SALEM COUNTY IMPROVEMENT AUTHORITY

RESOLUTION 2022-57

June 9, 2022

RESOLUTION APPROVING AN ADMINISTRATIVE ACTION AMENDING THE SALEM COUNTY SOLID WASTE MANAGEMENT PLAN FOR SOUTH JERSEY AGRICULTURAL PRODUCTS AMENDED RESEARCH, DEVELOPMENT AND DEMONSTRATION ("RDD") PROJECT

WHEREAS, the Salem County Improvement Authority ("SCIA") is responsible for maintaining the Salem County Solid Waste Management Plan ("SCSWMP"); and

WHEREAS, South Jersey Agricultural Products, Inc. ("SJAP") has previously been approved by the New Jersey Department of Environmental Protection (NJDEP) for a Research Development and Demonstration (RDD) project which allows it to receive Class C recyclable material, including vegetive and food waste for composting; and

WHEREAS, SJAP has submitted an application to the NJDEP for a new RDD project for a term not to exceed five (5) years at the same location; and

WHEREAS, SJAP is currently a part of the SCSWMP for a Class C Recycling Center and the previous RDD project; and

WHEREAS, the SJAP is requesting that the SCIA amend the SCSWMP to allow SJAP to amend its current RDD to allow for more cost effective and efficient composting of food and vegetative at the facility located on Block 60, Lot 16 as shown on the Tax Map of the Township of Upper Pittsgrove, Salem County; and

WHEREAS, amendments to the RDD are outlined on the attached "South Jersey Agricultural Products, Inc., Research, Development and Demonstration (RDD) Project (January 2, 2022), attached hereto as Exhibit A;

WHEREAS, the SJAP appeared before the SCIA at its regular board meeting on May 12, 2022 and provided the SCIA Board with an overview of the requested change. Appearing before the SCIA Board was SJAP's attorney, John Purvis, Esq., and two owners of the company, Ed Stella and Gary Cooper. Mr. Purvis advised the SCIA Board of the permitting history for the facility. The facility was licensed as a Class C compost facility for food waste six (6) years ago. They have been operating since then. They were added to the SCSWMP approximately 5&1/2 years ago. They are seeking an additional five (5) year RDD project.

WHEREAS, Gary Cooper testified regarding the new process for which they are seeking approval. The process, Modified Static Aerobic Pile ("MSAP"), was created by a company called Harvest Quest International, Inc. It allows larger piles, a higher temperature and reduces the needs to repair or replace the plastic pipes, which results in a better product. Most of their

product is sold in bulk to local farmers. No chemicals are used. Organic microbes are utilized in the process. The facility is the only facility Organic Material Review Institute ("OMRI") Certified in the State of New Jersey. They also have a Seal of Testing ("STA") certification.

NOW, THEREFORE BE IT RESOLVED, by the SCIA that the following administrative action, which amends the SWSWMP is approved as follows:

1. SJAP may amend its current RDD in accordance with Exhibit A, attached hereto.
2. The changes contained in Exhibit A are conditioned upon the NJDEP approval of same; and
3. The Executive Director is hereby authorized and directed to send a letter to the NJDEP, with a copy of this resolution, advising them of this administrative action set forth herein; and
4. All operations of SJAP shall be conducted in accordance the testimony and information provided to the SCIA Board at the hearing on May 12, 2022, as well as, with the rules and regulations of the NJDEP and SCIA, as applicable.

ATTEST:

Barry Davis, Secretary

Cordy Taylor, Chairman

CERTIFICATION

I certify the above to be a true copy of a Resolution adopted by the SCIA at a regular meeting held on June 9, 2022.

Barry Davis, Secretary

SOUTH JERSEY AGRICULTURAL PRODUCTS, INC.

COMPOSTING FACILITY

RESEARCH, DEVELOPMENT AND DEMONSTRATION (RDD) PROJECT

AMENDED

(JANUARY, 2022)

1. **Owner Identification – Name, address and telephone number of the person(s) seeking to own and operate the proposed recycling center, and the address of the recycling center.**

South Jersey Agricultural Products
295 RT 77 South
P.O. Box 895
Elmer, NJ 08318
(856) 358-1342

Facility Site:
Block 60; Lot 16
Upper Pittsgrove Township
Salem County
Attn: Gary Cooper
856-237-9079

2. **Narrative of the RDD Project, including: (1) description of new technology or innovative process; (2) duration of RDD project; design capacity; (3) inclusion in the District Solid Waste Management Plan; (4) description of improved environmental performance of the technology; (5) operational procedures to minimize, control and mitigate environmental impacts such as noise, air quality, traffic and storm water runoff; (6) description of sampling and analytical plan being demonstrated and (7) description of quality assurance/quality control plan for overall demonstration of sampling and analytical plan.**

(1) As a result of the high cost of producing, compost utilizing the Aerated Static Pile (ASP) procedure from the frequent replacing of plastic pipes, drilling air holes and the time and space required to build and dismantle piles we converted to the Modified Static Aerobic Pile method of composting also known as the "MSAP" process. Developed by Harvest Quest International, Inc. **The MSAP will not only eliminate the cost of replacing pipes, it will also allow the operation to double the compost production from the space saved by eliminating the air pipes. In addition, we have found that the pile temperature exceed the required 131 degree F at a quicker rate**

and will hit a 160 degrees and maintain temperatures well above the PFRP (Process to Further Reduce Pathogens) required temperature of 131 degrees F for over 45 days.

(2) As a result of the closure of South Jersey's largest composting facility in Washington Township, Gloucester County, many municipalities will have no place to recycle vegetative waste. State law and county plans require the recycling of this material and there will be no development of additional composting capacity in sufficient time to allow municipalities to adjust. The RDD project will not only support research into a new method of composting organic materials but will allow for badly needed short term capacity of composting these materials.

Phase 1

The MSAP process utilizes an OMRI (Organic Material Review Institute) certified product that contains a proprietary blend of microbes, an "organic catalyst", which accelerates and enhances the natural biological process of composting. The MSAP method of composting is a combination of both Static Pile and Windrow composting techniques that provides many environmental and economic benefits. The major benefit of the MSAP method is the ability to largely reduce the need for mechanical turning and the need to replace or repair plastic pipes from the Aerated Static Pile (ASP) method while still maintain aerobic conditions and excellent pathogen destruction. The reduction in windrow turning results in less moisture loss, higher temperatures for longer periods, significantly less odor production, less nitrogen loss through ammonia volatilization and less composting time (approximately 45 to 75 days).

The compost windrow will be constructed with a raw material mixture piled over a base of wood chips, chopped straw or other very porous material. Before building the composting pile the materials will be blended using a frontend loader. The initial height of the piles will be approximately 10 - 12 feet during the formation of the piles. Within 7-10 days the pile height will be 8 -10 feet high depending on: material porosity, weather conditions, and reach of the equipment used. The length of the windrow will be no more than 100 feet. This height and length should produce a windrow capacity of approximately 260 to 300 cubic yards including 100 yards of fresh compost used for capping.

Each pile, once completely formed a small amount (50 to 60lbs) of the catalyst will be applied to both ends of the rows. The rows are then capped off with approximately 6 to 12 inches of aged wood fines and chips. The capping layer

insulates the pile to allow the pathogen killing temperatures (131 – 165 degrees F) to be achieved throughout the pile. It also acts as the "bio-filter" that will absorb odorous gases, the layer will also protects the surface of the pile from drying, insulates it from heat loss, and discourages vectors.

The microbes in the organic catalyst breakdown the contents of the windrow from the outside in which enhances the windrows natural chimney effect by drawing oxygen towards the center of the row as the microbes travel inwards, helping to keep the piles aerobic, this reduces the need for frequent turning. The reduction in windrow turning yields less moisture loss, less temperature loss and less odors. In addition, the reduction in turns helps maintain high bacteria densities increasing the composting efficiency. The higher bacterial activity results in hotter pile temperatures for longer periods ensuring total pasteurization during composting eliminating primary and secondary pathogens as well as any weed seeds.

Phase 2 – Scarab 14HYD Windrow Turner

Phase 2 will also utilize the MSAP process but the construction of the piles will be aided by the Scarab Windrow turner. Under the existing RDD, the turning was conducted by front-end loader. The new turner will accelerate the composting process.

The compost windrow will be constructed with a raw material mixture piled over a base of wood chips, chopped straw or other very porous material. The initial height of the piles will be approximately 16' wide by 8' high during the formation of the piles with finish piles created by the Scarab Windrow Turner being approximately 16' wide by 6' high. Within 7-10 days the pile height will be 5 -6 feet high depending on: material porosity, and weather conditions. The length of the windrow will be no more than 150 feet. This height and length should produce a windrow capacity of approximately 400 to 450 cubic yards including 100 yards of fresh compost used for capping.

Each pile, once completely formed a small amount (50 to 60lbs) of the catalyst will be applied to both ends of the rows. The rows are then capped off with approximately 6 to 12 inches of aged wood fines and chips. The capping layer insulates the pile to allow the pathogen killing temperatures (131 – 165 degrees F) to be achieved throughout the pile. It also acts as the "bio-filter" that will absorb odorous gases, the layer will also protects the surface of the pile from drying, insulates it from heat loss, and discourages vectors.

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(2) The RDD project is proposed to last five (5) years. It is anticipated that the proposed project will take 12 months to reach capacity. It will start at a smaller scale (up to 50 tons per day) as the marketing effort reaches various customers. By the end of the first year and in years 2 to 3 of the RDD project the facility will operate close to or at capacity. In year 3 the project owner will make a determination as to: (1) continue for years 4 and 5 or begin the development of a Class C Recycling Center General Approval application. It will be necessary for a three year initial term to: (1) obtain sufficient customers to meet the design capacity; (2) make changes to the RDD project in order to obtain efficiencies and (3) determine if an extension is necessary or a full-scale Class C Recycling Center. In summary, years 1 and 2 will be used to ramp-up capacity and year 3 will be necessary to determine continuing the RDD project.

(3) The County of Salem held a public hearing before the Board of Chosen Freeholders to consider an Amendment to the County Solid Waste Management Plan to include the proposed composting facility. Salem County has amended its Solid Waste Management Plan to include the proposed composting facility at a rate of up to 150 tons per day or 1,050 tons per week. Salem County has also provided an Administrative Action letter to authorize the facility to operate pursuant to an RDD approval at no more than 100 tons per day or 700 tons per week.

(4) New Jersey has had a number of facilities that have attempted to process food waste through: (1) composting; (2) anaerobic digestion; (3) animal feed or (4) fertilizer manufacturing. All of the above projects had relatively little success. The longest successfully operating facility was the Woodhue composting facility which conducted food waste processing in windrows and did successfully from 1995 to 2001. The RDD project will employ the Aerated

Static Pile approach as has been done very successfully in a number of food waste composting facilities in Pennsylvania. This technique is more fully described in the Narrative of Operations (See Attachment No. 1.)

(5) The composting operation will generate low level noise but to insure regulatory compliance and to prevent nuisance noise to neighboring properties we will maintain a berm and/or tree line surrounding the operation and all fuel powered equipment will have the required mufflers and filtrations systems as required to meet regulations. The operation will also have control runoff and will construct a retention basis that will be monitored and tested as required. The entire site will not be utilized and will use an existing roadway for ingress and egress off of Newkirk Station Road.

(6) We have obtained both OMRI (Organic Material Review Institute) Certification and STA (Seal of Testing Assurance) Certification from the US Compost Council, our compost is listed as a Certified Organic Compost and as a certified Compost by the US Compost Council. South Jersey Agricultural Products is the only compost facility in the state of New Jersey that produces and OMRI Certified Compost. These certifications requires our processes to follow the guidelines and procedures to maintain these certifications and to produce an organic compost that will meet the guidelines and requirements of the USDA National Organics Program (NOP). Will use end-process sampling that will occur at the end of the composting process, approximately 60 - 90 days after start of the pile. Representative compost samples are taken from various locations around the pile and are thoroughly blended to generate one representative sample. Samples are taken annually and are sent to a certified soil testing lab to test for "Food Safety" and all other tests required by OMRI and The US Compost Council to insure compliance with regulations to maintain the certifications. At minimum will test for physical parameters such as pH and conductivity, organic matter, metals, inerts and pathogens such as coliforms and salmonella. All samples sent for testing will also have a Chain of Custody Form that will list as a minimum: Name, Address and Phone Number of Company, Name, Address and Phone Number of Testing Facility, Date and Time Sample Taken, Batch Identification, Name of Sample Collector, Testing or Type of Testing Requested.

(7) Quality assurance and quality control process will be dictated by the OMRI and STA Certification process, in addition to the sampling and testing procedures the data recording will include the following:

Date and Time Pile Started
Batch Number