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**INFORMAL STAFF REPORT  
TO MAYOR AND CITY COUNCIL**

**SUBJECT:**

Glass and plastic recycling update

**BACKGROUND:**

The City of Denton's recycling program provides for collection and recycling of materials including plastics #1 – 7, glass bottles and jars, aluminum cans and foil, steel cans, mixed paper, cardboard, and cartons and juice boxes. The City's Solid Waste department collects residential and commercial recyclables and delivers these materials to an onsite material recycling facility (MRF) owned and operated by Pratt Industries.

On March 26, 2019, Pratt Industries informed Solid Waste staff that glass and plastics #3 – 7 were being landfilled due to issues with material quality and a lack of buyers in the regional recyclables market. Upon receiving this notice, staff initiated a review of the Pratt processing agreement to determine if the firm could be compelled to recycle this material. The agreement states that ownership of the recyclable materials collected by the City is transferred to Pratt upon delivery. Further, Pratt is solely responsible for marketing the materials to regional recycling processors. In the event that a recyclable material cannot be sold, Pratt's processing agreement allows the firm to landfill that material by notifying the City of Denton. Please note, per Pratt, it is in their best financial interest to find end markets for the recyclable material being collected as anything that is landfilled does so at a cost to them.

The contract review concluded in late April, and staff determined that a written notice had not been provided regarding the decision to landfill this material. On April 29, 2019, staff issued a letter to Pratt requesting written notification of this decision, an explanation of how this occurred, and the firm's current and future efforts to divert these materials from the landfill. Staff's written request and Pratt's response are **attached** for Council's review.

As the review was conducted, staff maintained dialogue with Pratt regarding potential markets and alternative means of diverting and recycling these materials. Pratt assured staff that they were working diligently to secure end markets for these materials and recently notified staff that they have identified buyers. On April 24, 2019, Pratt identified two buyers for plastics #3 – 7 and began diverting and selling materials to those facilities. In regards to glass, Pratt has identified a potential buyer in Houston. A test shipment of glass was sent to this facility on May 7, 2019, and staff is awaiting word on whether the buyer will accept additional shipments.

The remainder of this report provides an overview of the materials in question and a summation of next steps.

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**PLASTICS #3 - 7:**

Plastic products are typically labeled with numbers one (1) through seven (7) in accordance with a coding system that helps consumers identify the type of plastic used to make the item. Examples of Plastics #1 and #2 include most consumer drink bottles, plastic food jars, milk jugs, shampoo bottles, and household cleaner bottles. Plastics #1 and #2 are still being diverted and recycled.

Plastics #3 – 7 are briefly described below. While these materials are currently being recycled and sold to recycling processors, the market for these materials is small and volatile.

- Plastics #3 – Made from Polyvinyl Chloride (PVC or V). PVC is typically rigid and/or glossy. Common examples include spray bottles, mouthwash bottles, and clear food packaging.
- Plastics #4 – Made from low-density Polyethylene (LDPE). LDPE plastics are typically flexible like mustard squeeze bottles. Common examples include packaging foam, flexible container lids, squeeze bottles, and plastic soda can rings.
- Plastics #5 – Made from Polypropylene (PP). PP plastics are typically semi-rigid with a low gloss appearance. Common examples include bottle caps, medicine bottles, and margarine or yogurt tubs.
- Plastics #6 – Made from Polystyrene (PS). PS plastics are typically brittle and glossy. Common examples include plastic cups and plates, compact disc cases, plastic cartons and trays.
- Plastics #7 – Categorized as “other” plastics. Examples can include baby bottles, safety glasses, Tupperware, and reusable drinking bottles.

**GLASS:**

Denton’s recycling program accepts clear and colored glass bottles and jars. In order to recycle glass, the material must be sorted and separated twice. First, glass received in comingled recycling loads must be separated from contaminants and other recyclable materials, and then the glass must be separated according to color (clear, green, brown, etc.). Once separated, glass is easily recyclable; however, the sorting process associated with glass can be problematic if the material is contaminated or broken into small pieces. Additionally, the regional market does not include many glass recyclers, and those in the region have been flooded with an increased supply of glass as a result of the downturn in the recycling market.

In response to depressed commodity prices and overwhelming supply, Pratt’s glass processor elected to tighten their quality standards to reject shipments containing contamination and glass cullet under two (2) inches in size. Because Denton’s glass is collected via a co-mingled single stream collection, the glass sorted by the Pratt processing facility is often broken into small pieces and contains non-glass contaminants. As a result, that glass processor decided to no longer accept Denton’s glass shipments.

As stated above, a potential glass buyer has been identified in Houston. While we are hopeful this facility will continue accepting Pratt's shipments from Denton, staff is investigating additional options to improve the quality and marketability of the glass being collected in our program.

**NEXT STEPS:**

In regards to the recycling habits of our residents and businesses, customers should continue placing all acceptable material in their recycling containers. This includes plastics #1 – 7, glass bottles and jars, aluminum cans and foil, steel cans, mixed paper, cardboard, and cartons and juice boxes. The recycling market will likely remain volatile for the next several months; however, we want our customers to remain committed to separating these materials and exercising responsible recycling habits.

Moving forward, Pratt has committed to immediately notify staff of any changes or updates regarding the sale of recyclable materials. As updates are received, staff will provide information to the City Council. An overview and update of this situation will be presented to the City Council during the May 21, 2019 work session.

**ATTACHMENTS:**

Exhibit 1 – City of Denton letter to Pratt Industries  
Exhibit 2 – Pratt response to City of Denton

**STAFF CONTACT(S):**

Ethan Cox  
Director of Public Works  
(940) 349-7421  
[Ethan.Cox@cityofdenton.com](mailto:Ethan.Cox@cityofdenton.com)



April 29, 2019

Pratt Industries, Inc.  
Attn: Shawn State, President  
1599 Highway 138 NE  
Conyers, GA 30013

Dear Mr. State:

It has recently come to our attention that Pratt Industries has begun landfilling materials defined as acceptable recyclable materials in Pratt's processing agreement with the City of Denton. During a telephone conversation on March 26, 2019, you informed me that Pratt's Denton material recovery facility (MRF) had begun landfilling plastics #3-7 and glass due to a lack of buyers in the recycling market.

City of Denton staff were not notified of the decision to landfill these materials prior to Pratt's implementation. City staff have an obligation to the City Council and our community to provide relevant information regarding our programs and services. By neglecting to inform us of these changes, Pratt hindered our ability to communicate critical information to our customers in a timely and transparent manner. To date, Pratt Industries has not provided the City of Denton with written notification, as defined in Section 1.06 of the processing agreement, to allow these materials to be disposed of at the Denton landfill.

Pursuant to the above concerns, this letter is being issued to request that Pratt provide proper written notification requesting that certain recyclable materials be landfilled due to market conditions that are preventing sale of said material.

As part of Pratt's response, the City of Denton requests that Pratt explain how the above breakdown in communication occurred as well as an action plan for how similar breakdowns will be prevented in the future. Additionally, the City of Denton asks that Pratt provide a brief written description of the events that led to plastics #3-7 and glass being landfilled. Finally, we request that Pratt describe the firm's current efforts and future plans to market and sell these materials.

**OUR CORE VALUES**

Integrity • Fiscal Responsibility • Transparency • Outstanding Customer Service

As a partner and vendor of the City of Denton, our customers and community hold Pratt Industries to the same values and standards as our organization. It is important that Pratt work to reestablish a trusting relationship with the City of Denton by being more transparent now and in the future. We look forward to your response.

Sincerely,

Ethan Cox  
Director of Solid Waste & Recycling



## Pratt Recycling, Inc.

May 7, 2019

City of Denton  
ATTN: Ethan Cox, Director of Solid Waste & Recycling  
1526 S. Mayhill Road  
Denton, TX 76208

Re: Regional Recyclables Process Agreement Between City of Denton and Pratt Recycling, Inc. (f/k/a Visy Recycling, Inc.) ("Pratt")

Dear Mr. Cox:

Thank you for your April 29<sup>th</sup> letter regarding Pratt's decision to landfill #3-7 plastics and glass. As you mentioned in your note, we had a phone conversation on March 26<sup>th</sup> where we discussed that Pratt was currently landfilling glass and plastic #3-7. Pratt certainly could have done a better job of notifying the City and explaining our reasons for landfilling those materials, and we appreciate the opportunity to do so.

Please see below some detail surrounding the situation with #3-7 plastics, glass, and how we think we can work better together with the City.

### ***#3-7 Plastics***

When we spoke on March 26<sup>th</sup>, #3-7 plastics were being accepted in the incoming stream of recyclable material, but due to a lack of end-use market, the plastics were not cable of being recycled. This stream of plastic has historically been considered hard to recycle due to there being very few domestic users that will accept it. Until recently Pratt had only been aware of one domestic user that was in the Texas market place. This one domestic user would not move this plastic grade consistently; therefore, at times in the past this grade has gone to landfill and at times it has been recycled. As we discussed on our call, that is the main reason Pratt has never requested this material be taken off of the acceptable recycling list. Once it is off the list and residents stop putting it in the recycling bin, it is very difficult to get residents to start recycling that material again. Pratt chose to (at our cost) continue to pay the \$15/ton rebate to the City of Denton and then also pay the cost to landfill until we could find an end market that would move the material when pulled and baled. Contributing to the problem with recycling this grade, China banned the import of plastics from the U.S. The few domestic users of this grade that did exist could not take all of the #3-7's that were being generated. This greatly contributed to not only Pratt but other companies needing to landfill this grade.

**Update going forward (#3-7)** As of April 24<sup>th</sup>, Pratt was able to find 2 buyers of this grade, and our MRF in Denton started to separate and bale this material again.

### ***Glass***

When we spoke on March 26<sup>th</sup>, glass was being accepted in the incoming stream of recyclable material, but it was being landfilled. The only local processor that can use glass (cullet) out of the MRF had notified Pratt that they needed the glass to be of a higher quality. The way the system works in Denton is, anything that is 2" and under in size will end up in the glass pile. That is how the system was designed and how it has run since Pratt commissioned the facility. When we were notified that the glass recycler would no longer take Pratt's glass, we were told that there was too much non-glass in the glass pile being sent to them. Currently our system is not capable of removing the 2" and under material and the system was never designed to remove 2" and under non-glass material. Therefore, the MRF has not

been able to sort glass in a manner that any regional processor can accept. Much like the issue with #3-7 plastics, Pratt chose to (at our cost) continue to pay the \$15/ton rebate to the City of Denton and then also pay the cost to landfill until we could find an end market for the glass.

**Update going forward (Glass)** Pratt was able to locate a processor in Houston that is willing to take a trial load of Pratt's glass from Denton. This trial load was picked up on May 7<sup>th</sup>. It is Pratt's hope that their system will be able to handle this material and we will be able to keep this material out of landfill. Pratt will continue to update the City of Denton with the progress of the trial.

***Communication going forward***

I believe that we should have a meeting or conference call monthly to share information on how much tonnage was recycled through the facility by grade during the prior month. At that time, we could also discuss any market conditions that are positively or negatively impacting the program. Pratt can also commit to notifying the City within 48 hours via email if anything occurs in the market or at the facility that has an immediate impact on the program.

***What can we do together going forward?***

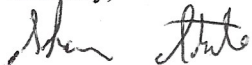
I believe it is worth noting that it is in Pratt's best interest to find end markets for the material being collected. Anything that is not recycled and goes to landfill does so at a cost to Pratt. We are always looking for alternatives to sending material to landfill. In part, we do this through relationships with other recyclers, and by staying active and being members in the recycling trade organizations.

Pratt is a member of the Glass Recycling Coalition and is closely connected to the glass industry. Based on our knowledge of what end users need, I believe the biggest issue today is the quality of the material being generated. I believe that this will always be an issue long term not only in Denton, but throughout the country. The programs that have been proven to work are those that pull the glass out of the single stream bin and offer residents source-separated collection. This is being done successfully in Kansas City, Missouri, by Ripple Glass. If the City wants to explore that option, Pratt would be happy to talk about how we could contribute collection bins and resources. Pratt could also introduce the City to Ripple Glass to further explore how the program might work. I believe source separation is the only way to get some level of guarantee that the glass stays out of the landfill long term.

Regarding #3-7, there has not historically been a good domestic market for this material. Some of the largest commingled container processors in the country are buying #3-7 bales now, but then reprocessing and removing the poly propylene (#5) and any #1 and #2's that might be in the bale and then landfilling the balance. I do not think there is an easy answer on #3-7. We have two end users we believe will buy the material today and keep it out of landfill. If we are told they will not take the #3-7 in the future, Pratt will notify the City within 48 hours via email, so we can discuss what is occurring and why.

Ethan, I hope this letter addresses the City's concerns. Please let me know if you have any questions.

Sincerely,



Shawn State, President  
Pratt Recycling, Inc.