

Savannah River Site (SRS) - Municipal Solid Waste Program

Overview of Municipal Solid Waste (MSW) Program

North Augusta Material Recovery Facility (NAMRF)

NAMRF is permitted as a Class III MSW Processing Facility. SRS transports all routine MSW (e.g. office type waste) to the NAMRF for recovery of recyclable materials. All non-recyclable MSW is transported by NAMRF to the Three Rivers Solid Waste Authority (TRSWA) Regional Landfill for disposal.

Construction and Demolition (C&D) Landfill

The C&D Landfill is permitted as a Part III Construction, Demolition and Land-Clearing Debris Landfill. The C&D Landfill is located On-Site and accepts construction, demolition, and land-clearing debris. If SRS generated waste doesn't meet the C&D Landfill acceptance criteria, it's sent to Three Rivers Solid Waste Authority (TRSWA) Regional Landfill for disposal.

Three Rivers Solid Waste Authority (TRSWA) Regional Landfill

The Three Rivers Solid Waste Authority (TRSWA) Regional Landfill is permitted as a Class III Solid Waste Landfill. The Department of Energy (DOE) Memorandum of Understanding (MOU) with TRSWA Regional Landfill states that current regulatory requirements made it impractical and cost prohibitive for SRS or any of the individual counties to site, design, build, operate a Subtitle D Landfill. Therefore, TRSWA was created for the purpose of solving municipal solid waste disposal at a regional level. TRSWA Regional Landfill waste acceptance criteria includes special waste, construction & demolition debris and MSW.

Background of Material Recovery Facility (MRF)

Since 1994, SRS has separated recyclable material from the MSW stream at the Aiken Regional Rehabilitation Center. The NAMRF was built in 1993 to process recyclables from Augusta and North Augusta. In 1998, SRS began to ship the MSW to NAMRF to increase the recovery rate and to minimize recycle costs. The NAMRF provides a process to divert its non-hazardous solid waste from the MSW stream as recyclable materials targeting a 50% annual recovery rate to meet Federal Executive Order 13693, "*Planning for Federal Sustainability in the Next Decade*".

SRS established a subcontract with the NAMRF which has capabilities to remove the maximum amount of recyclable materials from SRS's MSW stream. It is designed, permitted, equipped, and staffed to process as much as 200 tons per day. At a minimum, it's required to meet a 3-month running average recovery rate that is greater than 35% by weight.

SRS Material Recovery Facility Process

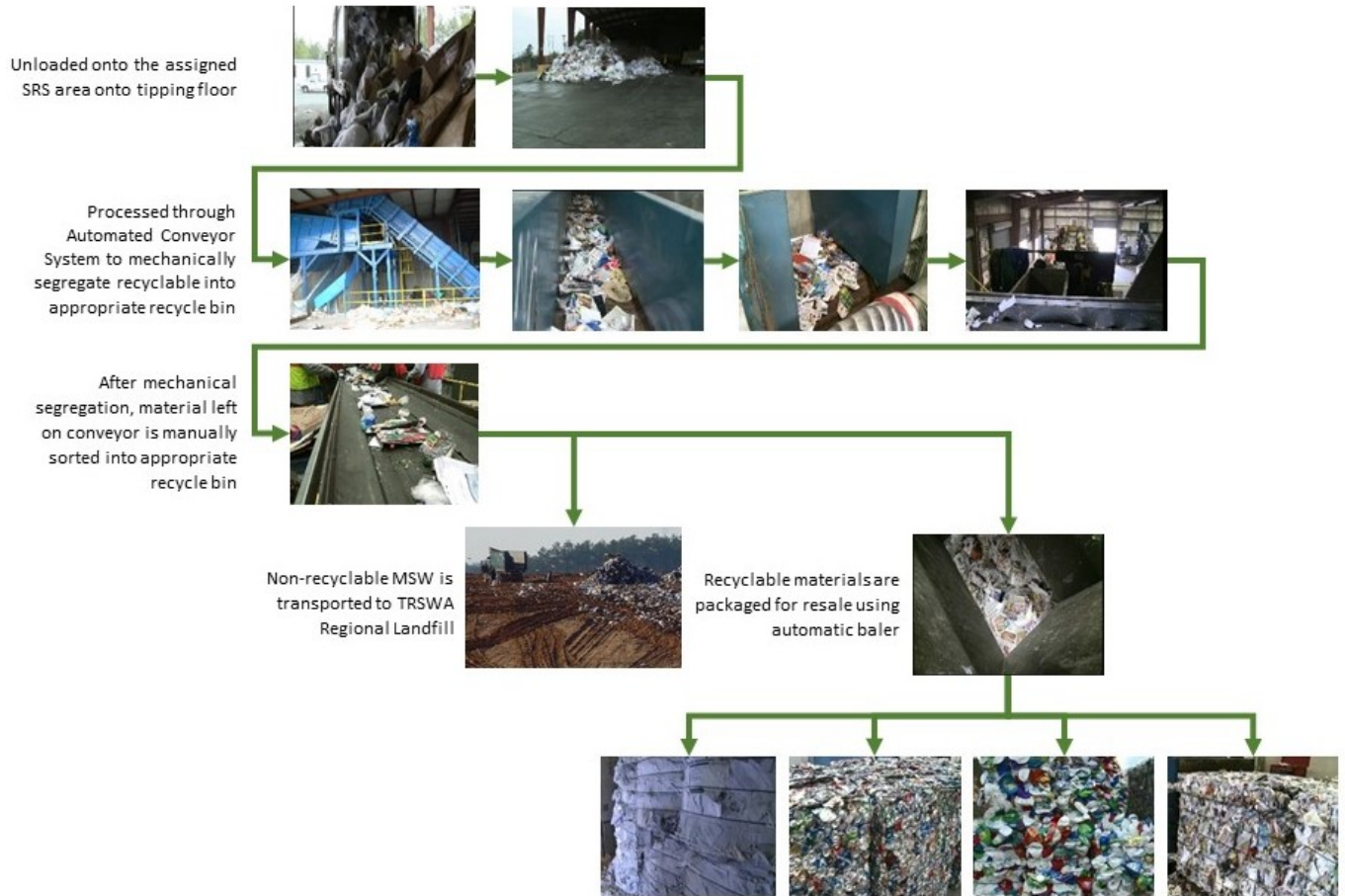
MSW is collected in dumpsters at each SRS generating facility. The cafeterias' MSW (i.e. food contaminated) is segregated into a specified dumpster. The cafeteria's MSW stream is transported directly to the TRSWA Regional Landfill because food contaminated MSW decreases the recovery rate at the NAMRF.

SRS Site Services collects the MSW from the dumpsters and transports it to the NAMRF for recovery of recyclable material. The MSW is placed in an assigned material storage area on the tipping floor to prevent mixture of materials from other sources which could impact the recovery

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rate. In addition, NAMRF processes the MSW on designated days to prevent mixture of materials from other sources during the material handling recovery process.

NAMRF utilizes an automated conveyor system to segregate the metal, plastic, and paper from the MSW stream. Any remaining MSW which wasn't segregate will be manually sorted from the conveyor belt at the end of the automated conveyor system. All recyclable materials removed from the MSW stream belongs to the NAMRF for resale. The sale of these recyclable materials is used to offset processing expenses to include transportation of the SRS non-recyclable MSW to the TRSWA Regional Landfill for final disposal.



Unlike most federal facilities which rely upon its personnel to segregate recyclable materials at the point of disposal, SRS transports 100% of its recyclable MSW to the NAMRF for it to be segregated by the automated conveyor system. Therefore, the only way to increase the SRS annual recovery rate would be to dispose of more recyclable material into the MSW stream.

Process Improvements

In the beginning, MSW bags were manually opened prior to loading it onto the automated conveyor system. NAMRF purchased and installed equipment to the front-end operation that mechanically opens the bags of MSW and segregates heavier waste items for manual sorting. The lighter MSW is mechanically placed onto the Automated Conveyor System.

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In August 2015, SRS began to segregate cafeteria MSW from its routine MSW (e.g. office waste). The segregation of food waste and food contaminated items from the routine MSW stream improved the recovery rate.

In 2019, SRS received the S.C. Smart Business Recycling Program Award from South Carolina Department of Health and Environmental Control (DHEC) for our efforts and contributions toward recycling in South Carolina.

SRS Recovery Rate for NAMRF

		FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Metric Tons	Receipt	2364	1499	2369	2490	1041	1414	2354	2364	2182	2333	2632	2291	1685	1560	1383	1362	1298	1072	747	740
	Recycled	814	448	989	1018	435	628	853	906	856	931	1022	813	730	600	547	542	614	515	379	350
		34%	30%	42%	41%	42%	44%	36%	38%	39%	40%	39%	36%	43%	38%	40%	40%	47%	48%	51%	47%