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Summary of Stakeholder Meeting: Exclusion and Exemption Rulemaking (Remote) - Agenda #6

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

November 10th, 2020 (1:00 PM – 3:30 PM)

Background

Facilitator: Judith Andrejko, Esq., (E: Judith.Andrejko@dep.nj.gov)

Presenters:

1. **Karen Kloo, Bureau Chief** - Opening, General Discussion Points and Closing Remarks, (E: Karen.Kloo@dep.nj.gov)
2. **Zafar Billah, Section Chief** – NEW Potential Food Waste Exclusion Discussion, (E: Zafar.Billah@dep.nj.gov)
3. **Thomas Farrell, Bureau Chief** – NEW Potential Exemption #19: In-Vessel Food Waste Composting, (E: Thomas.Farrell@dep.nj.gov)
4. **Michael Trocchia, Environmental Engineer** – NEW Potential Exemption #20: Outdoor Food Waste Composting, (E: Michael.Trocchia@dep.nj.gov)
5. **Paul Smith, Enforcement Inspector** – NEW Potential Exemption #21: Indoor Food Waste Composting, (E: Paul.Smith@dep.nj.gov)
6. **Rakesh Patel, Supervisor** – Q & A Moderator, (E: Rakesh.Patel@dep.nj.gov)
7. **Alexander Sadat, Environmental Engineer** – Presentation Time Keeper, (E: Alexander.Sadat@dep.nj.gov)

Summary

The New Jersey Department of Environmental Protection (NJDEP) hosted a stakeholder meeting via Microsoft Teams on November 10, 2020 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 exclusion at N.J.A.C. 7:26A-1.1(f) for micro-scale food waste composting,
- Proposed exemption at N.J.A.C 7:26A-1.4(a)19 for in-vessel food waste composting
- Proposed exemption at N.J.A.C 7:26A-1.4(a)20 for outdoor food waste composting
- Proposed exemption at N.J.A.C 7:26A-1.4(a)21 for indoor food waste composting

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

The 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 operator as they compete with recycling centers (Class B, C, and D) that obtained a limited or general approval. NJDEP also recommends that best management practices are incorporated in the exempt recycling rulemaking. These rules sunset on December 3, 2022.

Also being considered are 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. Changes to the certification is being considered to be consistent with the other Site Remediation and Waste Management Program rules. Lastly, in order 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, stakeholder input, and where to get more information.

The following subject matters regarding several existing exemptions were presented and discussed with the stakeholders in attendance:

1. <u>Proposed NEW Exclusion §1.1f: Food Waste Composting:</u>
    a. Micro-Scale composting
    b. Backyard size
    c. Main Topics:
        i. Limitations
        ii. Storage
        iii. Odors

2. <u>Proposed NEW Exemption #19: In-Vessel Food Waste Composting:</u>
    a. Volume Control
    b. Time Limits
    c. Main Topics:
        i. Limitations
        ii. Vessel Types & Configurations
        iii. Storage Methods
        iv. Manufacturer Specification Adherence

3. Proposed NEW Exemption #20: Outdoor Food Waste Composting:
    a. Operations
    b. Applicable Areas
    c. Useable Space Maximization
    d. Main Topics:
        i. Buffers
        ii. Active Compost Areas
        iii. Bulking Agents
        iv. Curing Piles

4. Proposed NEW Exemption #21: Indoor Food Waste Composting:
    a. Operations
    b. Engineering Controls
    c. Ease of Entry
    d. Main Topics:
        i. Limitations
        ii. Building Designs
        iii. Adverse Impact Minimization

Details

This section will expand on the information provided above and is formatted to explain the potential changes, and includes attendee and NJDEP communication. The main topics discussed for all of the new food waste-centered provisions included: storage, volume and timeframe limitations, odor and pest control, operational controls, and revised administrative requirements.

Proposed New Exclusion §1.1(f) – Micro-Scale Food Waste Composting:

NJDEP's presentation consisted of details relevant to the proposal for a new recycling exclusion for micro-scale food waste composting. This exclusion is designed to allow community gardens, garden clubs, scout troops and residents residing in multi-family housing to conduct food waste composting without the requirement for a general or limited approval or compliance with the requirements associated with exempt activities. After brief presentations regarding each proposal, a series of poll questions were asked of the stakeholder participants in order to collect data to inform NJDEP proposed rule language.

The following is a summary of the stakeholder attendees' responses to the poll questions:

1. Slide 17 - Question #1: "Is there a need for this exclusion?"
    a. (Attendees): The attendees answers to the above question were as follows:
        - (A) "Yes," – ***96.55% of total responses***
        - (B) "No," – ***3.45% of total responses***

b. (NJDEP): Conclusions based on attendees' responses:
   - An overwhelming ***majority was in favor of having this micro-scale food waste composting exclusion added to the rules.***

2. Slide 17 - Question #2: "Should it be limited to micro-scale community composting only?""
   a. (Attendees): The attendees answers to the above questions were as follows:
      - (A) "Yes," – ***51.72%***
      - (B) "No," – ***48.28%***

   b. (NJDEP): Conclusions based on attendees' response:
      - A narrow ***majority was in favor of limiting this exclusion to community composting, only***.

3. Slide 17 - Question #3: "What should be the throughput limitation?"
   a. (Attendees): The attendees answers to the above questions were as follows:
      - (A) "1 cubic yard/week" – ***16.00%***
      - (B) "2 cubic yard/week" – ***32.00%***
      - (C) "3 cubic yard/week" – ***32.00%***
      - (D) "*Type-in*" - Here are the responses to the open-ended portion of option of this question (***20.00%***):
        - The throughput limitation should be 4 cubic yards.
        - The throughput limitation should be 5 cubic yards.
        - The throughput limitation should be site dependent.
        - It should be scaled based on the available space (e.g. 1 cubic yard is the minimum you can compost at once for "hot" compost, if there is space for multiple piles then the allowable throughput should be adjusted as such).
        - This should be based on quantity assessments by communities. The interest and potential for raw material collection may be factored in, if there is sufficient support.

   b. (NJDEP): Conclusion based on attendees' response:
      - Of the numeric choices presented***, there was an even split between the majority of 2 cubic yards per week and 3 cubic yards per week as the throughput limitation for this proposed exclusion***.

4. Slide 18 - Question #4: "Should waste from small businesses/schools in the community be allowed?"
   a. (Attendees): The attendees answers to the above questions were as follows:

      - (A) "Yes,"- ***60.71%***
      - (B) "No," – ***39.29%***

   b. (NJDEP): Conclusion based on the attendees' responses:

- ***The majority was in favor of allowing food waste from small businesses/schools in the community to be included in the waste accepted at micro-scale facilities.***

5. Slide 18 - Question #5: "Should a condition be added to shut down the operations in the event of successive verified odor complaints?"
   a. (Attendees): The attendees answers to the above questions were as follows:

      - (A) "Yes," – ***53.85%***
      - (B) "No," – ***7.69%***
      - (C) "*Type-in*" - Here are the responses to the open-ended portion of option "C" received (***38.46%***):
        - The NJDEP should be very careful in thinking about NIMBY (Not In My BackYard) issues, versus less-than-ideally/optimally run recycling centers
        - A specific condition may not be necessary, as there should be odor rules no matter where you are in the state.
        - A remediation plan could assist with odor issues as well.
        - It should be shut down if the corrective actions are not followed. I would recommend a similar protocol to permitted facilities.
        - It should be handled by the municipality. The cost of a shutdown is inexpensive, at a small volume.
        - Intervention may be necessary, in certain situations.
        - Warnings should be given first, along with an opportunity for the operator to rebalance the pile or correct the problem first.
        - *There should be a process to deal with odor complaints, not an immediate shut-down. Neighbor complaints are likely to occur, but may not be valid. In the case of a shut-down what will be done with the materials that need to be disposed of?*
        - Warnings before a shutdown would be fair.
        - Yes and No. *More details need to be provided for this proposed exclusion-scale food waste operation to construct a proper response to this question.*

   b. (NJDEP): Conclusion based on attendees' responses:
      - A narrow ***majority was in favor of putting a condition in place to shut down operations, in the event of continued and verified odor complaints. Some suggested providing warnings and allowing corrective actions to occur before requiring shut down.***

6. Slide 14 - Question #6: "Other Comments?"
   a. (Attendees): The attendees answers to the above questions were as follows:
      - "Type-in" - Here are the responses to the open-ended question that were received:

        - There needs to be strict enforcement if a pile of unprocessed materials arises, as issues can arise quickly.
        - Even with the small scale, odor generation should be of great concern. Businesses and schools should go to a commercial facility.

- Most commercial facilities will ultimately be covered in the ratcheted-down food waste law. Schools should be covered under a different exemption, in my opinion. For instance, it could be in a way that allows for the transportation and subsequent collection of food waste from all schools at one single collection point.
- One should look at the New York State (NYS) definitions for micro-scale composting exclusions. Also, consultation with the US Composting Council should be done.
- We should define community broadly and focus instead on volume limits to constrain the operations; we also should not require municipal property in this exclusion. The reason being is that there will always be a property owner that could be held responsible if NJDEP is looking for assurance of compliance.
- *Will the Solid Waste (SW) section work with Air and Water to actually allow these operations? Even if SW exempts or excludes them, Air and Water will require permits, correct?*
- Very good session. Thank you, even though I have issues on my computer, I can tell that the food waste exclusions are heading in the right direction.
- *Are advanced composting biotechnology options considered appropriate for this scale?*
- This will be an incredibly important development for urban agriculture.
- *No, I do not have any other comments for this exclusion.*
- It may be difficult to only require this operation on municipal land. Municipalities may not want to be ultimately held responsible for all the operations that take place under this exclusion (e.g. multi-family mass amounts of materials). This highly restricts the locations you will ultimately have available to the potential participants that would like to pursue this operation, within a given municipality.
- *Would it be possible to consider the option of transporting excess waste to a certified Class C facility that will alleviate the risk of the operator potentially going over-capacity?*

b. (NJDEP): Conclusions based on attendees' responses:
   - Stakeholders had various concerns for this exclusion, which included the following - ***odor controls, additional research areas, enforcement, definition refinement, volume controls and others.***

Proposed New Exemption #19: In-Vessel Food Waste Composting:

NJDEP's presentation consisted of matters relevant to the proposed new In-Vessel Food Waste Composting Exempt Recycling Activity. This part of presentation focused on: limitations, vessel types & setups, storage methods, and manufacturer manual guidance. The following questions and matters were discussed:

7. Slide 31 - Question #7: "What should the minimum buffer distance be between active composting operations and the property line?"
   a. (Attendees): The attendees answers to the above questions were as follows:
      - (A) "50 ft," – ***31.58%***
      - (B) "100 ft," – ***15.79%***
      - (C) "150 ft," – ***15.79%***
      - (D) "200 ft" – ***5.26%***
      - (E) "Type-in"– Here are the responses to the open-ended portion of option "E" received (***31.58%***):
        - It should not be based on a fixed distance. The distance should be operational.
        - It depends on throughputs - the higher the throughput, the longer the distance necessary.
        - It should be site-specific based on the structure in which the in-vessel operation would be situated in.
        - To give some perspective, the "EcoRich" units required no distance and provides for a near odor-less experience. Ultimately, it depends on what kind of operation is taking place and the technology that supports it.
        - There probably should be variables in place to ensure proper buffer distance creations.
        - 600 feet would be an optimal distance, in my opinion.

   b. (NJDEP): Conclusions based on attendees' responses:
      - Of the numeric options presented, ***a majority was in favor of a 50-foot buffer distance between the active composting operations and the property line. Some attendees felt that the buffer should be site specific.***

8. Slide 31 - Question #8: "Should dairy and meat source-separated food waste (SSFW) be incorporated into in-vessel composting?"

   a. (Attendees): The attendees answers to the above questions were as follows:
      - (A) "Yes" – ***68.42%***
      - (B) "No" – ***15.79%***
      - (C) "*Type-in*" – Here are the responses to the open-ended portion of option "C" received (***15.79%):***
        - As long as the selected technology to conduct these operations can process those materials, yes, they should be included.
        - "EcoRich" machines are able to take both kinds of materials.
        - Only if it is a fully covered and Department-approved system.

   b. (NJDEP): Conclusions based on attendees' responses:
      - ***The majority was in favor of the incorporation of dairy and meat-related SSFW into the in-vessel composting operations***.

9. Slide 32 - Question #9: "What should the volumetric limit of SSFW received be, per year?"

a. (Attendees): The attendees answers to the above questions were as follows:
   - (A) "1,000 Cubic Yards," – ***5.88%***
   - (B) "2,000 Cubic Yards," – ***17.65%***
   - (C) "3,000 Cubic Yards," – ***47.06%***
   - (D) "*Type-in*" - Here are the responses to the open-ended portion of option "D" received (***29.41%***):
     - The composting material itself should be a factor.
     - 6,500 cubic yards should be the limit, in my eyes.
     - Dependent on the scale of the machine and how much material it can handle.
     - Depends on the system size/capacity.
     - 5,000 cubic yards or 2,500 tons, whichever quantity is less.

b. (NJDEP): Conclusions based on attendees' responses:
   - ***The majority was in favor of having a 3,000 cubic yard annual limit.***

10. Slide 32 - Question #10: "What should the volumetric limit of bulking agent materials, on-site, be at any time?"

a. (Attendees): The attendees answers to the above questions were as follows:
   - (A) "1,000 Cubic Yards," – ***20.00%***
   - (B) "2,000 Cubic Yards," – ***13.33%***
   - (C) "3,000 Cubic Yards," – ***13.33%***
   - (D) "*Type-in*" - Here are the responses to the open-ended portion of option "D" received (***53.33%***):
     - It should be triple the amount of food waste expected to come in.
     - The limit should be proportional to the need for the proper Carbon to Nitrogen (C: N) ratio.
     - Dependent on the system size and facility space.
     - Certain units don't need bulking agents, as they may use microbes as an alternative.
     - The limit should be 2-3 times the volume of food waste received.
     - 50 cubic yards should be the minimum.
     - Should be based on the C:N ratio and allowable food waste for intake.
     - There should not be a limit, as long as the operation does not become a nuisance and impact soil, water, air, land, etc.-type operations.

b. (NJDEP): Conclusions based on attendees' responses:
   - ***The majority was in favor of site-specific limits and dependent on Carbon to Nitrogen ratio.***

11. Slide 33 – Question #11: "What should be the limit of the volume of finished compost stored on-site at any one time?"

a. (Attendees): The attendees answers to the above questions were as follows:
   - (A) "1,000 Cubic Yards," – ***18.75%***

- (B) "2,000 Cubic Yards," – ***6.25%***
- (C) "3,000 Cubic Yards," – ***31.25%***
- (D) "*Type-in*" - Here are the responses to the open-ended portion of option "D" received (***43.75%***):
  - Should be dependent on facility size.
  - These limitations seem too restrictive, from my perspective.
  - Site specific; no limiting amount should be specified.
  - Depends on how the materials are stored and if odors arise.
  - It depends on the vessel capacity and area in/around the system. In my experience, the ratio of incoming food to compost is about 1:1.
  - Six months' worth of storage. So, if 3,000 cubic yards of food waste comes in, blended with three times that amount in bulking agent, and a 50% reduction, I would state that 3,000 cubic yards is acceptable.
  - There should be no limit if the operation does not become a nuisance, or doesn't adversely impact local air, water, soil, land-use, etc. type operations.

b. (NJDEP): Conclusions based on attendees' responses:
   - Of the numeric choices presented, ***the majority was in favor of a storage capacity of 3,000 cubic yards. Many suggested site-specific limits dependent on facility size or other factors.***

12. Slide 33 – Question #12: "Should there be any additional training requirements other than specified in this presentation?"
    a. (Attendees): The attendees answers to the above questions were as follows:
       - "*Type-in"* – Here are the responses to the open-ended question posed here:
         - *No, these training requirements should suffice.*
         - All operators should have to take a compost course developed around food waste composting.
         - Safety training is a must, at the minimum.
         - I did not clearly understand all the training requirements. There should be more background information provided on the subject behind the specifics for each training means.
         - *No, these training requirements should suffice.*
         - Should be provided by the vendor instituting the composting system.
         - Not entirely sure, more research may need to be done.
         - You should need to take a multiple-day compost operator training course such as run by the USCC (United States Composting Council).
         - As an in-vessel operator, I think this would be a great idea to have a formal training program. This should be followed by completion of an official USCC training course. The USCC basic composting 101 information is a must.
         - Just completion of USCC training. The USCC has many resources available to assist these efforts.

- The USCC has a certification process, but I think it may be too troublesome for a small operation. So, I'd say that if it's a "larger" operation, that a certification should be required.
- Training specifically on use of equipment and general compost procedures should be a minimum. The Rutgers Certified Recycling Professional (CRP) program may suffice. The creation of a separate virtual class which covers composting basics and this specific exemption could assist.
- USCC advanced operator training would be useful.
- Our experience is that when the material becomes wet, the resultant shortened composting time turns the material into a "stink bomb" and can result in odor issues. One must be careful with these operations.
- I think a training on "how to be a good neighbor" might go a long way to getting better buy-in amongst communities.

b. (NJDEP): Conclusions based on attendees' responses:
   - ***The majority supported the requirement for training and had suggestions on different types of training.***

13. Slide 34 – Question #13: "Besides temperature, what other measurements should be taken to determine effective composting is occurring or has occurred and how often should such measurements be taken?"
    a. (Attendees): The attendees answers to the above questions were as follows:
       - (A) "Oxygen at a frequency of *(Type-in)*," – ***18.20%***
         - ***Response:***
           a. Oxygen is not needed. Pathogens are not needed, if temperature conditions and records are met. The only exceptions are that oxygen should be measured prior to sale. Also, maturity should be analyzed prior to usage.
           b. Oxygen should be measured once per week; pathogens, lead, and maturity testing should be done twice during active composting operations.
       - (B) "Pathogens at a frequency of *(Type-in)*," – ***18.20%***
         - ***Response:***
           a. Pathogens and metals should be measured at a frequency similar to Biosolids, via EPA 503 Rules. Oxygen is too variable. Maturity is based on who is going to use it, it should be left up to the market, something that is "immature" may be okay for an urban farm field, but a nursery may want a "mature" compost sample for analysis. Oxygen should be measured daily (but it is difficult/unreliable to do). Pathogens/Lead/Maturity should be done quarterly, but only if compost is being sold/donated somewhere.
           b. Quarterly USCC STA (Seal of Testing Assurance) certified lab analyses of compost, including human pathogens, should be done.
       - (C) "Lead at a frequency of *(Type-in)*," – ***0.00%***
         - ***Response:***
           a. *No responses received.*

- (D) "Maturity at a frequency of *(Type-in)*," – ***9.09%***
  - ***Response:***
    a. Maturity should be measured at a frequency of 21 days.
- (E) "Other at a frequency of *(Type-in)*," – ***18.20%***
  - ***Response:***
    a. All should be tested with each and every batch.
    b. Testing should be at least weekly, or dependent on size
- (F) "*Type-in*" - Here are the responses to the open-ended portion of option "F" received ***(27.27%)***:
  - This question is very technical and should be simplified for the regulated community and made easy for all to understand.
  - California and Washington have excellent composting regulations in place. No need to reinvent the wheel when can use the same language already in place for many years.
  - Phase 1: Active Composting 21-28 days: the active phase of the composting process that begins when organic materials are mixed together for composting and lasts until one of the following conditions is met:
    a. The organic material emits no more than seven (7) mg carbon dioxide per gram of organic material (CO_2-C) per day; or
    b. The material has a "Solvita" Maturity Index of 5 or greater; or
    c. The material has been composted for a period of at least twenty-one (21) consecutive calendar days.
  - Phase 2: Curing Composting 14-21 days: the curing phase of the composting process that begins immediately after the end of the active phase of composting and lasts until one of the following conditions is met:
    a. The organic material emits no more than four (4) mg CO_2-C per gram of organic material per day; or
    b. The compost has a "Solvita" Maturity Index of 7 or greater; or
    c. The material has been composted at least forty-two (42) consecutive calendar days, inclusive of the active composting pile.

c. (NJDEP): Conclusions based on attendees' responses:
   - No consensus, but it appeared that stakeholders were generally in favor of having ***some form of testing for most of the standards set forth in this question***.

Proposed New Exemption #20: Outdoor Food Waste Composting:

NJDEP's presentation consisted of matters relevant to the proposed and New Indoor Food Waste Composting Exempt Recycling Activity. This part of presentation focused on: operations,

buffers, compost area types, bulking agents, and curing piles. The following questions and matters were discussed:

14. Slide 44 – Question #14: "What would be an appropriate buffer distance?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) "50 ft;" – ***25.00%***
        - (B) "75 ft"; – ***6.25%***
        - (C) "100 ft"; – ***18.75%***
        - (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***50.00%***):
            - "EcoRich" machines require no buffer distance at all.
            - This should be zoning-specific.
            - Depends on the quantity of compost.
            - 300 feet should suffice for the buffer distance.
            - Depends on the throughput capacities.
            - Buffers are arbitrary. They really don't work from an odor standpoint. However, 50 feet would allow for a sound buffer and a visual barrier.
            - *This should not be exempted, in my opinion.*
            - 600 feet should suffice for the buffer distance.

    b. (NJDEP): Conclusions based on attendees' responses:
        - Of the numeric options presented, the majority were in favor of a ***50-foot buffer distance. Some suggested different factors should be considered including throughput capacities and zoning.***

15. Slide 44 – Question #15: "Should the buffer vary depending on zoning?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) "Yes," – ***60.00%***
        - (B) "No;" – ***26.67%***
        - (C) "*Type-in*" – Here are the responses to the open-ended portion of option "C" received (***13.33%***):
            - *This is up to the local entity, not the state, correct?*
            - As the residential component is out of the mix, it really does not matter.

    b. (NJDEP): Conclusions based on attendees' responses:
        - The majority of respondents were in favor of ***the buffers for this proposed operation being based on zoning.***

16. Slide 44 - Question #16: "What would be appropriate volume limitations for incoming materials, per year?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) "2,000 cubic yards, per year," – ***12.50%***

- (B) "4,000 cubic yards, per year," – ***0.00%***
- (C) "6,000 cubic yards, per year," – ***37.50%***
- (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***50.00%***):
  - Depends on materials utilized, along with location and size.
  - 5,000 cubic yards or 2,500 tons, whichever is less.
  - Depends on the amount to be processed by the facility
  - 10,000 cubic yards should be a sound limit.
  - It should be the same as the in-vessel operation: 9,000 cubic yards total (1/4 food waste, 3/4 bulking agent), in my opinion.
  - Should be based on technology throughput capacities, as related to the size of the land, and compared against the point where the NJDEP determines a general permit is needed.
  - There should not be any exemptions for this type of composting.
  - 10,000 cubic yards should be a good limit.

b. (NJDEP): Conclusions based on attendees' responses:
- Of the numeric choices presented, many selected a ***volumetric limitation for incoming material to be 6,000 cubic yards, per year. Many chose to answer in the open-ended and the write-in answers varied.***

17. Slide 45 – Question #17A (Overall #17): "What should the pile height limitation be for Active Compost pile?"
a. (Attendees): The attendees answers to the above questions were as follows:
- (A) "4 feet," – ***0.00%***
- (B) "6 feet," – ***10.00%***
- (C) "8 feet" – ***40.00%***
- (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***50.00%***):
  - Depends on technology that will be utilized for this operation.
  - 25 feet is the NFPA (National Fire Protection Association) code limit. We typically go no more than 12 feet.
  - Dependent on location and zoning.
  - 10-12 feet during pile construction, because the pile will compact and settle after a short period of time, and settle down to a height of roughly 8-9 ft.
  - 10 feet should suffice.

b. (NJDEP): Conclusions based on attendees' responses:
- Of the numeric choices presented, many selected a ***height limitation of 8 feet. Many chose to answer in the open-ended portion and the write-in answers varied.***

18. Slide 45 – Question #17B (Overall #18): "What should the pile height limitation be for the bulking agent pile?"
a. (Attendees): The attendees answers to the above questions were as follows:

- (A) "10 feet," – ***0.00%***
- (B) "15 feet," – ***30.00%***
- (C) "20 feet" – ***40.00%***
- (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***30.00%***):
  - 25 feet is the NFPA code limit. We typically go no more than 15 feet.
  - Dependent on location and zoning.
  - Should be similar to the woodchip-related storage pile height limitations, as both materials are combustible.

b. (NJDEP): Conclusions based on attendees' responses:
- Of the numeric choices present, most selected ***a 20-foot pile height limitation, for the bulking agent pile, unless local fire codes or zoning dictate otherwise.***

19. Slide 45 – Question #17C (Overall #19): "What should the pile height limitation be for the Curing Agent piles?"
a. (Attendees): The attendees answers to the above questions were as follows:
- (A) "10 feet," – ***0.00%***
- (B) "15 feet," – ***20.00%***
- (C) "20 feet" – ***50.00%***
- (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***30.00%***):
  - 25 feet is the NFPA code limit. We typically go no more than 15 feet.
  - Dependent on location and zoning.
  - 5 feet should suffice.

b. (NJDEP): Conclusions based on attendees' responses:
- Of the numeric choices present, most selected, most were in favor of ***a 20-foot height limitation for the curing agent piles, unless local fire codes or zoning ordinances state otherwise.***

20. Slide 46 – Question #18A (Overall #20): "What should the storage volume limitations be for the Bulking Agent Pile?"
a. (Attendees): The attendees answers to the above questions were as follows:
- (A) "500 cubic yards," – ***0.00%***
- (B) "1,000 cubic yards," – ***0.00%***
- (C) "2,000 cubic yards," – ***40.00%***
- (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***60.00%***):
  - It should depend on the site and the exemption capacity that the NJDEP is considering.

- Dependent on zoning; otherwise, 1000 cubic yards could work.
- 5,000 cubic yards should be perfect.
- Three times the amount of food waste coming in should be satisfactory.
- It should be proportional to the material maximums.
- 5,000 cubic yards should be satisfactory.

b. (NJDEP): Conclusions based on attendees' responses:
   - Of the numeric choices present, most selected, most were in favor of ***a limitation of 2,000 cubic yards. Some also stated that the volume should be dependent on size of the site and zoning.***

21. Slide 46 – Question #18B (Overall #21): "What should the storage volume limitations be for the Finished Compost pile?"
    a. (Attendees): The attendees answers to the above questions were as follows:
       - (A) "750 cubic yards," – ***0.00%***
       - (B) "1,000 cubic yards," – ***0.00%***
       - (C) "3,000 cubic yards," – ***30.00%***
       - (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***70.00%***):
         - *Should be similar to the limitation for the bulking agent storage piles.*
         - Dependent on zoning; otherwise, 1,000 cubic yards should work.
         - Dependent on the quantity being handled by the facility.
         - 5,000 cubic yards should be good.
         - 6,000 cubic yards could work.
         - The material should be moved out of the site as soon as possible.
         - 5,000 cubic yards should be satisfactory.

    b. (NJDEP): Conclusions based on attendees' responses:
       - Of the numeric choices presented, the narrow majority was in favor of ***the storage volume limitation being 3,000 cubic yards for the finished compost pile. Some also state that limitations should be dependent on handling capabilities and zoning.***

22. Slide 46 – Question #18C (Overall #22): "Should the compost piles be required to be maintained at 55 degrees Celsius for 3 consecutive days?"
    a. (Attendees): The attendees answers to the above questions were as follows:
       - (A) "Yes," – ***91.67%***
       - (B) "No," – ***8.33%***

    b. (NJDEP): Conclusions based on attendees' responses:
       - The overwhelming majority was in favor of ***having the compost piles be maintained at 55 degrees Celsius for 3 consecutive days, in order to ensure proper pathogen destruction.***

23. Slide 47 – Question #19 (Overall #23): "Besides the US Composting Council, Rutgers, etc., do other organizations certify food waste composting operators?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - "*Type-in*" – Here are the responses to this open-ended question received:
            - I think that the US Composting Council and Rutgers are two of the best choices.
            - Any health, safety, or environmental agencies should suffice, such as the NJDEP and others.
            - Mid-West Bio Systems would be good.
            - NJ Composting Council (which is a chapter of the USCC) would work.
            - *Not from our knowledge, at this time, but we will endeavor to find another applicable institute and let the NJDEP know.*
            - Waste Expo, WEF (the World Economic Forum), CCC (Canada Compost Council), SWANA (Solid Waste Association of North America).
            - USCC would be good. Rutgers needs to update their knowledge base on information tied to the latest technologies.

    b. (NJDEP): Conclusions based on attendees' responses:
        - The stakeholders offered ***various options for food waste composting operator certification programs.***

24. Slide 47 – Question #20 (Overall #24): "How often should operators re-certify?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) "Every year," – ***7.69%***
        - (B) "Every 3 years," – ***46.15%***
        - (C) "Every 5 years," – ***23.08%***
        - (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***23.08%***):
            - Every two years would be perfect.
            - They should be required to be certified only so often (5 years may be adequate), but required to stay up to date with regulations and best practices.
            - For as long as the exemption lasts, so long as the certified individual is still with the entity, they should regularly certify. If the designated/certified person is no longer associated with the organization, a new person should be certified as soon as possible.

    b. (NJDEP): Conclusions based on attendees' responses:
        - Of the numeric choices presented, the majority was in favor of ***having a recertification period of 3 years.***

25. Slide 47 – Question #21 (Overall #25): "Are there any additional Items to Include in Daily Records?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - "*Type-in*" – Here are the responses to the open-ended question received:

- *Not at this time.*
- *Not at this time.*
- One should follow the current Class C guidelines.
- Incoming volumes, outgoing tonnages, and temperature records should be included.
- The difference in the analysis of the food waste being processed should be examined.
- In-bound volumes, temperatures, and aerated daily blower run times should be recorded.
- Odor logs, precipitation logs, compost turning logs should be factored into the recording item list.
- *Not at this time.*

b. (NJDEP): Conclusions based on attendees' responses:
- Attendees suggested ***a variety of record keeping parameters.***

Proposed New Exemption #21: Indoor Food Waste Composting:

NJDEP's presentation consisted of matters relevant to the New and proposed exemption for indoor food waste composting, including: Engineering controls, limitations, building designs, adverse impact minimization. The following questions and matters were discussed:

26. Slide 60 – Question #22 (Overall #26): "How long should food waste be stored prior to window placement?"
    a. (Attendees): The attendees answers to the above questions were as follows:
    - (A) "Immediately," – ***18.18%***
    - (B) "Within 24-hours," – ***54.55%***
    - (C) "Within 48-hours," – ***9.09%***
    - (D) "*Type-in*" – Here are the responses to the open-ended portion of option "C" received (***18.18%***):
        - Material should be stockpiled for up to 5 days to allow for proper batch operations; food must be covered with green waste during stockpile processes.
        - Preferably as soon as possible, but maybe up to 24 hours.

    b. (NJDEP): Conclusions based on attendees' responses:

- Of the numeric choices presented, the majority was in favor of ***the food waste being placed in windrows within 24-hours of receipt.***

27. Slide 60 – Question #23 (Overall #27): "What would be an appropriate setback distance from the property line?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) "50 feet," – ***9.09%***
        - (B) "75 feet," – ***0.00%***
        - (C) "100 feet," – ***36.37%***:
        - (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***54.54%***):
            - Depends on throughput capacities and technology [e.g. Aerated Static Piles (ASPs) have governing systems in place to help with best management for these operations].
            - This may not be relevant, as the only purpose is visual and for noise reduction.
            - Dependent on zoning rural, urban, etc.
            - Setbacks are probably not the best method to mitigate odors.
            - I am conflicted on the setback distances because as it's been pointed out, odorous piles smell from a great distance away and properly managed ones don't smell close-up *quite* as much.
            - Dependent on zoning and other factors.

    b. (NJDEP): Conclusions based on attendees' responses:
        - Of the numeric choices presented, a slight majority was in favor of ***a 100-foot buffer, Others suggested that other factors should be considered including the throughout capacities and zoning***.

28. Slide 60 – Question #24 (Overall #28): "What would be an appropriate on-site storage volume of finished compost?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) "5,000 cubic yards," – ***0.00%***
        - (B) "7,500 cubic yards," – ***10.00%***
        - (C) "10,000 cubic yards," – ***30.00%***:
        - (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***60.00%***):
            - Dependent on throughputs. For the exemption-scale, I'll go with my same answer as the others: 6,000 cubic yards.
            - 3,000 cubic yards should be good.
            - Dependent on size of facility and scope and technology. This should also be a tiered approach. As others have mentioned, ASPs and their technological management systems in place can help with proper operation conductance and maintenance.
            - Dependent on zoning areas (suburban, rural, urban, etc.).

- Needs to be proportional to permitted food waste volumes.
- Same as throughput volume proposed limitation.

b. (NJDEP): Conclusions based on attendees' responses:
- Of the numeric choices presented, the majority was in favor of ***a 10,000 cubic yard on-site storage limitation. Some suggested that other factors should be considered including throughout capacities and zoning.***

29. Slide 61 – Question #25 (Overall #29): "What should the maximum limitation amount be for bulking agent material storage?"
a. (Attendees): The attendees answers to the above questions were as follows:
- (A) "5,000 cubic yards," – ***22.22%***
- (B) "7,500 cubic yards," – ***11.11%***
- (C) "10,000 cubic yards," – ***33.33%***:
- (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***33.33%***):
  - Depends on technology that will be utilized for these operations [e.g. ASPs and their administrative systems and technology that facilitate proper operational management procedures].
  - Three times the incoming material.
  - 3,000 cubic yards should work.

b. (NJDEP): Conclusions based on attendees' responses:
- Of the numeric choices presented, the majority was in favor of ***having a 10,000 cubic yard bulking agent storage limitation suggested that other factors should be considered including type of technology.***

30. Slide 61 – Question #26 (Overall #30): "What should the maximum throughput capacity be, per year?"
a. (Attendees): The attendees answers to the above questions were as follows:
- (A) "2,500 cubic yards," – ***10.00%***
- (B) "5,000 cubic yards," – ***20.00%***
- (C) "10,000 cubic yards," – ***30.00%***:
- (D) "*Type-in*" – Here are the responses to the open-ended portion of option "D" received (***40.00%***):
  - Create a tiered approach. This is too arbitrary and that will assist.
  - 6,000 cubic yards should work.
  - 5,000 cubic yards or 2,500 tons, whichever is less.
  - None, this should not be allowed to be exempted.

b. (NJDEP): Conclusions based on attendees' responses:
- Of the numeric choices presented, the majority was in favor of ***having a maximum throughput limitation of 10,000 cubic yards. Some suggested other volumes and a tiered approach.***

31. Slide 62 – Question #27 (Overall #31): "Should oxygen levels be required to be monitored for these operations?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) "Yes," – ***77.78%***
        - (B) "No," – ***22.22%***

    b. (NJDEP): Conclusions based on attendees' responses:
        - The overwhelming majority was in favor of ***oxygen levels being required to be monitored.***

32. Slide 62 – Question #28 (Overall #32): "If there are other parameters to be measured, what are they and what frequency should they be measured at?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - "*Type-in*" – Here are the responses to the open-ended question received:
            - Temperature and pathogens at the end are all that matter for recording and maintenance and operational purposes.
            - Only temperature, just like the other composting technologies, should be monitored.
            - Successful facility operators will know the answers to these questions. That being said, contact the top organizations across the country to gain the best feedback to assist with this process.
            - Temperatures, toxins, etc. are important to control.
            - If there are noxious fumes, they should fall under the appropriate requirement and be controlled.
            - Temperature, blower daily run times, O_2, periodic moisture, bulk density period, etc. should be watched.
            - ASP-type conditions should also be factored into these calculations, as different technologies are being put forth to help maintain the compost piles that will be the subject of this exemption.
            - Same as required for Class C compost facilities: (1) oxygen levels, (2) maturity, (3) pathogens, (4) 503 pollutants, and at least twice during the active composting process.
            - Continual monitoring of operations should be done.

    b. (NJDEP): Conclusions based on attendees' responses:
        - The majority was in favor of ***temperature and pathogen destruction being measured. Some suggested other factors including pathogens, oxygen, moisture, etc.***

33. Slide 63 – Question #29 (Overall #33): "Are there any other factors that should be considered for inclusion within this new and proposed exemption?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - "*Type-in*" – Here are the responses to the open-ended question received:
            - Should consider a tiered permit approach. This appears far too arbitrary and appears difficult to administer.

- *Unsure at this time, may follow-up with email feedback.*
- *Unsure at this time, may follow-up with email feedback.*
- *Will BPI (Biodegradable Products Institute) compostable products be accepted?*
- Yes, this should not be an exempted facility. Make this another part of the tiered approach. As an exempt facility, odors are difficult to control.
- *Will soil amendment from composting machines fall under this requirement?*
- Leachate from an indoor facility will likely need to be controlled via sanitary drains.
- Food waste management here should be excluded to operations that produce usable compost.
- *Unsure at this time, may follow-up with email feedback.*
- In my opinion, the composting technologies should be treated the same. Instead of specifying a cover, building, in-vessel, I suggest that you provide parameters. These parameters can be the following: (1) no leachate shall leave the site, (2) *X* cubic yards of material may be on site at any one site, (3) volumes should be constantly monitored, etc. This should be the same for all technologies, especially because the "technology" could break, fail, etc. In that case, one would be left with an unideal situation because one didn't engineer a leachate control system (for example).
- I really don't think this should be fully exempted, nor synthetic cover systems as well. I highly encourage NJDEP to use the volume-based tier approach. Especially if it's fully enclosed. It may visually look good, but the process could be problematic if it's not designed correctly. I'd be less worried about open-walled structures or partly enclosed vs. fully enclosed. It is much more difficult to manage a fully enclosed building.

b. (NJDEP): Conclusions based on attendees' responses:
   - The stakeholders offered multiple different suggestions including ***a potential tiered-system, to best management practice (BMP) implementation, to technological considerations, and more.***

General:

NJDEP's presentation consisted of broad questions, comments, and concerns from the meeting that do not fall under a singular exemption. As such, the following questions and matters were discussed:

34. Slide 64 – Question #30 (Overall #34): "Has anyone experienced any issues with these exemptions that have not been discussed today?"
    a. (Attendees): The attendees answers to the above questions were as follows:
       - (A) "Yes (*Type-in*)" – ***18.18%***
       - (B) "No" – ***63.63%***
       - (C) "*Type-in*" – Here are the responses to the open-ended portion of option received ***(18.18%):***

- No, as we have experience with many small- and large-scale compost facilities. Proper design and best practices are essential. Poor practices result in odors and poor-quality compost.
- Yes, the in-vessel composting produces a hot unstable product that can turn into a "stink bomb" when rewetted and improperly managed. One must be careful.

b. (NJDEP): Conclusions based on attendees' responses:
- The majority of responders to these questions have experience ***no issues with exempt operations. Some have noted that BMPs should be included, along with odor control technology***.

35. Slide 64 – Question #31 (Overall #35): "Does anyone have any alternative ideas to improve these exemptions?"

a. (Attendees): The attendees answers to the above questions were as follows:
- (A) "Yes (*Type*-in)" – ***37.50%***
- (B) "No" – ***12.50%***
- (C) "*Type-in*" – Here are the responses to the open-ended portion of option received ***(50.00%):***
  - I liked the idea of doing these exemptions based on volume.
  - Yes and, as noted prior, consider tiered permitting.
  - Anything above a micro-scale should be part of a tiered permit approach. If left un-checked, this will get out of control and some operators will take advantage of the program.
  - Yes, I would encourage the use of covered membrane systems or roofed/enclosed structures.
  - The transfer station question made me think that generators should secure their disposal site before they begin a food waste collection program. Generators and haulers will also need corresponding base-education.
  - Yes, I am concerned that the NJDEP is trying to pick technologies rather than stating outcomes (odor is controlled, water runoff managed, etc.) and allowing the operator to meet the requirements. Volume limits are encouraged. NJCC offered a consistent model across technologies, so it is easier for regulators at small volumes and a tiered-approach should be implemented above that.
  - Yes, just make it easy and create one exemption based on volume, regardless of technology used. A gas-cover aerated system (such as an ASP) could be the same as an aerated blower system using a compost cover under a roof, if the intent here is to minimize contact water.
  - ASP manufacturers should be considered to assist with the technological feasibility aspect of this exemption and the others.
  - Yes, make the in-vessel folks meet time and maturity; the rest of us have to apply to land or bag them.

b. (NJDEP): Conclusions based on attendees' responses:

- The stakeholders had various alternative ideas for these proposed exemptions, and expressed that the ***tiered approach could be invaluable, additional technological considerations may have to be made, volume & time limitations could be useful, and more***.

36. Slide 64 – Question #32 (Overall #36): “"Anything else?"
    a. (Attendees): The attendees answers to the above questions were as follows:
        - “*Type-in/Open-Ended*” - Here are the responses to the open-ended portion of this question received:
            - *Thank you.*
            - Biggest issue with the exclusion is the need for air and water permits. The need for air or water at a small-scale exclusion is counterintuitive. That will destroy the exclusion you are seeking to create. As for exemptions, work on performance-based findings rather than arbitrary findings.
            - *This meeting format was a fantastic idea! Thanks for allowing me to be a part of it.*
            - Run a demo/pilot-scale experiment for covered membrane compost systems and ASPs to demonstrate to the community their optimal functionalities.
            - *So grateful this conversation is starting.*
            - Does the outdoor composting exemption allow for meat and dairy?
            - Exemptions need to be enforced with more regular examinations. It's left to the counties and municipalities. I think this is asking for major regulatory issues. Who is going to check this recordkeeping until there is a problem? Needs to be a proactive system in-place to minimize issues.
            - *Thank you for the effort put in here, it seems like you are trying your best, so thank you! I hope AQ (Air Quality) and Water Management follow your steps!*

    b. (NJDEP): Conclusions based on attendees’ responses:
        - The stakeholders expressed that they ***enjoyed the meeting format and wanted to bring up potential pilot-scale tests for these exemptions, clear guidance being introduced for other program contingencies, and more***.

37. Slide 68 – Question #33 (Overall #37): “Should the Department require that the holder of the exemption post on its' website all the local and other applicable approvals held to support the subject exemption?”
    a. (Attendees): The attendees answers to the above questions were as follows:
        - (A) “Yes (Type-in)” – ***82.35%***
        - (B) “No” – ***5.88%***
        - (C) “*Type-in*” – Here are the responses to the open-ended portion of option received ***(11.76%):***
            - Yes – this should be posted on the site. It is too easy to get an exemption and be in non-compliance. This will help with management operations.
            - I suppose if you have to have the exemptions and approvals it doesn't hurt to post them on your website, as it should help the NJDEP especially.

b. (NJDEP): Conclusions based on attendees' responses:
   - The majority were in favor of requiring ***exemption operators to post all approvals obtained on their websites.***

38. Slide 69 – Question #34 (Overall #38): "Should the exemption holder's name, exemptions held and contact information be required to be securely and physically posted on-site in a manner that is plainly visible to the public?"
    a. (Attendees): The attendees answers to the above questions were as follows:
       - (A) "Yes (Type-in)," – ***59.09%***
       - (B) "No." – ***9.09%***
       - (C) "Type-in" – ***31.81%*** | Here are the responses to the open-ended portion of option "C" received:
         - Yes, and I believe it is currently required. If not, it should be.
         - Yes, and so it may provide complete transparency.
         - No, a placard or certificate in the office, or on file is sufficient.
         - Yes, the facility should be identified just as a NJDEP permitted or exempted facility.
         - Depending on the size of the site, say a community garden, a sign of any meaningful purpose might be costly (pen and paper won't last, for example).
         - Invites NIMBY issues and the class action lawsuit lawyers who flyer neighborhoods to generate clients for problems that do not exist. One must be careful
         - Yes, the contact information and type of exemption should be included, at a minimum.

    b. (NJDEP): Conclusions based on attendees' responses:
       - Most were in support of the ***exemption holder posting relevant site-specific information on a clearly visible sign/equivalent at their facilities***.

39. Slide 71 – Question #35 (Overall #39): "How did we do? Brief responses are much appreciated!"
    a. (Attendees): The attendees answers to the above questions were as follows:
       - "*Type-in*" Here are the responses to the open-ended portion of this option received:
         - Great, well presented, informative topics and allowance for input is appreciated.
         - You did very well. This was a good deal of information discussed, and it was well organized. The proof will, of course, be in the final rules. From my experience, if everyone is a bit upset, you did a great job!
         - You provided an adequate first opportunity for Stakeholder input. That written, I believe there is need for a substantial revision to what was proposed today.
         - Attending via the virtual functionality is perfect. Thank you.
         - You covered lots of information. I am new to this business and found it very interesting.

- Thanks again!
- Great! Really appreciate all your hard work!
- Great! Super well organized and very informative. I really felt like the stakeholders' voices were heard. I think we're going to work this out together.

b. (NJDEP): Conclusions based on attendees' responses:
- The overwhelming majority thought that the presentation was ***well put together, organized, quite informative, and helpful!***

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 state website for general recycling information.

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