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Recycling and Waste
Management Report

TexAmericas Center – Texarkana MSA – Texas

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3.12 RECYCLING AND WASTE MANAGEMENT CLUSTER OF BUSINESSES

In the Texarkana area, waste management activities typically involve several key components to ensure the proper handling and disposal of waste materials while minimizing environmental impact. Here's an overview of what you might find:

- **Residential Waste Collection:** Multiple waste management companies provide regular curbside collection of household waste. This includes garbage, recyclables, and yard waste. Residents are often provided with separate bins or bags for different types of waste.
- **Recycling Programs:** Many communities in the greater Texarkana area have recycling programs in place to encourage residents to recycle materials such as paper, cardboard, plastics, glass, and metals. These materials are often collected separately from general waste and processed at local recycling facilities.
- **Landfills:** Texarkana has three landfills where non-recyclable waste is disposed of. These landfills must adhere to strict regulations to prevent pollution and environmental harm.
- **Hazardous Waste Disposal:** Hazardous waste, such as chemicals, paints, batteries, and electronics, requires special handling and disposal due to its potential to harm human health and the environment. Texarkana likely has designated facilities or collection events where residents can safely dispose of hazardous waste.
- **Composting Programs:** Some communities may offer composting programs for organic waste such as food scraps and yard waste. Composting reduces the amount of waste sent to landfills and produces nutrient-rich compost that can be used to improve soil health.
- **Public Education and Outreach:** Waste management authorities in the Texarkana area likely engage in public education and outreach efforts to promote recycling, waste reduction, and proper waste disposal practices. This may include distributing educational materials, hosting workshops and events, and providing information on recycling and disposal guidelines.

Overall, waste management in the Texarkana area aims to balance the need for effective waste disposal with environmental stewardship and sustainability. Collaboration between local government, waste management companies, businesses, and residents are crucial for the success of these efforts.

3.12.1 Municipal Solid Waste

TexAmericas Center would advocate for adherence to best practices for recycling municipal solid waste which would involve a combination of strategies aimed at maximizing the quantity and quality of materials recycled while minimizing

contamination and environmental impact. Here are some key practices for which we would advocate:

- **Source Separation:** Encourage residents and businesses to separate recyclable materials from non-recyclables at the source. Providing clearly labeled recycling bins or containers for different types of materials can help facilitate this process.
- **Education and Outreach:** Implement comprehensive education and outreach programs to inform residents and businesses about the importance of recycling, what materials can be recycled, and how to properly prepare recyclables for collection. This may include distributing educational materials, hosting workshops, and utilizing social media and other communication channels.
- **Single-Stream Recycling:** Consider implementing single-stream recycling programs where residents can place all recyclable materials into a single bin for collection. This can increase participation rates and simplify the recycling process for residents, but it requires advanced sorting technology at recycling facilities to separate the materials effectively.
- **Recycling Infrastructure:** Invest in recycling infrastructure, including materials recovery facilities (MRFs) equipped with state-of-the-art sorting and processing technology. Upgrading and maintaining this infrastructure can improve the efficiency and effectiveness of recycling operations.
- **Quality Control:** Implement quality control measures to reduce contamination in the recycling stream. This may include manual or automated sorting processes at MRFs to remove non-recyclable materials, as well as monitoring and enforcement of recycling guidelines.
- **Partnerships and Collaboration:** Collaborate with other municipalities, businesses, waste management companies, and community organizations to develop regional recycling initiatives and share best practices. Partnerships can help leverage resources and expertise to improve recycling outcomes.
- **Product Design and Packaging:** Advocate for product design and packaging solutions that prioritize recyclability and use environmentally friendly materials. Engage with manufacturers and industry stakeholders to promote the use of recyclable materials and reduce the prevalence of single-use plastics and other non-recyclable items.
- **Waste Reduction and Reuse:** Promote waste reduction and reuse practices to minimize the amount of waste generated in the first place. Encourage residents and businesses to purchase durable, reusable

products, and support initiatives such as composting and donation programs for items that can be reused or repurposed.

By implementing these best practices, municipalities can enhance their recycling programs and contribute to a more sustainable approach to managing municipal solid waste.

3.12.2 Industrial Non-Hazardous Waste

Recycling industrial non-hazardous waste requires specialized approaches tailored to the types of waste generated by industrial processes. Here are some best practices for recycling industrial non-hazardous waste that TexAmericas Center would advocate be adopted throughout the region:

- **Waste Audits:** Conduct regular waste audits to identify the types and quantities of non-hazardous waste generated by industrial processes. Understanding the composition of the waste stream is essential for developing effective recycling strategies. TexAmericas Center would want this information shared with the organization and built into an annual report. The information would be shared with on campus recyclers, site search consultants and prospective Corporate Citizens.
- **Segregation and Separation:** TexAmericas Center would advocate that companies separate the different types of waste streams at the source to facilitate recycling. Provide clearly labeled bins or containers for different materials such as paper, plastics, metals, and organic waste.
- **On-Site Recycling Collection Facilities:** TexAmericas Center would advocate that companies establish on-site recycling collection facilities or partnerships with recycling companies to collect recyclable materials directly at the industrial facility. This can help reduce transportation costs and ensure that materials are recycled efficiently.
- **Employee Training and Awareness:** TexAmericas Center would advocate that companies provide training and education to employees to raise awareness about the importance of recycling and proper waste management practices as well as how their efforts help create jobs and investment in the Texarkana area all while improving the environment. Encourage employee participation in at home recycling programs and provide incentives for their waste recycling efforts.
- **Collaboration with Suppliers and Customers:** TexAmericas Center would work closely with companies, suppliers, and customers to identify opportunities for recycling throughout the supply chain. Collaborate on collection of packaging and materials to maximize recycling.
- **Continuous Improvement:** Regularly review and evaluate recycling programs to identify areas for improvement. Monitor recycling rates,

contamination levels, and cost-effectiveness, and make adjustments as needed to optimize recycling efforts.

- **Compliance with Regulations:** Ensure compliance with local, state, and federal regulations governing the recycling and disposal of industrial non-hazardous waste. TexAmericas Center would help create mechanisms to stay informed about regulatory requirements and industry best practices to maintain compliance and minimize environmental impact.
- **Certifications and Standards:** Consider pursuing certifications such as ISO 14001 for environmental management systems or industry-specific standards for waste management and recycling. Certification can demonstrate a commitment to sustainability and environmental responsibility.

By implementing these best practices, industrial facilities can improve the efficiency and effectiveness of their recycling efforts while reducing their environmental footprint and contributing to a more sustainable economy.

3.12.3 TexAmericas Center's EnviroTECH Concept

TexAmericas Center owns three rail served landfills, consisting of about 350-acres, that were initially developed by the US DOD. Two of these landfills are closed and one is in the process of having leachate issues corrected. TexAmericas Center intends to re-open the third landfill, about 65-acres, upon final transfer. It will be a modern landfill with sufficient liners to prevent the leaching of contaminants into the soil and groundwater, as well as systems for collecting and treating any harmful gases produced by decomposing waste. Over time and as the landfill needs to expand, TexAmericas Center will reopen the adjacent landfills and place their contents into the existing landfill so to allow for expansion.

In addition to reopening the landfills on its property, TexAmericas Center has plans to establish a rail-served waste transfer station and launch a material recovery facility. This would create an additional supply of low-cost input materials for multiple types of recycling operations.

Recycling and Waste companies in the Texarkana area include: Waste Management - New Boston Landfill, WM - Texarkana Hauling, Tri State Iron & Metal, Bar Recycling Enterprises, White's Wood Group, Texarkana Arkansas Recycling, Greif Recycling Texarkana, East Texas Recycling, TAS Environmental Services, LP, RBT Disposal, Richardson Waste Inc., Edmondson Trash Services, Tumbleweed Dumpster Co., Deuces Wild Waste Management, Hometown Junk Removal, Republic Services, Texas Water Utility - Waste Water Treatment Plant, Riverbend Water Resource District - Waste Water Treatment Plant, D&D Disposal, Live Oak, and others.

Recycling industrial & municipal solid waste involves unique challenges due to the diversity and volume of materials generated by industrial & municipal processes.

Although not a definitive plan, here are what TexAmericas Center currently considers best practices for effectively recycling industrial & municipal solid waste in a rail-served, near closed loop system on its East Campus:

1. **Site Selection:** TexAmericas Center, located in the central time zone in a right-to-work state, has identified a suitable location for the waste transfer station that is accessible by both road and rail. We have considered factors such as proximity to the existing US DOD landfill(s), rail infrastructure availability, waste generation sources, potential end users of recyclable waste streams, zoning regulations, environmental impact, and community considerations. We have also considered the traditional site selection factors that make Texarkana and TexAmericas Center an attractive location for investment including: our available skilled workforce, the low labor costs, the low logistics costs due to the region being a transportation hub where 3 interstates converge with rail, water, other road & air transportation, our favorable business climate including our low state and local taxes, and access to financing & incentive programs.
2. **Market Access:** Coordinate with the UP and TNER railroad companies to identify potentials targets for providing a location or destination for trash to be sent. This may involve including specialized contractors like MTG Engineers who know landfills and specialized industry structures.
3. **Business Plan:** Creating a business plan for a rail-served waste transfer station, a material recovery facility and a the reopened landfill operations involves outlining the key components and strategies for establishing and operating these facilities which includes: Market Analysis (Revenue Potential), Operational Plan (Expense Profile), Marketing and Sales Strategy, Financial Plan and Projections, Risk Management Plan, Regulatory Compliance, Environmental and Sustainability Considerations, and Exit Strategy. By addressing these components in a comprehensive business plan, Partners in Development, Operators, Community Officials, TexAmericas Center Board of Directors, Potential Investors and other can effectively evaluate the feasibility and potential financial and economic development success of these operation and develop a roadmap for their implementation, growth, and TexAmericas Center's exit.
4. **Permitting and Regulatory Compliance:** Obtain necessary permits and approvals from regulatory agencies at the local, state, and federal levels to create a rail-served waste transfer station, establish a material recovery facility and reopen the former US DOD landfill. This may include environmental permits, zoning permits, land use approvals, and compliance with waste management regulations.
5. **Design and Engineering:** Develop detailed plans and engineering designs for the waste transfer station, material recovery facility and access to the former US DOD landfill, including layout, infrastructure, and operational requirements.

Consider factors such as site layout, traffic flow, rail siding design, waste handling equipment, drainage systems, utility infrastructure extensions, and environmental impacts and controls.

6. **Environmental Considerations:** Implement environmental controls and mitigation measures to minimize potential impacts on air quality, water quality, noise, and wildlife. This may include dust suppression systems, stormwater management measures, odor control systems, and wildlife habitat protection.
7. **LOCAL - Waste Characterization and Segregation:** Conduct a thorough characterization of the solid waste generated by industrial processes and collected by waste management to identify quantities and types of recyclable materials. The overall goal will be to segregate different types of waste streams at the generation source to facilitate recycling clean recycling.
8. **Industrial Facility Employee Training and Engagement:** Provide training and education to employees to raise awareness about the importance of recycling and proper waste management practices. Encourage employee participation in recycling programs at work and at home; consider providing incentives for waste recycling efforts.
9. **On-Site Recycling Infrastructure at the Industrial Facility:** Work with companies to establish on-site recycling infrastructure, such as balers, shredders, and compactors, to process recyclable materials directly at the industrial facility. On-site recycling can reduce transportation costs and increase efficiency.
10. **Collaboration with Industrial Facility Suppliers and Customers:** Collaborate with suppliers and customers to identify opportunities for waste recycling throughout the supply chain. Work together on packaging and materials capture to maximize waste recycling.
11. **Operational Planning:** Develop operational procedures and protocols for the efficient and effective handling of waste materials at the transfer station to the material recovery facility to the recycler or to the landfill. This may include scheduling truck and railcar arrivals and departures, managing waste sorting and processing, and coordinating with waste disposal facilities.
12. **Safety and Security:** Develop and implement safety protocols and security measures to ensure the safe and secure operation of the waste transfer station, material recovery facility and the landfill. This may include employee training, traffic management plans, fire protection systems, surveillance cameras, and perimeter fencing monitoring.
13. **Material Recovery Facilities (MRFs):** TexAmericas Center will work to secure investment in a MRFs, preferably a clean MRF, equipped with advanced sorting and processing technology to separate recyclable materials from mixed solid

waste streams. MRFs can efficiently recover valuable materials such as metals, plastics, paper, glass, and cardboard.

14. **Waste Handling Equipment:** TexAmericas Center will work with partners to procure and install appropriate waste handling equipment for transferring waste between railcars and trucks. This may include conveyor systems, loading docks, compactors, shredders, and other material handling machinery.
15. **Closed-Loop Systems:** Implement process optimization strategies for post MRF to minimize waste transfer to the landfill. The ultimate goal of the EnviroTECH Park is to implement 100% closed-loop systems where viable, in which waste materials are recycled back into the production process as raw materials or inputs. Closed-loop systems will help reduce the demand for virgin materials and minimize waste sent to landfills.
16. **Process Optimization and Waste Reduction:** This would include the attraction of companies that generate products from the waste stream in their industrial operations. This may include mid-process activities such as a culletizer for glass items, a shredder for plastics, balers for cardboard or compactor for biowaste. These companies would improve efficiency, reduce material losses, and implement their own waste reduction initiatives.
17. **Monitoring and Maintenance:** Establish monitoring programs to track operational performance, environmental compliance, and safety standards. Conduct regular inspections, maintenance, and repairs to ensure the ongoing reliability and integrity of the waste transfer station, material recovery facility and landfill.
18. **Compliance with Regulations:** Ensure compliance with applicable regulations governing the recycling and disposal of industrial solid waste. Stay informed about regulatory requirements and industry best practices to maintain compliance and minimize environmental impact.
19. **Continuous Improvement:** Regularly review and evaluate recycling programs to identify opportunities for improvement. Monitor recycling rates, waste diversion metrics, and cost-effectiveness, and make adjustments as needed to optimize recycling efforts.
20. **Community Engagement:** Engage with local communities and stakeholders to address concerns, gather input, and foster positive relationships. Communicate transparently about the project's benefits, impacts, and mitigation measures to build trust and support.
21. **Public Reporting and Transparency:** Maintain transparency in waste management practices by publicly reporting on recycling performance, waste diversion achievements, and sustainability initiatives. Public reporting can demonstrate commitment to environmental responsibility and accountability.

By adopting these best practices, industrial facilities can improve the efficiency and effectiveness of their recycling efforts and reduce their environmental footprint and contribute to a more sustainable future. TexAmericas Center will be able to create quality jobs, diversify the local employer and tax base, and fulfill its mission of redeveloping the property.

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Whether you are looking to expand your business, your current lease is expiring, you are planning a move to Texas, or you have considered leaving the mid-south region, talk to us first!

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