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RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

MEMORANDUM

DATE: March 28, 2016

TO: Ryan Flynn, Secretary, New Mexico Environment Department
Michael Vonderheide, Director, Environmental Protection Division

THROUGH: Jeff Kendall, General Counsel, NMED

FROM: Mia Napolitano, Assistant General Counsel

CC: Bill Chavez King, Environmental Health Bureau Chief
Jim Vincent, Liquid Waste Program Manager

Re: Fuji Clean USA, LLC request for approval WTAC Proposed Findings

Attached for your consideration are the Proposed Findings issued by the Wastewater Technical Advisory Committee recommending standard approval of the Fuji Clean USA, LLC ("Fuji Clean") models CE5, CE7, CE10, CE21, CE30, CEN5, CEN7, CEN10, and CEN21 for secondary and tertiary treatment. The WTAC has recommended standard status approval for CE5, CE7, CE10, CE21, and CE30 ("CE models") for secondary treatment and it has recommended standard status approval for CEN5, CEN7, CEN10, and CEN21 ("CEN models") for tertiary treatment. Also attached for your consideration is a draft Order adopting the Proposed Findings and granting standard status approval of CE and CEN models for use in New Mexico. The WTAC recommends standard status approval because these models have NSF/ANSI certification.

On December 18, 2015, the WTAC met to consider this application for approval at a properly noticed open meeting. The WTAC issued its Proposed Findings on March 22, 2016.

If the proposed order meets your approval, please sign and return to me, and I will work with the Bureau to have the product noted on New Mexico's Approved Products List.

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BEFORE THE SECRETARY OF THE ENVIRONMENT DEPARTMENT

In the Matter of the
Request for Approval
By Fuji Clean models CE5,
CE7, CE10, CE21, CE30, CEN5,
CEN7, CEN10, and CEN21

Proposed Findings

The Wastewater Technical Advisory Committee ("WTAC") hereby makes the following findings in the review of the Fuji Clean models CE5, CE7, CE10, CE21, and CE30 for standard status approval as a secondary treatment unit and models CEN5, CEN7, CEN10, and CEN21 for standard status approval as a tertiary treatment unit.

1. Fuji Clean USA, LLC ("Fuji Clean") submitted an application and all required supporting materials to the New Mexico Environment Department ("Department") to request standard approval as a secondary unit for all configurations/dimensions for fiber-reinforced plastic (FRP) tank models and their rated flow, for use in the State of New Mexico as listed below:
    a. CE5, 450gpd
    b. CE7, 630gpd
    c. CE10, 900gpd
    d. CE21, 1,900gpd
    e. CE30, 2700gpd

    Fuji Clean also submitted all required supporting materials to the Department to request standard approval as a tertiary unit for all configurations/dimensions for FRP tank models and their rated flow, for use in the State of New Mexico as listed below:
    a. CEN5, 450gpd
    b. CEN7, 630gpd
    c. CEN10, 900gpd
    d. CEN21, 1,900gpd

    The application and supporting materials ("Application") are incorporated herein by

reference and relied upon by the WTAC in issuing these findings.

2. Department staff reviewed the Application on November 3, 2015, and submitted separate recommendations for approval of the CE models and CEN models to the WTAC. Staff's recommendations are incorporated herein by reference and relied upon by the WTAC in issuing these findings.

3. The WTAC met to consider the Application at a properly noticed open meeting on December 18, 2015.

4. Fuji Clean's "contact filtration" treatment is a simple, engineered process that consists of a controlled, circuitous flow train through anaerobic and aerobic chambers and in direct contact with assorted proprietary fixed film media on which biological conversion of organic matter occurs. Media is also designed and positioned to provide filtration of process wastewater. The system includes two air lift pumps. The recirculating Airlift Pump returns process water and sludge from the aerobic zone to the sedimentation chamber, recirculating 2-4 times inflow per day for CE models and 4-6 times inflow for CEN (enhanced denitrification) models. The Effluent Airlift Pump is designed to help equalize flow and discharge treated effluent.

5. Pursuant to the WTAC's Product Review Process, adopted December 14, 2012 (PRP) Section III.A.2, the submittal packet disclosed the local distributor in section 9 as a "One Stop Septic Shop" in Surprise Arizona. The Liquid Waste Program Staff (LWPS) asked the manufacturer to provide assurance that this distributor is capable of meeting the needs of its New Mexico installers, contractors, maintenance service providers, and homeowners. LWPS expects local distributors to have adequate knowledge of NMAC 20.7.3 and the Liquid Waste Program's Standard Operating Procedures and guidance to properly advise and train its New Mexico customers. The WTAC takes note of the difficulty in securing a local distributer prior to approval of a product for use in the state, but it recommends that training be provided for service providers within 90 days of approval of these products, should the Secretary grant standard status.

6. The submittal packet did not address cold weather and high elevation as a specific issue with defined actions to be taken by operations and maintenance personnel as called for by WTAC PRP Section III.B.7. The application did not indicate that either is a performance limiting issue.

7. On December 28, 2015, Fuji Clean submitted the following items to LWPS for their review: (1) data on denitrification capabilities in colder climates; (2) engineering analysis of blower performance at altitude with suggested upsizing to maintain a consistent factor of safety; and (3) a revised page from the standard Fuji Clean Installation Manual that incorporates a blower adjustment for higher altitude sites. The WTAC's concerns in the areas of cold weather and high elevation have been adequately addressed by this supplemental information.

8. PRP Section IV.A.1 states:

    a. Products that have been certified by an ANSI-accredited organization as providing Class 1 treatment pursuant to ANSI/NSF Standard 40 shall be deemed capable of performing advanced treatment and recommended for Standard Status.
    b. Treatment systems that have been certified by an ANSI-accredited body as providing both secondary treatment and a 50% reduction in total nitrogen pursuant to ANSI/NSF Standard 245, shall be deemed capable of performing tertiary treatment and recommended for Standard Status corresponding to the average total nitrogen concentration in effluent determined during the ANSI/NSF testing plus an additional 5 mg/L. Manufacturers of treatment systems wishing to qualify for a total nitrogen approval lower than that described in this section may request a recommendation to follow the process in Sections IV.A.2 and IV.A.3 below.

Fuji Clean Models CE5, CE7, CE10, CE21, CE30

9. Fuji Clean requested standard status approval for secondary treatment to reduce biochemical oxygen demand (BOD) and total suspended solids (TSS) below the NMAC 20.7.3.602.A requirements of 30 mg/L.

10. Fuji Clean submitted the ANSI/NSF final report for model CE5 with its Application. The final report demonstrates that CE5 meets ANSI/NSF 40 for Class I effluent. It further demonstrates that CE5 meets 20.7.3.602.A NMAC requirements for secondary treatment standards.

11. Over the course of the model CE5 evaluation, the average influent BOD5 was 190 mg/L with an average effluent result of 4 mg/L CBOD5. The influent TSS average was 300 mg/L and the effluent averaged 6 mg/L suspended solids.

12. Performance and process data for CE5 was collected and tested by an independent laboratory and provided in the Application.

13. Model CE5 is a 450gpd unit and the requested approval models range from 450 to 2,700 gpd. Models CE5, CE7, CE10, and CE21 are all within the 1:5 scale up ratio requirements of the PRP, Section IV.A.-4. However, model CE30 is 2,700 gpd which exceeds the 1:5 ratio (450:2250) and consequently the WTAC cannot recommend model CE30 for approval within the scale up allowance.

14. The submittal packet did not demonstrate compliance with PRP, Section III.B.4. All FRP series model tanks are not demonstrated as meeting 20.7.3.501 and .502.K NMAC standards (IAPMO certification). Structural analysis and or IAPMO certifications of tanks were not provided.

15. The PRP, Section IV.A.1.a, states "Products that have been certified by an ANSI-accredited organization as providing Class 1 treatment pursuant to ANSI/NSI Standard

40, shall be deemed capable of performing secondary treatment and recommended for Standard Status."

16. The information provided in the application and additional information submitted by Fuji Clean on December 28, 2015, demonstrates that CE5, CE7, CE10, and CE21 have ANSI/NSF Standard 40 certification. Pursuant to PRP, Section IV.A.1.a), Fuji Clean models CE5, CE7, CE10, and CE21 are recommended for standard status approval as secondary treatment units.

Fuji Clean Models CEN5, CEN7, CEN10, CEN21

17. Fuji Clean requested standard approval for tertiary treatment to reduce total nitrogen meeting 20.7.3.603.A and .B NMAC requirements.

18. Model CEN5 meets ANSI/NSF 40 for Class I effluent and Standard 245 (2010a), and it meets 20.7.3.603.A NMAC requirements for tertiary treatment standards.

19. Model CEN5 meets PRP, Section IV.A.1.b, and consequently this product is deemed capable of performing tertiary treatment. Model CEN5 is a 450gpd unit and the requested approval models range from 450 to 1,900 gpd. This is well within the 1:5 ratio requirements in the PRP Section IV.A.4 scale up requirements. Additionally, the submitted NSF40/245 report demonstrated a 75% reduction in TN and an average TN of 10.0 mg/L. Therefore this model and like models are recommended for a total nitrogen approval not below 15.0 mg/L.

20. The submittal packet does not demonstrate compliance with PRP, Section III.B.4. All FRP series model tanks are not demonstrated as meeting 20.7.3.501 and .502.K standards (IAPMO certification). Structural analysis and or IAPMO certifications of tanks were not provided. However, the additional information the Fuji Clean submitted on December 28, 2015, demonstrates that the FRP series model tanks for all models in question meet the requirements of the PRP, Section III.B.4.

21. The WTAC recommends approval by the Department Secretary that this product and models CEN5, CEN7, CEN10, and CEN21 be approved for use in the state of New Mexico under standard status as a tertiary treatment unit with an approved treatment level not more than 15.0 mg/L.

Recommendation

22. Pursuant to the PRP, Section IV.A.1 and based on the level of treatment demonstrated by NSF testing of the CE and CEN models, the WTAC recommends that the Secretary of the Department grant standard status for secondary treatment to Fuji Clean models CE5, CE7, CE10, CE21 and standard status for tertiary treatment to Fuji Clean modes CEN5, CEN7, CEN10, and CEN21 for use in New Mexico.

23. Different manufacturers' advanced treatment units are unique in various respects and

training by each individual manufacturer is essential for NMED staff to understand appropriate installation and operation of each approved model to perform their duties of permitting and inspection. Consequently, the WTAC recommends that if the Secretary grants Standard Status to the Fuji Clean CE and CEN models, he further requires that the manufacturer provide training to Department staff in Albuquerque, within 90 days of the date of approval, if approval is granted by the Secretary.

24. Section VII of the WTAC Product Review Process, dated December 14, 2012, states, "Advanced treatment products must be re-approved by the Secretary every seven years."

25. The above findings by the WTAC support a standard approval for seven years, with the inclusion of training responsibilities of the manufacturer, as noted above for the Fuji Clean models advanced treatment units for secondary and tertiary treatment.

11.22.2016
Date

W. Daniel Boivin, Chair
Wastewater Technical Advisory Committee

State of New Mexico
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BEFORE THE SECRETARY OF THE ENVIRONMENT DEPARTMENT

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CEN7, CEN10, and CEN21

ORDER

Findings and Conclusions of the Secretary

The Secretary of the New Mexico Environment Department ("NMED" or "Department") has reviewed the Proposed Findings submitted by the Wastewater Technical Advisory Committee ("WTAC") concerning the Application by Fuji Clean USA, LLC ("Fuji Clean") for the Fuji Clean models CE5, CE7, CE10, CE21, CE30 ("CE models") for standard status approval as a secondary treatment unit and models CEN5, CEN7, CEN10, and CEN21 ("CEN models") for standard status approval as a tertiary treatment unit for use in the State of New Mexico. Based on his review, the Secretary issues the following findings and conclusions:

1) Pursuant to NMSA 1978, §9-7A-15(E), the WTAC provides a "standardized objective evaluation of wastewater treatment and disposal technologies" and "submit[s] its findings to the secretary for final approval by the secretary..."

2) Proper review and approval of wastewater treatment and disposal technologies are important for the prevention of hazards to the public health and consumer protection.

3) Pursuant to NMSA 1978, §9-7A-15(E), the WTAC has submitted Proposed Findings for Fuji Clean which are incorporated herein by reference.

4) Fuji Clean, where appropriately applied, is likely to be protective of public health and the environment and to provide adequate protection to consumers.

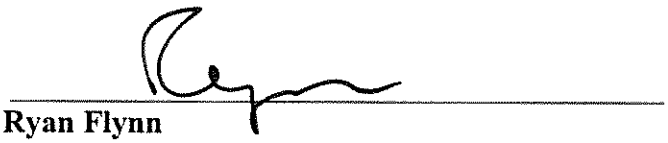
5) Improper installation, operation, or maintenance may cause any wastewater treatment and disposal technology to fail to function properly, which may include failure to meet treatment performance criteria. NMED's approval of any liquid waste treatment or disposal technology does not impart or imply any guarantee that it will, in fact, function properly. Malfunctioning liquid waste treatment and disposal systems may result in hazards to public safety, health, welfare; degradation of water quality; and violations of applicable Liquid Waste Disposal and Treatment regulations and standards, 20.7.3 NMAC.

6) Fuji Clean's CE models have the potential to treat and reduce BOD and TSS below limits set by 20.7.3 NMAC for primary treatment standards. It is hereby given Standard Status for secondary treatment of 30 mg/L BOD and TSS. Fuji Clean's CEN models have the potential to reduce total nitrogen with an approved treatment level not more than 15.0 mg/L, meeting 20.7.3 NMAC requirements. It is hereby given Standard Status for tertiary treatment. Both CE and CEN models are subject to certain conditions as follows:
   a. Fuji Clean will provide training to the Environmental Health Bureau staff on the installation and operation of the CE and CEN models in order to support staff's duties of permitting and inspection, which training shall take place within ninety days following Department approval.
   b. This approval is valid for seven years from the date of this Order.
   c. If Fuji Clean wishes to renew this approval, it may submit a Request for Renewal and Design Modification Report to the Department no less than six months prior to the expiration of this Order.
   d. Fuji Clean may install an unlimited number of products throughout the jurisdiction of NMED in accordance with the WTAC's product review procedures, Section II.C and the Liquid Waste Regulations 20.7.3 NMAC.
   e. Prior to making any major modifications to the CE and CEN models and selling those modified units in New Mexico, Fuji Clean shall notify the Department's Environmental Health Bureau of such modifications. The Environmental Health Bureau shall determine if the changes are subject to review by the WTAC based on the following definition and shall inform the manufacturer accordingly: "design modification" means any change in size, material, configuration, or component equipment that may affect the performance, accessibility, installation procedures, ease of maintenance or repair, parts availability, or longevity of any product.
   f. If field performance indicates that the CE and CEN models do not perform as represented, this Order is subject to revocation or modification provided that Fuji Clean shall be given notice and an opportunity to respond to any alleged inadequate performance prior to such revocation or modification.

7) This order does not impart or imply any endorsement of, or concurrence with, any claims made by the manufacturer.

8) This Order does not constitute approval of marketing, advertising, or labeling practices employed by the manufacturer.

Therefore, it is hereby ordered that the Fuji Clean Wastewater Treatment Systems, models, CE5, CE7, CE10, CE21, CE30, CEN5, CEN7, CEN10, and CEN21 are granted Standard Status.



3-30-2016

Ryan Flynn
Cabinet Secretary
New Mexico Environment Department

Date