



THE FUTURE OF METAL RECYCLING



a reserve management group company
providing safe, responsible + sustainable recycling
solutions for our customers and the environment

RMG / THE FUTURE OF METAL RECYCLING

Reserve Management Group (RMG) is expanding operations at its Chicago corporate location on the city's Southeast Side by investing approximately \$80 million to build and operate a new state-of-the-art metal recycling facility. RMG has operated metal and electronics recycling, stevedoring, and shipping operations on Chicago's South Side for more than 30 years, and it has owned over 175 buffered acres of a redeveloped brownfield site along the east side of the Calumet River, at South Burley Avenue and 116th Street, for approximately 20 years.

RMG is a responsible family of distinct but related businesses involved in recycling, electronic and plastic scrap processing, scrap metal processing (ferrous and non-ferrous metals), material handling, equipment sales, and property management. RMG currently operates in 10 states (Ohio, Illinois, New York, Wisconsin, Florida, Alabama, Georgia, Arizona, Texas, and Washington). More information can be found at www.reserve-group.com.

A new RMG affiliate was granted a special use permit in March 2019 to expand RMG's existing operations by constructing and operating a new Class IVB metal recycling facility on just under 25 acres of its existing property. The site is remote and beyond view from the surrounding neighborhood. The expansion will enhance an underutilized portion of the property in a Planned Manufacturing District.

The entirely new operation will serve the region's demand for recycling end-of-life vehicles, appliances, and other metal goods. The facility will convert obsolete metal products into raw materials for use by steel mills and foundries, preventing dumping of unprocessed metals into landfills.

In the fall of 2019, RMG purchased the assets of a metal recycling business on Chicago's North Side. RMG is continuing to operate that facility until the end of 2020 when it will shut down and close under an agreement with the City of Chicago. RMG plans to begin operating its new facility on the Southeast Side in early 2021.

RMG projects that it will create hundreds of on- and off-site union construction jobs in building the new clean, efficient, and environmentally advanced facility. Upon completion, more than 100 head-of-household jobs will remain in the City of Chicago, and the facility will bring new job opportunities and additional commerce to the Southeast Side.

RMG is fully committed to being held accountable to the unparalleled environmental compliance standards that the Illinois EPA and the City of Chicago have imposed in the IEPA's final construction permit and the City's stringent new Rules for Large Recycling Facilities, both issued in June 2020. RMG has an established history of protecting public health and the environment. Keeping discarded autos, appliances, and demolition materials out of landfills helps make Chicago a green, sustainable city, while conserving energy and natural resources.

NEW FACILITY HIGHLIGHTS



- Investing approximately \$80 million in new construction, including a new Hammermill shredder system that features a European-style enclosure to better contain noise and dust. This will provide a much tighter, more aesthetically attractive shredder housing.
- Installing the best-in-class filtration system for capturing metals and particulate matter (see Air Quality Measures page below), as well as a regenerative thermal oxidizer (RTO) and wet scrubber technology to reduce hydrocarbon emissions.
- The expansive open space, approximately 178 acres, provides a significantly larger buffer zone between the operation and surrounding neighbors — almost four times greater distance to the nearest residential neighbors than the North Side facility. This is a critical element of the new facility location.
- The new facility will leverage RMG's experience and success in the recycling industry. The new design will enable mining an additional 1,000 tons of recyclable metals from waste annually that will be diverted from landfills. The new site facilitates more efficient transportation, including rail access, using an automatic barge loading system for the

seaway draft at its dock, and more efficient traffic flows into and out of the facility. Outbound trucks will be 20 miles closer to their destinations.

- Using green economic and industrial practices, including installing air monitors and solar panels, and increasing the number of large water cannons that dampen and suppress dust. Continuing to capture, filter, and treat all storm water run-off.
- Maintaining up to nine inspectors to screen inbound recyclables for any prohibited or non-conforming materials. This number of fulltime inspectors is unequalled at any of the more than 300 metal shredding facilities nationwide.
- Planting and maintaining 200 trees and other landscaping improvements on a multi-acre tract along Avenue O that will be visible from George Washington High School and commercial properties facing Avenue O, and Rowan Park.

No other recycling business in the Chicago area has the capacity or pollution control equipment to handle the massive volume of metal shredding and recycling that the area demands. RMG's new facility will provide vital economic and environmental benefits to the City of Chicago, while serving the city and region's critical need.

Among the key benefits of recycling obsolete metal products is keeping discarded metal out of landfills. Recycling also provides the most efficient, economical, and environmentally friendly means of replacing the metal products that consumers enjoy and depend on daily, such as automobiles, appliances, iron for buildings and bridges, and assorted metal goods and products, while also conserving energy and natural resources.

Chicago has long fostered a recyclable metal supply chain, ranging from thousands of individual peddlers to large businesses. These suppliers rely upon a local recycling facility for their livelihood, and their dependence will continue when the new facility opens.

The new facility will ensure that a vibrant recyclable metal market continues to exist in Chicago and avoid decreasing the value of recyclable metal, forcing suppliers to transport material far from the city in search of competitive prices. Reducing the value of recyclable metal would ultimately lead to less valuable discarded items being left in streets and alleys, causing significant hazards and congestion, as well as dramatically increasing city sanitation, refuse collection, and disposal costs.

MEASURES TO REDUCE EMISSIONS AND PROTECT AIR QUALITY

The new facility will utilize state of the art engineering to meet or exceed state and local conditions for ensuring air quality. RMG's metal shredder will adopt a custom-designed and constructed air pollution control system that includes the following features:

Enclosure – The shredder will be enclosed within a new structure consisting of materials designed to reduce noise and particulate matter emissions.

Capture Hood – Exhaust from the shredder will be captured and directed through a network of ducts to the cyclone separator.

Cyclone Separator – Once collected, the shredder exhaust will be directed through a high-efficiency cyclone that will remove large particulates. Cyclone separators work by directing air flow through the cyclone in a spiral pattern which causes particulate matter to separate from the airstream through centrifugal force.

Roll-Media Filter System – After the cyclone, the shredder exhaust will be directed through a thick filtering material that creates a physical barrier and retains particulate matter, while allowing filtered air to pass through the system. Such roll-media systems allow the facility to efficiently remove particulate matter.

Regenerative Thermal Oxidizer (RTO) – After the roll-media filter system, the filtered air will be directed to the RTO, which burns volatile organic compounds (VOCs) and eliminates 99 percent of VOCs from the airstream.

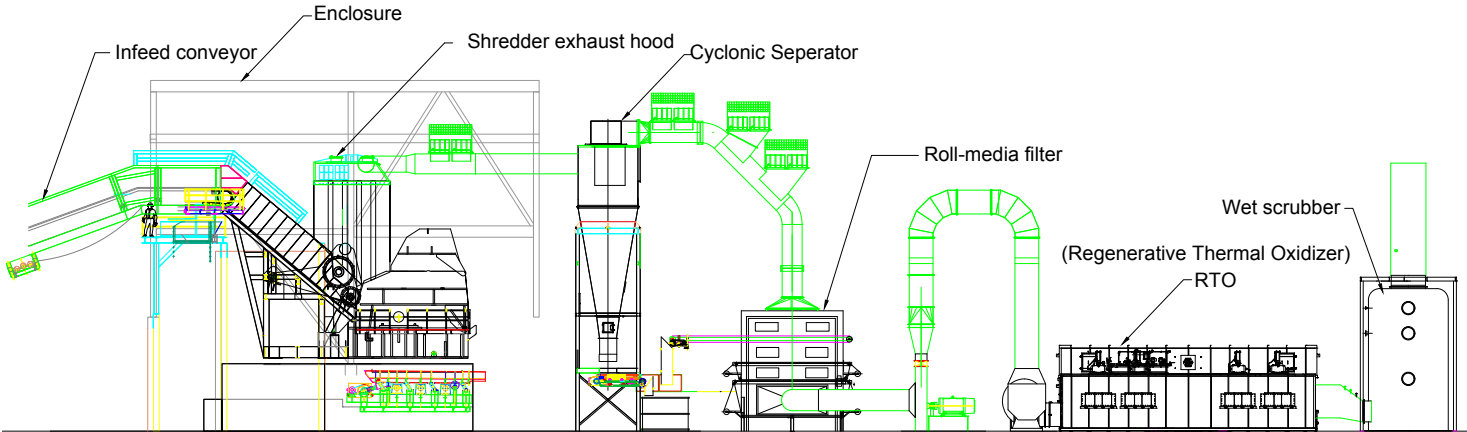
Wet Scrubber – After the RTO, the airstream will be directed to a wet scrubber which neutralizes any gases that may be generated by the RTO. The scrubber emits water vapor, or steam, through its stack.

Dust control – Water trucks, street sweepers, and large misting cannons placed at strategic locations throughout the facility will be used to control dust.

In 2018 and 2019, the U.S. and Illinois EPAs' supervised testing of shredder emissions at RMG's North Side facility revealed the following:

- **Particulate matter (PM) emissions** from the shredder is approximately 3% of the amount allowed in the North Side's IEPA operating permit;
- **Metal emissions** are well below U.S. EPA emission limits. The company voluntarily performed air dispersion modeling of these metal emissions, which revealed that they were far below health-based standards adopted by the State of Wisconsin (Illinois has no relevant standards); and
- The **VOC** destruction efficiency of the RTO was 99 percent.

Air emissions from the metal shredder will be controlled using an extensive array of collection and control devices.



- Emissions from the shredder will be collected by an exhaust hood and will then be directed to a cyclone which will remove relatively coarse particulate matter through centrifugal force.
- Following the cyclone, the shredder exhaust will be directed to a high-efficiency filter which will remove the majority of remaining particulate matter by forcing the air through a fine mesh filter.
- Filtered air from the cyclone and roll-media filter will then be directed to a regenerative thermal oxidizer (RTO) which will destroy greater than 98% of volatile organic compounds (VOCs) through combustion of the VOCs.
- Finally, exhaust from the RTO will be directed to a wet scrubber which will neutralize any gases and filter any particulate matter that may be generated by the RTO.

MATERIAL SCREENING

RMG's new facility will continue screening all incoming material before accepting it for recycling. A team of trained inspectors will check incoming loads for signs of potentially hazardous materials and reject or segregate and properly dispose of objects that are unsuitable for clean recycling.

Additionally, every load of recyclable material will pass through a radiation detector that identifies potential sources of radiation. If suspect materials are detected, the load will be segregated and thoroughly inspected using handheld radiation detection devices. Any potential radioactive material identified during the inspection will be contained and subsequently removed by the Illinois Department of Nuclear Safety under the state's Orphan Source Recovery Program. This state initiative is a non-emergency response hazard mitigation program that collects and properly disposes of unwanted or abandoned radioactive material.

As a community service, RMG accepts compressed gas cylinders, which can present hazards if left in streets and alleys. Inspectors will segregate pressurized cylinders and the company pays authorized cylinder contractors to handle and remove them in accordance with federal, state, and local regulations. The North Side facility successfully recycles thousands of pressurized cylinders every year that might otherwise pose hazards, including causing an explosion in a city garbage truck. Similarly, the company bears the cost of disposing of incidental discarded electronics, including televisions and monitors, at a licensed electronics recycler.

RMG'S DECADES OF COMMITMENT ON THE SOUTHEAST SIDE

Reserve Iron & Metal was formed in 1978 in Cleveland, focusing on reclaiming steel mill byproducts that, at the time, were being treated as waste and landfilled, both onsite at steel mills and in offsite dump locations. Reserve created a process to recover iron and steel and then created a market for foundries and steel mills to melt this material in place of virgin iron units (pig iron) or other scrap metal grades. Reserve Iron opened at the Illinois International Port in 1987, primarily focusing on these same steel mill byproducts. Both the Cleveland and Chicago locations moved into other traditional ferrous and non-ferrous metal recycling, processing approximately 1 million tons per year through the late 1990s.

Reserve Marine Terminals was formed by the principal owners of Reserve Iron in 1991 to operate a material handling dock operation near its scrap processing facilities at the port in Chicago.

In late 1997, South Chicago Property Management Company purchased approximately 48 acres from LTV Steel at 116th Street and Avenue O in Chicago. This site was a portion of the steel mill that had been partially shuttered, and Reserve Marine transitioned some of its operations from the Port District's 130th Street facilities to this site. In 1999, South Chicago purchased an additional 35 acres from LTV, and in 2001, purchased approximately 95 additional acres from Republic Steel. South Chicago continues to own the aggregate site, approximately 178 acres, with various RMG businesses located on the property, including the current construction of the new shredding operation.

In 2002, after a brief interlude, Reserve Marine Terminals re-entered the scrap metal processing business at the Avenue O site, initially processing steel mill byproducts and then quickly moving into more full-line ferrous and non-ferrous metal processing.

After acquiring multiple related-businesses, Reserve Management Group was formed in 2011 as a holding company for the various operating units. This structural change allowed RMG to consolidate financial and other administrative functions of the companies, providing a pathway toward further growth.

In 2017, RMG began negotiations to purchase the assets of the North Side metal recycling business, knowing that the facility's long run in the Lincoln Park area was coming to an end. RMG believed that the South Chicago Property Management Company site offered the best location in the city to build and operate a new metal shredding business. The site has excellent truck, rail, and water access and sits in a Planned Manufacturing District. Its massive land area visually obscures the facility and is far removed from residential properties. The repurposed brownfield site has been operating as a recycling facility for almost 25 years with no complaints from its neighbors. RMG is an engaged civic contributor and provides support to the Southeast Side of Chicago Food Pantry, which is located on its property.