

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTIONDIVISION OF SOLID & HAZARDOUS WASTE

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Governor

BUREAU OF RECYCLING & HAZARDOUS WASTE MANAGEMENT

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Summary of Stakeholder Meeting: Exclusion and Exemption Rulemaking (Remote) - Agenda #7

N.J.A.C. 7:26A-1.1 and N.J.A.C. 7:26A-1.4

Background

Facilitator: Judith Andrejko, Esq., (E: <u>Judith.Andrejko@dep.nj.gov</u>)

Presenters:

- 1. Judith Andrejko, **Regulatory Officer/Moderator** Opening, General Discussion Points and Closing Remarks (E: <u>JudithAndrejko@dep.nj.gov</u>)
- 2. Thomas Farrell, **Bureau Chief** New Exemption Closed Loop Anaerobic Digestion (E: Thomas.Farrell@dep.nj.gov)
- 3. Alexander Sadat, **Engineer & Exemption Coordinator** New Exemption Food Waste Transfer (E: <u>Alexander.Sadat@dep.nj.gov</u>)
- 4. Daniel Murray, **Engineer & Co-Exemption Coordinator** Demonstration Projects §1.4(e) Small-Scale Recycling Activities not exempted under 1.4(a). (E: Daniel.Murray@dep.nj.gov)
- **5.** Karen Kloo, **Bureau Chief -** Recap of Exclusion §1.1f: Micro-Scale Food Waste Composting and Community Gardens (E: <u>Karen.Kloo@dep.nj.gov</u>)
- 6. Rakesh Patel, **Engineer** Recap of Exemption for Small Scale Outdoor and Indoor food waste composting (E: Rakesh.Patel@dep.nj.gov)

Summary

The New Jersey Department of Environmental Protection (NJDEP) hosted a stakeholder meeting via Microsoft Teams on December 2, 2021, to discuss with and receive feedback from external stakeholders' potential changes to N.J.A.C 7:26A-1.1 and 1.4 - exclusions and exemptions to the requirements to obtain a limited or general approval to operate a recycling facility. The potential NEW exclusions and exemptions discussed were the following:

• Proposed exemption at N.J.A.C 7:26A-1.4(a): Closed Loop Anaerobic Digestion;

- Proposed exemption at N.J.A.C 7:26A-1.4(a): Food Waste Transfer;
- Potential New Exemption Demonstration Projects §1.4(e): Small-Scale Recycling Activities not exempted under 1.4(a);
- Proposed exclusion at N.J.A.C. 7:26A-1.1(f): Micro-Scale Food Waste Composting and Community Gardens; and
- Proposed exemption at N.J.A.C 7:26A-1.4(a): Small-Scale Outdoor and Indoor Food Waste Composting.

Please be aware that these exemptions are currently being deliberated and have yet to be formally proposed.

NJDEP's goals of proposing revisions to the exempt recycling rules are to minimize adverse environmental impacts, create better enforceability, enhance coordination with local officials, remove problematic/unnecessary exemptions, combine like exemptions, and add new exemptions as necessary. These changes are intended to be advantageous to all the stakeholders, including NJDEP, exempt operators, local governments, and the communities in which these facilities operate. One of the goals is to "level the playing field" for exempt activity operators as they compete with recycling centers (Class B, C, and D) who have obtained a limited or general approval. NJDEP also recommends that best management practices be incorporated in the exempt recycling rulemaking.

NJDEP is also considering the following changes: limiting multiple exemptions of certain types, requiring NJDEP acknowledgement/approval before operations begin, ensuring county and municipal approvals, and setting an expiration for the exempt activity. Changes to the required certification is being considered for consistency with the other Site Remediation and Waste Management Program rules. Lastly, to cover NJDEP's cost for administrative and enforcement activities, NJDEP is considering proposing annual and renewal fees. The following includes more details on the proposed revisions to exempt recycling rules that were discussed at this stakeholder meeting, stakeholder input received, and where to get more information.

The following exemption subjects were presented and discussed with the stakeholders:

- 1. Proposed New Exemption: Closed Loop Anaerobic Digestion
 - a. Closed loop biogas generation through anaerobic digestion
 - b. The materials that would be allowed to be processed in the digester
 - c. Importance of food waste recycling
 - d. Materials the department considering prohibiting into the digester
- 2. Proposed exemption: Food Waste Transfer
 - a. Importance of food waste transfer
 - b. Transfer features
 - c. Odors
 - d. Leachate
 - e. Physical Containment
 - f. Daily record keeping



3. <u>Demonstration Projects</u>

- a. Basis for exemption
- b. Requirements being considered
- c. Limitations being considered

4. Proposed Exclusion: Exclusion of Micro-Scale Food Waste Composting

- a. Why exclude micro-scale?
- b. Beneficiaries of micro-scale food waste composting
- c. Scale
- d. Limitations

5. Proposed Exemption: Outdoor Food waste composting

- a. Operational requirements
- b. Buffers
- c. Bulking agents
- d. Operator training
- e. Daily record keeping

6. Proposed Exemption: Indoor Food waste composting

- a. Types of food waste
- b. Building design criteria
- c. Indoor food waste composing operations
- d. Bulking agent management
- e. Finished compost
- f. Operator training
- g. Record keeping

Details

This section will expand on the information provided above, is formatted to explain the potential rule changes, and includes attendee and NJDEP communication.

Proposed New Exemption: Closed Loop Anaerobic Digestion

NJDEP's presentation consisted of matters relevant to the proposed new exemption for closed loop digestion. This part of the presentation focused on biogas generation through anaerobic digestion. Anaerobic digestion can generate usable natural gas in the form of methane. This new exemption would allow produce, dairy, meats, manure, fats, and oils from food to be processed in the digester. NJDEP is considering prohibiting the use of grease or oils not derived from food or plants,



solvents, chemicals or hazardous wastes, and materials that would otherwise be solid wastes if not processed in the digester.

Poll Questions:

Slide 15 – Question 1: What would be a good frequency of operator training?

- a. "Once per year" -25.64%
- b. "Each time a new operator is assigned" -43.59%
- c. "Once every five years" -10.25%
- d. "Within one year of start-up" -0%
- e. "Other:" -17.95%
 - 1. "Combination of A and B"-2.56%
 - 2. "Training should occur within one year of start-up and every five years unless a new operator is assigned" -2.56%
 - 3. "Hybrid of option b (every time new operator is assigned), plus two times a year" -2.56%
 - 4. "A combination of all of the above, within a year of startup, annual requirements and new operator assignment" -2.56%
 - 5. "No longer than once per year I meant, or each time a new operator is assigned" -2.56%
 - 6. "Once every three years and or when a new operator is assigned" -2.56%
 - 7. "Not less than once per year and when new operator assigned" -2.56%

Slide 16 – Question 2: What should the department consider as documentation of adequate training?

- a. "Certificate from manufacturer" 8.11%
- b. "Certificate from widely recognized association accepted by the U.S. Composting Council" -59.46%
- c. "Self-Certification using the department's form" -13.51%
- d. "Other:" 18.92%
 - 1. "A or B" -2.70%
 - 2. "B or C" -2.70%
 - 3. "Any of the above" -2.70%
 - 4. "All of the above" -2.70%
 - 5. "Certification from manufacturer but the company who is certifying their staff should have to pay the compost equipment company for the training and certification." -2.70%
 - 6. "Certificate from Manufacturer as long as training is reviewed by 3rd party compost council." -2.70%



Slide 17 – Question 3: Although existing air regulations at N.J.A.C. 7:27 require that the subject digesters have an Air Permit with specific emission limitations, an appropriate buffer distance from the digester and its supporting equipment should be no less than:

- a. "50 feet from property line" -14.29%
- b. "100 feet from the property line" -35.71%
- c. "500 feet from the property line" -25.00%
- d. "Other:" -25.00%
 - 1. "150 ft"-3.57%
 - 2. "It depends on the system"-3.57%
 - 3. "Less than 50ft"-3.57%
 - 4. "250 ft"-3.57%
 - 5. "No need for another requirement if limitations are already in place"-3.57%
 - 6. "The items the facility will be odorous and need as large of a buffer as possible. At minimum 2000 feet"-3.57%
 - 7. "The items the facility will be odorous and need as large of a buffer as possible. At minimum 2000 feet"-3.57%

Slide 18 – Question 4: The anaerobic digestor shall not receive more than:

- a. "One ton of material per day" -6.67%
- b. "The daily throughput of material identified in the manufacturer's specification" 66.67%
- c. "The lesser of selections "a" and "b" above" -23.33%
- d. "Other:" -3.33%
 - 1. 3 tons per day

Slide 19 – Question 5: Materials to be processed in the digester shall be added to it:

- a. "Within 24 hours upon receipt" -37.93%
- b. "Within 24 hours upon receipt if immediately placed in gas tight containers" -17.24%
- c. "Within 48 hours upon receipt if immediately placed in gas tight containers" -24.13%
- d. "Within one week upon receipt if immediately placed in gas tight containers" 17.24%
- e. "Other:" -3.45%
 - 1. There needs to be other options available & considered based on size & design.



Slide 20 – Question 6: The Biosolids collected within the digester shall be:

- a. "Available for immediate placement in a garden for nutrient rich residual effluent"10.00%
- b. "Managed as a solid waste, depending upon their classification" -0.00%
- c. "Available for recycled uses if sufficient analyses confirm such use as appropriate" 60.00%
- d. "Discarded in the solid waste dumpster" 0.00%
- e. "Subjected to a Beneficial Use Determination pursuant to NJAC 7:26-1.7(g)" 13.33%
- f. "Other:" -16.67%
 - 1. "C or E (either option should be available)" -3.33%
 - 2. "Depends on the classification of the biosolids" -3.33%
 - 3. "Further processed into compost and tested prior to use" -3.33%
 - 4. "They MUST be analyzed prior to land application and should probably be composted further in a windrow system" -3.33%
 - 5. "Sent to a facility to properly cure then be used as a nutrient rich residual" 3.33%

Slide 21- Question 7: Unless otherwise specified by the Air Permit, the anaerobic digester system shall be tested for tightness and performance at a frequency:

- a. "Which is dependent upon the presence of odors" -6.06%
- b. "Once per month" -3.03%
- c. "Once per quarter" -9.09%
- d. "As needed but no less than monthly" -24.24%
- e. "As needed but no less than annually" -45.45%
- g. "Other:" -12.12%
 - 1. "Based on manufacturers spec unless there is an odor problem"-3.03%
 - 2. "Quarterly, unless otherwise specified by manufacturer or reports of odor"-3.03%
 - 3. "Annually unless odors are present"-3.03%
 - 4. "As needed but no less than every 6 months"-3.03%

Slide 22 – Question 8: The anaerobic digester system should contain a/an alarm system(s) that address:

- a. "Hydrogen sulfide gas emissions" 9.38%
- b. "Temperature" -0.00%
- c. "Water level" -0.00%
- d. "Pressure" -0.00%
- e. "All the above" -87.50%



- f. "Other:" -3.13%
 - 1. Based on manufacturers spec what should be alarm activated

Questions and Comments received:

Jay Fischer asked what size digester will NJDEP determine to exempt? His concern was that regardless of system, it will be prone to odor issues with incoming feedstock therefore it needs some type of oversight. NJDEP's response was that we are debating what that would be and are trying to get input on that. The exemption in this meeting has a theme, which is that they are all small scale.

Isaac Bearg commented that something he sees in other states is the idea of a registered site versus an exempt site versus a permitted site. The registered site has less onerous requirements than a permitted site, but it must still provide some information, and that should be something the State looks into. The State should also consider the end uses. Are we processing the product so that it can be used properly and is tested? Response from NJDEP team is that since this is an exemption, it means that it would be exempt from the requirement to obtain a full-blown approval or permit. They would have to provide notification to NJDEP, the county, and the municipality prior to start of the operations. This is not an exclusion from the rules but it's an exemption from the requirement to obtain a permit if they fall within limitations as set for in the exempt requirements.

Proposed New Exemption: Food Waste Transfer

NJDEP's presentation consisted of matters relevant to food waste transfer. There are several transfer activities for Class B materials such as tires, concrete, and brick, and Class C materials have transfer activities for leaves; therefore it makes sense for food waste to have a transfer related exemption. The destination for food waste must be considered a legitimate entity by NJDEP, and these entities include NJ Department of Agriculture approved livestock producers who are authorized to accept food waste or an exempt Class C recycling facility that is authorized to accept source-separated food waste. To avoid stormwater runoff of leachate that would be hazardous, all consolidation activities must take place in a large container, and under no circumstance should the food waste be tipped onto the floor of the building for any purpose whatsoever. All food waste and non-food waste material during this activity should be stored in containers that are structurally sound and do not have leakage, spillage, or visible damage to them. There should be daily record keeping using the NJDEP form, stating the volume in cubic yards of both incoming and outgoing materials and the materials stored on-site. These records must be kept for three years.

Slide 31 – Question 9: What should the minimum buffer distance be between food waste transfer building and property line?

- a. "0ft" 9.38%
- b. "25 ft" 12.50%
- c. "50 ft" **50.00%**



- d. "Other:" 28.13%:
 - 1. "No less than 2000 ft"-3.13%
 - 2. "More than 50. Way more"-3.13%
 - 3. "Depends on feedstock and adjacent uses" -3.13%
 - 4. "150 ft" -3.13%
 - 5. "100 ft"-15.65%

Slide 31 – Question 10: How many cubic yards of material should be allowed to be stored at any one time?

- a. "50 CY" -13.79%
- b. "100 CY" -37.93%
- c. "500 CY" -17.24%
- d. "1,000 CY" -6.90%
- e. "Other:" -24.14%
 - 1. "This should be based on the design and location of the receiving structure"-3.45%
 - 2. "Depends on the facility" "-3.45%
 - 3. "Up to 10 CY"-3.45%"
 - 4. "Need more info for storage conditions" "-3.45%
 - 5. "Depends on the building size" "-3.45%
 - 6. "Should depend on the type of storage and time stored" "-3.45%
 - 7. "300 CY" "-3.45%

Slide 32 – Question 11: What should the time limit be on food waste storage?

- a. "24 Hours" -37.50%
- b. "48 Hours" -31.25%
- c. "72 Hours" -12.50%
- d. "Other:"-18.75%
 - 1. "Less than 24 hours"-3.13%
 - 2. "Based on volume, building design, location and pre-process conditions" 3.13%
 - 3. "Depends on the storage conditions (airtight containers, etc)" -3.13%
 - 4. "Depends on if sealed container is in air tight building" -3.13%
 - 5. "Ideally should be performance based. if there is no odor and properly managed it should not be an issue" -3.13%
 - 6. "120 hours" -3.13%



Questions and Comments received:

Dr. Nick Smith-Sebasto had a comment on the questions that were provided. The questions in general need more details associated with it. For example, how long the food waste should be allowed to be stored is unanswerable as there are several factors to be considered. In his experience he can store food for up to two weeks in sealed container and boxes without issues, but if the food is open, there is a limit of 48 hours before the odors are overbearing. In response to Dr. Smith-Sebasto, NJDEP team welcomed feedback regarding the conditions or circumstances as NJDEP would like to learn the all the nuances that the industry deals with.

Jay Fischer recommended NJDEP have more fluidness and less rigidity in the permit structure. He believes that, as his operation is in a rural area that has a half mile buffer, he should have more flexibility than an operation in an industrial building that takes place in an urban area such as Newark. Another item that Mr. Fischer bought up is about food waste being dumped on to the tipping floor, as that is very restrictive for facilities in city areas. NJDEP's response is that since this is an exemption where there is a volume type restriction where you haven't reached the level to qualify for a permit. NJDEP must establish some criteria by which it can determine if it needs a permit or not. These exemptions are designed for small-scale operations that don't need a solid waste permit. NJDEP does not allow for tipping of food on to the floor, as those are for transfer stations which have their own regulations. Mr. Fischer also asked if there is a throughput number that the NJDEP has in mind. NJDEP's response was that it welcomes all ideas and wants to understand the business side as we don't want to pass an exemption that no one will use.

Jairo Gonzalez who is with the New Jersey Composting Council has seen micro haulers, and one of the ways to transfer the material to further locations is by using convenience centers that the municipalities are working with. They use biofilters in their containers and don't see the practice of tipping into the floor.

Dr. Smith-Sebasto suggested that some of the options for the questions were more appropriate for large scale operations. Wayne Defeo also concurred with the sentiment and stated that there should be two separate rules for the micro-scale and the normal food waste transfer.

<u>Potential New 7:26A – 1.4(e) Exemption: Demonstration Projects</u>

NJDEP's presentation consisted of matters relevant to demonstration projects. The basis for this potential exemption is that there are several entities in the State who have shown interest in conducting small-scale recycling activities that do not fall under the current recycling exemptions. The only alternative would be for these entities to apply for and receive an NJDEP Recycling Center General or Limited Approval. This exemption would allow entities to be able to perform scall-scale recycling activities by gathering relevant data to demonstrate that they can be conducted in an environmentally sound manner. The requirements being considered for NJDEP review include site plan map, project description, need for project, environmental controls, and review fee. One of the limitations that is being considered for the proposed exemption is that it will have



a fixed time limit of one year, and in certain instances where the applicant can prove that an extension is needed to collect additional data, NJDEP may grant an extension. Another limitation is that it must be consistent with environmental statues applicable to the project and also be consistent with NJDEP's Letter of Approval. The last major limitation is that if the demonstration project is proven to be successful, then there will be a need for the operator to develop a mechanism to allow for continued operations and to allow others to operate similarly.

Slide 40 - Question 12: What should the maximum throughput be to be considered small-scale under this exemption?

- a. "1 cubic yard/day" -13.33%
- b. "5 cubic yards/day" -26.66%
- c. "50 cubic yards/day" -26.66%
- d. "Other:" -30.00%
 - 1. "None"-10%
 - 2. "3 cubic yards/ day"-6.67%
 - 3. "15 cubic yards /day"-3.33%
 - 4. "Should depend on the nature of the subject material"-"3.33%
 - 5. "It depends on how long the material is held at the location."-3.33%
 - 6. "100"-3.33%

Slide 40 – Question 13: Should there be a minimum daily limit placed?

- a. "Yes" -46.88%
- b. "No" -53.13%

Slide 40 – Question 14: What review fee should be assessed on applications?

- a. "Less than \$1000" -62.07%
- b. "Greater than \$1000" -6.90%
- c. "Other:" -31.03%
 - 1. "\$0"-3.45%
 - 2. "Depends on complexity of process."-3.45%
 - 3. "0 dollars if you are trying to get these programs off the ground and reduce SW tonnage."-3.45%
 - 4. "\$300"-3.45%
 - 5. "Less than \$500"-10.35%
 - 6. "Base it on realistic costs for the department to review such as how many man hours at an hourly rate."-3.45%
 - 7. "Less than \$250"-3.45%



Questions and Comments received:

Gary Sondermeyer had a question regarding if demonstration projects required administrative action or another process involving the county plan. NJDEP's response was that none of the exemptions except for one require county plan approval. NJDEP does not anticipate a county plan approval process as part of this demonstration project exemption as the whole idea is to keep it small scale to show us how it works.

Kristine Paff asked if there is an example of a demonstration project, and NJDEP's response was that do not have an example now. NJDEP does not want there to be an impediment by bringing specific examples of demonstration projects and will take all ideas under consideration. The idea is to be able to embrace new technology to see if it might work and to see if there might be potential for a future exemption.

Isaac Bearg asked if NJDEP could provide more detail onto the items owners of demonstration projects would need to provide to move to the next level. What is the process in which NJDEP will consider the data that is provided to them? NJDEP's response was that it will have the discretion to allow a successful demonstration project to continue while rulemaking is undertaken. We would like more than one person undertake the technology for sample size. As far as what would need to be collected, it would have to be project specific, as NJDEP's concern is on the environment and human health.

Jairo Gonzalez commented that he and his team find the R&D one-year exemption idea very exciting because there is a grant that the NJDEP has out there for higher education. This lack of one-year extension has put a damper on some of the projects that could have been used for demonstration purposes, which would have included environmental and social demonstration, as well as feasibility studies on feedstocks.

Wayne Defeo commented that the success of the demonstration projects should be based on performance and not any arbitrary metric. Those performance standards are: if they can control odors, does it have any runoff problems, are they making a product, can they market it.

Potential New 7:26A- 1.1 (f) Exclusion of Micro-Scale Food Waste Composting

NJDEP's presentation included the potential exclusion of micro-scale food waste composting. NJDEP is considering this exclusion is because it received a petition requesting the addition of a food waste composting exemption, which would encourage urban residential communities to source and separate and compost food waste. Also, the potential impact to the environmental and neighboring properties would be minimal. This exemption would benefit community gardens, multi-family dwellings in urban areas, non-profit groups such as the boy scouts, and school environmental clubs. The details of this exclusion include the lowest throughput capacity that is no more than two cubic yards per week of source separated food waste. Operations must be



managed to minimize odor, contact water, fire and scavenging by wildfire. The composting operations must be conducted within a container. By the end of each operating day, all incoming source separated food waste material shall be introduced into the composting container. One of the limitations to this exclusion is that only vegetative food waste is allowed. Another is that it accepts food waste generated in the community and compost operations conducted within the community. There should be quality control of incoming wastes, and record keeping is required. The operator must also certify that the property owner consents to compost operation.

Questions and Comments:

Dr. Smith-Sebasto believes that we could be ignoring certain technologies due to the rigidness of the rule language, as the current definition of an operational container is an enclosed structure. Emerging technologies exist that can process the two cubic yards per week. NJDEP's response was that, if there is specific information that the stakeholder believes NJDEP should take into consideration, then please send NJDEP the sample language to consider.

William Defeo asked if the exclusion will notify the county solid waste and recycling coordinators. NJDEP's response was that it would be excluded from the recycling rules, however NJDEP may introduce local notifications, since an odor problem at one of these facilities would be an issue for local officials to resolve in accordance with local nuisance ordinances.

Michelle from Java's Composting asked if a community garden or urban farm used aerated static pile box, would it then be allowed to intake meat and dairy products since those are designed to be rodent and animal proof? NJDEP's response was that the problem with meat and dairy is that it requires temperature monitoring to ensure all pathogens are destroyed. Thus, to be on the safe side, NJDEP did not add it to the potential exclusion.

Gary Sondermeyer commented in the stakeholder meeting that interagency coordination is critical for the success of these exclusion, exemption, and demonstration projects. It would be extremely counterproductive to what is trying to be achieved if the agencies disagreed with each other. He also suggested that recordkeeping should be practical. For example, it's not practical for community gardens to have recordkeeping.

Chat question: If material is generated on site, processed on site, and compost is used on site, is this process is exempt? NJDEP's response was that under the current exemption, anything that has been generated on site can qualify for the exemptions.

Proposed exemption at N.J.A.C 7:26A-1.4(a): Small-Scale Outdoor Food Waste Composting

NJDEP's presentation discussed small-scale outdoor food waste composting. Under this potential exemption, NJDEP proposed three critical criteria: gas-permeable and water-repelling compost covers, leachate collection, and an air-blower system to operate the outdoor food waste composting. The rationale behind these requirements is to protect environment and human health,



especially to control the odor and storm water contact that may create potential environmental harms both onsite and offsite.

Slide 51 – Question 15: What are some of the preferable solutions or alternatives to gas permeable and water repellent cover for the compost pile?

Answer: Type-in

- a. "Carbon materials"-7.69%
- b. "A cover is unnecessary if aerated static pile is being used in conjunction with a bio-filter...6" of biofilter removes 95% of VOC's" -7.69%
- c. "Aerobic in-vessel rotary drum composting biotechnology instead of windrows or piles!" -7.69%
- d. "Finished compost at a depth of 12"-18""-7.69%
- e. "Gore manufactured covers" -7.69%
- f. "Biofilter (i.e. woodchips), aerated static pile technology of some kind"-23.07%
- g. "Covered area" -7.69%
- h. "Screening covers" -7.69%
- i. "Air and water controlled containers" -7.69%
- j. "Ponds and other methods of stormwater like a grass buffer (improper terminology probably)" -7.69%
- k. "Unsure, because of cost effectiveness, pollution from products. I believe a natural solution is best. bamboo?" -7.69%

Slide 51 – Question 16: Do you see any challenges in implementing this technology (cover, leachate collection and air-blower)?

- a. "Cost" -11.53%
- b. "Maintenance" -0.00%
- c. "Both and A and B" -65.38%
- d. "Other:" -23.08%
 - 1. "It is overkill if all are required. It will make this cost prohibitive."-3.58%
 - 2. "A, B, plus footprint required, process duration, etc." -3.58%
 - 3. "If you use the covers, you do not generate any leachate. Covers will freeze in the winter" -3.58%
 - 4. "A&B plus covers freezing in winter" -3.58%
 - 5. "Not really seems reasonable" -3.58%
 - 6. "Covered Aerated Static Pile has been done successfully since the 90's. The least expensive per ton in terms of capital expense to operational expense ratio" -3.58%



Proposed exemption at N.J.A.C 7:26A-1.4(a): Small-Scale Indoor Food Waste Composting

NJDEP's presentation included a discussion about small-scale indoor food waste composting. The idea behind NJDEP's consideration of this exemption is to allow food waste composing at large corporate campuses, colleges-universities, non-profits, and other entities within under-utilized building space they may have. Another benefit behind proposing indoor food waste composting is that it eliminates the possibility of water contact and helps minimize odor due to an enclosed building or shed with roof and walls. An existing building may or may not require modifications that are necessary to effectively operate to protect the environment. Appropriate slopes are necessary for leachate to flow towards the drainage. The air-ventilation needs to be in place to control the odor from spreading outside the facility. Although there may be a vacant or unutilized building space, it may require building modifications to meet these criteria, which will result in additional costs.

Slide 55 – Question 17: What are the other alternatives to ensure appropriate leachate collection? E.g. manual floor washing, floor cleaning using industrial vacuums/machines, etc.

Answers: Type-in

- a. "Natural leachate control (i.e. wood chips)"-7.69%
- b. "squeegee"-7.69%
- c. "Industrial vacuums/machines"-7.69%
- d. "Industrial vacuums"-7.69%
- e. "None are necessary if the floor is properly sloped with drainage. Daily washing would be good housekeeping"-7.69%
- f. "Properly constructed rows do not generate leachate. This is not necessary."-7.69%
- g. "Use of absorbent bulking agent that can be incorporated into the composting process w / manual cleaning"-7.69%
- h. "Aerobic in-vessel rotary drum composting biotechnology produces no leachate. It is better not to cause a problem than to have to figure out how to minimize it! "-7.69%
- i. "Leachate collection via biofilters or proper runoff into holding tanks"-7.69%
- j. "Manual floor washing or industrial vacuum depending on budget"-7.69%
- k. "Scrubbing and cleaning"-7.69%
- 1. "Drainage and a storage tank plus cleaning procedures"-7.69%
- m. "Never seen these choices used in ten years in the business"-7.69%

Slide 55 – Question 18: Do you see any challenges in implementing air management systems?

- a. "Cost" -21.74%
- b. "Space" -0.00%



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- c. "Maintenance" 4.35%
- d. "All the above" -56.52%
- e. "Other:" -17.39%
 - 1. "All the above. This is cost prohibitive for a very small-scale facility"-4.35%
 - 2. "Aerobic in-vessel rotary drum composting biotechnology is virtually odorless and requires little to no air management."-4.35%
 - 3. "If the system has proper design (i.e., closed systems or if it is using a biofiltration system) the Air group and permit fees are far too expensive, and the systems will render the operations cost ineffective"-4.35%
 - 4. "No, aerated static pile has been used successfully outdoors and indoors for many years"-4.35%

Question and Comments for Small-Scale Indoor and Outdoor Food Waste Composting:

Jay Fischer asked if NJDEP had a number in mind regarding the allowable volume for this type of composting, and if this exemption was to use only windrow technology. NJDEP's response was that currently allowable volume numbers are up for discussion, and this exemption does involve windrow technology. Jay Fischer added that knowing the allowable volume is critical as it helps determine if it is cost prohibitive. If someone is composting only 10,000 cubic yards, then it won't be able to offset the cost of the equipment. He also stated that proper windrow construction is the key to controlling odors. NJDEP's response was that these exemptions are not intended for commercial operations, but for small scale such as university campus that happen to have an extra building on campus that they are not using.

Additional Supporting Documents:

1. Stakeholder Information

Please click on the link below to be redirected to all the details from this meeting. Below, within the first row on the page, where it states "11/10/2020 - Stakeholder Meeting for Proposed Amendments to N.J.A.C. 7:26A-1.1 and 1.4-Recycling Rules-Invitation Only: Agenda #6 (Food Waste Composting)" one may find the following four documents: Invitation, Presentation, Agenda, Sign-in sheet, and this Summary itself.

Link: https://www.nj.gov/dep/workgroups/past.html

2. NJDEP - Exemptions Rules

Please click on the link below, then click on the pdf document in the first tab that states "RECYCLING REGULATIONS - N.J.A.C. 7:26A-1." Once in the document, the exemptions start at the top of page 11 after the "7:26A-1.4 Activities exempt from general or limited approval" text and continue until page 17 and end right before the "7:26A-1.5 Burden of proof" section begins.



Link: https://www.state.nj.us/dep/dshw/resource/rules.html

3. NJDEP - State Website

Please click on the link below to be redirected to NJDEP's website for general recycling information.

Link: https://www.state.nj.us/dep

