

WATER POLLUTION RULES, 2019  
WATER POLLUTION (FEES) REGULATIONS, 2019

INSTRUCTIONAL BOOKLET FOR FORM A3  
PERMIT APPLICATION FORM

ENVIRONMENTAL MANAGEMENT ACT, CHAPTER 35:05

**FORM A3 PACKAGE**

Table of Contents

Section A: General Instructions

Section B: Instructions for Completing Form A3

Appendix I: Process Flow Diagram

Appendix II: Codes of Treatment Processes

Appendix III: Site Map

**DISCLAIMER:** This document is intended for guidance only and does not bind the Environmental Management Authority. The legal basis and requirements for a Water Pollution Permit are articulated in the Water Pollution Rules, 2019 and the Water Pollution (Fees) Regulations, 2019.

**SECTION A: GENERAL INFORMATION**

**What is Water Pollution Permit?**

It is a legally binding agreement between a permittee and the Environmental Management Authority (EMA), which allows a registered facility to discharge specified water pollutants into the environment under certain conditions, with the intention of attaining compliance with the Water Pollution Rules, 2019, within a specified period of time.

**What is the benefit?**

To improve the water quality of Trinidad and Tobago by controlling the quantity, conditions and concentrations of water pollutants that a permittee may release into the environment. Thereby achieving the objective of safeguarding ambient water quality and protecting public health from the adverse effects of water pollution.

**Who needs to apply for a Permit?**

Anyone who releases water pollutants as listed in First Schedule of the Water Pollution Rules, 2019 into a receiving environment, must apply for a permit.

**Is there a fee associated with the Permit?**

Yes. However, the amount to be paid for the application is related to the size of the facility being permitted. The criteria for determining the size of the facility have been set by the Water Pollution (Fees) Regulations, 2019 (WPFR, 2019) and is based on effluent volume discharge (m<sup>3</sup>/day). Please consult the Schedule in the WPFR, 2019 to determine the fee associated with the application for a permit.

Please note that the onus is on the permittee to inform the EMA, in writing, of any modification to a facility, in accordance with Rule 15 of the WPR, 2019.

**Table 1: Facility Categorisation as defined by the WPFR, 2019**

Facility Type	Effluent Discharge Volume (m <sup>3</sup> /day)	Initial application fee TT\$	Renewal application fee TT\$
micro-/mini	<10	14,000	5,800
small	10-100	15,000	5,900
medium	100-500	18,000	6,400
large	>500	20,000	6,600

There are annual fees associated with a permit. Please refer to the WPFR, 2019 for other fee charges.

Fees are payable at First Citizens Bank Limited to Account number 1183848. **Please ensure the bank teller includes the name of the facility and 'WPP' on the receipt.** The original receipt must be submitted along with the completed application form. A copy of the receipt should be retained for your records.

**Where can an application form be obtained?**

The application form, which is in a fillable PDF format, can be downloaded at [www.ema.co.tt](http://www.ema.co.tt).

**Who must sign the application form?**

The Principal Executive Officer where the application is with respect to a company and in other instances by the person owning or operating the facility in respect of which the permit is being sought.

**Where should the application form be submitted?**

**Where should the application form be submitted?**

One (1) hard copy and one (1) soft copy (in PDF format) of the completed form and all attachments must be submitted along with the *original* payment receipt to the EMA. The soft copy must be submitted via email to [WaterUnitAdmin@ema.co.tt](mailto:WaterUnitAdmin@ema.co.tt) and the hard copy must be hand delivered to one of the following Offices:

**Environmental Management Authority**

Head Office  
8 Elizabeth Street  
St. Clair,  
Port-of-Spain

Central Office  
Lot 52-52A  
Mulchan Seuchan Road,  
Chaguanas

South Office  
3rd Floor, Agate Building  
No.2, Adesh Drive, S.S. Erin Road  
Duncan Village,  
San Fernando

Tobago  
Unit 1,  
Tobago Water and General Services Limited  
Carnbee Main Road  
Carnbee, Tobago

Information on the Water Pollution Rules can be accessed at [www.ema.co.tt](http://www.ema.co.tt) or at the EMA's Head Office. The Water Unit of the EMA can also be contacted at 226-4(EMA) 4362 extensions 4102, 4133, 4143, 2302, or 2315.

**What happens when the application is received?**

The application is reviewed for completeness. Any omitted or further information that may be required to complete the application will be communicated to the permittee in writing within 20 working days of receipt of the application.

**How long will it take to review my application?**

The Authority within 30 working days of receipt of a completed application will grant or refuse to grant with or without conditions, a permit to the permittee. Where the permittee submits further information the Authority shall grant or refuse to grant a permit within 30 working days of receipt of the information.

**Will site visits be conducted?**

Yes. Site visits will be conducted to verify the information submitted, as well as, assess operational processes, at the permittee's facility site and its relationship to the environment.

**How long is the permit valid for?**

The permit is valid for a period up to five (5) years from the date of issue.

**What will a permit contain?**

The permit will include the authorized effluent discharge points, the water pollutants permitted to be released, the quantity, conditions and concentrations of the water pollutants that the permittee may release, reduction targets as determined by the EMA, monitoring frequency and duration, and any other term or condition that the EMA may specify.

**Does the public have access to information on permits?**

Yes. All application forms and attachments submitted to the Authority, except those which are deemed to be confidential, are accessible to the public through the National Register. If any specific information submitted is considered to be a trade secret, confidential business information, or, if disclosed would be contrary to the public interest, a Confidentiality Claim Form (Form I) and the prescribed fee should be submitted along with Form A1 to request that the information be omitted from the Register. The information will be withheld until the Authority makes a determination. If the claim is upheld, the information will be permanently withheld from the Register.

**Is there an appeal process for the permit?**

Appeals can be made to the Environmental Commission, regarding final decisions of the Authority.

**SECTION B: LINE BY LINE INSTRUCTIONS FOR COMPLETING FORM A3**

All permittees must complete the application form and submit one (1) hard copy and one (1) soft copy.

Please TYPE OR PRINT in the spaces provided. DO NOT USE PENCIL.

DO NOT LEAVE BLANK SPACES. If an item does not apply to you please insert N/A

**Cover Page**

Provide the name of the parent facility and the name, official position and contact details of the Principal Executive Officer of the facility. Ensure that the declaration is read carefully before signing and dating the form.

**SECTION I: APPLICANT AND FACILITY DESCRIPTION****Item 1 – Application Type**

Indicate the type of application you are making by placing a tick in the appropriate box. For permit renewal, give the permit number.

**Item 2 – Name of Facility Site**

Enter the official or legal name of the facility, which is the subject of the application, as it appears on the company's Registration Certificate or Certificate of Incorporation or any other supporting legal documents. Do not use any informal name(s), abbreviations or acronyms by which the facility is known.

**Item 3 – Process Description**

Self-explanatory

**Item 4 – Facility Type**

Self-explanatory

**Item 5 – Number of Employees at the Facility Site**

Self-explanatory

**Item 6 – Facility Location**

Give the address or location of the facility identified in item 3a of this form. If the street name is unknown, provide the most accurate information known. Universal Transverse Mercator (UTM) Eastings and Northings can be obtained from the Topographic maps or from Global Positioning Systems (GPS) units, Google Earth or any other proven, accurate & reliable method.

**Item 7 – Age of the Facility**

Enter the date the facility started operations. Where the facility has changed ownership, use the original date on which the current process(es) began operating. For companies with integrated facilities on the same location, use the date the first facility was commissioned.

**Item 8 – Facility Contact**

Provide the contact information of an individual who will be available to liaise with the EMA regarding this application.

**Item 9 – Facility Ownership**

Self-explanatory

**Item 10 – Property/Facility Ownership**

Self-explanatory

**Item 11 – Property Ownership**

Self-explanatory

**Item 12 – Adjoining Property Owners**

Enter the name and address of adjoining property owners

**Item 13 – Corporate Data**

Self-explanatory

**Item 14 – Permits/Certificates/Licences/Approvals**

List all applicable permits, certificates, licences and approvals granted that are currently in effect Attach copies of permits/certificates/licences/approvals not issued by the Authority. Clearly label all attachments.

**SECTION II - TREATMENT PROCESS DESCRIPTION**

**Item 1a**

Indicate which levels of treatment are provided at the plant.

**Item 1b**

Describe the methods of sludge treatment and disposal at the plant.

**Item 1c**

Describe the flow rate that the plant is designed to treat. Also provide information on the geographic area served (i.e., which towns, villages, settlements etc. that the sewage is collected from), the number of persons served and the type of collection system (i.e., combined or separate).

**Item 1d**

Provide the percentage of 5-day Biological Oxygen Demand, Chemical Oxygen Demand, Total Suspended Solids, Phosphorous and Nitrates that the plant is designed to remove.

**Item 1e**

Self-explanatory.

**Item 1f**

Self-explanatory.

**Item 2**

Self-explanatory.

**Item 3a**

Each discharge of effluent into the environment (including stormwater discharges) should be named, provided with a unique number, and the receiving environment (i.e., whether the discharge is released into a municipal drain, river, wetland etc.) identified and named wherever possible. The UTM co-ordinates for the point at which each discharge enters the receiving environment should also be provided.

**Item 3b**

Complete the table for each discharge that is released into a surface impoundment.

**Item 3c**

Complete the table for each discharge that is land-applied.

**Item 3d**

Self-explanatory.

**Item 3e**

Self-explanatory.

**Item 4**

Complete a process flow diagram (see Appendix I) depicting the flow of wastewater from the point of entry into the plant to the point(s) of discharge into the environment. The diagram should include flow rates from one stage to the next, the types of treatment applied to the wastewater and the stage at which each treatment method is applied. Each treatment process applied to the wastewater before it is discharged should be included. You should select the proper code from Appendix II of these instructions for each treatment process.

**Item 5**

Self-explanatory

**SECTION II: SITE MAP, INTAKE AND DISCHARGE DESCRIPTION****Item 1 –Site Map**

Each permittee is also expected to develop a site map, drawn to an appropriate scale and using, where possible, UTM coordinates for zone 20N referencing WGS 1984 geodetic datum, which clearly outlines the following:

- buildings and other permanent structures;
- paved areas and roadways;
- receiving environments, as categorized by the Second Schedule WPR;
- bodies (e.g., rivers, lakes, streams, bays, estuaries) that are located on or about the property which receive or may receive stormwater from the site;
- all surface (including to gravel pit ponds) and stormwater discharge locations;
- location of each pit latrine, soak away system, septic system or sewer segment, where domestic sewage or process waste water generated by the facility enters storm sewers that discharge to receiving environments, as categorized by the Second Schedule of the WPR;
- outline of each drainage area within the facility boundaries and a depiction of flow direction (e.g., arrow head) of stormwater in each drainage area;

- outline of each drainage area within the facility boundaries and a depiction of flow direction (e.g., arrow head) of stormwater in each drainage area;
- location of existing stormwater structural control measures (e.g., containment, berms, detention/retention basins, grassed swales, oil/water separators);
- areas of existing and potential soil erosion;
- processes that generate dusts and particles;
- locations where source materials are likely to be exposed to stormwater, and the following activities and/or areas, at a minimum;
- storage areas, palleted materials, outdoor handling, treatment or disposal areas, loading and/or unloading areas, manufacturing and/or processing areas, waste storage areas, vehicle/equipment maintenance and washout areas, vehicle/equipment fuelling and loading areas, hazardous waste treatment, storage or disposal areas, areas of spills and/or leaks of source materials, access routes, underground storage and on-site lab or testing facilities;
- roofs or other surfaces exposed to air emissions from process area; and
- location and areas of undisturbed natural areas, or completely claimed areas (there is no machinery at these sites), disturbed sites which have been cleared for mining, areas for processing, storage and where mining takes place; must also be clearly identified in the site map.

An example of an acceptable site map is shown in Appendix III to these instructions. Note: Appendix III is provided for purposes of illustration only, and does not represent any real facility).

**Item 2a**

Complete the table for each outfall point into the coastal nearshore/marine offshore area.

**Item 2b**

Complete the table for each outfall point into a river/stream or municipal drain.

**Item 2c**

Complete the table for each intermittent/periodic discharge identified in Section III, Tables 2a and 2b

**Item 3 -Discharge Characteristics**

This item must be completed by all permittees for all discharges or outfalls leaving the facility including process wastewater, sanitary wastewater, non-contact cooling water, storm water, etc. Permittees are required to report recent analytical data (i.e not more than two (2) years old) for any of the parameters/substances listed in the discharges/outfalls. If no historical data is available then a daily value should be obtained. A Daily Value is an average value representing measurements from an outfall/discharge over normal operating conditions. For example a facility operating over an 8 hour production cycle, a daily value would constitute an average of 4 grab samples taken once every two hours.

**Item 4 – Scheduled Improvements and Schedules of Implementation**

Self-explanatory



**Item 5 – Toxic Chemicals/Products**

List any of toxic chemicals/products that you believe to be present and explain why you believe them to be present. No analysis is required but if you have analytical data, you must report it. Base your determination on your knowledge of your raw materials, maintenance chemicals, intermediate and final products, and any previous analyses known to you of your effluent or similar effluent

**Item 6a- Laboratory Analysis Information**

List the specifics concerning analyses done by laboratory or consulting firm. Indicate by Yes/No which parameters they have certification for and name the certifying body.

**Item 6b- In House Laboratory**

If your facility has an in house laboratory, indicate which parameters it is capable of testing. Indicate by Yes/No which parameters they have certification for and name the certifying body.

**Item 7 – Data Records**

Provide a detailed description of the following information records:

*Sampling records:* These show that the proper sampling protocol was performed in the field. At a minimum, this documentation should include the names of the persons conducting the sampling activity, sample number, sampling dates and times, sample collection points, maps and diagrams, equipment/method used, climatic conditions, and unusual observations.

*Chain-of-custody records:* Documents the progression of samples as they travel from the original sampling location to the laboratory and finally to their disposal area.

*QC sample records:* These records document the generation of QC samples, such as field, trip, and equipment rinse blanks and duplicate samples. They also include documentation on sample integrity and preservation and include calibration and standards traceability documentation capable of providing a reproducible reference point. Quality control sample records should contain information on the frequency, conditions, level of standards, and instrument calibration history.

*General field procedures:* These record the procedures used in the field to collect data and outline areas of difficulty in gathering specimens, thus documenting potential sources of uncertainty.

*Sample Data:* These records contain the times that samples were analyzed to verify that they met the holding times prescribed in the analytical methods. Included should be the overall number of samples, sample location information, any deviations from the standard operating procedures (SOPs), time of day, and date.

*Sample Management Records:* Document sample receipt, handling and storage, and scheduling of analyses. The records verify that the chain-of-custody and proper preservation were maintained, reflect any anomalies in the samples (such as receipt of damaged samples), note proper login of samples into the laboratory, and address procedures used to ensure that holding time requirements were met.

*Project-specific information* from the QA/QC checks such as blanks (field, reagent, rinsate, and method), spikes (matrix, matrix spike replicate, analysis matrix spike, and surrogate spike), calibration check samples (zero check, span check, and mid-range check), replicates, splits, and so on should be included in these reports to facilitate data quality analysis.

*Data Handling Records:* These records document protocols used in data reduction, verification, and validation. Data reduction addresses data transformation operations such as converting raw data into reportable quantities and units, use of significant figures, recording of extreme values, blank corrections, etc. Data verification ensures the accuracy of data transcription and calculations, if necessary, by checking a set of computer calculations manually. Data validation ensures that QC criteria have been met.

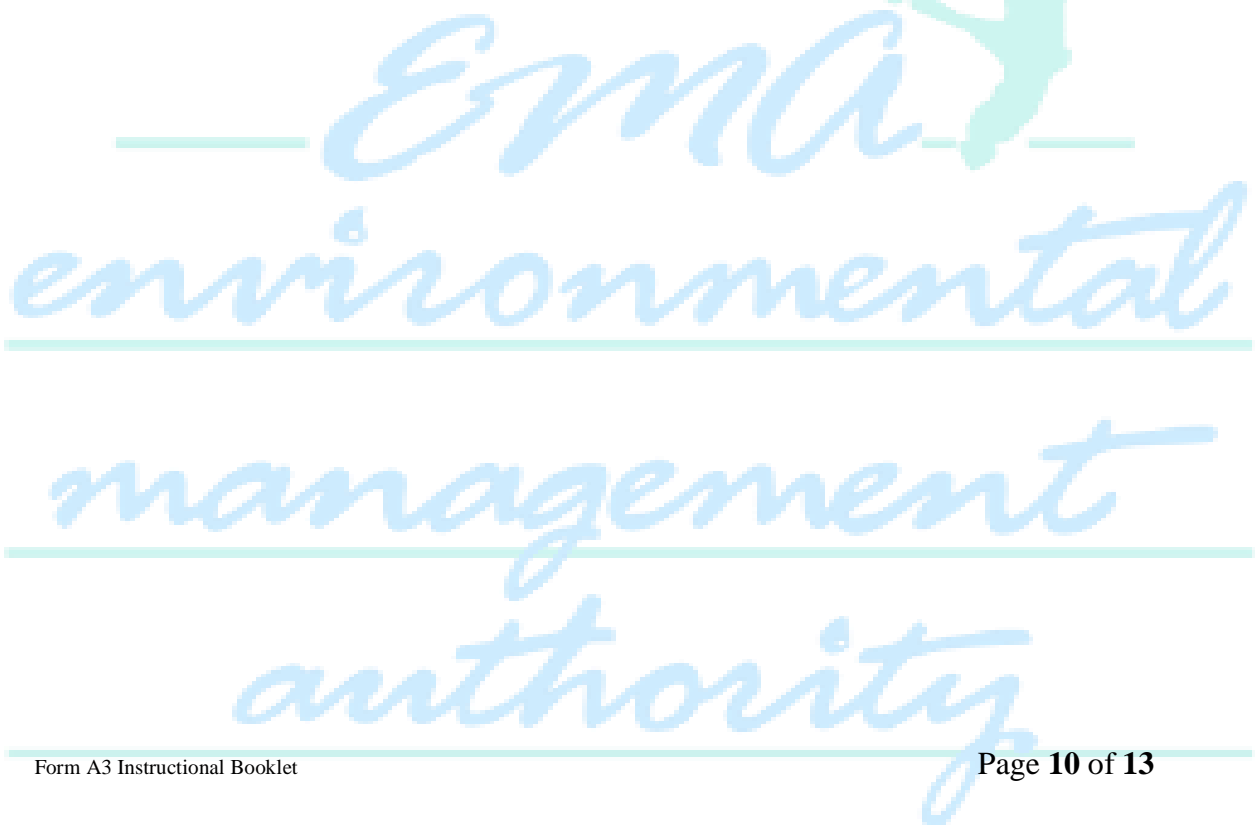
*Competency of Personnel / Testing Laboratory:* Provide certificates that demonstrate that the person(s) or laboratory possesses the skills, qualifications and experience to conduct the required sampling analysis and reporting.

**Item 8 – Confidentiality Claim**

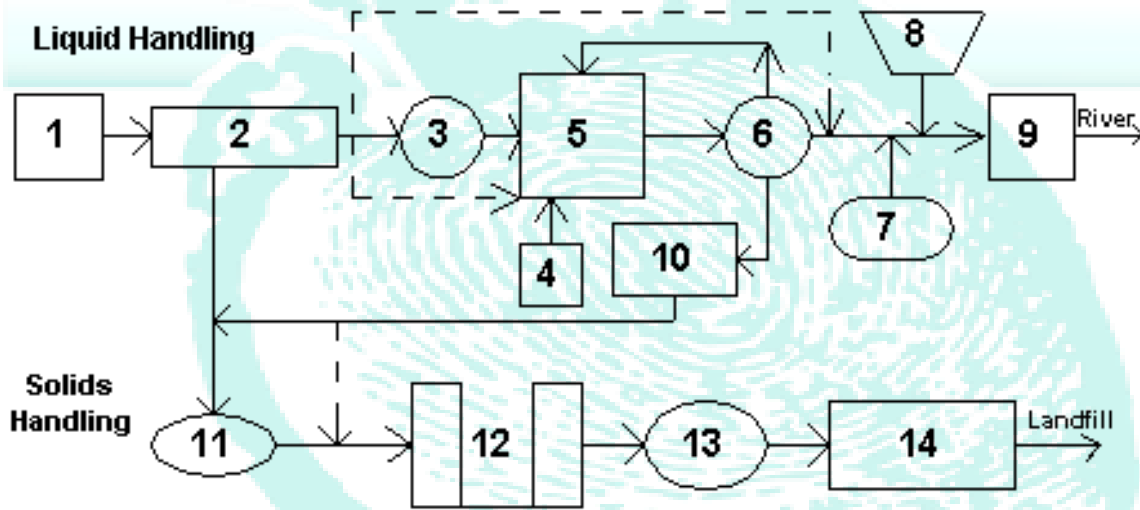
Self-explanatory

**Item 9 – List of Attachments**

Self-explanatory



**Appendix I: Process Flow Diagram a Typical Sewage Treatment Plant.**



**Appendix I. Process Flow Diagram a Typical Sewage Treatment Plant.**

1. Preliminary: Raw sewage passes through bar screens and grit classifiers.
2. Primary: Settled sludge removed.
3. Bioroughing Towers: Ultra high-rate trickling filters assist in BOD removal.
4. Oxygen Plants: Generate pure oxygen for biological growth.
5. Secondary Aeration Reactor: Mixes oxygen and return sludge to activate organisms for decomposition of pollutants.
6. Final Settling Tanks: The biomass settles removing 90% of the original pollution — biosolids are returned to the system or wasted.
7. Disinfection: Sodium hypochlorite (bleach) is mixed with water and injected into the final effluent.
8. Dechlorination: The remaining bleach is removed by adding sodium bisulfite.
9. Final Effluent Pump Station: High river elevation dictates operation — normal flow is by gravity.
10. Sludge Thickening: This process uses polymer and dissolved air to reduce water content in the wasted secondary biosolids.
11. Sludge Holding Tanks: Biosolids removed in the Primary and Secondary processes are blended prior to further treatment.
12. Low Pressure Oxidation: Heated by 370°F @ 300 psi, the biosolids are rendered sterile and more readily dewatered.
13. Decant Tanks: LPO sludge settles rapidly — the decanted supernatant returns to the plant headworks.
14. Dewatering: Final conditioning is accomplished with the vacuum filters and/or centrifuges before sending to the landfill.

**APPENDIX II: Codes for Treatment Processes**

<b>PHYSICAL TREATMENT PROCESSES</b>	
1-A ----- Ammonia Stripping	1-M ----- Grit Removal
1-B ----- Dialysis	1-N ----- Microstraining
1-C ----- Diatomaceous Earth Filtration	1-O ----- Mixing
1-D ----- Distillation	1-P ----- Moving Bed Filters
1-E ----- Electrodialysis	1-Q ----- Multimedia Filtration
1-F ----- Evaporation	1-R ----- Rapid Sand Filtration
1-G ----- Flocculation	1-S ----- Reverse Osmosis (Hyperfiltration)
1-H ----- Flotation	1-T ----- Screening
1-I ----- Foam Fractionation	1-U ----- Sedimentation (Settling)
1-J ----- Freezing	1-V ----- Slow Sand Filtration
1-K ----- Gas-Phase Separation	1-W ----- Solvent Extraction
1-L ----- Grinding	1-X ----- Sorption
<b>CHEMICAL TREATMENT PROCESSES</b>	
2-A ----- Carbon Adsorption	2-G ----- Disinfection (Ozone)
2-B ----- Chemical Oxidation	2-H ----- Disinfection (Other)
2-C ----- Chemical Precipitation	2-I ----- Electrochemical Treatment
2-D ----- Coagulation	2-J ----- Ion Exchange
2-E ----- Dechlorination	2-K ----- Neutralization
2-F ----- Disinfection (Chlorine)	2-L ----- Reduction
<b>BIOLOGICAL TREATMENT PROCESSES</b>	
3-A ----- Activated Sludge	3-E ----- Pre-aeration
3-B ----- Aerated Lagoons	3-F ----- Spray Irrigation/Land Application
3-C ----- Anaerobic Treatment	3-G ----- Stabilisation Ponds
3-D ----- Nitrification-Denitrification	3-H ----- Trickling Filtration
<b>OTHER PROCESSES</b>	
4-A ----- Discharge to Surface Water	4-C ----- Reuse/Recycle of Treated Effluent
4-B ----- Marine Discharge through Outfall	4-D ----- Underground Injection
<b>SLUDGE TREATMENT AND DISPOSAL PROCESSES</b>	
5-A ----- Aerobic Digestion	5-M ----- Heat Drying
5-B ----- Anaerobic Digestion	5-N ----- Heat Treatment
5-C ----- Belt Filtration	5-O ----- Incineration
5-D ----- Centrifugation	5-P ----- Land Application
5-E ----- Chemical Conditioning	5-Q ----- Landfill
5-F ----- Chlorine Treatment	5-R ----- Pressure Filtration
5-G ----- Composting	5-S ----- Pyrolysis
5-H ----- Drying Beds	5-T ----- Sludge Lagoons
5-I ----- Elutriation	5-U ----- Vacuum Filtration
5-J ----- Flotation Thickening	5-V ----- Vibration
5-K ----- Freezing	5-W ----- Wet Oxidation
5-L ----- Gravity Thickening	

**APPENDIX III: SITE MAP**

