

Government of Ras Al Khaimah
Public Services Department
Wastewater Agency



TANKER OPERATION TECHNICAL GUIDELINE





دائرة الخدمات العامة
Public Services Department

Our Vision and Mission

Vision

To continuously enhance Ras Al Khaimah's environment, providing an infrastructure that allows its people and businesses to thrive.

Mission

To create a sustainable, integrated public service infrastructure comprising Works, Waste Management, Waste Water and Landscaping, that actively improves service quality and delivery, and engages with the communities it serves.

Creating the infrastructure of life.

Revision	Date	Prepared by	Approved by
RKWA-HQ-0202-V1.0-001	2 Sep 2020	Regulations and Connection Department	Executive Director

Contents

1. INTRODUCTION.....	4
2. RELATED LEGISLATION.....	4
3. OBJECTIVES.....	4
4. DEFINITIONS.....	6
5. SCOPE.....	6
5.1 Duty of Tankers Licensee.....	6
5.2 Registration.....	9
5.3 Technical Standards.....	10
5.4 Monitoring System.....	11
5.5 Color Coding.....	11
5.6 TSE Quality.....	12
5.7 Transfer and Discharge of Grease.....	12
6. PROHIBITIONS.....	13
6.1 Rejection.....	13
6.2 Unauthorized Discharge.....	13
7. RECORDS.....	13
8. HEALTH AND SAFETY.....	13
9. TARIFFS AND CHARGING MECHANISM.....	14
10. EMERGENCY CASES.....	14
APPENDIX 1: Tanker Law – ENGLISH.....	15
APPENDIX 2: Al Filayah Wastewater Treatment Plant Allowable Limits.....	21
APPENDIX 3: Al Ghail Wastewater Treatment Plant Allowable Limits.....	22
APPENDIX 4: Al Hamra Real Estate Development (AHRED) WWTP Allowable Limits 19.....	23

1. INTRODUCTION

This document stipulates the guidelines for the implementation and enforcement of Tanker Law No.9 of 2018.

This guideline may be amended or revoked officially by the Government of Ras Al Khaimah Wastewater Agency at any time as seen fit by the Agency.

2. RELATED LEGISLATION

This Technical Guideline is issued under the Tanker Law No. 09 of 2018.

3. OBJECTIVES

The primary objective of this technical guideline is to:

- Ensure the protection of public health and environment and implementation of safe practices for collection, transportation and disposal of wastewater within the Emirate of Ras Al Khaimah.
- Establish requirements and standards for vehicles engaged in the collection, transportation and disposal of wastewater and treated water.
- Ensure sustainable wastewater management practices in the Emirate of Ras Al Khaimah.



4. DEFINITIONS

Refer to definitions in Tanker Law number 9 of 2018.

5. SCOPE

This Technical Guideline shall be applicable to all new and existing tankers transporting wastewater or treated water inside the Emirate of Ras Al Khaimah including Ras Al Khaimah Economic Zones.

A permitting process – as dictated herein – shall be established for these companies to ensure compliance with the previously mentioned law.

This permitting process is with respect to other Government entities in the Emirate respectful of the regulatory framework set forth.

5.1 Duty of Tankers Licensee

a) Consent and Responsibility

Wastewater tankers operating in the Emirate are subject to this regulatory framework that is designed to protect receiving wastewater treatment systems, in order to protect public health and safeguard the environment.

A Tanker Operator Licensee must take all responsible steps to make sure that Wastewater is not discharged to public and private Sewerage System:

- (i) without a Consent from RAKWA or
- (ii) in breach of sewage quality

standards.

Transported sewage shall be discharged only into an approved and pre-specified Tanker Discharge Facility (TDF) stated on the license form of RAKWA.



Figure 1: Al Filayah WWTP Tanker Discharge Facility

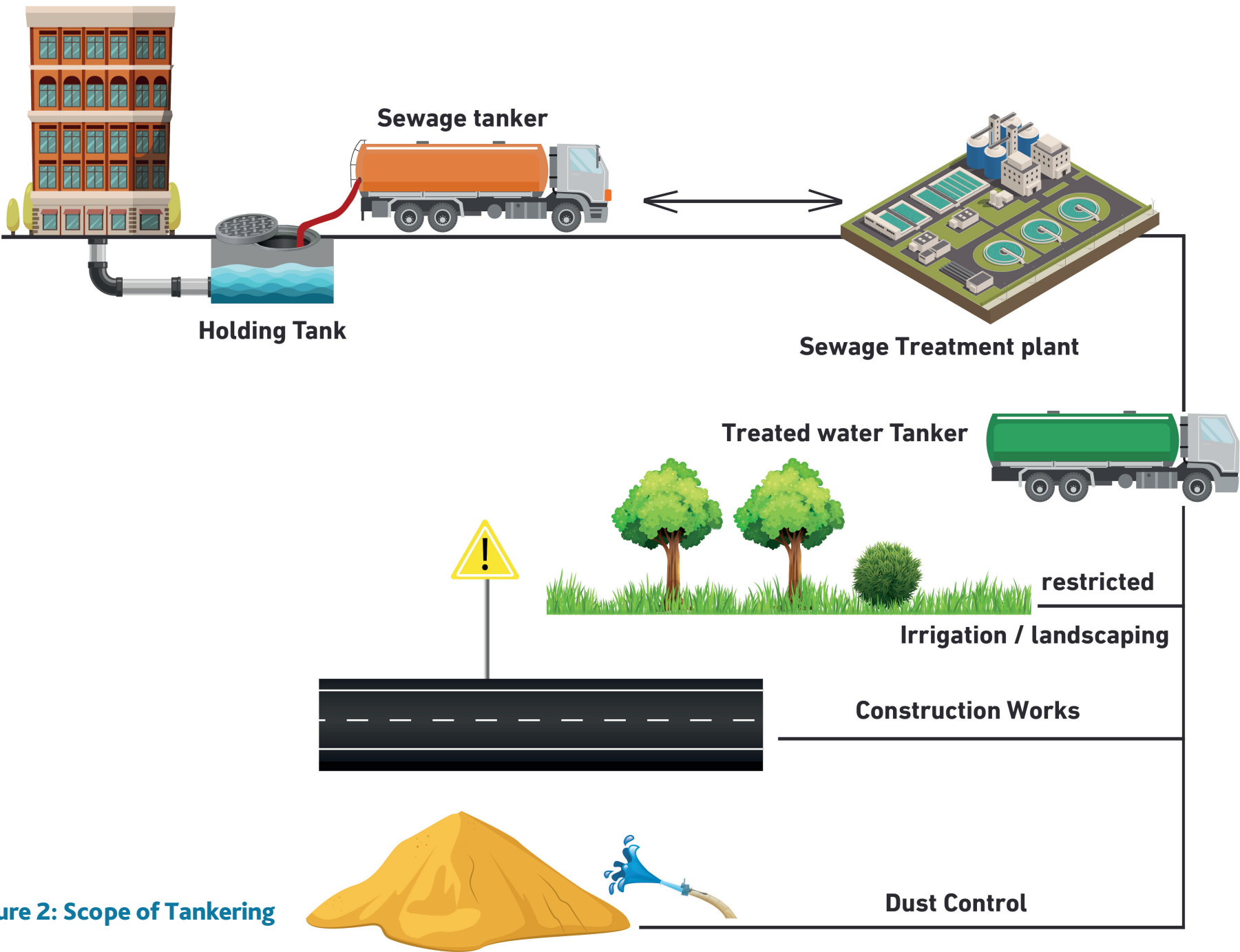


Figure 2: Scope of Tankering

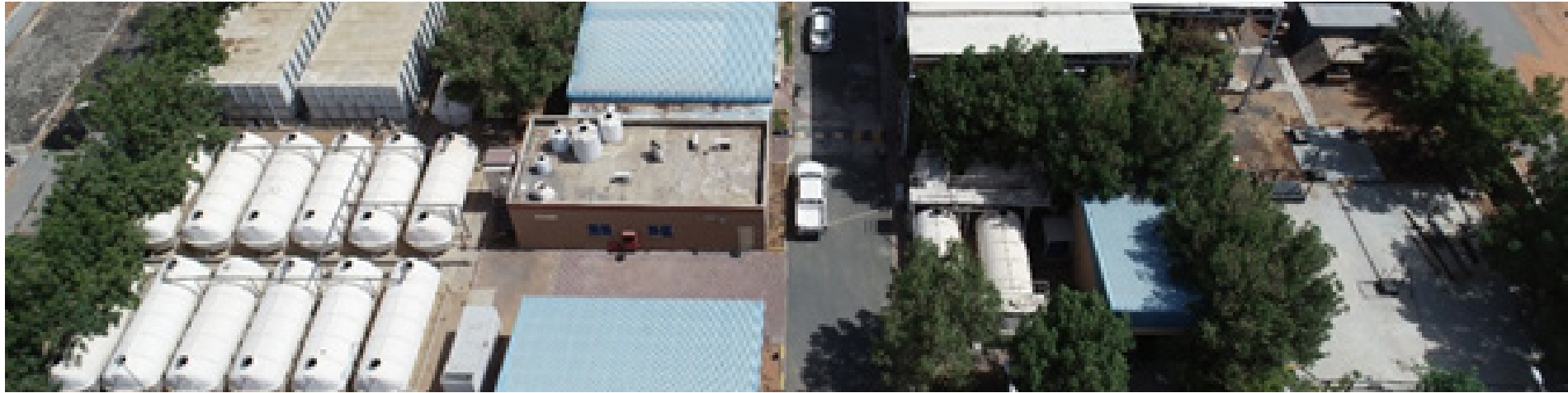


FIGURE 3: Al Ghail WWTP Tanker Discharge Facility



FIGURE 4: Al Hamra Real Estate Development WWTP Tanker Discharge Facility

b) Breach of Wastewater Tanker Regulations

A Tanker Operator Licensee has breached its duties if:

1. It knows of non-compliant sewage being discharged to the Sewerage System in the following situations:

- (i) It was previously rejected when discharging in the Tanker Discharge Facility (TDF)
- (ii) The Agency did not inspect and approve the wastewater producer.
- (iii) Discharge of wastewater resulted from septic tank cleaning.

2. it is in breach of the conditions of Consent on which basis it was granted.

Failure by the Tanker Operator Licensee to comply with these Regulations shall be subject to fines and penalties set forth in the Law number 9 of 2018, and the Agency may revoke the Consent granted to the company.

5.2 Registration

Operation Philosophy

Sewage tanker companies intending to operate in RAK must register with and comply with RAKWA regulations. Prior to registration with RAKWA, registration with the following RAK Government entities is required:

- (i) Registration and Licensing with RAK Department of Economic

Development -DED- (applies for RAK based companies)

- (ii) wVehicle Licensing with RAK Traffic Department

Procedures for Issuing the Tanker Company and Tanker Vehicle Permits

1) Tanker Company Permit

a) Submit a request at the Public Services Department's Customer Happiness Center with fees and following documents:

- i) Trade License
- ii) List of company registered vehicles from the RAK Traffic Department

b) The request will be reviewed by Wastewater Agency engineers to ensure that it complies with required standards.

c) If it complies with requirements, the request will be forwarded to Public Services Department's Account Department to collect the fees dictated in the fees schedule in law number 9 of 2018.

d) The permits are issued.

2) Tanker Vehicle Permit

- a) Submit a request at the Public Services Department's Customer Happiness Center with fees and following documents:
- i) Trade license
 - ii) List of company registered vehicles from the RAK Traffic Department
 - iii) Tanker vehicle license
 - iv) Tracking device installation certificate from the approved company (Dubai Technologies)
- b) The request will be reviewed by Wastewater Agency engineers to ensure that it complies with required standards.
- c) If it complies with requirements, the request will be forwarded to Public Services Department's Account Department to collect the fees dictated in the fees schedule in law number 9 of 2018.
- d) The permits are issued.

5.3 Technical Standards

Road tankers should be designed and constructed and meet operational standards specific to the type of water being transported. RAKWA will inspect all tankers that are being registered for the purpose of transporting wastewater prior to registration and licensing approvals being given:

- (i) Tankers should be watertight and prevent spillage during loading, transportation, and unloading.
- (ii) Tankers should withstand all pressures to which it is subjected to under normal operating conditions
- (iii) Tankers should try to reduce surge during transport as much as possible.
- (iv) All pumps, pipes, hoses, valves, caps, plugs and other equipment used to contain or convey sewage during loading, transportation, or unloading shall be watertight so as to prevent spillage or leakage.
- (v) All equipment shall be regularly and properly maintained by the tanker company to ensure dependable performance.
- (vi) Tankers added to the fleet from the date of this regulation shall be constructed in a way so as to be easily cleaned and maintained. Tanks already registered with the company prior to this law can continue to be used as is.
- (vii) Discharge standards whether into the sewage system or one of the approved TDFs will be set by RAKWA or at the TDF itself respectively based on the process type and site conditions.

5.4 Monitoring System

Tanker operators licensed inside or outside of RAK will be expected to install tracking devices in all tankers and sign a consent form allowing RAKWA to constantly monitor tankers movements. These devices shall be through the company approved by RAKWA. A permit to operate in RAK will not be approved until tracking devices has been installed and is operational.

Installation is mandatory in all tankers permitted to transfer/discharge/dispose wastewater and TSE for monitoring purposes.

Monitoring systems and their installation costs shall be paid by the Tanker Licensee.

5.5 Color Coding

All tankers transferring domestic wastewater will be painted in orange color. The tanker should be marked with the labels shown in figure 5.

TSE can be transported in tankers labelled and specified for the use as "Non-drinking water" tankers, and it is prohibited to use, sell, or circulate the transported water for human use. Failure to do so will subject the person responsible to the fines specified in the law number 9 of 2018 with respect to any larger penalty dictated in any other law.

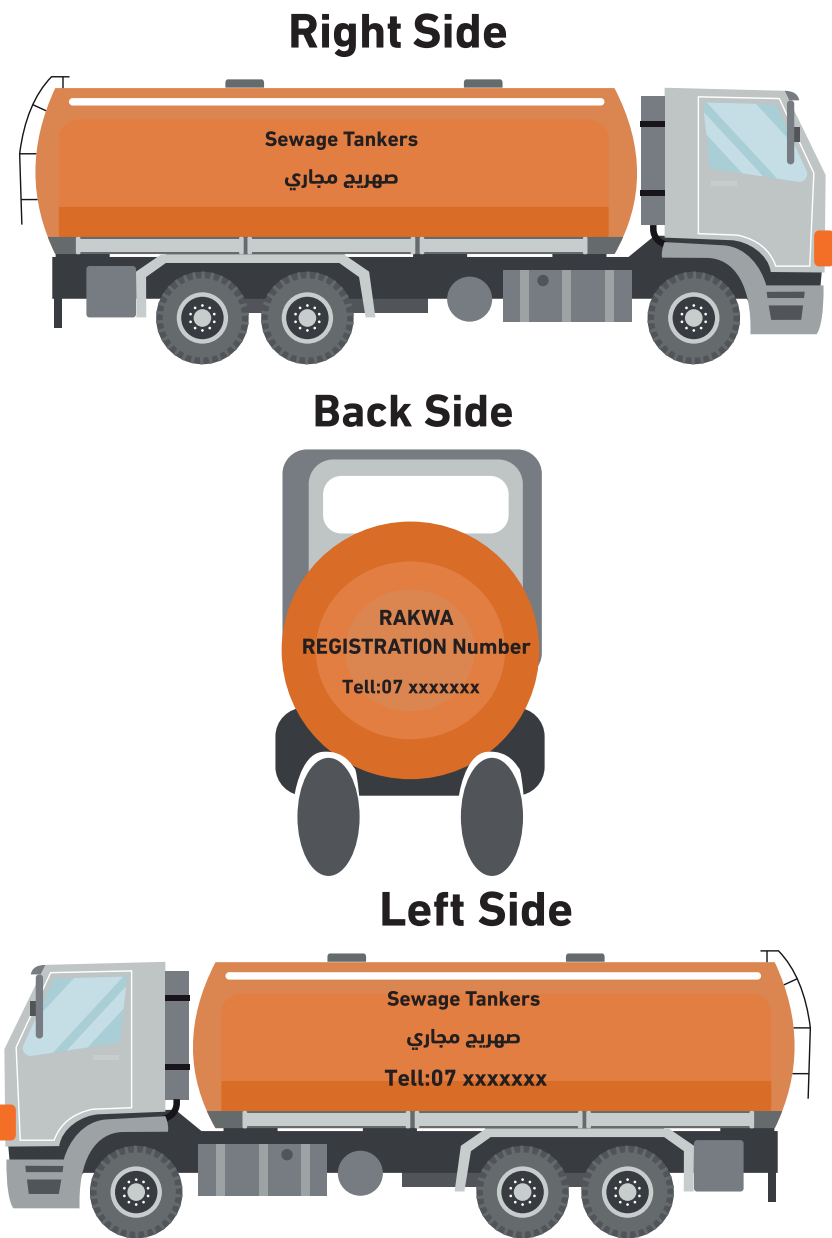


Figure 5: Sewage Tanker Color and Labeling Guideline

5.6 TSE Quality

TSE may be used for the following applications:

- Restricted Irrigation
- Landscaping
- Road Works
- Construction works

It is strictly prohibited for TSE to be used for any other application not mentioned in this section.

5.7 Transfer and Discharge of Grease

All grease generated from the grease trap cleaning activities of restaurants, hotels, cafeterias and other food handling outlets shall be transferred and disposed to the location specified by the Waste Management Agency.

6. PROHIBITIONS

- Discharge in farms and undesignated areas are strictly prohibited. Disposal areas will be specified by RAKWA and must be strictly adhered to.
- No sewage shall be returned to the source.

c) Sewage discharged into a treatment plant through sewage network or TDF shall not contain any of the following:

- Substance that prove to be harmful for the receiving system or the wastewater treatment process
- Oil, fats, and grease
- High solid content
- Hazardous waste
- Radioactive waste
- Chemicals
- Oily sludge

Tankers must discharge into RAKWA approved tanker discharge stations and are prohibited from discharging directly into the wastewater network unless approved by RAKWA.

A tanker assigned for wastewater collection will be clearly marked on the vehicle license that it is for sewage transport. Tankers assigned for a certain purpose and classified by the Traffic Department and the DED will only be allowed to be used for that certain purpose.

Example: A tanker assigned for drinking water, potable water or non-drinking water will be prohibited from transporting sewage and vice versa.

Tankers that have become contaminated with non-domestic sewage such as oil, sludge or chemicals, will need to demonstrate that they have been

properly cleaned prior to reuse for domestic sewage and discharge at the wastewater receiving facility.

6.1 Rejection

Rejection due to non-compliance to the discharge standards and limits will result in a fine. The rejected material shall be disposed to a RAKWA approved disposal site. The permit will not be renewed unless the fine amount (if applicable) has been paid and proof of disposal of the non-compliant material is provided. Failure to comply will also result in suspension of the trade license in coordination with the Department of Economic Development.

The violator may contest a fine as per article 16 of Tanker Law number 9 of 2018.

6.2 Unauthorized Discharge

If a tanker intending to discharge at the TDF provides a sample of water that does not represent what is contained in the tanker, it is considered that the discharge is unauthorized and is subject to fines and penalties.

If the plant operator approves discharge after preliminary inspection and the online monitor sets an alarm, this is considered as unauthorized discharge.

If the rejected tanker will discharge at any location other than the designated facility specified in the reject form/ waste manifest form, this will be considered as unauthorized discharge.

7. RECORDS

Every tanker discharge company shall maintain records of the following:

- Name and address of the sewage producer
- Date and time at which the sewage was loaded
- Volume of the sewage loaded
- Date, time, and location of disposal

These records mentioned above shall be kept at the business office of the tanker licensee for at least one year and made available for RAKWA inspection upon request. Failure to keep records will result in suspension or non-renewal of operating permit.

8. HEALTH AND SAFETY

All tanker drivers and assistant operators (helpers) shall abide by the Health and Safety regulations and procedures set forth by RAKWA at each facility. Personal Protective Equipment (PPE) including but not limited to gloves, safety shoes, reflective jacket, helmet, and eye goggles must be worn when discharging at the TDF. Failure to follow such instructions will result in penalties enforced by the Agency in the Schedule of Fines set forth by law 9 of 2018.

Safe driving during the advancing/ descending of the tanker to the TDF is vital. Maintaining a speed of 25 km/hr within the descending/ passage road to the TDF is necessary and mandatory.

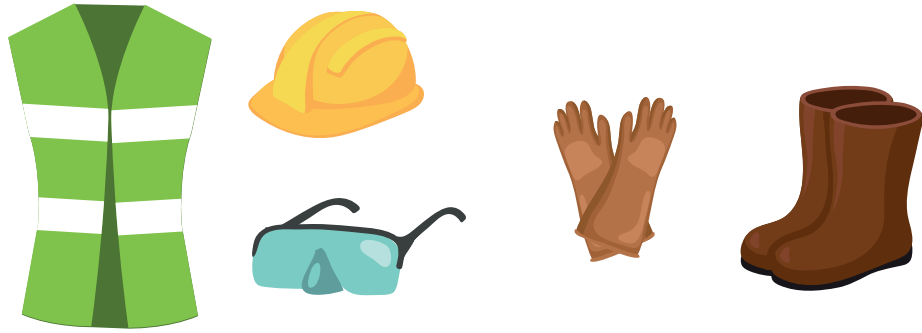


Figure 6: PPE Requierments at the Tanker Discharge Facility (TDF)

All tankers discharging shall have an assistant operator (helper) available prior to entry to the premises to discharge. The unavailability of the assistant operator at the time of discharge will result in the tanker not being allowed to discharge.

Mandatory training must be provided to all vehicle crew pertaining to issues in sewage collection operations. Drivers, operators and the working crew should be provided with adequate training to enable them to carry out their work safely and competently.

9. TARIFFS AND CHARGING MECHANISM

Tariffs have been defined in Schedule (1) of the Tanker Law. These tariffs are subject to change by the Agency or the private developer as seen fit and by proper notice period of at least 1 month.

Tanker operators failing to comply with the Wastewater Tanker Regulations shall be fined in accordance with the fine schedule in the Tanker Law no. 09 of year 2018 (Schedule 2).

10. EMERGENCY CASES

Climate Emergencies (in case of rain)

In case of emergencies, tankers operating in the collection of water in flooded areas shall obtain a permit from Ras Al Khaimah Wastewater Agency (RAKWA).



APPENDIX 1: Tanker Law – ENGLISH

Law No.9 of 2018 regarding

The Regulation of Sewage Tankers Operations

We, Saud Bin Saqr Al Qasimi, Ruler of Ras Al Khaimah,

After perusal of the constitution of the United Arab Emirates, and

Federal Law No. (3) of 1987 on the Penal Code, and its amendments,

Federal Law No. (35) of 1992 on the Code of Criminal Procedures and its amendments,

Federal Law on Traffic No. 21 of 1995 and its amendments,

Federal Law No. (24) of 1999 concerning the Protection and Development of the Environment and its amendments,

Cabinet resolution No.3 of 2004 regarding the establishment of Standard Specifications for the United Arab Emirates.

Law of Ras Al Khaimah Municipality for the Year 1981 and its amendment,

Law No. (2) of 2007 on the Environmental and Protection Development Authority in the Emirate of Ras Al Khaimah and its amendments,

Law No.7 of 2012 on the establishment of the Executive Council of the Emirate of Ras Al-Khaimah,

Law No.8 of 2016 on practicing Commercial Activities

Law No.2 of 2017 on the establishment of RAK Economic Zone Authority and the Supervisory Authority,

Law No. 3 of 2017 on the establishment of Public Services Department

Regulation No. 1 of 2001 on Public Hygiene in the Emirate of Ras Al Khaimah

In accordance with the approval of the Executive Council

We hereby issued the following Law:

Article (1)

The following words and phrases have the following meanings hereby assigned to them, unless the context otherwise requires: -

Emirate : Emirate of Ras Al Khaimah.

Council: The Executive Council of the Emirate of Ras al-Khaimah.

Department : Public Services Department.

Director General : Director General of the Public Services Department.

Agency : Wastewater Agency

Director : Director of Wastewater Agency

Operations: Collection, transport, and Discharge of sewage water or treated water by tanker.

Tanker: A vehicle equipped with an airtight tank, designated for operations.

Tanker operator: A person who is responsible for driving or managing the tanker.

Discharge facility: A special site or facility intended for the discharge of wastewater tanker.

Wastewater (sewage): Wastewater discharged from bathrooms, toilets in residential and commercial, industrial or government facilities containing suspended matter, liquid or solid waste.

Commercial & Industrial waste water (sewage): Any wastewater produced from any industrial, commercial, medical, scientific or agricultural activities.

Substances harmful to the discharge facility: Any substance having properties or coming in bulk quantities resulting in damage to the discharge facility or treatment processes.

Grease trap: A unit designed to isolate fats and grease of food waste from liquid waste.

Oil trap: A unit designed to isolate lubricants or oils from sewage produced from industrial activities and car service stations

Hazardous substances: Solid or liquid or gaseous substances,

having properties harmful to human health or having an adverse impact on the environment such as toxic substances or explosives or flammables or ionizing radioactive substances.

Hazardous waste: Wastes produced from different activities and operations retaining hazardous properties.

Radioactive waste: Waste containing radioactive substances.

Industrial waste: Waste produced from all industrial and alterationactivities in industrial facilities whether hazardous or non-hazardous, and it will be determined from the manufacturing operations or laboratory tests.

Landfill: A site designated by the Waste management Agency for the collection of waste.

Treated wastewater: It is the product resulting from the purification/ disinfection processes of wastewater from impurities, suspended matter, pollutants, and organic substances, where it becomes adequate for reusing.

Article (2)

The provisions of this law shall be applied to the operation activity of wastewater and treated water tankers.

Article (3)

It is prohibited for any normal or legal person to perform operations in the Emirate without obtaining a permit from the Agency after providing the

necessary information to obtain the commercial license and the required governmental approvals.

Article (4)

The Agency may authorize persons with licensed tankers from outside the Emirate to operate within the Emirate, in accordance with the terms and conditions issued by the Director of the Agency.

Article (5)

The tanker is required to:

- 1.To be designed and manufactured to prevent leakage and withstand pressure during operations and shall be easy to be cleaned and maintained.
2. The size of domestic sewage tanker shall not be less than 3,000 Imperial gallons and shall not more than 10,000 Imperial gallons.
3. The size of grease waste collection tankers shall be 1000 Imperial gallons,equipped with cleanup tools for grease traps.

The Agency may add additional technical requirements.

Article (6)

The operator shall provide the tanker with technical systems approved by the Agency for monitoring the operations, and shall maintain them in accordance with the purpose assigned to them.

Article (7)

The operator shall register the tanker at the Agency before he initiates operations, and that shall be after he has provided an operating license, and the registration shall to be renewed yearly fulfilling the same conditions and procedures stated by law otherwise, Registration shall be void shall the tanker lack any of the requirements established by law.

Article (8)

The Operator shall maintain a record specifically for operations for a period not less than one year to be provided upon request by the Agency's staff, and the Director of the Agency shall determine what information to include and the how it should be recorded.

Article (9)

The operator of the tanker should abide by the following:

- 1.Not to use the tanker in operations other than the intended purpose.
- 2.Follow the safety and security procedures while operating.
- 3.Not to transport domestic sewage water using industrial and commercial waste water tankers unless cleaned in accordance with procedures

approved by the Agency.

4. Not to transport industrial and commercial wastewater unless grease and oils have been separated by grease traps.

5. Discharge sewage water in the designated discharge facility in accordance with the requirements determined by the Agency.

Article (10)

It is prohibited to dispose waste water in the discharge facility if it contains substances harmful to the collection system, treatment processes or if it contains hazardous materials. Such waste water shall be disposed in the landfill at the expense of the violator while taking into consideration the environmental standards and requirements stipulated by the Agency.

Article (11)

Fats, oils, and grease resulting from the cleaning of traps should be transported to the recycling sites set by the Waste Management Agency or the designated landfills as the case may be.

Article (12)

It is prohibited to transport treated sewage water unless after obtaining a permit from the Agency determining the amount, end purpose, and the destination to be transported to.

Article (13)

The attached Schedule (1) shall be adopted, and the chairman of the Executive Council may amend it at the recommendation of the Director.

Article (14)

Without prejudice to any stricter penalty stipulated by another law, anyone who violates the provisions of this law shall be subject to the penalties and measures set forth in the attached Schedule (2), the said penalties may be amended by a decision issued by the Chairman of the Council upon the proposal of the Director

Article (15)

The amounts obtained from fines shall belong to the Agency, the internal financial policies determine the percentage of benefits to the Department.

Article (16)

A person may file a complaint within ten days from the date of the order of seizure if the violator is present, or from the date of being notified of the violation if he is absent, in a special form, the grievance shall be heard before the committee formed in accordance with the provisions of Article 18 of Law No.3 of 2017 regarding the establishment of the Public Services Department, the grievance shall result in suspension of procedures for collecting the fine until a decision is issued thereof.

Article (17)

This law shall come into force as of the date of its issuance and shall be published in the official gazette.

Saud Bin Saqr Al Qasimi

Ruler of Ras al-Khaimah

Passed by on 11th. Of Rabiealakhir 1440 H

Corresponding to 19th. December 2018

No	Service	Amount due
1	Open file fee (one time only for each company)	1000 AED
2	Annual Permit Issuance (for 1 to 10 tankers)	1000 AED
3	Annual Permit Issuance (for 10 to 20 tankers)	2000 AED
4	Annual Permit Issuance (for more than 20 tankers)	5000 AED
5	Discharge fee for a 3000-gallon tanker regardless the load	50 AED
6	Discharge fee for a 5000-gallon tanker regardless the load	65 AED
7	Discharge fee for a 10000-gallon tanker regardless the load	100 AED

No.	Violation details	Penalty	Repeated violation
1	Disposing sewage water or unprocessed liquids at locations other than the ones specified by the concerned Agency.	20000 AED fine and removal of damage at the violator's expense.	Fine to be doubled if repeated, and damage to be removed at the violator's expense
2	Using of sewage tankers for other purposes than that appointed for	200AED	Fine to be doubled if repeated
3	Displaying samples that are not representing original load of the tanker to deceive or cheat the facility in charge	10000 AED fine and removal of damage at the violator's expense	Fine to be doubled, and damage to be removed at the violator's expense
4	Mixing domestic sewage water with other substances prohibited as stipulated in this law	3000 AED fine	Fine to be doubled if repeated
5	Sewage tanker operator not keeping required record	1000 AED fine	Fine to be doubled if repeated
6	Not maintaining sewage tanker periodically	3000 AED fine and suspension of the tanker for 3 work days	Fine to be doubled if repeated, and tanker to be suspended for 3 working days
7	Manipulating the registration numbers of the sewage tanker	2000 AED fine	Fine to be doubled if repeated
8	Purposely preventing the Agency from monitoring the sewage tanker	10000 AED fine and suspension of vehicle registration for 1 month	Fine to be doubled if repeated and registration will be cancelled.
9	Not adhering with the approved discharge conditions set forth by the Agency	1000 AED fine	Fine to be doubled if repeated

APPENDIX 2: Al Filayah Wastewater Treatment Plant Allowable Limits

Allowable Discharge Limits to Al Filayah WWTP

Sr.	Description	Unit	Limits
1	pH		5.5 to 9
2	Conductivity	µS/cm	≤7000
3	Total Dissolved Solids (TDS)	ppm	≤3500
4	Salinity	ppt	≤1
5	Total Suspended Solids (TSS)	ppm	≤205
6	Chemical Oxygen Demand (COD)	ppm	≤585
7	Biological Oxygen Demand (BOD)	ppm	≤210
8	Sulphate	mg/l	≤235
9	Sulphide	mg/l	≤20
10	Fat, Oil & Grease (FOG)	ppm	≤50

APPENDIX 3: Al Ghail Wastewater Treatment Plant Allowable Limits

Maximum Allowable Limits To Discharge at Al Ghail Tanker Discharge Facility

S.No:	Parameter	Symbol	Unit	Limits
1	Biochemical Oxygen Demand	BOD	mg/l	≤350
2	Chemical Oxygen Demand	COD	mg/l	≤600
3	Total Dissolved Solids	TDS	mg/l	≤2100
4	Total Suspended Solids	TSS	mg/l	≤350
5	pH	--	--	6 to 8
6	Fats, Oil and Grease	FOG	mg/l	≤50
7	Temperature		°C	NA
8	Chloride	Cl ⁻	mg/l	1000
9	Sulfate	SO ₄	mg/l	≤300
10	Salinity		ppt	≤2
11	Conductivity		μS/cm	4000
12	Turbidity	NTU	mg/l	≤300
13	Total Alkalinity	AT	mg/l	≤600
14	Nitrate Nitrogen	NO ₃ -N	mg/l	≤10
15	Total Phosphorous	P	mg/l	≤2ww0
16	Ammoniacal nitrogen	NH3-N	mg/l	≤50

APPENDIX 4: Al Hamra Real Estate Development (AHRED) WWTP Allowable Limits

COD	700 mg/l
BOD	300 mg/l
TSS	300 mg/l
Conductivity	2.5 μS/cm
pH	6 to 8
TDS	<2000 mg/l

***Note: This table of parameters will be amended for the addition of other parameters.**



RENAULT

INACO

مؤسسة الطرف الطحين
Wastewater Agency



دائرة الخدمات العامة
Public Services Department