

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 12 October 2023**

**Response To Written Comments for the
City Of Dinuba
Dinuba Wastewater Treatment Facility
Tulare County
Tentative Waste Discharge Requirements**

At a public hearing scheduled on 12 October 2023, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider the adoption of Waste Discharge Requirements (WDRs) for the City of Dinuba's Dinuba Wastewater Treatment Facility (Facility or WWTF) for the discharge of domestic wastewater to land in Tulare County.

This document contains responses to written comments received from interested persons regarding the tentative WDRs (TWDRs) and the tentative Monitoring and Reporting Program (MRP) circulated on 27 July 2023. Written comments from interested parties were required to be received by the Central Valley Water Board by 5:00 p.m. on 28 August 2023 to receive full consideration. Comments were received by the City of Dinuba (also referred to as Discharger or City) and Ms. Jo Anne Kipps.

Written comments are summarized below, followed by responses from Central Valley Water Board staff. In addition, staff made a few minor changes to the TWDRs to improve clarity and fix typographical errors.

CITY OF DINUBA COMMENTS

City – Comment #1: The tentative MRP requires the City to monitor the Facility's influent monthly for total nitrogen. The City requests that the total nitrogen monitoring requirement be replaced with a total Kjeldahl nitrogen (TKN) monitoring since nitrate concentrations in raw wastewater are typically negligible.

Response: Staff made the requested change to the tentative MRP.

City – Comment #2: The tentative MRP requires the City to monitor for nitrite and oil and grease. The City requests that these parameters be removed from the list of effluent monitoring requirements in the MRP.

RESPONSE: The tentative MRP requires the Discharger to monitor the Facility's effluent for the different nitrogen speciation, including total nitrogen, to characterize the Facility's effluent and potential impact on underlying groundwater. Total nitrogen is the sum of TKN, nitrate, and nitrite. Therefore, the effluent's nitrite concentration is needed to calculate the total nitrogen concentration. There are analytical lab methods that can analyze a sample for both nitrate and nitrite. Staff modified the MRP to allow the City to monitor for the

combined nitrate plus nitrite concentration, instead of each constituent individually.

Regarding the City's oil and grease monitoring reduction request, staff changed the oil and grease effluent monitoring frequency from twice per month to once per month in the tentative MRP. Historically, the City of Dinuba had issues with oil and grease in the effluent, which impaired the Facility's pond percolation capacity and caused the Facility to have effluent storage/disposal issues. Continued monitoring of the Facility's effluent for oil and grease is necessary to help ensure this issue does not reoccur in the future.

City – Comment #3: The City requests that the tentative MRP's effluent monitoring frequency for metals and standard minerals be reduced from quarterly to annually.

RESPONSE: Staff modified the tentative MRP to require annual sampling for metals and standard minerals after four consecutive quarterly sampling events.

KIPPS COMMENTS

Kipps – Comment #1: Finding 9 appears to indicate that Pond 6 is used for emergency storage of untreated or partially treated wastewater and for effluent disposal. The Information Sheet states that effluent is discharged to 11 ponds (i.e., it excludes the use of Pond 6 as a disposal pond). Please revise this Finding to be consistent with the Information Sheet.

RESPONSE: Staff revised Finding 9 of the TWDRs to be consistent with the Information Sheet.

Kipps – Comment #2: The discharge of untreated or partially treated wastewater to Pond 6 is not depicted in Attachment B – Process Flow Diagram. Please indicate whether wastewater discharged to Pond 6 is returned to the treatment works and, if so, describe how this is done. Please consider revising Attachment B to include the discharge to Pond 6 for emergency storage and, if applicable, the return of Pond 6 wastewater to the treatment works.

RESPONSE: The Discharger reportedly pumps any untreated or partially treated wastewater in the emergency storage pond back to the headworks using a portable pump. Staff revised Attachment B – Process Flow Diagram of the TWDRs to reflect this.

Kipps – Comment #3: Please consider presenting influent flow data for wet and dry periods and an accompanying analysis to indicate whether the Facility's collection system experiences significant inflow and infiltration and, as such, would warrant restricting the determination of compliance with the influent flow limitation to dry weather months. If inflow and infiltration are not a problem, please consider omitting the qualifier "dry weather" from the discharge flow limitation.

RESPONSE: In response to the comment, staff reviewed 2023 data provided by the Discharger and it showed a significant increase in effluent flow on days when there were significant rain events. Therefore, staff proposes the TWDRs retain the dry-weather flow limitation of 3.0 million gallons per day. Staff revised Finding 10 of the TWDRs to include this information.

Kipps – Comment #4: Please describe what happened to the three polishing ponds identified in the WDRs Order 95-200. Where were they located? Were they repurposed (e.g., used for sludge drying beds)?

RESPONSE: Based on available information, it appears that the land where the three “polishing ponds” were located was repurposed. According to a 1993 Central Valley Water Board inspection report, there were three ponds labeled oxidation/polishing ponds 1, 2, and 3. These ponds were located at the site of the current activated sludge aeration basin, aerobic digester, and sludge beds 3, 4, 5, and 6 (see Attachment D of the TWDRs for a map).

Kipps – Comment #5: Are Ponds 11 and 12 situated in the same area identified in WDRs Order 95-200 as that proposed for three new disposal ponds?

RESPONSE: Staff reviewed available information but could not definitively determine if Ponds 11 and 12 are in the same location as where the Discharger proposed to install three ponds (as mentioned in WDRs Order 95-200). Ponds 11 and 12 were constructed in 2010 and their surface area totals 24.9 acres according to the 2022 Report of Waste Discharge (RWD).

Kipps – Comment #6: Ms. Kipps provided multiple comments/questions about the aerobic sludge digester and asphalt-paved sludge drying area.

RESPONSE: In response to the comment/questions, staff inquired with the Discharger and the consulting engineer who prepared the 2022 RWD. The soils underneath both the aerobic sludge digester and asphalt-paved sludge drying area were reportedly compacted prior to installation. The design hydraulic head for the aerobic digester is approximately 15 feet. Staff could not find the liner's design leakage rate. The Discharger visually inspects above the waterline portion of the aerobic sludge digester liner and the pavement for sludge drying daily. Staff revised the TWDRs by adding Solids Disposal Specification H.7. to require the Discharger to test the aerobic digester liner and sludge drying area asphalt every three years. If the testing determines significant leaks, the Specification requires the discharger to provide a work plan proposing a schedule to repair the liner and/or asphalt. Staff also revised the tentative MRP to require the City to monitor the conditions of the aerobic digester liner and sludge drying area asphalt every quarter.

Kipps – Comment #7: The screw press filtrate is not depicted in Attachment B of the TWDRs (Process Flow Diagram). Please confirm that the filtrate is routed back to the

treatment works and consider revising Attachment B to include this waste stream. Also, please confirm that storm water runoff from the asphalt-paved sludge drying area is routed to the treatment works.

RESPONSE: Screw press filtrate and aerobic digester supernatant are also routed to the activated sludge process. There is an asphalt berm around the asphalt-paved area, and stormwater is collected in drains within the paved area and fed into the activated sludge process. Staff modified Attachment B of the TWDRs to reflect this.

Kipps – Comment #8: Based on historical Google Earth images (e.g., 9/22/2009, 6/14/2011, 2/20/2014, 2/8/2018, 4/21/2023), there is a 2.7-acre area immediately south of the asphalt-paved sludge drying area that, judging from historic imagery appears to be used to stockpile waste (e.g., pond sediment, dried sludge?). What type(s) of waste is stockpiled in this area and does the Discharger intend to continue using this area to stockpile waste? How is storm water runoff from this area managed?

RESPONSE: In response to this comment, staff inquired with the City. According to the Facility's chief plant operator, there is a dirt pile in the specified area left over from the construction of the paved sludge drying area. Furthermore, the City stockpiles tree cuttings from the site of the specified area. No biosolids or pond sediments are stored in the specified area. The solids from the bottom of the ponds are disked or ripped into the pond bottoms. The area is depressed compared to the surrounding land and water collects there but does not run off.

Kipps – Comment #9: What is the final disposal location(s) of the dried sludge removed by the septic hauler (e.g., a permitted composting facility or biosolids disposal operation)? Regarding the entity that hauls away and disposes of the Facility's sludge, the Information Sheet identifies it simply as "Brisco." Is the entity Jim Brisco Enterprises, Inc.? If so, please consider specifying this entity in Finding 17 and the Information Sheet

RESPONSE: The final disposal location of the Facility's biosolids has varied in recent years (e.g., composting facility or land application site). The proposed disposal location for the Facility's biosolids is a land application area operated by Jim Brisco Enterprises, Inc. (referred to as Nyman Farms). The Central Valley Water Board received a Notice of Intent for the proposed land application area on 11 July 2023. Staff are currently working on preparing a Notice of Applicability to enroll the land application area under State Water Resources Control Board's Water Quality Order 2004-0012-DWQ, *General Waste Discharge Requirements for the Discharge of Biosolids To Land For Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities*. Finding 17 and the Information Sheet of the TWDRs were revised to reflect this information.

Kipps – Comment #10: Regarding sludge quality, is there evidence indicating that industrial wastes discharged to the Facility's collection system has degraded sludge quality for metals and other toxic constituents?

RESPONSE: Based on the information available, it does not appear that industrial discharges to the Facility's collection system have degraded the Facility's sludge quality. The City samples Ruiz Food Products, Inc.'s (Ruiz) wastewater twice a week for fats, oil, and grease, BOD, TSS, and EC. Dinuba does not test Ruiz wastewater for metals as Ruiz packages their products in plastics. Furthermore, recent biosolids data (3rd Quarter of 2022, 4th Quarter of 2022, and 1st Quarter of 2023) does not show exceedances of the ceiling concentrations for metals for land application established in 40 Code of Federal Regulations part 503 (see table below).

	Q3 2022	Q4 2022	Q1 2023	Ceiling Concentration for Land Application of all Biosolids	Pollutant Concentration Limits for Exceptional Quality and Pollutant Concentration Biosolids for Land Application
Arsenic (mg/kg)	ND	3	ND	75	41
Cadmium (mg/kg)	ND	ND	ND	85	39
Chromium (mg/kg)	32	33	25	--	--
Copper (mg/kg)	560	510	270	4,300	1,500
Lead (mg/kg)	11	11	9.5	840	300
Mercury (mg/kg)	0.98	0.81	0.76	57	17
Molybdenum (mg/kg)	13	10	6.6	75	--
Nickel (mg/kg)	16	16	13	420	420
Potassium (mg/kg)	5,400	5,400	3,400	--	--
Selenium (mg/kg)	5.4	6.3	5	100	100
Zinc (mg/kg)	1,900	2,200	1,800	7,500	2,800

Kipps – Comment #11: Please confirm that the business name of the significant industrial user is Ruiz Food Products, Inc. and revise this finding accordingly.

RESPONSE: Staff made the requested change to the TWDRs.

Kipps – Comment #12: Does the RWD estimate the area-weighted averaged percolation rate in terms of feet per year? If not, is there sufficient monitoring data available for staff to estimate the annual hydraulic loading to the ponds at the current flow and to project what it will be at the maximum permitted flow of 3.0 mgd? This value informs the Regional Board and the public as to how the Facility's hydraulic loading from effluent disposal compares to nearby agricultural land uses.

RESPONSE: The hydraulic load greatly depends on the use of the ponds and how they are operated. Dischargers are typically required to calculate and report hydraulic and constituent loadings for land application of wastewater as it impacts the health of the crop. However, for pond systems, it is generally not required. The other requirements in the WDRs and MRP (e.g., groundwater monitoring) are sufficient to evaluate the Facility's impacts to underlying groundwater. Furthermore, WDRs typically don't include hydraulic loading limits to ponds. No changes were made to the TWDRs based on this comment.

Kipps – Comment #13: When was the landfill operated? Was it equipped with a liner to retard landfill leachate from impacting groundwater? What was its depth? What type of waste was accepted? Following its abandonment, was it equipped with a cap of compacted soil to retard the infiltration of stormwater?

RESPONSE: Staff was able to find the following information about the former landfill. The landfill did not have a synthetic liner, but there were three to five feet of soil cover installed over the landfill. The site was primarily used as a burn dump for Class III wastes. Disposal of wastes at the solid waste disposal site ceased prior to 1981. The thickness of solids ranges from 8 to 17 feet. Available historical data does not show the landfill significantly degrading underlying groundwater.

The City of Dinuba was issued Cleanup and Abatement Order 93-707 on 18 August 1993, concerned with disposal of wastewater effluent on top of the former landfill. One of the documents prepared by staff at that time listed some of the history of the landfill site. A 12 April 1995 Central Valley Water Board letter stated two recent inspections of the solid waste facility and the wastewater treatment facility revealed that the City had completed all requirements of Cleanup and Abatement Order 93-707. The letter also rescinded Clean-up and Abatement Order 93-707.

Kipps – Comment #14: Because of the landfill's likely impact on groundwater quality, please consider including a finding summarizing the last two years of available data characterizing the quality of groundwater passing through MW-1 and MW-2, as well as through MW-3 during the same period.

RESPONSE: Based on the available information (i.e., Kenneth Schmidt's & Associates 2016 *Workplan for New Monitoring Wells at Dinuba*), MW-2 first went dry in 2013 and MW-1 first went dry in 2015. Since these dates, the available groundwater data for MW-1 and MW-2 is limited as the City has only occasionally been able to collect groundwater samples from these two wells. Staff found data for MW-1 and MW-2 for the dates shown in the table below. The table also includes MW-3 data for the corresponding dates as requested.

Monitoring Well	Sample Date	Iron (mg/L)	Conductivity (umhos/cm)	TDS (mg/L)	Chloride (mg/L)	Nitrate (as N) (mg/L)
MW-1	12/12/1995	11	-	710	130	ND
MW-1	1/30/1997	0.08	1,000	650	120	16.3
MW-1	Jan-2000	-	906	600	115	ND
MW-1	Apr-2000	-	886	540	117	ND
MW-1	Aug-2000	-	903	560	139	ND
MW-1	Oct-2000	-	831	550	128	ND
MW-1	2/7/2014	ND	1,100	620	120	4.3
MW-1	2/18/15	150	920	580	110	9.3
MW-2	12/12/1995	0.92	-	200	-	2.9
MW-2	1/30/1997	3.4	140	240	2	1.4
MW-2	Jan-2000	-	118	190	2	1.1
MW-2	Apr-2000	-	124	370	3	1.7
MW-2	Aug-2000	-	138	110	5	2.4
MW-2	Oct-2000	-	156	130	5	2.3
MW-2	2/17/2014 Dry	-	-	-	-	-
MW-2	2/18/2015 Dry	-	-	-	-	-
MW-3	12/12/1995	0.3	-	850	-	11.7
MW-3	1/30/1997	0.07	1,200	760	130	9.9
MW-3	Jan-2000		1,260	790	134	8.7
MW-3	Apr-2000		1,270	790	134	10.2
MW-3	Aug-2000		1,290	770	136	8.9
MW-3	Oct-2000		1,260	720	132	8.0
MW-3	2/7/2014	ND	1,000	540	120	ND
MW-3	2/18/2015	360	1,200	720	120	1.9

ND = Non-Detect

Kipps – Comment #15: Please revise Finding 31 to include technical evidence supporting a determination that the Discharger's groundwater monitoring well network – now comprised of only four wells – is adequate for assessing the Discharger's compliance with the tentative Order. If evidence does support such a determination, please revise Finding 31 to proclaim the existing network is inadequate and, to be adequate, requires the installation of at least one upgradient monitoring well and at least one monitoring well each downgradient of the single-lined aerobic sludge digester and the asphalt-paved sludge drying area.

RESPONSE: Staff revised to Finding 31 to state that based on available information, the Facility's monitoring well network does not have sufficient active wells to monitor the upgradient groundwater conditions as well as downgradient of the aerobic digester. The TWDRs include Provision J.6., which requires the

City to submit a Groundwater Monitoring Work Plan that proposes to install the necessary monitoring wells to adequately characterize upgradient conditions and downgradient of the aerobic sludge digester and asphalt-paved sludge drying area (see response to Kipps-Comment #24).

Kipps – Comment #16: To document the extent to which the use of unlined sludge drying beds has impacted underlying groundwater, please include a finding that characterizes the quality of groundwater passing through MW-4 and MW-5 for at least the last two years in which data are available. The groundwater quality characterization should include EC, total dissolved solids, calcium, magnesium, alkalinity (identified as “carbonate” in Monitoring and Reporting Program No. 95-200), nitrate, and iron.

RESPONSE: Staff could not find any available groundwater monitoring data for MW-4 and MW-5. Nevertheless, to address the concerns with the use of unlined sludge drying beds, the TWDRs (specifically Provision J.5.) require the discharger to decommission the unlined sludge drying beds and remove impacted soils within the sludge drying beds.

Kipps – Comment #17: Lastly, groundwater passing through MW-3, close to the former landfill and former dried sludge area, is of lower quality than groundwater passing through MW-6A and MW-8, which monitor groundwater directly downgradient of disposal ponds and is not influenced by the seepage of higher quality surface water conveyed in the Kennedy Wasteway. It appears that this lower quality may be attributable to the influence of waste constituents originating from the former landfill and likely the former dried sludge area. Please consider revising Finding 31 to indicate this apparent influence.

RESPONSE: Without additional information, staff does not concur that the proposed statement is justified. Upgradient monitoring well(s) are needed to characterize upgradient groundwater quality to determine the impact the Facility's operation (and the former landfill) is having on water quality within MW-3. Regional groundwater flow in the area is from north to south and MW-3 is the northernmost monitoring well. Therefore, MW-3 may be reflective of upgradient groundwater conditions. No changes to the TWDRs were made based on this comment.

Kipps – Comment #18: Please consider removing the qualifier “dry weather” from Flow Limitation C.1. Alternatively, please provide data and analysis in the findings that support restricting compliance with this limitation to dry weather months.

RESPONSE: Staff does not propose to change the Flow Limitation in C.1 of the TWDRs. See staff's response to Kipps Comment #3 above for more information.

Kipps – Comment #19: Are the “wastewater ponds” referenced in Specification F.3 the same as the evaporation/percolation ponds referenced elsewhere in the Tentative Order? If so, please consider revising this specification to use the term,

“evaporation/percolation ponds.” And, what is the “conveyance structure” referenced in this specification?

RESPONSE: The second sentence of Specification F.3 should be a separate specification. Furthermore, staff revised the language in the revised TWDRs (Specification F.4) to state the following:

4. *The discharge shall remain within the permitted evaporation/percolation ponds at all times.*

Kipps – Comment #20: Please revise Groundwater Limitation G.2 to eliminate its exclusion of salinity and nitrate. Alternatively, provide technical justification for this exclusion and explain why this exclusion qualifies the Tentative Order as being consistent with the Antidegradation Policy.

RESPONSE: Provision J.3 of the TWDRs requires the Discharger to comply with the Tulare Lake Basin Plan’s Salt and Nitrate Control Programs, as adopted in Resolution R5-2018-0034 (and revised per Resolution R5-2020-0057) for addressing ongoing salt and nitrate accumulation in the Central Valley. As detailed in Findings 44 through 46 of the TWDRs, the Discharger has selected the Alternative Permitting Approach for the Salt Control Program (i.e., participating in the Prioritization and Optimization [P&O] Study) and Pathway B (i.e., participation in the Kings Management Zone) for the Nitrate Control Program.

Although the Basin Plans’ Exceptions Policy for Salinity and Nitrate allows participants in these Programs to obtain limited-term exceptions from MCLs for salinity and nitrate, these Programs require over-arching management goals and priorities including short-term provision of safe drinking water to impacted users and long-term restoration of impacted groundwater basins and sub-basins where reasonable, feasible, and practicable. Staff revised Groundwater Limitation G.2, and Provision J.3. of the TWDRs to provide clarity on this matter.

Kipps – Comment #21: The term “supernatant” is incorrect for an aerobic digester. Furthermore, please confirm in the Information Sheet that the Discharger’s reference to supernatant is accurate. Was it simply waste activated sludge? Or, were the digester’s mixers turned off to allow supernatant to separate from sludge and it was this liquid waste stream discharged to the drying beds?

RESPONSE: Staff was made aware of the January 2023 event referenced in the information sheet during a conversation with the former Facility chief plant operator. Based on staff’s notes from the conversation, the former chief plant operator referred to the discharge as decanted aerobic digester supernatant that developed after the mixers in the aerobic digester were turned off. This event occurred due to the screw press being non-operational. There has been recent turnover in the Facility and the former chief plant operator is no longer working at

the Facility, and the current Facility chief plant operator is unaware of the specific details from the January 2023 event. However, the Discharger confirmed plans on installing a secondary screw press for redundancy.

Regarding the term “supernatant,” the 2022 Report of Waste Discharge includes a flow schematic showing a supernatant return line from the aerobic digester to the waste activated sludge treatment system. Staff confirmed with the current chief plant operator that the Facility can send “supernatant” back to the activated sludge treatment system. Based on staff’s research, decanting of supernatant from an aerobic digester is not uncommon (if not at times recommended) to allow thickening of the digested solids before discharge to subsequent operations. It appears the Facility can decant supernatant by turning off the aerobic digester mixers.

Kipps – Comment #22: Please consider revising Provision J.4.b to be specific to the Facility’s current and proposed operation.

RESPONSE: Staff added the word “current” to Provision J.4.b.

Kipps – Comment #23: Please consider revising this Provision J.5. to make the plan subject to Executive Officer approval.

RESPONSE: Provision J.5. has been revised as requested.

Kipps – Comment #24: Please revise this provision (Provision J.6) to specify the network must also include a well immediately downgradient of the aerobic sludge digester and another well immediately downgradient of the asphalt-paved dewatered sludge drying area. Alternatively, provide technical justification in the response to comments that these wells are not necessary for evaluating compliance with the Tentative Order’s groundwater limitations.

RESPONSE: Staff has revised Provision J.6 to require the City to install the necessary monitoring well(s) to monitor downgradient conditions of the aerobic sludge digester and asphalt paved sludge drying area.

Kipps – Comment #25: Please revise the Pond Monitoring to include monitoring and reporting of (1) untreated or partially-treated wastewater flows discharged to Pond 6 and (2) wastewater stored in Pond 6 discharged back to the treatment works.

RESPONSE: Central Valley Water Board staff modified the tentative MRP in response to the comment. Staff modified Table 2 (Influent Monitoring) of the MRP to note that the Discharger shall monitor the partially/untreated wastewater, as it is being returned to the Facility’s headworks, for the constituents/parameters specified in Table 2. Staff also modified Table 4 (Pond Monitoring) of the MRP to clarify that the monitoring specified in Table 4 is required for Pond 6 if the City

sends partially/untreated wastewater to the pond in an emergency condition. Furthermore, the following language was added to Section II.C. of the MRP:

In the event of discharge of partially or untreated wastewater to Pond 6 (or any other pond), the Discharger shall provide detailed notes in the log book of when the discharge occurred, the cause of the discharge, how the discharge of partially or untreated wastewater was managed while stored in the pond(s), when the wastewater was returned back to the Facility's treatment system, and what actions were taken to prevent a reoccurrence.

Kipps – Comment #26: Please revise Table 6 to include annual monitoring of groundwater for metals.

RESPONSE: The tentative MRP requires effluent monitoring for metals. Furthermore, the Facility's discharge has not historically shown elevated metal concentrations. Lastly, the tentative MRP already requires the Discharger to regularly monitor the groundwater for some metals associated with redox conditions (e.g., iron and manganese) as part of the standard minerals monitoring requirement specified in Table 6 of the MRP. Therefore, staff contends establishing separate groundwater monitoring requirements for metals is not necessary. If the Facility's discharge begins to show elevated concentrations of metals, the Central Valley Water Board Executive Officer can revise the MRP.

Kipps – Comment #27: Please revise the Tentative Order and MRP to address the removal, management, and disposal of pond sludge.

RESPONSE: The Facility chief plant operator stated that there is very little sludge/solids at the bottoms of the ponds. The solids that accumulate there are disked or ripped into the pond bottom. This is supported by the fact that the Facility provides a high level of treatment with low organics (i.e., BOD concentrations less than 10 mg/L). The Pond Monitoring section of the tentative MRP (Section II.C) requires the Discharger to make notations of the most recent date the pond bottom was ripped or disked. Disking and ripping pond bottoms has been a critical practice to allow wastewater to percolate into the soil.

Staff revised Provision J.4. of the TWDRs to clarify that the required Sludge Management Plan shall also discuss how sludge (if any) from the evaporation/percolation ponds is handled and disposed of. To the extent that sludge/solids are removed from the evaporation/percolation ponds, Section H (Solids Disposal Specifications) of the TWDRs provides specifications regarding how sludge/solids from the Facility must be handled.