

January 10, 2008

Les Trobman, General Counsel
Texas Commission on Environmental Quality
PO Box 13087
Austin Texas 78711-3087

Re: SOAH Docket No. 582-06-0839; TCEQ Docket No. 2005-1510-MSW; In Re: Application by Roy Eugene Donaldson, II, for a Type V-RC Municipal Solid Waste Permit in Travis County, Texas (MSW Permit No. 2320)

Dear Mr. Trobman:

The above-referenced matter will be considered by the Texas Commission on Environmental Quality on a date and time to be determined by the Chief Clerk's Office in Room 201S of Building E, 12118 N. Interstate 35, Austin, Texas.

Enclosed are copies of the Proposal for Decision and Order that have been recommended to the Commission for approval. Any party may file exceptions or briefs by filing the original documents with the Chief Clerk of the Texas Commission on Environmental Quality no later than January 30, 2008. Any replies to exceptions or briefs must be filed in the same manner no later than February 11, 2008.

This matter has been designated **TCEQ Docket No. 2005-1510-MSW; SOAH Docket No. 582-06-0839**. All documents to be filed must clearly reference these assigned docket numbers. Copies of all exceptions, briefs and replies must be served promptly on the State Office of Administrative Hearings and all parties. Certification of service to the above parties and an **original and eleven copies** shall be furnished to the Chief Clerk of the Commission. Failure to provide copies may be grounds for withholding consideration of the pleadings.

Sincerely,

Cassandra J. Church
Administrative Law Judge
State Office of Administrative Hearings

Roy G. Scudday
Administrative Law Judge
State Office of Administrative Hearings

CJC/RGS/ds
Enclosures
cc: Mailing List

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PROPOSAL FOR DECISION

I. INTRODUCTION

Roy Eugene Donaldson, II, (RED) has applied to the Texas Commission on Environmental Quality (TCEQ or Commission) for a Type V-RC municipal solid waste permit authorizing operation of a composting facility (the Facility) on a 15-acre site (the Site) in southeast Travis County, Texas. The proposed permit does not authorize a discharge into waters in the state. The Site has been operated as a composting facility under registration since 1998. The Site is near the intersection of Goforth Road and County Road 177 and is currently surrounded primarily by pasture land within a one-mile radius.

The Administrative Law Judges (ALJs) recommend that the Commission deny the requested permit application on the grounds that RED failed to meet his burden of proof to show that the proposed operation of the Facility would protect groundwater and surface water and also to show that the operation adequately protected against the delivery of unauthorized and prohibited materials at the Site and the introduction of prohibited materials into the composting feedstocks. The ALJs also found that RED met his burden of proof in regard to all other issues referred by the Commission for consideration in the contested case hearing.

II. PROCEDURAL HISTORY

RED's application was filed in August 2004. The ED recommended issuance of the permit and published the requisite notices. The application was protested and on November 30, 2006, the Commission referred eight environmental-impact issues for a contested case hearing and named five persons as affected persons. The five persons named were Ann Messer, Julie Moore, Juli Phillips, M. D. Thomson, and H. Philip Whitworth (Protestants). No protestants other than these five persons appeared at the preliminary hearing, conducted on February 13, 2006, or at the second preliminary hearing held on August 2, 2007. A second preliminary hearing was required

due to the determination in September 2006 that amendments to the application that RED proposed in June 2006 constituted major amendments to the application, pursuant to 30 TEX. ADMIN. CODE (TAC) § 305.62, necessitating re-notification. Prior to the amendments, the parties had conducted discovery and a hearing date had been scheduled.

In the June 2006 amendments, RED revised the Site Operating Plan (SOP) in regard to carbon/nitrogen (C/N) monitoring, enlarged the run-off retention pond (the Pond), moved monitor well (MW) locations, added a monitoring well location, and recalculated the water balance based on the enlarged Pond capacity. On March 29, 2007, the ED recommended approval of RED's application as amended and prepared a Draft Permit. The ED recommended some minor special conditions, particularly in regard to the monitor wells, that are described below.

The hearing on the merits was conducted in Austin, Texas, on September 19 and 20, 2007, by ALJs Cassandra J. Church and Roy G. Scudday. The record closed on November 16, 2007, upon filing of a transcript and the parties' briefs.

RED was represented by Christopher Malish, attorney. The Protestants were represented by J. D. Head, attorney. The Office of Public Interest Counsel (OPIC) was represented by Emily Collins, attorney. The Executive Director of Texas Commission on Environmental Quality (ED) did not participate in the proceeding.

III. APPLICABLE LAW

RED's application is governed by TEX. HEALTH & SAFETY CODE ANN. ch. 361, and rules adopted thereunder found at 30 TAC ch. 332.¹ Although operating under registration, RED was

¹ General authority to regulate water quality in the state is set forth in TEX. WATER CODE ANN. ch. 26 (Water Code).

required to seek a permit in order to continue its operation of the Facility.² The term of the Draft Permit is indefinite and, absent direction from the ED to close the Facility for violations of applicable law, would continue in effect until RED closes or abandons the Facility.³

A. Statutes and Rules

Composting consists of the diversion of organic materials from the typical municipal solid waste stream and the beneficial reuse of those materials while maintaining standards for human health and safety and environmental protection.⁴ Such use is defined as beneficial when the compost is used as a soil amendment, mulch, or component of a medium for plant growth; when used in accordance with generally accepted practice; and, where applicable, is in compliance with final product standards.⁵ The permitted operations must comply with the Texas Water Code, be conducted in a sanitary manner that will prevent the creation of nuisance conditions, not discharge material to or pollute surface water or groundwater as a result of the beneficial use, and be conducted in such a manner as to ensure that no unauthorized or prohibited materials are processed at the facility.⁶

Composting facilities shall be located outside of the 100-year floodplain; shall not significantly alter existing drainage patterns; shall not be located in wetlands; shall be located at least 500 feet from all public water wells and at least 150 feet from private water wells; shall be located at least 100 feet from creeks, rivers, intermittent streams, bayous, bays, estuaries, or other

² TEX. HEALTH & SAFETY CODE ANN. § 361.428.

³ App. Ex. A-5, p. 7.

⁴ 30 TAC § 332.1.

⁵ 30 TAC § 332.2(8).

⁶ 30 TAC § 332.4.

surface waters of or in the State; and shall have at least a 50 feet set-back distance from the facility boundary to the areas for receiving, processing, or storing feedstock or final product.⁷

Composting operations must have permanent in-plant roads and vehicle work areas watered, treated with dust-suppressant chemical, or paved and cleaned as necessary to achieve maximum control of dust emissions.⁸ Prior to receiving any material with a high odor potential, such as sewage sludge and grease trap waste, the operator shall insure that there is an adequate volume of bulking material to blend with or cover the potentially-odorous material and shall begin processing the material in a manner that prevents nuisances.⁹ All material shall be conveyed mechanically, or if conveyed pneumatically, the conveying air shall be vented to the atmosphere through a fabric filter.¹⁰ The receiving chamber on all grinders shall be adequately filled prior to commencement of grinding and remain filled during grinding operations to minimize emissions from the receiving chamber, or grinding operations shall occur inside an enclosed structure. All grinders not enclosed inside a building shall be equipped with low-velocity fog nozzles spaced to create a continuous fog curtain or the operator shall have portable watering equipment available during the grinding operation.¹¹ All conveyors which off-load materials from grinders at a point that is not enclosed inside a building shall have available a water or mechanical dust suppression system.¹² All activities which could result in increased odor emissions such as turning of compost piles shall be conducted in a manner that does not create nuisance conditions or shall be conducted inside a controlled building.¹³

⁷ 30 TAC § 332.44.

⁸ 30 TAC § 332.8(e)(1).

⁹ 30 TAC § 332.8(e)(2).

¹⁰ 30 TAC § 332.8(e)(3).

¹¹ 30 TAC § 332.8(e)(4).

¹² 30 TAC § 332.8(e)(5).

¹³ 30 TAC § 332.8(e)(6).

Under the terms of 30 TAC § 332.45(1), a permitted composting operation shall provide for protection of surface water as follows:

The operation of the facility shall comply with all of the following operation requirements.

(1) Protection of surface water. The facility shall be constructed, maintained and operated to manage run-on and run-off during a 25-year, 24-hour rainfall event and shall prevent discharge into waters in the state of feedstock material, including but not limited to in-process and/or processed materials. Any waters coming into contact with feedstock, in-process, and processed materials shall be considered leachate. Leachate shall be contained in retention facilities until it is reapplied on piles of feedstock, in-process, or unprocessed materials, or it is disposed or treated. The retention facilities shall be lined and the liner shall be constructed in compliance with § 332.47(6)(C) of this title (relating to Permit Application Preparation). Leachate may be treated and processed at an authorized facility or as authorized by an NPDES permit. The use of leachate in any processing shall be conducted in a manner that does not contaminate the final product.

Under the terms of 30 TAC § 332.45(2), a permitted composting operation shall be constructed, maintained, and operated to protect groundwater. The rule setting forth the specific requirements for groundwater protection, 30 TAC § 332.47(6)(C), requires an operator to do the following to protect groundwater, including perched water or shallow surface infiltration:

(6) Facility development. To assist the executive director in evaluating the impact of the facility on the environment, the applicant shall provide the following:

...

(C) Groundwater protection plan. The application shall demonstrate that the facility is designed so as not to contaminate the groundwater and so as to protect the existing groundwater quality from degradation. For the purposes of these sections, protection of the groundwater includes the protection of perched water or shallow surface infiltration.

A groundwater protection plan must include, at a minimum, a liner system, a groundwater monitoring system, and a sampling program to collect data from the monitoring system. An operator must establish background levels for certain heavy metals and also for other water characteristics, including its elevation, nitrates, and alkalinity. After establishing background values for the constituents and characteristics of concern, an operator must sample the wells annually.¹⁴

The term “water” or “water in the state” is broadly defined in Section 26.001(5) of the Water Code. That section, applicable to MSW operations including composting, states as follows:

(5) “Water” or “water in the state” means groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the bed and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

In order to isolate water or leachate on the Site from waters in the state, the composting facility must install a liner as a barrier to water movement. The liner for a composting operation must meet certain technical criteria and may consist of a constructed clay liner, an *in situ* clay liner, or a manufactured liner. The requirements for liners are set forth in the 1994 Liner Construction and Testing Handbook (Liner Handbook).¹⁵ An applicant proposing to use an *in situ* liner must demonstrate, by analyzing a site’s soils and groundwater characteristics, that those on-site soils will meet the requirements for groundwater protection.¹⁶ The Liner Handbook anticipates that in order for either an *in situ* or a constructed liner to meet the groundwater protection requirements,

¹⁴ 30 TAC § 332.47(6)(C)(ii).

¹⁵ Protestants’ (Prot.) Ex. P-C-12 (Also at App. Exh. A-3, pp. 193-286) Liner Handbook.

¹⁶ Prot. Ex. P- C-12, § 2.1, p .6.

liner quality assurance/quality control test data must be gathered under an approved soils and liner quality control plan (SLQCP) and then must be submitted in a soil and liner evaluation report (SLER).¹⁷

An applicant must demonstrate that it can control or contain anticipated run-on to and run-off from the proposed site. To demonstrate this, an applicant must provide a design for a run-on control system capable of preventing flow onto the facility during the peak discharge from at least a 25-year, 24-hour rainfall event; a design for a run-off management system to collect and control at least the peak discharge from the facility generated by a 25-year, 24-hour rainfall event; and a design for a contaminated water collection system to collect and contain all leachate.¹⁸ Calculations for sizing containment facilities for leachate shall be determined by a mass balance based on the facility's proposed leachate disposal method.¹⁹

A permitted composting operation shall prevent the delivery of unauthorized or prohibited materials;²⁰ control access to the facility to prevent the unauthorized disposal of unauthorized and prohibited materials and scavenging;²¹ be sited and operated in such a manner as to prevent the potential of nuisance conditions and fire hazards;²² utilize functionally-aerobic composting methods,²³ not allow the application to or incorporation into feedstocks, in-process materials, or fungicides, herbicides, insecticides or other prohibited pesticides;²⁴ meet compost

¹⁷ Prot. Ex. P-C-12, § 2.9, p. 25.

¹⁸ 30 TAC § 332.47(6)(A).

¹⁹ 30 TAC § 332.47(6)(A)(iv)(III).

²⁰ 30 TAC § 332.45(3).

²¹ 30 TAC § 332.45(4).

²² 30 TAC § 332.45(5).

²³ 30 TAC § 332.45(6).

²⁴ 30 TAC § 332.45(6).

testing requirement and final product grades, and label all materials which are sold or distributed;²⁵ and also have the capacity to perform corrective action to address any release of a chemical of concern to any environmental media.²⁶

Composting operations are subject to the general rules regarding prevention of nuisance conditions. The Commission's air quality nuisance definition, 30 TAC § 101.4, states as follows:

No person shall discharge from any source whatsoever one or more air contaminants or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property or as to interfere with the normal use and enjoyment of animal life, vegetation, or property.

B. Burden of Proof

The applicable rules state that all composting facilities shall comply with all general requirements for such facilities. Among those general requirements are compliance with the Texas Water Code to prevent discharge or pollution of surface or groundwater, to prevent nuisance conditions, and to avoid endangering human health and welfare, or the environment.²⁷ The majority of the rules on composting set out in-depth requirements that vary depending on the soils, water and climate conditions, and terrain found at the site of the operation.

RED asserted that he could meet his burden of proof on all the environmental protection issues solely by demonstrating that RED's operation could meet the minimum legal standards.²⁸ However, in light of the overarching requirements in the statutes and rules for compliance with all

²⁵ 30 TAC §§ 332.45(11), 332.71, and 333.72.

²⁶ 30 TAC § 332.45(13).

²⁷ 30 TAC § 332.4.

²⁸ 30 TAC § 80.17(a).

environmental safeguards, the ALJs concluded that RED has the burden of proof to show both that RED's operation will meet the minimum standards for a composting facility and also, as regards the particular environmental conditions found at the Site, that meeting the minimum standards will provide all required environmental safeguards.

C. Current Operations

One difficulty presented by this case is the fact that RED was essentially requesting that the construction standards applicable to a "greenfield," or a new facility, be applied to its construction. RED asserted that his only burden was to show that his future operation would be compliant with the terms of the Draft Permit and that his current operations were irrelevant. For their part, Protestants contended that any deficiencies in the current operation indicated a substandard operation and raised questions about RED's capacity to operate a facility that would not adversely affect the environment.

This is not a question of an adverse enforcement history, within the definition applied by the Commission. As will be discussed, there was only one outstanding Notice of Violation (NOV) regarding seepage from the Pond. Indeed, RED did not disavow his current operation but rather pointed to the lack of violations and the successful seven-year history of operation under registration to bolster his case. Several assertions in RED's application relied on information from the current operations, most particularly, the composition of the liner under the Processing area and the Pond. RED relied on that information without additional extensive testing or evaluation, and the Draft Permit, in turn, relied on the application. Thus, the ALJs concluded that RED put the current operation in issue in his application and through testimony and argument made in the course of the contested case hearing. That being the case, the ALJs analyzed some elements of the current operation in forming their conclusions about potential adverse environmental impacts from RED's future operations. In particular, the ALJs examined information on those topics in which RED, as

the current operator and creator of the Facility, was in the best position to have and bring forward information about the condition of the Site relevant to the future operation.

IV. SITE HISTORY AND PROPOSED PERMIT TERMS

A. Site and Facility

In 1998, RED obtained a TCEQ registration to operate the 15.3-acre Site as a municipal waste composting facility.²⁹ The Site is on leased land that is part of a 280-acre tract. The surrounding land is pasture land, although Mark Van Sickle, RED's manager, noted the imminence of development, including residential construction, in the vicinity. Currently, the nearest occupied residence is approximately one-half mile from the Site. The City of Creedmore is the community nearest the Site. The Site is not located within any wetland area, within 500 feet of any public or private water wells, over the Edward Aquifer Recharge Zone, or over any commercially-used aquifers at a depth of less than 300 feet. It is located between 200-500 feet from Cowpen Creek.³⁰

The Site is relatively flat, with a shallow slope to the southwest and to the northeast.³¹ It is located over a clay-type surface layer mixed with gravel deposits, with weathered layers of the Taylor Navarro formation to a depth of approximately 40 to 43 feet. At an approximate depth of between 40 to 43 feet, which varies somewhat across the Site, is found the top of the unweathered Taylor Navarro formation. The deep aquifers in the area lie between 700 to 1,000 feet below the top of the unweathered Taylor Navarro formation. Specifically, the Facility is located in two geological formations: the Pleistocene "High Gravel Deposits" and the Cretaceous "Upper Taylor Marl" that

²⁹ As no other owner or operator was mentioned, the ALJs have assumed RED has been the sole operator of the Facility. The registration itself is not in the record.

³⁰ App. Ex. A-3, p. 34 (Off-site Drainage Area Map).

³¹ App. Ex. A-3, pp. 38 and 160, Prot. Ex. P-C-3 (Photographs of Site).

both lie above the Taylor Narvarro formation. The High Gravel Deposits are a silty clay underlain by sand and gravel deposits, typically less than 30 feet thick that yield small to moderate quantities of fresh to moderately-saline water. The Upper Taylor Marl has similar water yields and is bedded with calcareous clays, and, in some layers, is fractured.³² The high gravels are recharged by rainfall. The implications of these underlying formations for operation of the Facility will be discussed in more detail in the sections on surface and groundwater protection.

The Facility comprises four tanks for temporary storage of incoming feedstocks (the Tanks), an area for storage, grinding, and initial incorporation of feedstocks (the Processing Area), 23 compost windrows (the Windrows), the Pond, and a post-processing mixing area (the Mixing Area).³³ The Pond capacity is currently 424,403 cubic feet. Under the terms of the Draft Permit, the Pond capacity would be enlarged to 555,536 cubic feet. The degree to which the Pond and the various processing and storage areas are lined was a subject of debate. RED represented that an *in situ* clay liner was put in place in 1998. The characteristics of the liner material will be discussed in more detail below.

RED's operations have been much the same throughout the nine-year period since it received a registration. Grease trap waste (the Waste) is mixed with wood chips and yard trimmings and wetted. The Waste is a high-moisture, low-nitrogen feedstock. RED then adds a proprietary mix of yeast, enzymes, and molds to foster or induce the decomposition process. The Waste is received from institutional kitchens such as restaurants, schools, prisons, and hotels.³⁴ After mixing and wetting, the wood-Waste mixture is moved into the Windrows. They are approximately six to eight feet high. The mixture of feedstocks is then allowed to decompose until

³² App. Ex. A-3, pp. 157-182 (Subsurface Investigation Report [the Holt Report]) and 173-177.

³³ App. Ex. A-3.

³⁴ App. Ex. A-10, p. 1.

the product reaches a mature, marketable stage. RED periodically wets and aerates the Windrows and monitors them for temperature.

After testing for certain contaminants, including heavy metals, pathogens, pH, and salinity, RED markets the material as Class 1 compost. The bulk material RED sells is traced using a ticketing system indicating the buyer, the buyer's address, and the buyer's telephone number. The permit application contemplates the same marketing scheme as RED conducts under his registration.

B. Draft Permit Terms

Overall, the Draft Permit endorsed the SOP and other operation and construction details proposed by RED in its application. Most provisions appear to be standard terms and conditions.

The Draft Permit requires RED to install a liner under all feedstock receiving, mixing, composting, post-processing, screening, and storage areas.³⁵ The Draft Permit does not specify the liner material, but requires that it be a material designed to withstand normal traffic from the composting operations and be as specified in the application. RED's application represents that the Site was constructed over a two-foot *in situ* clay liner that met the guidelines of the Liner Handbook.³⁶ However, no SLQCP or SLER regarding this liner was provided by RED.

The Draft Permit requires that the Pond include a clay liner having a minimum thickness of two feet and a hydraulic conductivity of no less than 1×10^{-7} cm/sec, as specified in the application.³⁷ The application states that RED will test the Pond liner for compliance with the Draft

³⁵ App. Ex. A-5.

³⁶ App. Ex. A-3, p. 48.

³⁷ App. Ex. A-5, p. 5 of the Draft Permit.

Permit standard or construct a liner in the Pond to meet the standard when the enlargement is completed.³⁸ RED is also installing two 50-gallon-per-minute (gpm) submersible pumps in the Pond to improve the use of retained water for wetting the compost.

In additional permit conditions issued in March 2007, the ED recommended that RED screen the two monitoring wells at the interface of the High Gravel Deposits and the Taylor Navarro formation, and also sample each monitoring well annually for nitrates.³⁹ The wells to be screened include MW No. 3, located adjacent to the Pond, and MW No. 7, an additional monitoring well required by the ED. MW No. 7 will be located at the Pond.

Although RED is currently only composting the Waste and wood, the Draft Permit would permit RED to take up to 1,000 tons per year (T/Y) each of municipal sewage sludge and septage, in addition to 2,500 T/Y of grease trap waste.⁴⁰ RED would be authorized to take paper, cardboard, yard trimmings, and vegetative food matter.⁴¹ By comparison, RED currently processes what Mr. Van Sickle termed a small amount of septage from one source. He stated that although RED has no immediate plans to increase the use of sludge or septage, he wanted to have the flexibility to do so, particularly as the vicinity of the Facility is being developed. He said that, if needed, the Facility would be able to take septage or sludge from nearby developments.⁴²

Having considered all the evidence and the indefinite term of the permit, the ALJs concluded that the application must be reviewed for adequacy of the Facility to handle the

³⁸ App. Ex. A-3, pp. 32-34.

³⁹ The third revision proposed appears to correct a typographical error, requiring establishment of a background groundwater concentration for Manganese in lieu of Magnesium. App. Ex. A-5.

⁴⁰ App. Ex. A-3, p. 8, and A-5, p. 3.

⁴¹ App. Ex. A-3, p. 3.

⁴² Tr. 243-244.

environmental impacts of all potential feedstocks allowed, not just the Waste that RED currently processes. These impacts may be intensified by the use of septage and sewage sludge, both of which are high-nitrogen feedstocks.

V. ENVIRONMENTAL IMPACTS

All issues referred by the Commission concerned potential adverse environmental impacts that may arise from operation of the Facility.⁴³

A. **Whether odor from the Facility will cause nuisance conditions interfering with the use and enjoyment of the Protestants' property.**

The rules provide that permitted operations must be conducted in a sanitary manner that will prevent the creation of nuisance conditions such as the creation of odors adverse to human health, safety, or welfare.⁴⁴ Prior to receiving any material with a high odor potential such as sewage sludge and grease trap waste, the operator shall insure that there is an adequate volume of bulking material to blend with or cover the material and shall begin processing the material in a manner that prevents nuisances.⁴⁵ As currently operated, the only materials being processed at the Facility, with the exception of a small amount of septage, are the Waste and wood chips. RED controls odors produced by those feedstocks by several means. One means is the use of microbes that consume odor as they process the material.⁴⁶ RED also tills the material to prevent anaerobic action that would cause odors. Specifically, RED tills the mixing piles as soon as all the elements are incorporated and also tills and sprays them daily, early in the morning, to minimize odors.

⁴³ App. Ex. A-1. The issues are listed below with the alphabetical designation that appeared in the Commission's referral order.

⁴⁴ 30 TAC § 332.2(35).

⁴⁵ 30 TAC § 332.8(e)(2).

⁴⁶ App. Ex. A-10, pp. 1-2.

RED's SOP also provides for daily inspection and cleaning of the Processing area to ensure cleanliness and odor control, and also to ensure that adequate amounts of bulking material are on hand to process incoming feedstocks.

The TCEQ has not cited the Facility for nuisance odor violations and there is no evidence that Protestants have experienced nuisance-level odors that interfered with the use and enjoyment of their property from the current operation.

If RED accepts septage and sludge, in addition to the other odor-control means, RED will have to accurately determine the C/N ratio and the moisture content of all the materials in its mixtures in order to effectively reduce or control odors from those high-nitrogen feedstocks. The C/N ratio enables an operator to assure that it uses the proper mixture of feedstock, bulking material, and moisture to reduce or control nuisance odors. RED's SOP contains a formula, apparently a standard formula derived for composting, to compute that ratio. However, because RED does not currently receive a significant amount of high-nitrogen feedstock, RED does not apply the formula in its current operation.

The Protestants and OPIC contended that without any demonstrated ability to correctly apply the C/N ratios, RED is unable to establish that the Facility could adequately control nuisance odors. Testifying for Protestants, Bruce L. Wiland, an engineer and hydrologist, stated that he found that RED's application contained no information concerning the moisture, carbon, and nitrogen levels for all of the feedstocks permitted under the Draft Permit, and also that the reference materials cited by RED did not contain such information.⁴⁷ Neither OPIC nor Protestants contended that the formula that RED included in the application was not commonly used or was not the correct formula for managing the C/N ratio in composting.

⁴⁷ Prot. Ex. P-W-1, pp. 8 and 9, Tr. 403-409.

Assuming that RED uses accepted analytical methods to accurately determine the C/N ratio and moisture content of its feedstocks and applies the formula set forth in the SOP, the ALJs concluded that the C/N management procedures contained in the SOP will control or reduce odors that may result from the use of high-nitrogen feedstocks. The ALJ's also concluded that RED controls or reduces odors in its current operation using the Waste it currently receives. Thus, it is likely that Facility will generate little if any odor that is considered objectionable and will not cause conditions interfering with the use and enjoyment of Protestants' property.

B. Whether the Facility operation will comply with TCEQ rules enacted to protect groundwater.

There are two zones of groundwater that RED's operation must protect. The first zone is the water in the combined High Gravel Deposits and upper weathered layer of the Taylor Navarro formation (gravel/weathered layer). Under the Site, this layer extends from the surface to at least 40-43 feet, as measured by soil borings, with the gravels extending to between 6 and 10 feet below the surface.⁴⁸ The second zone consists of the deep aquifers, including the Edwards Aquifer, that lie between 700 and 1,000 feet below the surface.⁴⁹

RED contended that his primary, if not only, responsibility in protection of groundwater was to keep leachate from migrating downward to the defined, commercially-used aquifers such as the Edwards. RED contended that he met his burden on proof on groundwater protection by submitting, without contradiction by Protestants' experts, data that showed that the undisturbed Taylor Navarro clays constitute an impermeable barrier to downward migration of water to the deep aquifers.⁵⁰

⁴⁸ App. Ex. A-3, pp. 153-171.

⁴⁹ App. Ex. A-11, pp. 13 and 14, Tr. 318.

⁵⁰ App. Ex. A-11, pp. 16-23. There was some difference between the witnesses as to whether the portion of the Edwards under the Site would yield potable water, but as there was no disagreement that leachate would not migrate down from the Site to those levels, that discussion did not affect the analysis of this case.

The parties differed as to whether the gravel/weathered layer constituted an aquifer. Water, primarily from rain or run-off, perches in the gravel/weathered layer above the undisturbed Taylor Navarro clays.⁵¹ RED contended that because the gravel/weathered layer could not produce a sufficient supply of water to meet a modern community's needs, often produced bad (saline) water, and was not a defined aquifer, it did not fall under the definition of groundwater requiring protection.⁵² While not disputing that the gravel/weathered layer could not supply a modern community's water needs, Protestants' contended that this zone could be a source of water for shallow wells for domestic use, so the perched waters constituted an aquifer within the meaning of the Water Code and Commission rules.⁵³ Pierce O. Chandler, Protestants' facility design expert, noted that the Commission's rules do not distinguish between formations producing significant amounts of water and those that produce less.⁵⁴

Apart from the issue of the uses for perched water, it is clear that the soils immediately below the Site are significantly different from the undisturbed layers below. The gravel/weathered layer showed signs of water infiltration, including oxidation staining and calcareous deposits.⁵⁵ In addition to signs of contact with water, the formations showed fractures, cracks, and bedding seams that would provide paths for water migration.⁵⁶ Notwithstanding these features, Michael R. Thornhill, RED's hydrogeologist, stated that water migration through the shallow subsurface would be at a maximum velocity of approximately 0.033 feet per day.⁵⁷ Mr. Thornhill

⁵¹ App. Ex. A-3, pp. 175-182 (Geologic/Hydro-geologic Report).

⁵² App. Ex. A-11, p. 15.

⁵³ Tr. 319-320.

⁵⁴ Tr. 324-326.

⁵⁵ App. Ex. A-3, pp. 151-171, Prot. Ex. P-C-1, pp. 16-18.

⁵⁶ Prot. Ex. P-C-1, pp. 16-18.

⁵⁷ App. Ex. A-3, pp. 184 and 192 (Groundwater Investigation Report), Tr. 185-188.

asserted that, even with weathering features, water movement at that speed is so slow as to be negligible, so it is not a concern for migration of leachate or other water.⁵⁸

Notwithstanding RED's arguments, there appear to be no provisions in applicable law that exempt a composting operation from protecting all types of groundwater included in the definition of waters in the state set forth above. The ALJs concluded that the definition of protected waters in Texas covers virtually all types of water and does not distinguish them by economic value. In addition, perched waters and shallow surface infiltration are expressly included in waters to be protected in establishing a composting operation.⁵⁹ Thus, the ALJs concluded that to meet the standards for groundwater protection, RED must show that the proposed operation will protect the perched waters in the gravel/weathered layer as well as those in any deep aquifers underlying the Site.

The modern-day presence of such perched water under the Site was confirmed by the discovery of water in four of the six monitoring wells that RED installed in September 2004.⁶⁰ After the wells had been in place for seven to 10 months, water was found in the wells at levels between 3.5 feet and 11.17 feet below the surface on several dates between September 2004 and the summer of 2007.⁶¹ Other monitoring wells had been covered or their location lost at the time water was found in the wells. There was no conclusive evidence regarding the source of the water; the two explanations offered were rain that had fallen into the well due to a failed clay cap or infiltration of rain water.⁶²

⁵⁸ Tr. 209-210.

⁵⁹ 30 TAC § 332.47(6)(C).

⁶⁰ Prot. Ex. 2.

⁶¹ Prot. Ex. 2, Tr. 177-188.

⁶² Tr. 183-188.

The borings performed in June 2004 to evaluate the soils under the Site did not reveal water. However, this does not undercut the conclusion that groundwater exists in the soils beneath the site because the borings were closed immediately after drilling for safety reasons. Accumulation of groundwater take several hours or days.⁶³

The mechanism RED proposes to use to protect the groundwater is an *in situ* clay liner under the Pond and under the Processing area. An *in situ* liner comprises undisturbed soils that do not exhibit primary or secondary physical features, that meet all physical and quality control testing requirements of the Municipal Solid Waste Division (MSWD), and that are found acceptable by the Commission.⁶⁴ Primary features of concern are bedding planes, desiccation cracks, or sediment distribution. Secondary features of concern include jointing, fracturing due to stress relief, and solution weathering.⁶⁵ Due to these characteristics, the Liner Handbook states that *in situ* soils are rarely acceptable as low-permeability liners. In addition, the discovery of undesirable soil characteristics after approval of an alternate liner may void the use of *in situ* soils as a liner.

In order to qualify as liner material, *in situ* soils must undergo a sieve analysis, and also testing for the Atterberg Limits and the Coefficient of Permeability. The soils must have at least 30 per cent of the material passing the No. 200 mesh sieve, have a liquid limit of not less than 20 and a Plasticity Index (Pi) of not less than 15, and a Coefficient of Permeability of 1×10^{-7} centimeter/second (cm/sec) or less.⁶⁶

RED asserted that the *in situ* soils at the Site met those criteria. In making this assertion, RED relied on the representations of the engineering firm that designed and/or constructed the

⁶³ App. Ex. A-3, pp. 157-182.

⁶⁴ Pet. Ex. P-C-12, p. 6 (Liner Handbook).

⁶⁵ Pet. Ex. P-C-12, pp. 11-14 (Ch. 2, Soil Liners).

⁶⁶ Pet. Ex. P-C-12, p. 12.

Facility. However, no documentation of the testing that may have been conducted at the time of the registration or any liner evaluation report that may have been submitted were in evidence. In support of the application, RED conducted six soil borings on the perimeter of the Site to depths of between 40 to 44.2 feet; none appeared to have been conducted directly under either the Windrow or the Processing areas. Data collected from the borings showed that the top soil layers in some areas appeared to meet the criteria for *in situ* liners, but that some did not. For example, Boring B-6 showed clays meeting or exceeding the sieve criteria at two feet below the surface; Boring B-1 had clays that met the sieve test at four feet.⁶⁷ On the other hand, soils from Borings B-2 through B-5 did not meet those criteria until depths varying between five and seven feet. Not all boring data submitted included liquid limits or plasticity data. The soils tested included gravels of varying sizes and, as noted above, indications of water infiltration, including calcareous deposits, oxidation staining, and some calcite crystallization.⁶⁸ Specific results of the borings were as follows:

1. Boring B-1 found a fat clay consisting of organic clay and silt with small to large scattered gravel to a depth of 3.5 feet, and a clayey sand with thick gravel to a depth of 6.5 feet. The percent of the material passing through a No. 200 sieve was 27.7 at 4 feet. The log does not indicate a liquid limit or a plasticity index.
2. Boring B-2 found a fat clay consisting of organic clay and silt with small to large scattered gravel to a depth of two feet, and a clayey gravel consisting of reddish brown, clay and sand with small to large gravel at a depth of two to six feet. The percent passing through a No. 200 sieve was 13.5 at five feet, and 98.7 at seven feet, as well as a liquid limit of 85 and a plasticity index of 61 also at seven feet.
3. Boring B-3 found a fat clay consisting of organic clay and silt with small to large scattered gravel to a depth of four feet and a fat clay with calcareous deposits and few small gravel from four to ten feet. The percent passing through a No. 200 sieve was 97.2, the liquid limit was 68, and the plasticity index was 46, all at six feet.

⁶⁷ App. Ex A-3, pp. 157-182.

⁶⁸ App. Ex. A-3, pp. 160-169.

4. Boring B-4 found a fat clay consisting of clay and silt with small to medium gravel to a depth of six feet and a fat clay with oxidation staining, some calcite crystallization, and few small gravel from six to ten feet. The percent passing through a No. 200 sieve was 84.9, the liquid limit was 65, and the plasticity index was 44, all at five feet.
5. Boring B-5 found a fat clay consisting of organic clay and silt with small to large gravel and chert fragments to a depth of three feet and a fat clay with oxidation stains and calcareous deposits and thick small gravel from three to nine feet. The percent passing through a No. 200 sieve was 97.2 at seven feet. The log does not indicate a liquid limit or a plasticity index.
6. Boring B-6 found a fat clay consisting of organic clay with small to large scattered gravel to a depth of three feet and a fat clay with oxidation staining and few small gravel from three to 10.5 feet. The percent passing through a No. 200 sieve was 48.0, the liquid limit was 115, and the plasticity index was 86, all at two feet.

As well as raising concerns about soil permeability in general, Protestants raised specific concerns about the condition of the Pond liner. ED Staff documented a leak from the Pond, a seep found about 30 feet from the toe of the dam surrounding the Pond, and issued a NOV to RED.⁶⁹ In May 2006, during a visit to the Facility, Mr. Chandler observed wetland-type vegetation near the seep that indicated water flow of some duration. He also observed that the seep had moved toward the channel of Cowpen Creek.⁷⁰

RED argued that unknown sources other than the dam could be the source of the seep. However, RED's application did not identify any sources of water in the immediate vicinity of the Facility. Mr. Chandler stated that U. S. Geological Survey (USGS) data on seeps and springs is very thorough and that the USGS materials had noted neither in the vicinity of the Site. Since neither RED's own survey of water sources in the area nor Protestants' studies showed any water sources in the immediate vicinity of the Site, other than the Pond, RED's alternate-source theory

⁶⁹ Prot. Ex. P-C-8.

⁷⁰ Tr. 362-364.

lacked credibility. The most likely explanation for the seep is that the liner of the Pond leaked and has been leaking for some unknown period of time.

Given the degree of variation in the soils within the 15-acre Site that have already been displayed, there is little certainty that the soils below the entire Site meet the criteria for an *in situ* liner. Subsurface water has been shown to exist in some areas of the Facility at the depth of the gravel/weathered layer. There has been at least one leak from the Pond through the existing liner material. Based on these factors, the ALJs cannot conclude that the current liner is protective of the groundwater in the gravel/weathered soils beneath and adjacent to the Site.

The draft permit issued by the ED states that liners at the Facility shall be installed in accordance with RED's application.⁷¹ RED's application asserted that there is a sufficient *in situ* liner in place, but that, in any event, it will comply with the Liner Handbook. Testifying on RED's plans regarding the liner, Robert H. Thonhoff, RED's design engineer, stated that the soils under the Processing area would be tested and that RED would construct or reconstruct anything needed to make the Site compliant with the permit application.⁷² However, neither the application nor the Draft Permit set forth any testing and construction timetable or a plan as to how RED would accomplish this objective regarding the *in situ* liner underlying the Processing, Windrow, and Mixing areas in the midst of a working composting facility.

By contrast, RED's plans for the Pond are detailed. The proposed plan for the enlarged Pond includes installation of a sump pump at the bottom of the Pond, as well as doing the earth work to enlarge the Pond's capacity and freeboard. In order to enlarge the Pond, the liner will need to be reconstructed. RED's specification for the Pond liner states there will be a 24-inch compacted-

⁷¹ App. Ex. A-5, p. 5.

⁷² Tr. 30.

clay lining under the Pond, with a 12-inch protective soil layer above the liner.⁷³ The liner and protective layer will extend five feet on the surface at the top of the Pond; and a 10-foot tie-in section will integrate the Pond liner and the existing clay in the processing areas of the Facility.⁷⁴ Neither the application nor the Draft Permit sets a timetable for the enlargement and re-lining of the Pond.

Taking the evidence as a whole, the ALJs concluded that there is insufficient evidence that naturally-occurring soils meeting the criteria for use as an *in situ* liner extend throughout the Processing, Windrow, and Mixing areas, or under the Pond. The application proposes to continue use of the existing *in situ* liner for the most part, with the exception of the Pond area. As RED was unable to demonstrate that the existing *in situ* liner would be sufficient to protect groundwater under the Processing, Windrow, and Mixing areas, RED did not meet his burden of proof to show the proposed operation of the Facility meets the requirements of Water Code ch. 26 and 30 TAC § 332.4(1) to prevent the discharge of material to or the pollution of groundwater. The ALJs concluded that the proposed liner under the Pond, if constructed in compliance with the Liner Handbook per the Draft Permit, will protect groundwater.

C. Whether the Facility's operation will comply with the TCEQ rules enacted to prevent the contamination of surface water.

The only area of surface water located near the Facility is Cowpen Creek. The Facility is slightly down slope from a cemetery on the west side of the Site. A swale that runs along Goforth Road, to the south of the Facility, is the low point in the immediate off-site area.

⁷³ App. Ex. A-3, p. 34 (Revision date March 9, 2007).

⁷⁴ App. Ex. A-3, p. 45 (Revision date March 9, 2007).

RED proposes to control surface water by means of a perimeter berm to both contain run-off from the Facility and also to divert run-on away from the Facility. RED's application states that the approximately three-foot-high berm surrounding the Facility will be sufficient to intercept any run-on and divert it around the Site.⁷⁵ RED also asserted that run-off from the somewhat higher elevations to the west and southwest of the Facility will naturally flow down the swale along Goforth Road. However, in May 2006, many portions of the berm were less than three feet in height and there were gaps in portions of the perimeter berm.⁷⁶ There was no berm at the entrance to the Facility to prevent storm water run-on to the Facility from Goforth Road.

All run-off is expected to be collected in the Pond, which is located at the lowest point of the Site. The Pond's capacity is being increased in order to retain more run-off, including that from a 25-year, 24-hour rainfall event. The enlarged Pond will also contain additional freeboard which is intended to contain run-off from a 100-year, 24-hour rainfall event. The enlarged Pond, with a maximum retained volume of 555,536 cubic feet, increases the capacity of the Pond by approximately 120,000 cubic feet from its current capacity of 424,403 cubic feet.⁷⁷ The enlargement of the Pond is necessary to meet the criteria for water retention because the current Pond is not sufficient. RED acknowledged that there have been several instances of the Pond overflowing.⁷⁸

In preparing its Surface Water Protection Plan, RED used the water balance method, as required by applicable law, to ascertain the retention pond capacity necessary to retain all anticipated run-off.⁷⁹ RED contended that the enlarged Pond is sufficient as it calculated that a

⁷⁵ App. Ex. A-3, pp. 32-38 (Surface Water Protection Plan).

⁷⁶ Prot. Ex. P-C-1, pp. 7 and 10.

⁷⁷ App. Ex. A-3, pp. 32 and 33.

⁷⁸ Tr. 88.

⁷⁹ App. Ex. A-3, p. 42.

25-year, 24-hour rainfall event would generate a run-off volume of 371,255 cubic feet. RED used generally-available climate data for the area. Thus, the enlarged Pond would contain this event with an excess capacity of 52,364 cubic feet.⁸⁰ RED also noted that in the event of an emergency, excess retained water could be hauled to a wastewater treatment plant for treatment and disposal.

However, Mr. Wiland disputed the accuracy of RED's computation of the water balance. He contended that RED underestimated the amount of leachate and overestimated the amount of pond water that could reasonably be used to keep the Windrows and the mixing materials properly moist, and, as a result, had undersized the Pond. Mr. Wiland also contended that the design for retention of 25-year, 24-hour rainfall did not address the possible larger amount of run-off that, statistically, could occur four to five times in the next 25 years.⁸¹ Counsel for OPIC contended that the water balance did not take proper account of more impermeable areas of the Site, such as the areas between the Windrows, thus underestimating the amount of run-off the Pond must retain.

The ALJs concluded that RED met his burden of proof to show that the proposed Pond enlargement would be sufficient to contain run-off from a 25-year, 24-hour rainfall event, which is the capacity required by the rules. Protestants failed to demonstrate that the climate in the vicinity of the Site is sufficiently different from conditions used to generate the general climate criteria that RED used to compute the water balance to warrant special calculations. Further, neither Protestants nor OPIC demonstrated prevalent flaws in RED's application of the water balance computation or that the individual numbers used in that computation were incorrect. RED's current operator, Mr. Van Sickle, appeared knowledgeable about composting moisture requirements and credible regarding the anticipated water usage for mixing and processing the feedstocks, particularly in the

⁸⁰ App. Ex. A-3, p. 32 and 33. RED calculated that the a 100-year, 24-hour rainfall event would generate 506,074 cubic feet of run-off, which would still be below the combined retention capacity of the Pond, including freeboard.

⁸¹ Tr. 398.

hot summer months. Protestants' assertions that RED miscalculated the percentage of impervious cover at the Facility were not credible, as they were based more on hypothetical elements than data about how impervious the mixed materials found in the Windrows and in the piles in the Processing and Mixing areas actually are.

In regard to the berm in place at the Facility, as stated above, many portions of the berm are less than three feet in height, there are gaps in portions of the perimeter berm, and there is no berm at the entrance to the Facility. Accordingly, as presently constructed, the berm will not prevent the contamination of surface water by run-off from the Facility. However, Mr. Thonhoff testified that the berm will be reconstructed to meet the terms of the permit,⁸² which specifically requires that there be no discharge beyond the permit boundary and no inundation of the facility from the surrounding area. The ALJs concluded that the proposed enlarged and re-lined Pond, if constructed to specification, together with the reconstruction of the berm so that there is a continuous three-foot high berm surrounding the facility, will prevent the contamination of surface water by run-off from the Facility in compliance with 30 TAC § 332.4(1).

D.-1 Whether the Facility will be operated to prevent unauthorized and prohibited materials from application or incorporation into feedstocks, in-process materials, or processed materials, in compliance with 30 TAC§ 332.45(10).

D.-2 Whether the Facility will meet applicable requirements for prevention of the delivery of unauthorized and prohibited materials at the Site. (Referral issue H)

The Facility's operations must be conducted in such a manner as to ensure that no unauthorized or prohibited materials are processed at the Facility,⁸³ and also to not allow the application to or incorporation into feedstocks, in-process materials, or process materials of fungicides, herbicides, insecticides or other prohibited pesticides.⁸⁴ These two issues are discussed together as they both address potential adulteration of the processing mixture.

⁸² Tr. 112.

⁸³ 30 TAC § 332.4.

⁸⁴ 30 TAC § 332.45(10).

Mr. Van Sickle testified that the method of inspecting the Waste is to examine trip manifests as well as to look in the plastic window on the tank and in the hatch at the top of the vacuum truck that brings the Waste into the Facility. Staff members also smell the contents of the trucks. He did not elaborate on what odors would reveal tainted contents or would assure intake personnel that the truck contents were as represented. He further testified that, because RED only accepts waste from a few trustworthy vendors, he is assured that the Facility does not accept prohibited materials.

In addition, RED also relies on testing of the Waste by public health entities for identification of the content of the Waste. There is no evidence in the record of the constituents for which any public health entity tests grease trap waste. Further, the only statement in the SOP concerning screening sludge and septage states that the site supervisor will inspect the load for unsuitable material. RED stated he will reject truckloads containing prohibited or “unprocessable” materials.⁸⁵

Both Protestants and OPIC argue that such a visual inspection is not sufficient to prevent the delivery of unauthorized materials at the Site and the resultant application of prohibited materials and pesticides into the feedstocks. Protestants suggest that RED be required to have an onsite laboratory or provide for the taking of random samples for off-site testing. RED correctly notes that no protocol for random sampling is set forth in the Draft Permit or is required by the rules.

The current method of visual inspection of the grease trap wastes is not sufficient to determine their composition. Although RED relies on testing of the grease trap wastes by public health entities for identification of its contents, there is no evidence in the record that the constituents of concern in any public health entity tests are the elements RED must guard against

⁸⁵ App. Ex. A-3, pp. 20-28.

receiving. Without that information, RED has no assurance that the wastes will not contain prohibited or unauthorized materials. The inadequacy of visual inspections becomes an even greater problem if RED accepts other wastes such as septage, because without testing there is no way for RED to know what is poured into the systems that are the source of the septage.

The ALJs concluded that Petitioner failed to meet his burden of proof to show that its intake procedures will prevent the delivery of unauthorized and prohibited materials at the Site, or will prevent unauthorized and prohibited materials, including prohibited pesticides, from application or incorporation into feedstocks, in-process materials, or processed materials.

E. Whether the Facility's operation will comply with 30 TAC § 332.45(11), which requires compliance with end-product testing and standards.

Appropriate compliance with the end-product standards is an operational issue. The operator of a composting operation must properly test for constituents of concern,⁸⁶ must properly grade the compost materials produced,⁸⁷ and must properly label all materials which are sold or distributed.⁸⁸

RED produces a Grade 1 compost product that is sold in bulk. The bulk material is traced using a ticketing system indicating the buyer, buyer's address, and buyer's telephone number. The SOP provides that RED would test for all constituents of concern, principally heavy metals, as well as pathogens, salinity, and pH in accordance with the Commission's rules. The sampling frequency and methods are set forth in detail in 30 TAC § 333.71. RED's SOP recites or references these rules and the ED did not impose any special conditions for this phase of the operation.

There is no adverse enforcement history in regard to testing, grading, or labeling of the Facility's product. Protestants did not demonstrate that RED was incapable of complying with the

⁸⁶ 30 TAC § 332.71.

⁸⁷ 30 TAC § 333.72.

⁸⁸ 30 TAC § 333.74.

end-product testing and standards; they merely argued that he had not provided specific details. However the SOP provides that RED will use the analytical testing methods listed in the referenced rule to meet the standards.

The ALJs concluded that the operation of the Facility in conformance with the SOP will comply with TCEQ rules requiring end-product testing and standards.

F. Whether the Facility's SOP includes appropriate fire prevention and control measures.

RED's fire prevention plan as set forth in the SOP includes the following: (1) designation of the Facility as a "No Smoking" area, (2) instruction of all employees in fire fighting methods and the use of fire extinguishers, (3) maintaining the capability to pump water from the Pond for fire fighting, and (4) equipping all vehicles and equipment used on the mixing pile and Windrows with portable fire extinguishers with the minimum required rating.⁸⁹

Mr. Van Sickle stated that RED's firefighting procedures had been checked or inspected by fire department personnel and found acceptable.⁹⁰ The circumstances and thoroughness of that inspection and the identity of the fire department whose personnel conducted that review are not in evidence. He also stated that he had made arrangements for back up fire fighting capability from a local government entity.

Mr. Van Sickle asserted that properly wetting and mixing the feedstocks will reduce the fire danger. He explained that pumping water on a fire in a Windrow would increase the internal temperature of the decomposing mixture, thereby increasing the fire. Burning piles must be spread out by means of machinery, then water is used to douse the spread material.

⁸⁹ App. Ex. A-3, p. 25.

⁹⁰ App. Ex. A-10, p. 5.

Testifying for Protestants, Mr. Chandler questioned whether the Windrows now in place were more than 14 feet apart, which is a width too narrow for fire equipment to pass through. However, his assertion was not conclusive, as the distance was not measured but estimated. The Draft Permit, relying on the application, requires the Windrows to be spaced far enough apart, approximately 20 feet, to permit fire fighting equipment between them.

~~~~~Mr. Van Sickle was clearly knowledgeable about the special nature of compost fires. Heavy equipment on hand for the processing would double as fire fighting equipment if needed. Although the details are sketchy, the evidence was uncontroverted that RED has undergone some degree of review of its fire prevention and fire fighting procedures from local authorities and that it had arranged for back up firefighting capability.

The ALJs concluded that if the fire control and prevention procedures in the SOP are followed, those measures are appropriate to reduce the risk of fire and to control fires that may occur at the Facility.

**G. Whether the Facility will meet applicable air quality requirements.**

The primary issue regarding compliance of the Facility with air quality requirements is the issue of dust. Because the grinders are not enclosed inside a building, they are required to be equipped with low-velocity fog nozzles spaced to create a continuous fog curtain; or the operator must have portable watering equipment available during the grinding operation.<sup>91</sup> The conveyors that unload materials from the grinders are also not enclosed inside a building; and, as a result, are required to have available a water or mechanical dust suppression system.<sup>92</sup>

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<sup>91</sup> 30 TAC § 332.8(e)(4).

<sup>92</sup> 30 TAC § 332.8(e)(5).

RED has hoses with spray nozzles to knock down dust, which it contends are sufficient to meet the requirements of the rule in regard to both the grinders and the conveyors.

Protestants failed to demonstrate that hoses with spray nozzles would be insufficient to suppress dust on the grinders and conveyors. Such hoses would qualify as portable watering equipment permitted by the rule for grinders, and as a water dust suppression system available for the conveyors. Accordingly, the ALJs concluded that RED did establish that the Facility will meet applicable air quality requirements for suppression of dust from the grinders and the conveyor system.

## **VI. TRANSCRIPTION COSTS**

RED and the Protestants agreed to each pay half of the cost of the court reporter and for preparation of the transcript. Thus there is no need to allocate costs or to make findings on the allocation factors set forth in 30 TAC § 80.23.

## **VII. STANDARD LANGUAGE**

In addition to Findings of Fact and Conclusions of Law on referred issues, the Proposed Order includes provisions stating that RED complies with applicable statutes and rule requirements that were not referred for hearing. These provisions do not represent the ALJs findings based on the record of the case. Rather, this language, used in the past in limited-referral cases, has been included as a courtesy to the Commission so that it has a complete Proposed Order to consider.

## **VII. CONCLUSION**

In conclusion, the ALJs found that RED met his burden of proof in regard to control of nuisance odors, protection of surface water, meeting end-product testing and standards, fire prevention and control, and meeting air quality requirements for the grinders and conveyors.

However, the ALJs found that RED has not met his burden of proof in regard to protection of groundwater, prevention of the delivery of or incorporation into the composting process of unauthorized and prohibited materials, and prevention of the incorporation or application of certain fungicides, herbicides, and pesticides.

On the basis of their conclusions on the referred issues, the ALJs conclude that, taking the evidence as a whole, RED failed to meet his burden of proof to show that the operation of the Facility as proposed would meet all standards set forth in the applicable statutes and rules for operation of a composting facility. Consequently, the ALJs recommend that the Commission deny RED's application for a Type V-RC MSW permit for its composting facility. The ALJs further recommend that the Commission adopt all Findings of Fact and Conclusions of Law in the Proposed Order on these issues.

**SIGNED January 10, 2008.**

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**CASSANDRA J. CHURCH**  
**ADMINISTRATIVE LAW JUDGE**  
**STATE OFFICE OF ADMINISTRATIVE HEARINGS**

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**ROY G. SCUDDAY**  
**ADMINISTRATIVE LAW JUDGE**  
**STATE OFFICE OF ADMINISTRATIVE HEARINGS**

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**ORDER  
CONCERNING THE APPLICATION BY  
ROY EUGENE DONALDSON, II  
FOR PERMIT NO. MSW 2320  
TCEQ DOCKET NO. 2005-1510-MSW  
SOAH DOCKET NO. 582-06-0839**

On \_\_\_\_\_, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the application of Roy Eugene Donaldson II, (RED) for a permit for a composting facility in Travis County, Texas. A Proposal for Decision (PFD) was presented by Cassandra J. Church and Roy G. Scudday, Administrative Law Judges (ALJs) with the State Office of Administrative Hearings (SOAH), who conducted a public hearing on this matter on September 20 and 21, 2007, in Austin, Texas. The record closed on November 16, 2007.

The following are parties to the proceeding: RED; Ann Messer, Julie Moore, Juli Phillips, M.D. Thomson, and H. Philip Whitworth (Protestants); and the Office of Public Interest Counsel (OPIC).

After considering the Proposal for Decision, the Commission makes the following Findings of Fact and Conclusions of Law.

## I. FINDINGS OF FACT

### GENERAL FINDINGS

1. In August 2004, RED applied to the TCEQ for Permit No. 2320 to authorize the continued operation of an existing Type V-RC municipal solid composting facility called the Texas Organic Recovery Compost Facility (the Facility), which had been in operation pursuant to registration since 1998.
2. The Facility is located on 15.23 acres at 15500 Goforth Road, which is approximately 2,000 feet south of the intersection of County Road 177 and Goforth Road, in southeast Travis County, Texas (the Site). The land within one mile of the Facility is composed primarily of pastureland.
3. RED leases the Site, which is part of a 284.924 acre tract owned by Vicki Alexander.
4. The nearest occupied residence is approximately one-half mile from the Site. The City of Creedmore is the community nearest to the Site, at a distance of approximately 3.5 miles.
5. The permit would authorize the Facility to operate a resource recovery and composting facility for composting of municipal sewage sludge, septage, grease trap waste, and positively sorted material (paper, cardboard, wood, and organic food matter).
6. The Facility consists of areas for material storage and grinding operations (the Processing area), 23 compost windrows (the Windrow area), a runoff retention pond (the Pond), and a post-processing mixing area (the Mixing area).
7. The permit would not authorize a discharge into waters in the State.
8. On November 30, 2005, the TCEQ determined that Ann Messer, Julie Moore, Juli Phillips, M.D. Thomson, and H. Philip Whitworth were affected persons entitled to party status in the contested-case hearing.

9. By Interim Order dated December 5, 2005, the TCEQ referred the matter to SOAH for a contested-case hearing on the following issues:
  - a. Whether odor from the Facility will cause nuisance conditions interfering with the use and enjoyment of the requesters' property;
  - b. Whether the Facility's operation will comply with the TCEQ rules enacted to protect groundwater;
  - c. Whether the Facility's operation will comply with the TCEQ rules enacted to prevent the contamination of surface water;
  - d. Whether the Facility will be operated in compliance with 30 TEX. ADMIN. CODE (TAC) § 332.45(10), enacted to prevent unauthorized and prohibited materials from application or incorporation into feedstocks, in-process materials, or processed materials;
  - e. Whether the Facility's operation will comply with 30 TAC § 332.45(11), which requires compliance with end-product testing and standards;
  - f. Whether the facility's Site Operating Plan (SOP) includes appropriate fire prevention and control measures;
  - g. Whether the Facility will meet applicable air quality requirements; and
  - h. Whether the Facility will meet applicable requirements for prevention of the delivery of unauthorized and prohibited materials at the site.
10. On January 11, 2006, Notice of Hearing on the application was published in the *Austin American Statesman*, a newspaper published and generally circulated in Travis County, Texas.

11. On February 13, 2006, a preliminary hearing was held in Austin, Texas. The following were designated as parties to the proceeding: RED, Ann Messer, Julie Moore, Juli Phillips, M.D. Thomson, and H. Philip Whitworth (Protestants), and OPIC. The Protestants were aligned as one group.
12. In June 2006, after discovery and exchange of information, RED announced his intention to amend his application.
13. RED asserted that these revisions constituted minor amendments within the meaning of 30 TAC § 305.62.
14. On June 20, 2006, ALJ Tommy Broyles ordered RED to submit his amended application to the ED in order to have the ED evaluate whether the requested amendment was a minor or major amendment within the meaning of 30 TAC § 305.62.
15. On June 29, 2006, RED submitted the amendment to his application to the ED. The amendment included the following revisions to the Site Operating Plan (SOP): (1) clarifying that the composting process of high-nitrogen feedstock such as septage/ sewage would be tied to carbon/nitrogen (C/N) monitoring, while the composting process of low-nitrogen feedstock such as grease trap waste would not be tied to C/N ratio, but would use a proprietary process; (2) enlarging the retention pond based on consumptive use water balance and 25-year, 24-hour storm event; and (3) providing a revised SOP showing the enlarged retention pond, existing feedstock storage tanks, and additional monitor well locations including the addition of one new monitoring well at the retention pond embankment.

16. The C/N ratio is a means of monitoring composting material with a high-odor potential to insure that there is an adequate volume of bulking material to blend with or cover the potentially-odorous material in order to prevent nuisances.
17. On July 14, 2006, the ED concluded that the proposed revisions would constitute a major amendment, pursuant to 30 TAC § 305.62.
18. On September 14, 2006, ALJ Cassandra Church ruled that the proposed amendments constituted a major amendment to the application within the meaning of 30 TAC § 305.62.
19. On December 15, 2006, after considering additional arguments of RED regarding the September 14, 2006 order, ALJ Church remanded the amended application to the ED for technical review of the proposed amendments and those parts of the application affected by the proposed revisions and for re-noticing.
20. On March 29, 2007, the ED issued a preliminary decision recommending issuance of the permit for the amended application and issued his final Draft Permit.
21. On August 2, 2007, a second preliminary hearing was held in Austin, Texas. No additional persons were designated as parties.
22. The evidentiary hearing was conducted on September 19 and 20, 2007, in Austin, Texas, by ALJs Cassandra J. Church and Roy G. Scudday. The record closed November 16, 2007.

## **FACILITY OPERATION**

23. RED currently takes grease trap waste (the Waste), which is an organic material generated from restaurants, schools, prisons and hotels, mixes this waste with wood chips, and turns it into a soil-like product called compost that is sold in bulk.

24. The Waste is primarily in liquid form and, as such, is a source of moisture. The Waste has a low nitrogen content.
25. RED accepts a small amount of septage from one source.
26. The Waste is delivered to the Facility in vacuum trucks and is pumped into four temporary storage tanks (the Tanks).
27. RED staff members examine the vacuum truck's manifest, visually inspect the contents, and smell the contents before delivery of materials to the Facility.
28. Wood and yard trimmings are chipped and arranged into large static piles located adjacent to the Processing area. Waste is pumped from the Tanks and sprayed on these piles for pre-processing moistening.
29. RED turns the static piles with a front-end loader to ensure even mixing of Waste to wood and to ensure that no moisture collects at the bottom of the piles, which could result in shallow seepage.
30. RED adds a proprietary blend of yeast, molds, and enzymes to the static piles and continues to build them until the desired size is reached, at which time the pile material is spread into Windrows.
31. Windrows are approximately six to eight feet high, and long and narrow. A minimum distance of between 14 and 20 feet separates the Windrows.
32. The wood and Waste mixture remains in the Windrows until it reaches the desired degree of maturity.

33. Waste from the Tanks and water from the Pond may also be sprayed on to the Windrows to maintain the proper moisture content for processing. RED tills the Windrows regularly to aerate them.
34. If a high-nitrogen content Waste, such as septage or municipal sewer sludge (sludge), would be used as a feedstock, RED would monitor the Windrows for the appropriate C/N ratio.
35. Pursuant to Commission rules, RED tests the compost end product for pathogens, salinity, pH, weight percent of foreign matter, maturity, total metals, and polychlorinated-biphenyls (PCBs), and grades the product.
36. RED sells Grade 1 compost in bulk.

## **ODORS**

37. The primary factors in preventing odors from the composting process are the moisture content and C/N ratio of the composting mixture.
38. The SOP calls for frequent aeration of compost piles and the use of additional bacteria to help remove any odor-causing agents. In its process, RED uses microbes that lessen odors.
39. The SOP provides for daily inspection and cleaning of the Processing area to ensure cleanliness and odor control as well as ensuring that adequate materials are on-hand to process materials with a high odor potential prior to accepting them.
40. The TCEQ has not cited the Facility for nuisance odor violations.

41. Protestants have not experienced nuisance-level odors that interfered with the use and enjoyment of their property.
42. Because the Facility does not presently accept feedstocks with a high-nitrogen content, other than a small amount of septage, RED has had no occasion to utilize the C/N ratio equations contained in the SOP. The C/N ratio equations provide a means to make the energy and mass balance calculations necessary to prevent odors resulting from the processing of high-nitrogen feedstocks.
43. If RED accurately determines the C/N ratio and the moisture content of any high-nitrogen feedstocks, the C/N ratio equations contained in the SOP will determine the proper mixture of feedstocks, bulking material, and moisture needed to ensure that the Facility will generate little if any odor that is considered objectionable and will not cause conditions interfering with the use and enjoyment of the Protestants' property.

## **GROUNDWATER**

44. The Facility is not located within the 100-year floodplain, within any wetland area, within 500 feet of any public or private water wells, over the Edwards Aquifer Recharge Zone, or over any known aquifers at less than 300 feet depth, and has at least a 50 feet set-back distance from the facility boundary to the areas for receiving, processing, or storing feedstock or final product.
45. The Facility is located more than 100 feet from Cowpen Creek.
46. The Facility was constructed in 1998, ostensibly over an *in situ* two-foot clay liner.

47. The Facility is on an area with a shallow slope. The Site slopes generally from southwest to northeast, and has not significantly altered existing drainage patterns.
48. The Pond is the lowest point on the Site.
49. The Facility is located in three geological formations: the Pleistocene “High Gravel Deposits,” the Cretaceous “Upper Taylor Marl,” and the Taylor-Navarro formation.
50. The High Gravel Deposits and Upper Taylor Marl are above the Taylor-Narvarro formation.
51. The High Gravel Deposits are commonly composed of an upper silty clay unit underlain by siliceous sand and gravel deposits, typically less than 30 feet thick.
52. These High Gravel Deposits yield very small to moderate quantities of fresh to moderately-saline water.
53. The Upper Taylor Marl consists of a medium to dark gray calcereous clay, and is locally silty, massively bedded, thinly laminated, with conchoidal fractures in the upper part. In the lower part, it consists of a dominantly montmorillontitic, light medium gray clay that is blocky with conchoidal fractures. In this part, silt-size quartz becomes more abundant upward, calcite fragments are common, and it also contains disseminated pyrite.
54. The Upper Taylor Marl yields very small quantities of fresh to moderately-saline water.
55. Although not producing water in significant quantities, shallow wells for limited household and agricultural use have been dug in this area.
56. Both the High Gravel Deposits and the Upper Taylor Marl form only localized ground-water flow systems.
57. The High Gravel Deposits and the Upper Taylor Marl can contain areas of perched water, usually on a seasonal basis.

58. Water can and has infiltrated through the upper gravel layers and weathered marl layers lying immediately below the Facility.
59. Because the High Gravel Deposits are many times more hydraulically conductive than the Upper Taylor Marl clays, groundwater would likely flow through the High Gravel Deposits from the southern portion of the Site to the Pond on the northern side of the Site.
60. The High Gravel Deposits and Upper Taylor Marl clays are underlain with deep clay deposits of the Taylor Navarro formation.
61. The Taylor Navarro clays are sufficiently thick and of sufficiently high plasticity to block the downward flow of groundwater to delineated aquifers at 300-foot and deeper depths.
62. On June 29, 2004, in preparation of its application, RED drilled six soil borings to depths of 40 feet to 44.2 feet below the existing ground surface of the Facility. The logs of those borings showed the following:
  - a. Boring B-1 found a fat clay consisting of organic clay and silt with small to large scattered gravel to a depth of 3.5 feet, and a clayey sand with thick gravel to a depth of 6.5 feet. The percent of material passing through a No. 200 sieve was 27.7 at 4 feet. The log does not indicate a liquid limit or a plasticity index.
  - b. Boring B-2 found a fat clay consisting of organic clay and silt with small to large scattered gravel to a depth of two feet, and a clayey gravel consisting of reddish brown, clay and sand with small to large gravel at a depth of two to six feet. The percent passing through a No. 200 sieve was 13.5 at five feet, and 98.7 at seven feet, as well as a liquid limit of 85 and a plasticity index of 61 also at seven feet.
  - c. Boring B-3 found a fat clay consisting of organic clay and silt with small to large scattered gravel to a depth of four feet, and a fat clay with calcereous deposits and

few small gravel from four to ten feet. The percent passing through a No. 200 sieve was 97.2, the liquid limit was 68, and the plasticity index was 46, all at six feet.

- d. Boring B-4 found a fat clay consisting of clay and silt with small to medium gravel to a depth of six feet, and a fat clay with oxidation staining, some calcite crystallization, and few small gravel from six to ten feet. The percent passing through a No. 200 sieve was 84.9, the liquid limit was 65, and the plasticity index was 44, all at five feet.
  - e. Boring B-5 found a fat clay consisting of organic clay and silt with small to large gravel and chert fragments to a depth of three feet, and a fat clay with oxidation stains and calcareous deposits and thick small gravel from three to nine feet. The percent passing through a No. 200 sieve was 97.2 at seven feet. The log does not indicate a liquid limit or a plasticity index.
  - f. Boring B-6 found a fat clay consisting of organic clay with small to large scattered gravel to a depth of three feet, and a fat clay with oxidation staining and few small gravel from three to 10.5 feet. The percent passing through a No. 200 sieve was 48.0, the liquid limit was 115, and the plasticity index was 86, all at two feet.
63. Subsurface oxidation staining and calcareous deposits are indicators of rain infiltration or water movement through a formation.
64. Subsurface cracks, joints and fissures, and gravels are pathways for water movement through a formation.

65. Groundwater typically migrates through the alluvial sands and gravel layers found in bore holes, but groundwater was not encountered during drilling of the bore holes and all bore holes were dry upon completion of the drilling operations.
66. It can take several hours to several days for open bore holes to fill with groundwater, but the six bore holes were plugged immediately following the drilling operation due to safety concerns.
67. On September 22, 2004, in preparation of its application, RED installed six monitoring wells at the Facility.
68. Groundwater was initially detected at only one of the monitoring well sites, MW-4. The well has a depth of 19.5 feet, and water was found at 5.5 feet.
69. Measurements at MW-4 indicated that shallow ground water and pollutants, if present, would migrate at a maximum velocity of approximately 0.033 feet per day through the subsurface.
70. On April 7, 2005, water was observed in the monitoring well adjacent to the Pond, MW-3. The well has a depth of 14 feet, and water had risen 10.5 feet.
71. In the summer of 2007, water was found in two additional monitoring wells: MW-6 at 11.17 feet below the measuring point at the top of the well casing, and MW-2 at 7.97 feet below the measuring point.
72. Areas of perched water exist in the shallow formations at the Facility, although these areas may only be present on a seasonal basis.
73. On July 13, 2006, the ED issued a Notice of Violation to RED for failing to prevent a discharge of material to surface water or groundwater, specifically, seepage from the ground approximately 30 yards from the toe of the dam of the Pond.

74. The seepage found near the toe of the dam of the Pond on July 13, 2006, emanated from the Pond.
75. As part of the amendment to his application, RED proposes to enlarge the existing retention pond. During the enlargement, RED will test the existing clay liner to confirm compliance with the Liner Construction and Testing Handbook (Liner Handbook) published on July 1, 1994, pursuant to 30 TAC § 330.6.
76. If the existing liner is not in compliance with the Liner Handbook, RED will reconstruct the Pond liner to meet the Handbook standards.
77. If constructed in compliance with the Liner Handbook, the liner under the Pond will protect groundwater.
78. There is insufficient evidence that the *in situ* clay liner extends throughout the Processing, Windrow, and Mixing areas.
79. There is no evidence that RED adopted an approved soils and liner quality control plan (SLQCP) approved by the ED, and submitted this data to the ED as a soil and liner evaluation report (SLER).
80. There is insufficient evidence that RED proposes to test the *in situ* clay liner underlying the Processing, Windrow, and Mixing areas to confirm compliance with the Liner Handbook or to reconstruct the liner to comply with the Liner Handbook.
81. There is insufficient evidence that the *in situ* clay liner underlying the Processing, Windrow, or Mixing areas will protect groundwater.

## **SURFACE WATER**

82. The Facility is located more than 100 feet from Cowpen Creek, the only body of surface water located near the facility. It is not located over the Edwards Aquifer Recharge Zone.
83. RED's application states that the Facility is surrounded by a berm, approximately three feet in height.
84. The application states that offsite runoff generated by a 25-year, 24-hour rainfall event is intercepted by the berm and diverted around the Site and that all drainage from the area within the berm flows to the Pond.
85. On May 4, 2006, many portions of the berm were less than three feet in height and portions of the perimeter berm had large gaps in them.
86. On May 4, 2006, there was no berm at the entrance to the Facility to prevent onsite storm run-off onto the Facility from Goforth Road.
87. The berm in place at the Facility will not prevent the contamination of surface water by runoff from the facility.
88. RED will reconstruct the berm to comply with the requirements of the permit that there be no discharge from the Facility and no inundation of the Facility from the surrounding areas.
89. In his amended application, RED proposed to enlarge the Pond to contain the base storage volume plus the 25-year, 24-hour rainfall event run-off volume plus sufficient freeboard to contain a 100-year, 24-hour rainfall event volume.
90. The enlarged pond will provide a maximum retained volume of 555,536 cubic feet, which will be sufficient to contain the base storage volume plus the 25-year, 24-hour run-off volume, plus sufficient freeboard to contain the 100-year, 24-hour run-off.

91. The proposed enlargement of the Pond will prevent the contamination of surface water by the water retained in the Pond.

### **PROHIBITED MATERIALS**

92. When a vacuum truck enters the Facility, a RED employee examines the trip manifest, looks in the plastic window on the side and also into the hatch on the top to inspect its contents visually and by smell before the contents are pumped to the Tanks.
93. RED also relies on testing of the Waste by public health entities for identification of the content of the Waste. There is no evidence in the record of the constituents for which any public health entity tests grease trap waste.
94. RED currently only accepts Waste from a few trustworthy vendors.
95. RED does not perform any chemical testing of the Waste entering the Facility or of the Waste before it is applied to the static pile or Windrows.
96. Inspection of the Waste delivered to the Facility as now conducted and proposed would not prevent the delivery of unauthorized and prohibited materials to the Facility.
97. Inspection of the Waste delivered to the Facility as now conducted and proposed would not prevent the application to or incorporation into feedstocks, in-process materials, or processed materials of fungicides, herbicides, insecticides or other prohibited pesticides.

### **END PRODUCT**

98. The Facility produces a Grade 1 compost product that is tested for heavy metal concentrations, pathogens, salinity, and pH, to meet 30 TAC ch. 332, Subchapter G, End-Product Standards.

99. The compost product is sold in bulk. The bulk material is traced using a ticketing system indicating the buyer, buyer's address, and buyer's telephone number.
100. The operation of the Facility in conformance with the SOP will comply with TCEQ rules requiring compliance with end-product testing and standards.

#### **FIRE PREVENTION**

101. RED's application erroneously states that it will comply with the City of Austin Uniform Fire Code, although it is required to comply with the Travis County Fire Code.
102. The Windrows are separated by a distance of approximately 14 feet to 20 feet.
103. An aisle of 20 feet in width is necessary to permit the passage of fire fighting equipment.
104. According to the SOP, RED's fire prevention plan includes the following:
  - a. The entire Facility is designated as a "No Smoking" area.
  - b. All employees will be instructed in firefighting methods and the use of fire extinguishers.
  - c. The Pond will have a hose attached to a pump to produce water for fire extinction if needed, although water would only be used to extinguish equipment fires and not applied to compost fires.
  - d. Portable fire extinguishers with the minimum required rating will be provided on all vehicles and equipment operating on piles and at all processing equipment.
  - e. Windrows will not be placed closer together than 20 feet.
105. RED has made arrangements with a local government entity for back up firefighting assistance.

106. The heavy machinery at the Facility would also be the appropriate equipment to spread composting materials that are on fire to permit them to be extinguished.
107. The SOP includes appropriate fire prevention and control measures.

#### **DUST CONTROL**

108. The Facility does not have water or mechanical dust suppression systems on the grinders or on the conveyors that off-load materials from the grinders in the Processing area. The grinders and conveyors are not enclosed inside a building.
109. The only current method of suppressing dust is a portable watering system consisting of hoses with spray nozzles to knock down dust.
110. Hoses with spray nozzles to knock down dust are sufficient to constitute portable watering equipment available to the operator during the grinding operation within the meaning of 30 TAC § 332.8(e)(4).
111. Hoses with spray nozzles to knock down dust are sufficient to constitute a water suppression system available for the conveyors within the meaning of 30 TAC § 332.8(e)(5).

#### **II. CONCLUSIONS OF LAW**

1. The Commission has jurisdiction over permits for composting facilities pursuant to TEX. HEALTH & SAFETY CODE ANN. ch. 361 and 30 TEX. ADMIN. CODE ch. 332.
2. SOAH has the authority to conduct evidentiary hearings and prepare proposals for decision on contested matters referred by the Commission pursuant to TEX. GOV'T CODE ANN. § 2003.047.
3. RED has the burden of proof by a preponderance of the evidence to show that the proposed operation of the Facility will meet applicable standards for composting facilities and will not permit a discharge into waters in the state.

4. RED met his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will prevent nuisance conditions from interfering with the use and enjoyment of the Protestants' property.
5. RED met his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will comply with applicable end-product testing standards.
6. RED met his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will provide appropriate fire prevention and control measures.
7. RED failed to meet his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will prevent contamination of groundwater under the Facility.
8. RED met his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will prevent the contamination of surface water.
9. RED failed to meet his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will prevent the delivery of unauthorized and prohibited materials to the Site.
10. RED failed to show meet his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will comply with the TCEQ rules enacted to prevent fungicides, herbicides, insecticides or other pesticides that contain constituents listed in 40 CFR Part 261, Appendix VIII-Hazardous Constituents or on the Hazardous Substance List as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) from application or incorporation into feedstocks, in-process materials, or processed materials.

11. RED met his burden of proof to show that operation of the Facility under the terms of MSW Permit No. 2320 will meet applicable air quality requirements for suppression of dust and dust control in connection with operation of the grinders and the conveyors.
12. Based on the above Findings of Fact and Conclusion of Law, the application of RED for MSW Permit No. 2320 fails to comply with the requirements of 30 TEX. ADMIN. CODE ch. 332 in regard to environmental impact, specifically contamination of groundwater; protection against delivery of unauthorized or prohibited materials into the composting process; and application or incorporation of fungicide, herbicides, insecticides or certain other pesticides into the process.
13. In accordance with 30 TEX. ADMIN. CODE § 50.117, the Commission issues this Order as its single decision on the permit application. Information in the agency record of this matter, which includes evidence admitted at the hearing and part of the evidentiary record of this matter, document the ED's review of the permit application, including that part not subject to a contested-case hearing.

**NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION  
ON ENVIRONMENTAL QUALITY, IN ACCORDANCE WITH THESE FINDINGS OF  
FACT AND CONCLUSIONS OF LAW, THAT:**

1. In accordance with 30 TEX. ADMIN. CODE § 50.117, the Commission issues this Order denying the issuance of MSW Permit No. 2320 to Roy Eugene Donaldson, II, as its single decision on the permit application.
2. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief, if not expressly granted herein, are hereby denied.
3. The effective date of this Order is the date the Order is final, as provided by TEX. GOV'T CODE ANN. § 2001.144 and 30 TEX. ADMIN. CODE § 80.273 .
4. The Commission's Chief Clerk shall forward a copy of this Order to all parties.
5. If any provision, sentence, clause, or phase of this Order is for any reason held to be invalid, the invalidity of any provision shall not affect the validity of the remaining portions of this Order.

ISSUED:

TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

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Buddy Garcia, Chairman  
For the Commission