looked back since. **The average tenure of the Corporation employees is greater than 11 years.** Many of these employees have seen managers come and go, all promising a new system. While it took time and effort, the safety culture gradually took hold and is now the cornerstone of the operation. We believe the numbers presented earlier bear this out and demonstrate that over the past seven plus years, the value placed on safety is immeasurable.

The Corporation operates one of the largest solid waste facilities in the northeast. The RIRRC property is approximately 1,100 acres and consists of a subtitle D Landfill and is a multifaceted operation with the following support facilities: 1. The Materials Recycling Facility (MRF); 2. The Administration Building; 3. The Composting Facility; 4. The Wood Processing Facility; 5. The Tipping Facility; 6. The Electric Power Generating Facility; 7. The Small Vehicle acceptance Area and 8. The Eco-Depot for household hazardous waste. We operate, with over 100 employees operating over 50 pieces of equipment per day. Our hard working team manages over 500 customer trucks daily as well as numerous contractors visiting and working on this site. All of this happens 312 days a year in all kinds of weather conditions. Throughout all this, the team is focused on getting the work done in as safe a manner as possible sending everyone home each day the same as they were when they arrived.

It is true all companies want to be recognized for its improvement and accomplishments, and the Corporation is no exception. However, we feel that the change experienced at our facility, as noticed by our employees, customers, and contractors is significant. We understand that we have a long way to go and will continue to improve. Our management and employees are dedicated to safety and endeavor to learn as much as we can from other agencies and other resources. In fact, the Southern New England chapter of SWANA safety liaison is an employee of the Corporation. This person, in combination, with our CSHO will help provide the next steps in our journey for a safe and productive work environment.



Interior view of the Materials Recycling Facility

“*The mission of the Rhode Island Resource Recovery Corporation is to provide safe, environmentally compliant, clean and affordable solid waste and recycling services for the Rhode Island community.*”