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October 17, 2023

Via E-Mail (melissa.abatemarco@dep.nj.gov) and Regular Mail

Melissa P. Abatemarco, Esq., Director Office of Legal Affairs New Jersey Department of Environmental Protection

Attn: Rule Making Petitions 401 East State Street, 7th Floor

Mail Code: 401-04L P.O. Box 402

Trenton, New Jersey 08625-0402

Re: PETITION FOR RULEMAKING

Proposed Amendments to N.J.A.C. 7:26A-4.5(a)15ii

Petitioner: Vivaria Ecologics LLC

Dear Ms. Abatemarco:

This office represents Vivaria Ecologics LLC, the owner of a 42-acre parcel located on Blau Road in Mansfield Township, Warren County, New Jersey also known as Block 1204, Lot 24. This is a Petition for Rulemaking pursuant to the Administrative Procedure Act, seeking to modify the manner in which the New Jersey Department of Environmental Protection (the "Department") regulates Class C recycling centers authorized to accept, store, and process waste. More specifically, granting this petition will allow food waste composting facilities using up to date technology to be permitted and constructed without the need to be fully enclosed within a structure thereby furthering the reduction of Green House Gas emissions consistent with the New Jersey Global Warming Response Act 80 x 50 Report and the goals of the New Jersey Food Waste Recycling Law.

The Administrative Procedure Act, at N.J.S.A. 52:14B-4(f), provides that any interested person may petition an agency to promulgate, amend or repeal any agency rule. The Department has adopted regulations implementing this provision at N.J.A.C. 7:1 D-1.1 et seq. The following Petition has been prepared and submitted in accordance with the requirements of the applicable statute and rules.

SUMMARY OF PROPOSAL

As more fully set forth below, the Recycling Rules applicable to the design and construction of Class C recycling facilities for food waste require that all recycling center operations occur in an enclosed structure with limited exception for Research Demonstration and Development (RD&D) projects. This requirement, while intended to manage the impact of odors and noxious compounds on neighboring properties, precludes the construction of food waste composting facilities that are not

enclosed, but which utilize technologies developed after the rule was last updated in 2009. Utilization of Best Management Practices for compost facility operations ensures order control, not an enclosure. The efficacy of such facilities has been demonstrated through the RD&D process currently employed at the Ag Choice facility in Andover Township, Sussex County, New Jersey and elsewhere in the country. Similar operations and those using higher technology, monitoring and biofilter technology to prevent odors would be permitted under an RD&D authorization. However, because an RD&D authorization is only available for a limited time and scope project, financing for such projects is not readily available. As a result, without a change to the rule, New Jersey will not benefit from modern food waste composting facilities which are a key to implementation of the Food Waste Recycling Law and a reduction in greenhouse gas emissions from food waste decomposing in landfills.

1. Full Name and Address of Petitioners:

Vivaria Ecologics LLC c/o Rensselaer Commercial Properties 101 Route 46 East, Unit 138 Pine Brook, New Jersey 07058

2. The Substance or Nature of the Rulemaking Requested:

Food waste composting delivers a wide range of value to the community including greenhouse gas reductions, economic development, and production of a valuable soil amendment. The Food Waste Recycling and Food Waste-to-Energy Production Law, N.J.S.A. 13:1E-99.122 (the "Food Waste Recycling Law"), requires food waste generators to source separate and recycle food waste if they are located within twenty-five (25) miles of an authorized food waste recycling facility, generate a projected average of fifty-two (52) tons or more of food waste per year, and are in one of the following categories: commercial food wholesaler, distributor, industrial food processor, supermarket, resort, conference center, banquet hall, restaurant, educational or religious institution, military installation, prison, hospital, medical facility, or casino. Subject food waste generators may otherwise comply with the requirements of the Food Waste Recycling Law by performing on-site composting, aerobic or anaerobic digestion in accordance with N.J.A.C. 7:26A-1.4, 4.5, or as otherwise authorized by the NJDEP, or by using an alternative authorized food waste recycling method, defined by the Food Waste Recycling Law. For the Law to become effective, New Jersey needs to encourage the development of food waste recycling facilities in multiple locations so that they are within twenty-five miles of the generators.

Under the Food Waste Recycling Law, an "authorized food waste recycling facility" is defined as a Class C recycling center within the State authorized to accept, store, process, or transfer food waste or compostable material. Pursuant to N.J.A.C. 7:26A-4.5(a)15ii, recycling center operations "shall be fully enclosed in a structure, or structures, with complete walls and roof and shall include an air management system permitted by the Department pursuant to N.J.A.C. 7:27 that is capable of removing odors and noxious compounds. The building shall have a minimum setback of fifty feet from the property line of the recycling center."

Under Class C Recycling exemptions, the Department allows in-vessel composting and outdoor composting at farms (N.J.A.C. 7:26A-1.4). The Department may also allow the recycling center to use a certification of authority to operate a RD&D project pursuant to N.J.A.C. 7:26-1.7(f), to conduct outdoor composting using a biofilter as cover, or Bokashi with in-vessel composting

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(N.J.A.C. 7:26-1.7(f)). "RD&D approval" means a certificate of authority to operate issued pursuant to N.J.A.C. 7:26-1.7(f) for a new or innovative technology or innovative operational process modification made to an existing recycling center or operation.

To comply with the Recycling Rules, a food waste facility would need to have:

- A composting structure to contain the composting material in a set space (concrete bunker wall configuration) that can withstand wear and tear of normal operations.
- An impermeable operating pad which will direct leachate to a leachate collection system.
- An active compost area which utilizes high aeration rates and automated temperature feedback controls to facilitate optimized process conditions, uses a bio-layer cover (approximately 12" of post-PFRP¹ compost on top) to insulate the surface and utilizes surface irrigation to keep the surface cool and moist.
- The process area will have a minimum setback of fifty feet from the property line.

Meanwhile, modern composting technologies including the Aerated Static Pile (ASP) process and windrow composting process, will meet these conditions without being enclosed in a building. The optimized, science-based system combined with proper and documented process management does not require an enclosure to mitigate odors and noxious compounds. ASP and windrow systems have been highly successful at efficient, low odor composting through the combination of optimized process conditions by the equipment and trained operators. Key process indicators (such as temperature, moisture, pH, C/N ratio, density) will be used to ensure that the primary composting process remains optimally controlled. The correct ranges for these metrics may be written into the permit conditions as well as the facilities operations and maintenance manual so that regulators and the public will have confidence the facility is operating as designed. Attached to this petition is more detailed information these processes including data documenting that when properly employed, these systems are effective in limiting off-site impacts.

Therefore, the Recycling Rule should be revised, and the Department should allow Class C composting facilities to operate without being enclosed in a structure and without requiring that such a facility operate first under an RD&D approval provided an applicant is able to demonstrate that based upon the technology employed and the specific materials received, the facility does not require full enclosure to prevent leachate migration and off-site impacts such as odors. Since the rules were adopted, as noted above, management of composting technology using the ASP and windrow processes have continued to improve so that it is not necessary for composting to be done in a fully enclosed structure to prevent off-site impacts. Moreover, the experience at the Ag Choice facility, which has operated under an RD&D permit for approximately eighteen (18) years as an open-air windrow facility, documents that outdoor food waste composting can be successful.

¹ PFRP = Process to Further Reduce Pathogens at 40 CFR Part 503 Appendix B

3. Reasons for Request:

For New Jersey to achieve the objectives of the Food Waste Recycling Law, additional Class C facilities are essential since only two commercial facilities are currently operating in Trenton and Elizabeth. Requiring that composting operations be done in a fully enclosed building will both increase the cost of these facilities and limit their size further working against the goals of the Food Waste Recycling Law. The cost increase is compounded by the fact that an enclosed facility may also require an air filtration system and associated maintenance, thereby destroying the economics of the operation effectively preventing compost facilities from being constructed and thus thwarting the intent of the legislation. Composting of food waste through the implementation of multiple proven technologies is the only way to achieve these goals. As noted, since the rules were last updated composting technology has been enhanced and the experience with the Ag Choice facility has demonstrated that a well-run composting facility will avoid the off-site impacts that were the rationale for the requirement for a full enclosure in the past.

In addition, construction of a modern composting facility requires outside financing, and this financing is only obtainable if a general approval is issued. It is not possible to finance an RD&D project of the size needed to meet the objectives of the statute since such facilities are permitted for a fixed period of time, normally not to exceed one-year pursuant to N.J.A.C. 7:26-1.7(f)2.ii.

4. Petitioner's Interest in the Request:

The Food Waste Recycling Law requires composting only if a permitted food waste recycling facility exists within twenty-five road miles. Currently, the law does not require that counties amend their Solid Waste Management Plans to provide for an authorized food waste recycling facility. However, to meet the intent of the Food Waste Recycling Law, more facilities will be needed throughout New Jersey. The Petitioner has pursued, and is pursuing, multiple opportunities to construct and operate Class C facilities dedicated to meeting this need through the implementation of new proven technologies. Among these potential facilities is the 42-acre Blau Road farm in Mansfield Township in Warren County (the "Blau Road Farm") on which it proposes to construct a facility to compost up to 17,000 tons of food waste and 33,000 tons of wood chips each year. Another potential facility site could compost up to 100,000 tons of food waste combined with wood chips/other materials per year. The Petitioner's application for inclusion in the Warren County Solid Waste Management Plan as a Class C Recycling Center to Compost Food Waste at Blau Road Farm was rejected by the Warren County Solid Waste Advisory Council Sub-Committee ("SWAC") on January 23, 2023 in part because, "jurisdictionally, N.J.A.C 7:26-4.5(a)15ii, requires that food waste be composted in a fully enclosed structure with complete walls and roof and shall have an air management system pursuant to N.J.A.C 7:27 that is capable of removing odor and noxious compounds." SWAC concluded that it could not endorse an application that knowingly violates at least one component of the NJDEP regulations and did not evaluate whether the application was in compliance with other NJDEP regulations that may pertain to the site or its operations. See Report of Findings and Recommendations, January 23, 2023. As a result, for this or any similar project to proceed, the Petitioner is requesting that NJDEP update the regulations as they apply to food waste composting.

5. The Statutory Authority Under Which the Department May Take the Requested Action:

The Department has sufficient authority under the applicable rules and regulations to take the action requested herein including, but not limited to the authority vested in the Department under Melissa P. Abatemarco, Esq. October 17, 2023 Page 5

the Food Waste Recycling and Food Waste-to-Energy Production Law, N.J.S.A. 13:1E-99.122, the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and the Solid Waste Utility Control Act, N.J.S.A. 48:13A-1 et seq., and the regulations promulgated to implement these laws.

6. Existing Federal or State Statutes and Rules Which May Be Pertinent to the Request:

The requested rule making, if implemented, would reduce adverse impacts on neighboring properties while aiding in the implementation of the Food Waste Recycling Law. New Jersey may be the only state that requires full enclosure of a modern food waste composting facility. To better achieve the goals of the Food Waste Recycling Act, New Jersey should remove or amend the enclosure requirement for composting facilities. The following summarizes composting and nuisance-odor laws in California, Massachusetts, Maryland, and Virginia.

<u>California:</u> In California, all composting facilities must obtain a permit. 14 C.C.R. § 17854. However, California law does not specify that composting facilities must be enclosed. 14 C.C.R. § 17867(2) states: "[a]II handling activities shall be conducted in a manner that minimizes odor impact so as to not cause a nuisance." Under this statute, the important question is not whether the facility has a roof, it is whether the facility appropriately controls odors and prevents nuisances.

With regards to odor, 14 C.C.R. § 17863.4(b) requires every compost facility to prepare and maintain an Odor Impact Minimalization Plan ("OIMP"). This OIMP must include an odor monitoring and data collection protocol, a description of how weather conditions may affect odors, a complaint response and recordkeeping protocol, a description of odor-minimizing design considerations, and a description of operating procedures for minimizing odors.

14 C.C.R. § 17834.4(f) describes the process when a facility follows its OIMP, but odors still occur. Facilities operators have the opportunity "to take additional reasonable and feasible measures to minimize odors unless (1) the EA (enforcement agency) has evidence that a specific and immediate action would reduce the odor impacts; (2) there is an imminent threat to public health and safety and the environment; or (3) a nuisance has occurred. "A 'nuisance' includes anything which: (a) is injurious to human health or is indecent or offensive to the senses and interferes with the comfortable enjoyment of life or property, and (b) affects at the same time an entire community, neighborhood, or any considerable number of persons. The extent or annoyance or damage inflicted upon an individual may be unequal." 14 C.C.R. § 17852(a) (27.5).

Unlike New Jersey, California does not require any part of any facilities to be enclosed. Rather, California focuses on whether the facility is creating any nuisances or hazardous situations for those in the surrounding neighborhoods.

<u>Massachusetts:</u> 330 CMR 25, which governs agricultural composting, requires facilities to have an "Odor Management Plan. . . The plan should, at a minimum, address the following: (a) evaluation procedures, including odor strength, duration, and frequency; (b) diagnosis of odor source; and (c) outline remedial actions that may be utilized to address production and migration of any odors, including specific actions such as operational changes that will be taken to address complaints if odors occur beyond the property line of the Agricultural Unit." 330 CMR 25.02. The odor management plan must be initiated when either the permit applicant notices or there is an odor complaint beyond the property line of the facility. 330 CMR 25.04(5).

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Massachusetts, like California, does not mandate a roof above composting facilities if they are able to control odors in other ways. Massachusetts also gives facilities an opportunity to remedy any nuisance odors should they occur. In Massachusetts, it is most important that a composting facility is operated "in a manner to minimize odors, noise, drift of materials, vectors, and risk to humans or the environment." 330 CMR 25.04(3).

If a facility does not qualify as an agricultural composting facility under 330 CMR 25, it needs to apply for either a general or an RCC ("Recycling, Composting and Conversion") permit. To qualify for a general permit, a composting facility must (1) not receive "more than 105 tons per week and no more than 30 tons per day of Group 2 organic materials [including food waste]; (2) contain less than 5,000 cubic yards of organic materials per acre; and (3) has less than 50,000 cubic yards of organic materials on site at any one time." 330 CMR 16.04(1)(b). Alternatively, a facility can be "an aerobic or anaerobic digestion operation that receives no more than 100 tons per day of organic material from on or off site, based on a 30-day rolling average." 330 CMR 16.04(1)(c). Facilities with general permits need to follow the same odor management plans as agricultural composting facilities as well as a vector control plan, but an enclosed facility is not required.

RCC permits are required for larger operations and have stricter rules in addition to the odor management plans required with other facilities. There is a possibility that portions of an RCC facility must be enclosed based on Department of Environmental Protection findings. "The Department may issue an RCC permit subject to conditions. These conditions may include but are not limited to . . . (d) requirements that the operation handle materials in a manner that prevents public nuisance conditions, including but not limited to, requirements for enclosed, covered, or sealed handling areas, containers or trucks, timely incorporation of organic materials" 330 CMR 16.05(4).

<u>Maryland:</u> In Maryland, when composting facilities apply for a permit, they are required to follow guidelines which do not require facilities to be enclosed with a roof. In fact, Part III(b)(iii)(C) states: "[a]reas of a composting facility that are located completely indoors are exempt from the minimum depth to the seasonal high-water table." This line implies that there may be areas of composting facilities that are not completely indoors so long as they are built to the appropriate depth.

Facilities that receive a permit must follow standards set out by the Maryland Department of the Environment. Part III(E) lays out the operational requirements and states that a facility cannot "(1) create a nuisance; (2) be conducive to insect and rodent infestation or the harborage of animals; (3) cause nuisance odors or other air pollution in violation of COMAR 26.11.06 or involve construction of a source of air pollution subject to a permit to construct or operation of a source of air pollution subject to a permit to operate unless permitted pursuant to COMAR 26.11.02; (4) cause a discharge of pollutants derived from organic materials or solid waste to waters of this State unless otherwise permitted by the Department; (5) harm the environment; or (6) create other hazards to public health, safety, or comfort as may be determined by the Department."

COMAR 26.11.06.09 deals with odors and states: "[a] person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

<u>Virginia:</u> Virginia explicitly allows composting facilities without roofs. "Composting facilities that employ the enclosed vessel method are referred to as Type A (confined) compost facilities. Facilities that employ the windrow or aerated static pile method are referred to as Type B Compost

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facilities." 9VAC20-81-310(A)(1)(a). There are general requirements regarding where composting facilities may be sited whether Type A or Type B. 9VAC20-81-320. If a composting facility is "designed to prevent fires and migration of vectors, and to prevent escape of wastes, wash waters, waste decomposition odors, dust, and litter from the facility..." then it may be an unenclosed Type B facility. 9VAC20-81-330(F)(4). The Virginia regulations at 9VAC20-81-330(A)(2) states that: "Facilities for the composting of Category II, III and IV feedstocks, including those who will mix these feedstocks with Category I feedstocks, shall be provided with: Covered areas for receiving, segregation, and grading of the waste shall be provided to segregate the waste from noncompostable components and to store such components in properly constructed containers prior to proper management and disposal." Petitioner's plans for the Blau Road site facility included a covered area for waste receipt and contamination removal.

The Virginia Department of Environmental Quality also released a memo entitled "Odor Guidance for Solid Waste Management Facilities" in 2019. Although the memo is specifically geared towards landfills, the introductory paragraph indicates that "the assessments and remedial actions discussed herein can apply to other solid waste management facilities," including composting facilities.

An "Odor Management Plan" is "only required for those facilities found to have created an odor nuisance or hazard under normal operating conditions and upon notification from the department." If there are no complaints, there is no need for an odor management plan. Virginia's laws are more concerned with preventing and alleviating odor nuisances than whether a facility is enclosed or not.

Minnesota: Minnesota Pollution Control Agency regulates source-separated organics composting operations at MN Rule 7035.2836. That rule addresses aerated static pile composting in Subpart 11 as: B.(10). Compost must be produced by a process to further reduce pathogens (PFRP).... Acceptable methods of PFRP are described in units (a) to (c).... (b) The static aerated windrow method for reducing pathogens consists of an unconfined composting process involving mechanical aeration of insulated compost piles. Windrow height must not exceed twelve feet. Aerobic conditions must be maintained during the compost process. The temperature of the compost pile must be maintained at 55 degrees Celsius for at least seven days.

The Minnesota rules also state in Subpart 11: B.(12): (12) The owner or operator must develop and maintain an odor management plan detailing the best management practices (BMPs) to be used during normal operations to minimize odors. These BMPs must address how the oxygen levels and porosity will be managed to minimize odors. The plans must detail how the facility will handle odor complaints and the specific odor control measures and safeguards the owner or operator will employ to resolve the complaints. At a minimum, the odor management plan must address BMPs to minimize odor generation in the mixing and tipping areas, active compost processing areas, and contact water and storm water ponding areas.

Based on a review of the more specific food waste composting laws adopted by other states, which consider various advances in food waste composting methods and technology, New Jersey is clearly behind what other states are doing to encourage food waste composting and should update its regulations to allow for a modern food waste composting process without the need for a full enclosure.

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CONCLUSION

The Petitioner, for the reasons stated above, hereby petitions the Department to modify the Recycling Rule to allow for the construction and operation of outdoor Class C food waste composting facilities provided that they will effectively manage off-site impacts including those caused by leachate and odors. As noted above, the Petitioner believes that this proposal will not undermine the Department's goal of minimizing impacts to offsite properties that may result from the operation of food waste composting facilities. While there may be a concern that permit conditions that require monitoring and reporting obligations would be difficult to enforce, these concerns are unfounded based on the experience gained from both RD&D projects within the state and similar operations throughout the country. These obligations will be spelled out in the permit and the operations and maintenance manual for the facility and easily enforceable.

In furtherance of this request, the Petitioner suggests that the language of N.J.A.C. 7:26A-4.5(a)15 ii be amended to read as follows:

ii. Other than as set forth below, the recycling center operations shall be fully enclosed in a structure, or structures, with complete walls and roof and shall include an air management system permitted by the Department pursuant to N.J.A.C. 7:27 that is capable of removing odors and noxious compounds. The building shall have a minimum setback of fifty feet from the property line of the recycling center. The Department may allow the recycling center to use a certificate of authority to operate an RD&D project obtained pursuant to N.J.A.C. 7:26-1.7(f) to demonstrate that the specific materials received do not require full enclosure that would prevent leachate problems and off-site impacts such as odors from typical food wastes. Based on the results of the RD&D project the Department may issue a general approval to allow other forms of structures, no structures or other measures that would be adequate to prevent on and off-site impacts. The Department may also issue a general approval for a food waste composting operation to operate without the need for an enclosure when the applicant demonstrates that the facility will employ modern composting technologies such as Aerated Static Pile or windrow composting processes, and that based upon specific operating parameters proposed by the applicant, and the specifics of the proposed site, full enclosure is unnecessary to prevent leachate problems and off-site impacts from odors.

The Administrative Procedure Act requires that the Department act on this Petition within 60 days following receipt. We look forward to hearing from you. Should you need any additional information, or wish to discuss this matter, please let us know.

Very truly yours,

DENNIS M. TOFT

Member

DMT:dlb