CA

64669.75 Engineering Report

(a)

A DiPRRA shall develop an engineering report for each DPR project and submit the engineering report to the State Board with the permit application prepared pursuant to section 64669.15.

(b)

The engineering report shall be prepared by an engineer licensed in California with at least five years of experience, as a licensed engineer, in drinking water and wastewater treatment evaluating treatment processes for pathogen and chemical control in a public water supply.

(c)

The engineering report shall contain the following information:(1) A description of how the DPR project intends to comply with each and every requirement in this Article and the applicable requirements in Chapter 17, including a description of all facilities, personnel, and support services necessary for the operation of the DPR project. (2) A characterization of the quality of the municipal wastewater that will be used and treated by the DPR project to produce drinking water. The characterization shall include the following components:(A) Analytical results from samples collected on a monthly basis for no less than 24 consecutive months from monitoring location(s) representative of the feed water(s) to the DPR project for the following chemicals. All monitoring data generated for the characterization

shall include detection limit information. For chemicals with drinking water standards, the detection limit for analysis shall be at or below those specified in sections 64432, 64445.1, 64442, 64443, 64533. All data used in the characterization shall be included in the engineering report. 1. Chemicals with a primary MCL, a secondary MCL, or an action level; 2. Priority toxic pollutants (chemicals listed in 40 CFR section 131.38, dated July 1, 2023, "Establishment of numeric criteria for priority toxic pollutants for the State of California," which is hereby incorporated by reference); 3. Chemicals with notification levels; 4. The following solvents: acetone; N,N-dimethylacetamide; methanol; and methyl ethyl ketone; 5. Treatment byproduct precursors and treatment byproducts; 6. Chemicals specified by the State Board, based on a review of the wastewater source control program pursuant to section 64669.40(a)(3); 7. Chemicals associated with business and household sources of hazardous substances, pharmaceuticals, and personal care products, and based on published or otherwise available results of analyses of wastewater and environmental waters sampled locally from nearby watersheds or within nearby urban areas with similar demographics; and 8. Other chemicals specified by the State Board that may pose a human health risk. (B) An evaluation of the data collected pursuant to subsection (c)(2)(A) to assess the potential human health risks from detected chemicals.1. The evaluation shall include a comparison of the maximum concentrations of chemicals in wastewater documented in subsection (c)(2)(A) with primary MCLs, action levels, and notification levels. 2. For chemicals without primary MCLs, action levels or notification levels, the evaluation shall include a comparison of the maximum concentration of the chemical in wastewater documented in subsection (c)(2)(A) with human health protective levels for drinking water. Human health protective levels include public health goals or the

results of other human health risk assessments by the state Office of Environmental Health Hazard Assessment, or similar protective levels derived from human health risk assessments performed or compiled by California state agencies, the U.S. EPA, or State Board scientific advisory bodies, or other similar public health protective levels required by the State Board. 3. The evaluation, along with the cited document(s) that are the source of information of the health protective level of a chemical in drinking water, shall be presented in tables and an accompanying narrative discussion to identify chemicals that may pose a risk to public health in the wastewater, their potential to cause exceedances of MCLs or notification levels by the proposed DPR project, and their potential to be controlled by the use of local limits and other discharge control methods. 4. The narrative discussion shall also identify detected chemicals that lack available human health risk assessments, and identify analytical methods used that do not have the necessary sensitivity for a comparison to a human health protective level in drinking water. (3) Information regarding anticipated changes to wastewater characteristics, including anticipated effects due to climate change, and information regarding any existing or planned activities to optimize wastewater treatment operations, including influent flow and load equalization, enhancements to primary treatment, equalization and treatment of return flows, modification of biological treatment process operations, implementation of new biological treatment processes, and enhancements in process monitoring, effluent filtration, and effluent disinfection methods.

(1)

A description of how the DPR project intends to comply with each and every requirement in this Article and the applicable requirements in Chapter 17, including a description of all facilities, personnel, and support services necessary for the operation

of the DPR project.

(2)

A characterization of the quality of the municipal wastewater that will be used and treated by the DPR project to produce drinking water. The characterization shall include the following components:(A) Analytical results from samples collected on a monthly basis for no less than 24 consecutive months from monitoring location(s) representative of the feed water(s) to the DPR project for the following chemicals. All monitoring data generated for the characterization shall include detection limit information. For chemicals with drinking water standards, the detection limit for analysis shall be at or below those specified in sections 64432, 64445.1, 64442, 64443, 64533. All data used in the characterization shall be included in the engineering report. 1. Chemicals with a primary MCL, a secondary MCL, or an action level; 2. Priority toxic pollutants (chemicals listed in 40 CFR section 131.38, dated July 1, 2023, "Establishment of numeric criteria for priority toxic pollutants for the State of California," which is hereby incorporated by reference); 3. Chemicals with notification levels; 4. The following solvents: acetone; N,N-dimethylacetamide; methanol; and methyl ethyl ketone; 5. Treatment byproduct precursors and treatment byproducts; 6. Chemicals specified by the State Board, based on a review of the wastewater source control program pursuant to section 64669.40(a)(3); 7. Chemicals associated with business and household sources of hazardous substances, pharmaceuticals, and personal care products, and based on published or otherwise available results of analyses of wastewater and environmental waters sampled locally from nearby watersheds or within nearby urban areas with similar demographics; and 8. Other chemicals specified by the State Board that may pose a human health risk. (B) An evaluation of the data collected pursuant to subsection (c)(2)(A) to assess the potential human health risks from detected chemicals.1. The evaluation shall include

a comparison of the maximum concentrations of chemicals in wastewater documented in subsection (c)(2)(A) with primary MCLs, action levels, and notification levels. 2. For chemicals without primary MCLs, action levels or notification levels, the evaluation shall include a comparison of the maximum concentration of the chemical in wastewater documented in subsection (c)(2)(A) with human health protective levels for drinking water. Human health protective levels include public health goals or the results of other human health risk assessments by the state Office of Environmental Health Hazard Assessment, or similar protective levels derived from human health risk assessments performed or compiled by California state agencies, the U.S. EPA, or State Board scientific advisory bodies, or other similar public health protective levels required by the State Board. 3. The evaluation, along with the cited document(s) that are the source of information of the health protective level of a chemical in drinking water, shall be presented in tables and an accompanying narrative discussion to identify chemicals that may pose a risk to public health in the wastewater, their potential to cause exceedances of MCLs or notification levels by the proposed DPR project, and their potential to be controlled by the use of local limits and other discharge control methods. 4. The narrative discussion shall also identify detected chemicals that lack available human health risk assessments, and identify analytical methods used that do not have the necessary sensitivity for a comparison to a human health protective level in drinking water.

(A)

Analytical results from samples collected on a monthly basis for no less than 24 consecutive months from monitoring location(s) representative of the feed water(s) to the DPR project for the following chemicals. All monitoring data generated for the characterization shall include detection limit information. For chemicals with drinking water standards, the detection limit for analysis shall be at or below those specified in sections 64432, 64445.1, 64442,

64443, 64533. All data used in the characterization shall be included in the engineering report. 1. Chemicals with a primary MCL, a secondary MCL, or an action level; 2. Priority toxic pollutants (chemicals listed in 40 CFR section 131.38, dated July 1, 2023, "Establishment of numeric criteria for priority toxic pollutants for the State of California," which is hereby incorporated by reference); 3. Chemicals with notification levels; 4. The following solvents: acetone; N,N-dimethylacetamide; methanol; and methyl ethyl ketone; 5. Treatment byproduct precursors and treatment byproducts; 6. Chemicals specified by the State Board, based on a review of the wastewater source control program pursuant to section 64669.40(a)(3); 7. Chemicals associated with business and household sources of hazardous substances, pharmaceuticals, and personal care products, and based on published or otherwise available results of analyses of wastewater and environmental waters sampled locally from nearby watersheds or within nearby urban areas with similar demographics; and 8. Other chemicals specified by the State Board that may pose a human health risk.

1.

Chemicals with a primary MCL, a secondary MCL, or an action level;

2.

Priority toxic pollutants (chemicals listed in 40 CFR section 131.38, dated July 1, 2023, "Establishment of numeric criteria for priority toxic pollutants for the State of California," which is hereby incorporated by reference);

3.

Chemicals with notification levels;

4.

The following solvents: acetone; N,N-dimethylacetamide; methanol; and methyl ethyl ketone;

5.

Treatment byproduct precursors and treatment byproducts;

6.

Chemicals specified by the State Board, based on a review of the wastewater source control program pursuant to section 64669.40(a)(3);

7.

Chemicals associated with business and household sources of hazardous substances, pharmaceuticals, and personal care products, and based on published or otherwise available results of analyses of wastewater and environmental waters sampled locally from nearby watersheds or within nearby urban areas with similar demographics; and

8.

Other chemicals specified by the State Board that may pose a human health risk.

(B)

An evaluation of the data collected pursuant to subsection (c)(2)(A) to assess the potential human health risks from detected chemicals.1. The evaluation shall include a comparison of the maximum concentrations of chemicals in wastewater documented in subsection (c)(2)(A) with primary MCLs, action levels, and notification levels. 2. For chemicals without primary MCLs, action levels or notification levels, the evaluation shall include a comparison of the maximum concentration of the chemical in wastewater documented in subsection (c)(2)(A) with human health protective levels for drinking water. Human health protective levels include public health goals or the results of other human health risk assessments by the state Office of Environmental Health Hazard Assessment, or similar protective levels derived from human health risk assessments performed or compiled by California state agencies, the U.S. EPA, or State Board scientific advisory bodies, or other similar public health protective levels required by the State Board. 3. The evaluation, along with the cited document(s) that are the source of information of the health protective level of a chemical in drinking water, shall be presented in tables and an accompanying narrative discussion to identify chemicals that may pose a risk to public health in the wastewater, their potential to cause exceedances of MCLs or notification levels by the proposed DPR project, and their potential to

be controlled by the use of local limits and other discharge control methods. 4. The narrative discussion shall also identify detected chemicals that lack available human health risk assessments, and identify analytical methods used that do not have the necessary sensitivity for a comparison to a human health protective level in drinking water.

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The evaluation shall include a comparison of the maximum concentrations of chemicals in wastewater documented in subsection (c)(2)(A) with primary MCLs, action levels, and notification levels.

2.

For chemicals without primary MCLs, action levels or notification levels, the evaluation shall include a comparison of the maximum concentration of the chemical in wastewater documented in subsection (c)(2)(A) with human health protective levels for drinking water. Human health protective levels include public health goals or the results of other human health risk assessments by the state Office of Environmental Health Hazard Assessment, or similar protective levels derived from human health risk assessments performed or compiled by California state agencies, the U.S. EPA, or State Board scientific advisory bodies, or other similar public health protective levels required by the State Board.

3.

The evaluation, along with the cited document(s) that are the source of information of the health protective level of a chemical in drinking water, shall be presented in tables and an accompanying narrative discussion to identify chemicals that may pose a risk to public health in the wastewater, their potential to cause exceedances of MCLs or notification levels by the proposed DPR project, and their potential to be controlled by the use of local limits and other discharge control methods.

4.

The narrative discussion shall also identify detected chemicals that lack available human health risk assessments, and identify analytical methods used that do not have the necessary sensitivity for a

comparison to a human health protective level in drinking water.

(3)

Information regarding anticipated changes to wastewater characteristics, including anticipated effects due to climate change, and information regarding any existing or planned activities to optimize wastewater treatment operations, including influent flow and load equalization, enhancements to primary treatment, equalization and treatment of return flows, modification of biological treatment process operations, implementation of new biological treatment processes, and enhancements in process monitoring, effluent filtration, and effluent disinfection methods.

(d)

Every five years from the date of the initial approval of the engineering report, a DiPRRA shall update the engineering report and submit the updated engineering report to the State Board. The update shall include: (1) A description of the planned upgrades to the treatment train; (2) A description of capital improvements to DPR project facilities; (3) A summary of any updates to the joint plan; (4) A summary of any updates to the wastewater source control program; (5) An evaluation of treatment process optimization and treatment efficacy; (6) A summary of any updates to the water safety plan; (7) An assessment of operations, a summary of operator training, and a description of needed improvements; and (8) An update of the 5-year capital replacement cost and budget forecast.

(1)

A description of the planned upgrades to the treatment train;

(2)

A description of capital improvements to DPR project facilities;

(3)

A summary of any updates to the joint plan;

(4)

A summary of any updates to the wastewater source control program;

(5)

An evaluation of treatment process optimization and treatment efficacy;

(6)

A summary of any updates to the water safety plan;

(7)

An assessment of operations, a summary of operator training, and a description of needed improvements; and

(8)

An update of the 5-year capital replacement cost and budget forecast.