

OUR MISSION: To facilitate Industry and Man co-existence in safe Environment.

OUR VISION

To be the Industry's leading provider of Waste Management and Industrial Cleaning services that eliminate clients' exposure and protect the environment through:

- Adherence to best practices;
- Consolidation of experience; and
- Improvement aimed at adding value to our clients businesses and public life.



CORE BUSINESS VALUE

Professionalism (integrity; expertise; and standard)
Innovation (a solution that is simple and efficient)
Commitment (to safety; environmental protection; quality, and compliance to law).



Hazardous Waste Management & Industrial Cleaning Company:

- Thermal Desorption
- ✓ Drilling waste, Oily Sludge, & Oil contaminated Soil
- **Waste Incineration**
- ✓ Medical Waste, Chemical Waste, & other Hazardous Wastes
- Industrial Cleaning & Decontamination
- ✓ Water Jetting, Tank & Vessel, Heat Exchanger Cleaning, Asbestos Management
- **E-Waste Management**
- ✓ Office and Communication Equipment, Large & Small Household Appliances
- Waste Management Consultancy
- ✓ Waste Audit, Pollution Investigation, & Trans boundary Movement of Waste

1995 - 2005

- > Incorporated as a Waste Management Firm
- Providing Waste Management Consultancy Services
- Providing Waste Facility Construction and Management services to Clients

2006 - 2015

- ➤ Installed a 10ton/hr TDU Facility
- > Started Hazardous Waste Management
- ➤ Added Cleaning & Decontamination Services
- ➤ Converted to a Public Liability Company

2016 - Forward

- > Installed an E-Waste Management Facility
- > Development of Incineration Facility ...
- ➤ Listed in Nigerian Stock Exchange Market

Headquarter:

Plot 400, Location (New) Road
Off Aba/PH Expressway (By Oyigbo Junction)
Umuebule 5, Rivers State, Nigeria



INDUSTRY SPECIFIC SOLUTIONS:

Thermal Desorption Services

- 10 tons/hr Indirect Thermal Desorption Plant
- Up to 96% hydrocarbon recovery
- less than 4ppm of oil in recovered water
- 3-stage Vapour Recovery System
- **♦** Waste pit storage capacity of 1200tons
- Digital weighing platform
- ❖ 100 Percent Regulatory compliant
- Treatment of:
 - Drill Cuttings
 - Oily Sludge
 - Contaminated Soil



Hazardous Waste Incineration

- 3tons/hr Capacity Rotary Kiln Incinerator
- Bi-chamber Incinerator capable of attaining 900°C & 1200°C and 2seconds residence time in the Secondary Chamber
- Activated Carbon & Wet scrubbing Systems
- Continuous Emission Monitoring System
- The Incineration Plant handles:
 - Hazardous Waste
 - Chemicals
 - ➤ Solid & Liquid Waste
 - Refining Residues
 - Medical waste
 - > Sludge





INDUSTRY SPECIFIC SOLUTIONS:

E-Waste Management

- 1 tons/hr E-waste Processing Plant
- We process all types of e-waste including:
 - Large Household Appliances
 - Small Household Appliances
 - Office and Communication Devices
 - Lighting Equipment (fluorescent tubes, lamps)
 - Ozone Depleting Substances (CFC & HCFC) Recovery
 Capability
 - Cathode Ray Processing
 - Printed Circuit board (PCB) Processing
 - Cable Recycling



Cleaning & Decontamination

- Vacuum Transfer System (VTS)
- Remote Pipe and Sewer Cleaning Unit
- Ultra/High Pressure Jetting systems (UHPJ &HPJS)
- Non-Man Entry Automated Tank Cleaning Systems (NEATS)
- With these Systems we cleaning:
 - FPSOs, Tanks, and Vessel Desludging
 - Surface Cleaning
 - Crude, Chemical and Product storage Tanks
 - Heat Exchangers Tube and Fins Cleaning
 - Pipelines, and Sewers Cleaning





OFFICES & PROJECTS WORLDWIDE

Waste Management Consultancy

- Trans-boundary Movement of Waste
- Pollution Investigation
- Remediation Planning
- Waste Auditing
- Facility Design, Construction, & Operation





Operational Base: Rivers State, Port Harcourt



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THERMAL DESORPTION UNIT

TECHNOLOGY OVERVIEW | TDU

Thermal Desorption Unit

TIP Thermal Desorption Unit (TDU) is a 10ton per hour capacity Plant It is indirectly fired and recovers hydrocarbon contaminant of almost virgin quality through the 3-stage Vapor Recovery System.



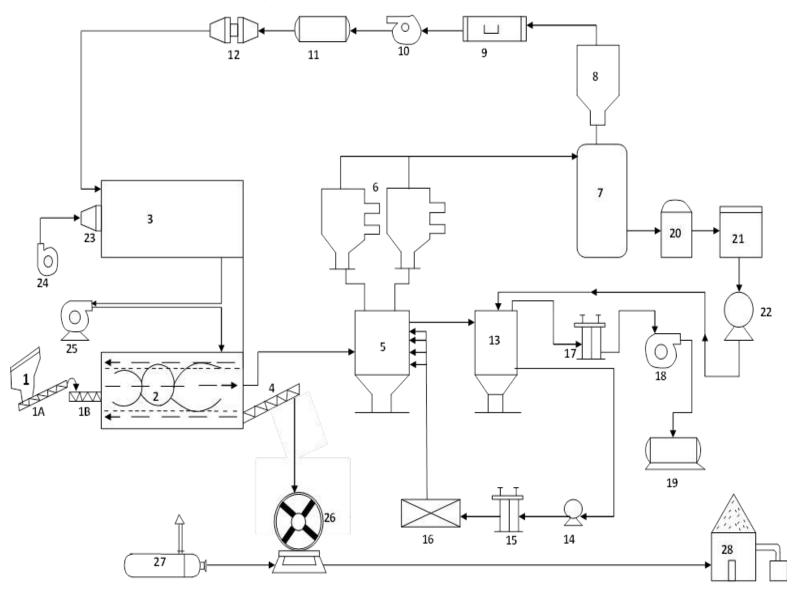






INDUSTRIAL APPLICATIONS | TDU

Thermal Desorption Unit Process



	Representation
1.	Feed Hopper
1A.	Feed Transfer Conveyor
1B.	Feed Injection Conveyor
2.	Main Processor (Kiln)
3.	Combustion Chamber
4.	Ash Discharge Conveyor
5.	Scrubber Tower
6.	Mist Eliminator
7.	Knock Out Pot
8.	Mist Eliminator
9.	Mist Eliminator
10.	Waste Gas Blower
11.	Condenser
12.	Flame Arrestor
13.	Oil Tank
14.	Oil Recirculation Pump
15.	Filters
16.	Air Cooled Heat Exchanger
17.	Filters
18.	Oil Discharge Pump
19.	Base Oil Storage Tank
20.	Oil/Water Separator
21.	Oil Tank
22.	Oil Discharge Pump
23.	Burner
24.	Combustion Air Blower
25.	I.D Fan Blower
26.	Rotary Valve
27.	Blower
28.	Ash Discharge Bin



INDUSTRIAL APPLICATIONS | TDU



Plant Profile

- 1. About 600-850F temperature
- 2. Oil (96-99% of Original oil)
- 3. Extraction of light and heavy hydrocarbon
- 4. Water (Less than 5ppm of Oil)
- 5. Treated over 20,000tons of Oily sludge



INDUSTRIAL APPLICATIONS | TDU



Skip Turning, Washing and Return within 48 Hours at TIP Base





MUDSKIPS/CUTTING BOXES

Mud Skip/Cutting Box is used for transportation and safe handling of hydrocarbon contaminated drill cuttings from offshore platforms. These units provide a safe and efficient means of drilling waste containment for transportation to treatment facility.

Features:

- Designed and manufactured to DNV 2.7-1/EN 12079/DOT 49CFR176.340 standards
- Certified slings complete with shackles are provided according to DNV 2.7-1/EN 12079 standards
- Design temperature -4°F, -20°C
- 25BBL/1050 gallons/4000 litre capacity
- Sealed lid prevents spillage during transportation
- Even when stacked two high, the sling on the upper sip is easily accessible
- Drainage points are standard
- Lightweight lid for safe and easy lifting, opening/ closing
- Large lid ensures ability to fill unit to maximum, improving logistics





Storage & Treatment

Technologies:

Designed for:

- Storage of Drilling Mud
- Treatment of mud/cutting & sludge

Technology:

- √ Skip turning
- ✓ Digital weighing platform
- ✓ 10tons/hr low temperature TDU with dust control system
- ✓ Environmentally friendly
- √ 99% material recovery





TECHNOLOGY OVERVIEW | Solidification

Solidification of Ash

- Ash gotten from treated mud/Cutting
- Fixed after Laboratory analysis

Technology:

- ✓ This is dependent on the level of toxic metals and NORMS in the residue.
- ✓ The residue and other additives are mixed using pre-determined ration of Sand, Cement and Residue.
- ✓ Water is further added to the blended composite.
- ✓ The mixture is cast and allowed to cure for a period of 21 days.
- ✓ The curing period includes intervals of watering to enhance controlled dehydration and strength development of the principal binding material (Cement)





Industrial Waste Incineration

TECHNOLOGY OVERVIEW | Waste Incineration

Waste Incineration Technologies

Waste Incineration undergoes the strictest and more demanding controls, thus resulting in a safe and efficient solution for industrial waste management.

Technology:

Rotary Kiln Incinerator



INDUSTRIES:

Chemical | Petrochemical | Oil & Gas Pharmaceutical | Mining | Hospitals Airports | Waste management plants Farming and slaughterhouses

Industrial Applications:

- Solid & Liquid Waste
- Hazardous Waste
- NORM Waste
- Refining Residues
- Waste Water Plant Sludge



ROTATING INCINERATION SYSTEMS:

Main Features:

- Rotating Drum Unit
- Continuous operation
- 3 ton/hr
- Two Incineration Chambers
- Automatic waste loading
- Automatic ash removal
- Full automatic operation cycle
- Operates under relevant Industry Standards

What kind of waste can be incinerated?

- ✓ General Waste
- ✓ Hospital Waste
- ✓ Powders and compact low grain waste
- ✓ Liquids, pastes and sludge
- ✓ Chemicals and fabrics





TECHNOLOGY OVERVIEW | Waste Incineration

TIP INCINERATION SERVICES:

- Design and Fabricate Incinerators for clients
- Import and Install incinerators
- Incinerator Management
- Render Incineration services at base







Industrial Cleaning & Decontamination

- Surface Cleaning
- FPSOs, Tanks, and Vessel Desludging and Cleaning
- Non-man Entry Automated Tank Cleaning System (NEATS)
- Heat Exchangers Tube and Fins Cleaning
- Pipelines and Sewers Cleaning









Super Max Automated Cleaning

NAME: Slug Catcher Waste

Management

CUSTOMER: Baker Hughes/NLNG

PROJECT: Pipe Cleaning

INDUSTRY: Waste Management

LOCATION: Bonny

TECHNOLOGY USED:

Training DATE: 2017





Evacuation of Waste Oil:

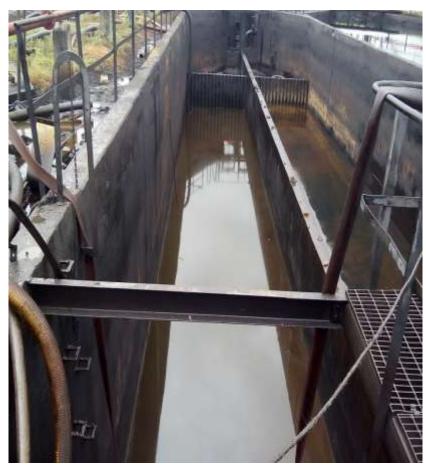
- Cleaning of separators tanks
- Incinerator Management of waste oil







Desludging of API Separator





Port -Harcourt Refinery

Port –Harcourt Refinery 2 Separators

Oil & Gas

Nigeria Centrifugal Pumps

2016



Heat Exchanger Cleaning Technology:









Drainage Cleaning Using High Pressure Water Jetting System:

















Non-man Entry Automated Tank Cleaning System (NEATS)

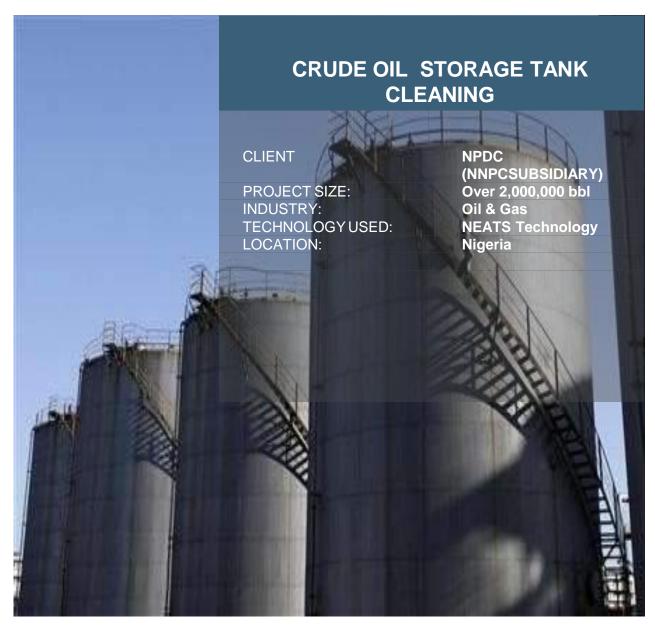
















FPSO Cleaning

Trinity Spirit SPECO

FPSO Cleaning



TRANS-BOUNDARY WASTE DISPOSAL

PROJECT REFERENCES | Trans-Boundary Waste Disposal

ASBESTOS Removal, Packaging & Disposal

- Safe Removal and Packaging According to Basel Convention
- Exporting over 5000tons of ACM to Landfill in compliance with Basel convention
- Obtaining relevant permit from Federal Ministry of Environment and from the Exporting Country







PROJECT REFERENCES | Trans-Boundary Waste Disposal



SAFE PACKAGING OF ACM

CLIENT: SHELL NG.

QTY: 5,000 Tons

TRANS-BOUNDARY DISPOSAL

ASBESTOS CONTAINING WASTE



PROJECT REFERENCES | Trans-Boundary Waste Disposal





Containerization and Transportation of ACM For Export to Landfill







Electrical & Electronic Waste:

PROJECT REFERENCES | E-Waste

E-Waste Processing Plant





- Printed Circuit Board (PCB) Crushing and Precious Metal Recovery
- CRT Processor



Bulb Crushing & Mercury Recovery Technology



Compact Cable Recycling Technology





PROJECT REFERENCES | E-Waste

Reclamation of Ozone Depleting Substance Technology:







Sensitive Data Destruction Technology:









COMPETITIVE ADVANTAGES:

- Wealth of industry experience
- Regulatory Compliant
- Bespoke Solutions
- Competitive Cost for Customer
- Professional Business Approach
- High safety conscious Work Approach
- Professionalism
- Leading-edge Technology





