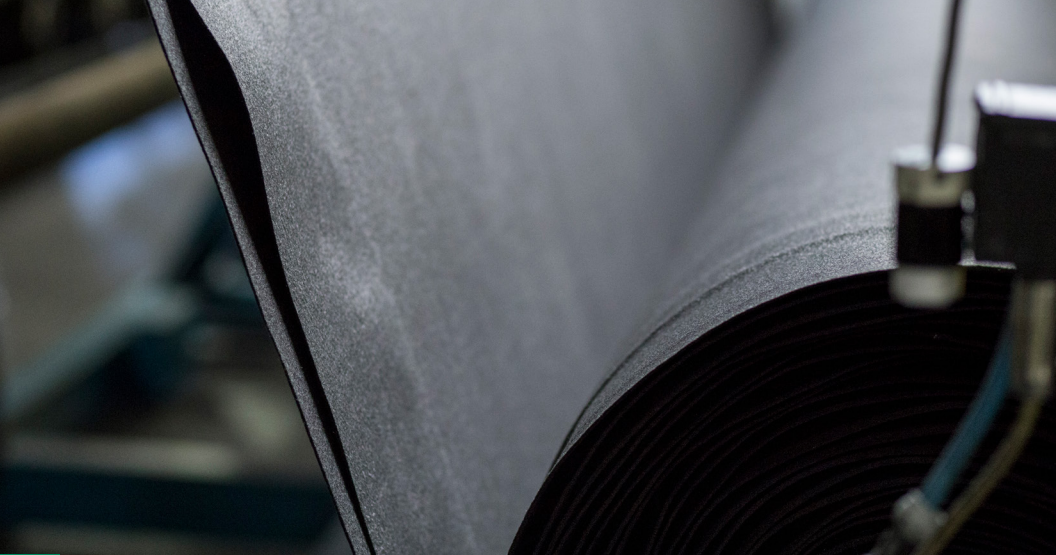


Plant Tour Handbook

ANDREWS 1



Overview

Here you will find the AGRU tour guide procedures, facts, and figures. It includes almost everything you need to know as a guide. It does not contain any stories regarding your experiences at AGRU, which is always appreciated.

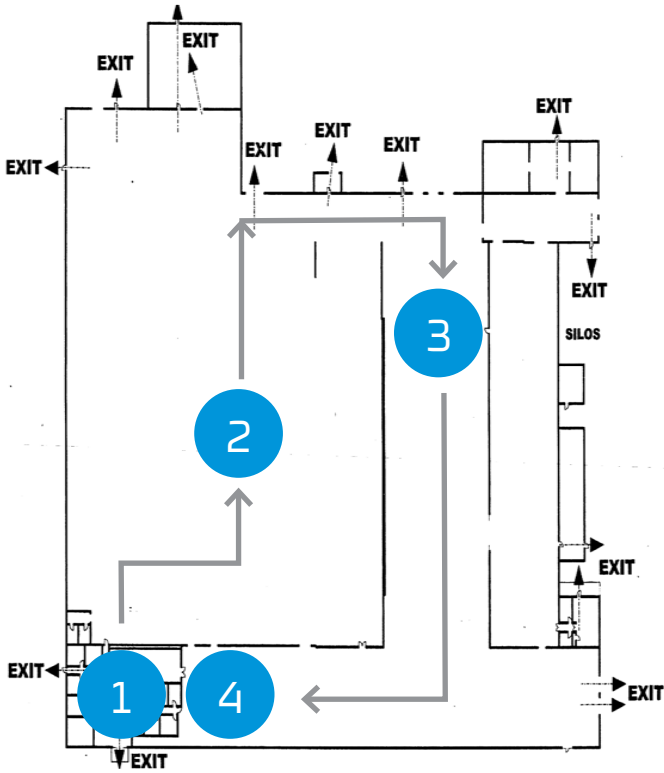
It exists to inform you, re-inform you, fill in gaps in your knowledge, and help you be a great guide. The manual is your guide to important statistics and facts. When touring, you can add your personality, your interests, and your experiences to provide a more comprehensive picture of the products and service at AGRU. What you have to add is the key to a good tour.

Every detail in the manual does not have to be in your tour. This is a guide. Study the manual and familiarize yourself with the key areas so you can quickly refer to a specific section at any given time. The facts/figures included here are your medium. Use them, along with the tour outline, to make the tour your own.

Rules

As a guide, consider how you may be perceived, and how AGRU may be perceived as a consequence. Be aware of what messages your language send to visitors. During a tour, you are expected to avoid the following:

- Chewing gum, eating, or drinking
- Foul, derogatory, or disrespectful language
- Do not allow photos to be taken inside the plant



Tour Map: Andrews 1

To ensure consistency, please follow the route listed above and take note of the tour stops. The messaging points for each tour stop are listed in this handbook.



Tips

As a tour guide, you are a representative of AGRU for prospective customers. Your job will be to answer questions about AGRU products, facilities, and services. Your perspective is invaluable, but remember that it should be presented within the context of the overall mission of AGRU: **To become the world's most reliable, client-focused supplier of geosynthetic and thermoplastic solutions.**

Remember that you are addressing a group of people, so you do need to project your voice to ensure that everyone hears you. If your tour is a small size, you should engage visitors in conversation throughout the tour. You will be asked to walk to predetermined spots on the tour route, stop, gather, and engage. This helps ensure that everyone can see and hear you. Here are some additional tips:

- 1. Be yourself and be enthusiastic.** Personal touches will make your tour more interesting and memorable.
- 2. Know the facts.** It is important that the information you provide is factual. You have a responsibility to present accurate information and keep up-to-date on information about AGRU by reviewing the information in this handbook.
- 3. Be flexible.** Visitors often travel a great distance to visit, so your adaptability to different types of weather, sizes of groups and energy level of visitors is crucial. If you have a large group, you should always wait for the group to gather then talk to them all together.

4. Encourage interactions with visitors. Look at the people you're speaking with. Eye contact can help you make a connection with visitors. Be attentive to visitors when they ask questions and encourage participation. Also, try to avoid wearing sunglasses.

5. Use appropriate wording and proper grammar. Make sure to use both male and female pronouns. Avoid using shorthand language or abbreviations for AGRU products and facilities. This not only applies to grammar, but also colloquialisms and generational tendencies (excessive use of words such as "like" or "um").

6. Be conscious of who you are speaking to. Don't assume anything about the visitors in your tour group. Make comments that help everyone feel welcomed. Familiarize yourself with the location of accessible entrances to buildings on your tour route and make sure that if someone is on your tour that will need to use those entrances that everyone follows the same route.

7. Be prepared. This means you should understand how you are going to communicate AGRU's core values to visitors through anecdotes and facts. Know your goals for the tour and what images you are trying to convey. Think about possibly difficult questions ahead of time. Knowing how you would answer hard questions in advance will help you avoid getting into a difficult situation.

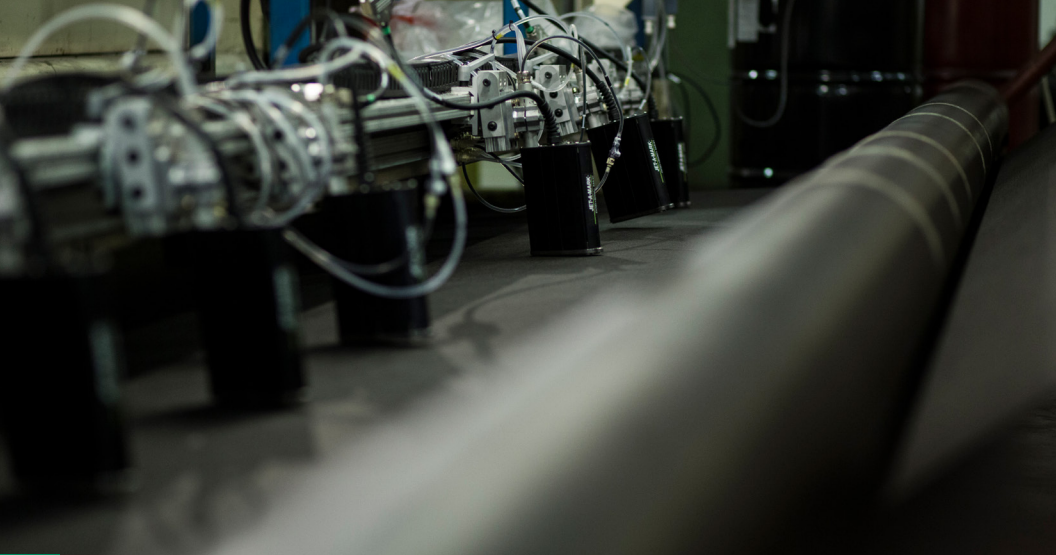
8. "I don't know, but I will find out and get back with you" is an acceptable answer. Your role is to speak from your perspective, not as the CEO or anyone else. It is far better to refer the visitor to another source than to make up an answer or guess a statistic.

9. Help all visitors feel welcome. Your verbal and body language should treat all visitors as important and valued. It should send messages of respect for the diversity of people you are interacting with.

10. Have fun! Enjoy meeting visitors and sharing your enthusiasm for AGRU. Your energy and excitement will be contagious!

11. Be aware of other AGRU employees. AGRU plants are operating facilities. It is important to stay on your tour route to avoid negatively impacting the performance of other employees. Be aware of them and conscious of how they might feel if a tour group is watching him/her for extended periods of time.

12. Be aware of your visitor's timeframe. Depending on the amount of visitors, your tour might last as long as one hour. Be aware of your visitor's timeframe or any other circumstances that might affect the length of the tour. If your tour has a hard stop after 40 minutes, for example, try to spend no longer than 10 minutes per tour stop.



Four Key Messages

AGRU claims to be The Plastics Experts, and expresses this claim through its four core values. As you conduct your tour, it is important to communicate AGRU's unique values with all guests visiting the facility. Tour guides should structure their talks around the following five key messages, which must be communicated during every tour:

Top Quality

- At AGRU, customer satisfaction comes first.
- Ongoing research and development have resulted in a variety of new products that meet the needs of engineers and product specifiers.
- Our start-to-finish attention to quality ensures that our products meet and exceed the strictest technical specifications, providing safe operation within gas, water and wastewater infrastructures.
- AGRU services a broad range of industries, with non-woven geotextile applications in civil, environmental and even military.

Client-Focused

- AGRU is service driven, and always prepared to meet special challenges with powerful solutions.
- Our relationships with our installers and distributors are most important. We support our partners by providing one-on-one attention.
- AGRU is flexible and able to help our customers meet strict deadlines.

Reliable

- AGRU has about seven decades of experience, innovation, quality and service in geosynthetic and thermoplastic solutions.
- Our staff is cooperative to meet the needs of our customers, and exist to serve them.
- Our relationships are authentic and transparent. Our customers have learned to trust us because we keep our word.
- AGRU is a family-based company. We owe our success to old-fashioned principles of ingenuity, quality craftsmanship, and hard work.

Professional

- AGRU's has experience in geosynthetic and thermoplastic solutions for around 70 years.
- Our employees are experts in their field. AGRU only hires the best, most qualified professionals to execute projects.
- AGRU holds itself to the highest quality standards that control everything from incoming raw materials to final factory production.
- Our products are qualified to meet extreme applications. All materials are tested to ensure they meet industry standards before entering the manufacturing phase.
- AGRU is qualified because every AGRU lab is GAI-LAP accredited for all routine QA/QC tests performed at each facility.

Safety Precaution

Please also note the safety procedures before entering the manufacturing plant, and discuss these requirements with the plant manager before starting your tour.

In An Emergency

In the event of an emergency, please quickly and calmly direct visitors to the nearest lockable room without windows. Alternatively, the restrooms will also provide shelter. Please also locate the emergency exits prior to the tour.



Tour Stop 1: Conference Room

Begin by opening with greetings and formal introductions. Please also discuss the safety requirements outlined earlier in this handbook. In the conference room, you should briefly provide some history of Andrews 1 and AGRU.

FACILITY INFORMATION:

- Andrews 1 was originally constructed in 1979 as part of Phoenix Glove Company, a disposable vinyl glove manufacturer. After three expansions in the 1980's, increasing competition from imports and high-labor costs into the 1990's forced it to close in August 2000.
- The building and property was then purchased by a group of investors in 2003 who formed Performance Fabrics and Fibers (PFF), a nonwoven fabric company.
- PFF acquired a second facility from Tencate in 2008 that consisted of nonwoven lines and a polypropylene fiber spinning line. PFF closed in January 2012 due to under capitalization.
- In February 2012, AGRU America, Inc. purchased Andrews Plants 1 & 2 from the bankrupt Performance Fabrics & Fibers.
- AGRU recognized the opportunity to backward integrate with PP fiber manufacturing capabilities feeding nonwoven textile manufacturing, thereby supplying internal requirements for geotextile fabric.
- AGRU invested several million dollars over the next 4 years into the relocation and upgrade of equipment to include spare parts and a total makeover of the Andrews 1 facility.
- Today, the 165,000 sq ft facility sits on 55 acres and employs 52 people.

COMPANY HISTORY:

- AGRU America is part of Alois Gruber GmbH, an Austrian family-owned business with production facilities in Austria, the United States, Germany, and China, and distribution to 80 countries.
- AGRU America began with a plant in Massachusetts in 1988 and now employees more than 200 people at facilities in Georgetown, SC; Andrews, SC; Charleston, SC; and Fernley, NV.



Tour Stop 1: Continued

Before your visitors leave the conference room, present a short PowerPoint Presentation of the AGRU Image and Brand. You'll need to use your own computer to present the PowerPoint, or ask an AGRU representative to borrow one.

Use the following information to download the presentation:

- Go to: **agruamerica.com/resource/agru-image-powerpoint**

Before entering the production plant, please instruct visitors with the following safety instructions:

- Each visitor must be given the Visitor Safety Orientation Package (You can download it here: **agruamerica.com/resource/visitor-safety-orientation**)
- Each visitor must sign the Visitor Log, which confirms their acceptance of the safety rules.
- Be sure to go over these safety items with your visitors before proceeding with the tour.



Tour Stop 2: Line 1

As you walk your group down Line 1, find an optimal place to stop that is clear from employee traffic and excess noise. At this time, please convey the following qualities about AGRU nonwoven needle-punched fabric products:

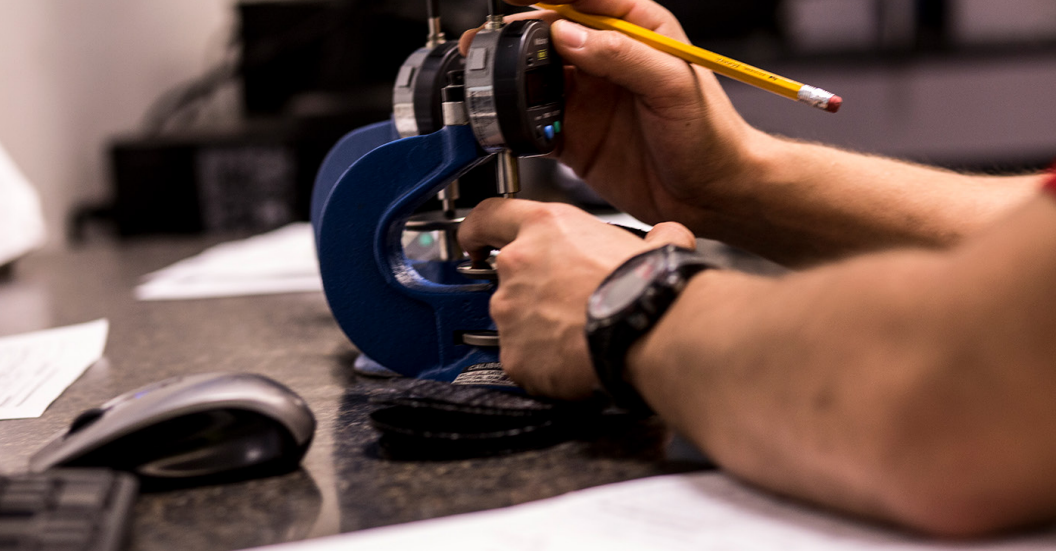
- Andrews 1 produces AGRUTex®, a 100% polypropylene (PP) nonwoven geotextile, with applications in civil, environmental and even military.
- It is specifically designed for waste containment applications providing filtration, separation, and/or protection for other geosynthetics helping to ensure the long-term viability of waste storage units.
- Andrews 1 also produces BlazBarrier, which is built for flame-retardant bedding applications.
- AGRU produces its geotextile fabrics in weights ranging from 3.1 oz to 32 oz/sy and widths as narrow as 31.5" and wide as 240".
- This plant allows AGRU to blend dissimilar fibers and colors to match and meet customers requirements.
- Andrews 1 has been accredited by the Geosynthetic Accreditation Institute's Laboratory Accreditation Program (GAI-LAP).
- AGRUTex extends the life of projects, may eliminate the need to import soils for working/reworking the sub base, and also enables the use of more effective aggregate for drainage applications.
- AGRUTex is kept stocked and readily available in AGRU's Fernley, NV and Andrews, SC facilities, which allows AGRU to effectively service customers nationwide and minimize product lead times.
- Should an application or project have special requirements, AGRU can provide customized solutions to fit those needs.



Tour Stop 3: Fiber Line

Bring the group toward the center of the Fiber Line. When your visitors are gathered, take a final moment to discuss the manufacturing process more:

- Our facility manages every part of the manufacturing process. Andrews 1 is capable of creating nonwoven geotextiles from “pellet to pallet”. AGRU continually re-invests in itself. In 2016, the fiber line went through a major overhaul so that we could produce our own fiber and control the quality of our product.
- This process begins by taking polypropylene resin and extruding it into staple fiber for internal consumption.
- AGRU does not use commodity fibers, which allows us to control the process and create a higher quality product.
- AGRU also has the capability of producing colors and introducing additives that add value to our fibers.
- Because AGRU is able to engineer nonwoven geotextiles from it’s own fiber, we can exercise this advantage by creating customer fabrics. In the past, we have even created high-UV fabrics for special orders.
- Our line is a 16 position down spin line. Each position has a spinneret with 12,132 holes, so 194,112 individual filaments traveling through the line merging into one tow band as it gets cut into 4 inch lengths and then baled.
- An interesting component in the fiber process is the crimper. It is a stuffing box where the fibers enter faster than they exit. Temperature and pressure introduces crimp into the filaments. Crimp creates cohesion which aids in the needle punch process by enhancing entanglement, thereby increasing fabric strength.
- The filaments are straight going in but looks as if a beautician gave it a “curly permanent” when it comes out!



Tour Stop 4: The Lab

As the last stop in the tour, the lab is an opportunity to emphasize AGRU's commitment to quality and high standards. Use the opportunity to run a couple of product demos depending on the customer. Once gathered, discuss the following:

- AGRU demands high-quality standards during manufacturing, which requires on-going testing and a full-time staff to ensure quality.
- Every AGRU America lab is GAI-LAP accredited for all routine QA/QC tests performed at each facility.
- We stock all important spare parts to ensure we can react quickly if there is a break down. Extensive spare parts inventory ensures that delivery schedules can be met, even if equipment does fail.
- QR codes on AGRU equipment allows us to report issues and get work orders entered in a cloud-based system instantly. It also helps produce diagnostic reports to replace machinery strategically.
- We perform 14 different tests on geotextile rolls. 13 of them are performed in our lab during production – the only one outsourced is ASTM D-4355 which measures the UV resistance of a geotextile and the industry standard requires approx. 45 days to perform the test (completed per formulation).
- There are literally hundreds of tests performed every shift in an effort to certify the highest quality material.

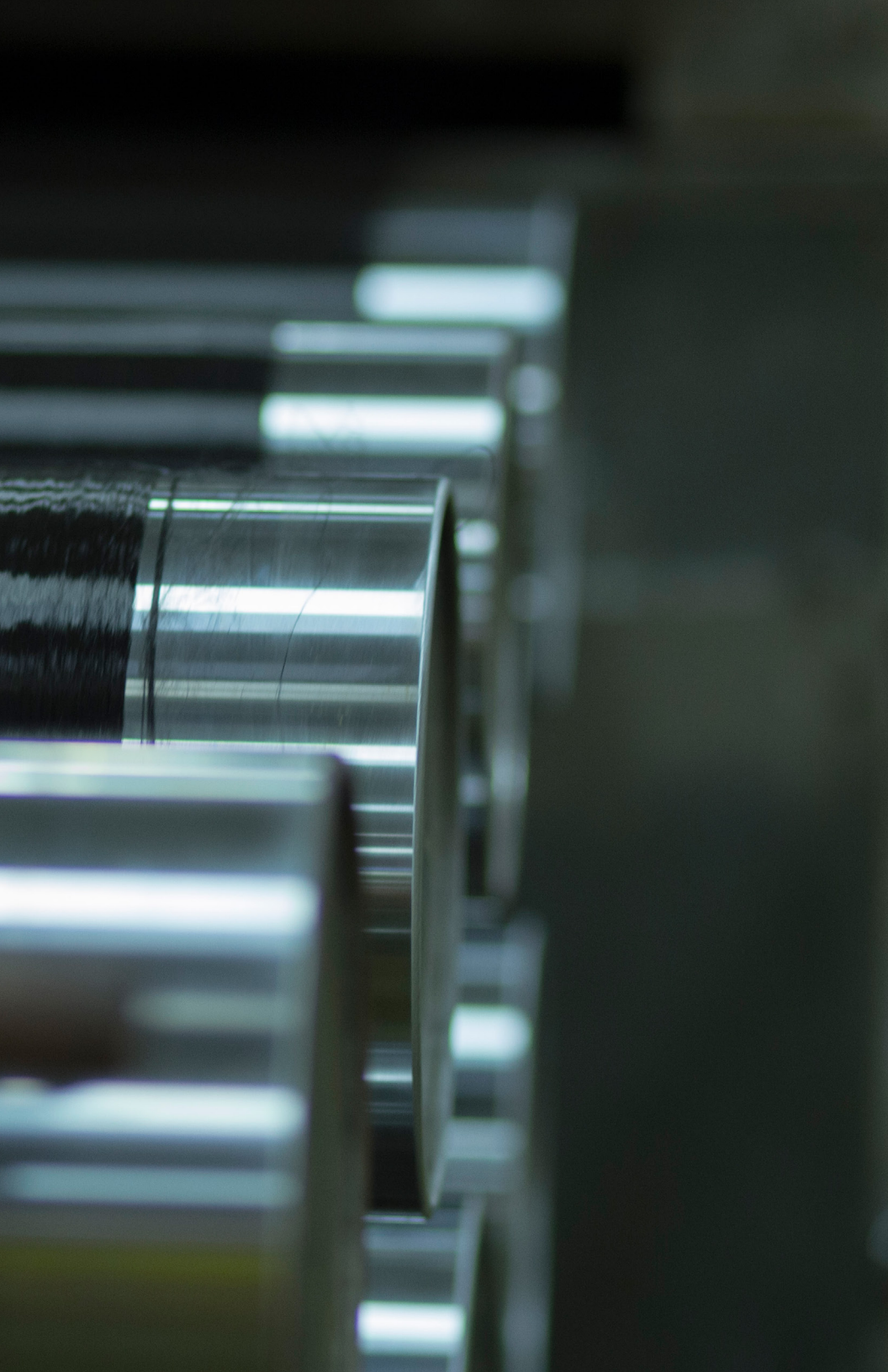
Please also discuss AGRU's commitment to environmentally-sustainable manufacturing:

- Andrews 1 reprocesses certain waste streams back into pellet form.
- Waste is reprocessed from both Andrews 2 and the Georgetown Plant, which is reused into plastic core production.

Finally, take the opportunity to thank the visitors for touring Andrews 1. Offer to take a group photo outside of the facility.

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