



Empowering For  
**CLEAN & SAFE**  
Industry

رؤية  
**2030**  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA



**SAFE MANAGEMENT**  
FOR INDUSTRIAL WASTE Co.  
شركة الإدارة الآمنة للمخلفات الصناعية

**COMPANY**  
**PROFILE**  
[www.smiw.sa.com](http://www.smiw.sa.com)

# WHO WE ARE

Safe Management for Industrial Waste Co. (SMIW) provides transportation, recycling, treatment, and safe disposal services of industrial and hazardous wastes that are generated from wide range of wastes generators from diversified industries, including but not limited to the Oil & Gas industry, the Chemicals industry, the Galvanizing industry, the Pharmaceutical industry, the Marine industry, the Food industry and more. SMIW's facility is located in the Eastern region and provides its services across all regions of the Kingdom of Saudi Arabia. SMIW employs physical, chemical, and thermal methods to treat/ recycle and safely dispose of the wastes.



# VISION

To become the trusted environmental partner of our clients and community by managing & reducing all types of generated wastes, from collection to final safe disposal, while recovering valuable resources, all with a view to achieving an ecofriendly and sustained environmental system.

# MISSION

To provide, Industrial hazardous and non-hazardous waste management (recycling, treatment and final safe environmental disposal) using socio-economically accepted technologies and services. We offer and develop those technologies locally, we train Saudis to the highest level of competence following the highest professional and transparent procedures; all in accordance with the KSA vision of 2030.


# TYPE OF WASTES

- Hydrocarbon Materials
- Oily Sludge Wastes
- Used Oils
- Inorganic sludges (Brine, - Phosphate, Caustic..etc.)
- All types of spent catalysts
- Lithium/Acid/Dry Batteries
- Chemicals
- Paints and Solvents
- Galvanizing waste
- Fiberglass waste
- Lead/Iron slag
- Asbestos
- Fly Ash/Carbon Ash
- Oily water
- Workshops Wastes
- Liquid wastes from hospitals
- Incinerable Wastes
- All types of waste are evaluated for acceptance.

# PROCESSES:

- Incineration
- Indirect Thermal Desorption
- 3 Phase Centrifuge
- Stabilization / Fixation / Encapsulation
- Neutralization/Precipitation
- Class I and II Landfills
- Drum Reconditioning
- Landfarming
- Oxidation / reduction
- Solar Treatment

# CERTIFICATES & APPROVALS



مركز موانع إدارة التلوث  
National Center for Waste Management

رخصة إدارة تقيّات

|                |   |
|----------------|---|
| اسم المنشأة:   | شركة إدارة الأمانة لمخلفات الصناعة -  |
| خون الوثيقة:   | اسم المنشأة: الفرع - رقم الهوية: 31952 - رقم الإصدار: 102 - رقم المبنى: 73 - اسم الشارع: أمانة جدة - بن صالح/إبراهيم/مجمع مستشفيات - اسم الحي: النخلة |
| رقم الترخيص:   | 2051964477  |
| تاريخ الترخيص: | 05/03/1447  |
| رقم الترخيص:   | 2021.145  |
| تاريخ الترخيص: | 19/2  |
| تاريخ الترخيص: | 2023/01/11  |
| تاريخ الترخيص: | 2023/01/11  |
| تاريخ الترخيص: | 08/04   |
| تاريخ الترخيص: | 08/04   |

النشاط:

النشاط الرئيسي: جمع ونقل التقيّات الخطرة

النشاط الفرعي: جمع ونقل التقيّات الكيميائية

شروط الترخيص والصريح



مركز موانع إدارة التلوث  
National Center for Waste Management

رخصة إدارة تقيّات

|                |   |
|----------------|---|
| اسم المنشأة:   | شركة إدارة الأمانة لمخلفات الصناعة -  |
| خون الوثيقة:   | اسم المنشأة: الفرع - رقم الهوية: 31952 - رقم الإصدار: 4719 - رقم الوحدة: رقم المبنى: مبنى المرح |
| رقم الترخيص:   | 2051964477  |
| تاريخ الترخيص: | 05/03/1447  |
| رقم الترخيص:   | 2021.157  |
| تاريخ الترخيص: | 17/6  |
| تاريخ الترخيص: | 2023/06/14  |
| تاريخ الترخيص: | 2023/06/14  |
| تاريخ الترخيص: | 214   |

النشاط:

النشاط الرئيسي: معالجة التقيّات الخطرة

النشاط الفرعي: معالجة التقيّات الخطرة - عدد (4) برك التبخير (Evaporation Pans) - عدد (1) نظام الطرد المركزي لتثبيت والتجفيف والتصلب (Stabilization & Solidification Unit) - عدد (1) وحدة معالجة مياه الصرف الصحي (Sewer Treatment Unit) - عدد (1) وحدة تخزين والتفكيك (Drums storage & crushing unit)

شروط الترخيص والصريح



مركز موانع إدارة التلوث  
National Center for Waste Management

رخصة إدارة تقيّات

|                |   |
|----------------|---|
| اسم المنشأة:   | شركة إدارة الأمانة لمخلفات الصناعة -  |
| خون الوثيقة:   | اسم المنشأة: الفرع - رقم الهوية: 31952 - رقم الإصدار: 4719 - رقم الوحدة: رقم المبنى: مبنى المرح |
| رقم الترخيص:   | 2051964477  |
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| رقم الترخيص:   | 2021.158  |
| تاريخ الترخيص: | 17/6  |
| تاريخ الترخيص: | 2023/06/14  |
| تاريخ الترخيص: | 2023/06/14  |
| تاريخ الترخيص: | 27007   |

النشاط:

النشاط الرئيسي: التخلص النهائي من التقيّات الخطرة

النشاط الفرعي: التخلص النهائي من التقيّات الخطرة - عدد (1) خلية حرجة أرض (Landfill class)

شروط الترخيص والصريح



المركز الوطني للرقابة على الالتزام البيئي  
National Center for Environmental Compliance  
المملكة العربية السعودية

تصريح بيئي للتشغيل

|             |           |
|-------------|-----------|
| رقم الصادر: | ٨٨٠٠      |
| تاريخه:     | ١٤٤٤/٦/١٩ |

|                |   |
|----------------|---|
| اسم المنشأة:   | شركة الإدارة الأمانة للمخلفات الصناعية                      |
| قناة:          | ثالثة   |
| العنوان:       | منطقة الدمام بقيق - منطقة المرامد غرب الدمام                |
| رقم المنشأة:   | ٢٣.٣.٢٠.٠٧٩   |
| الأحداثيات:    | ٤٩,٨٦٧٣٢ E ٣٦,١٦.١٨٩ N                                      |
| السجل التجاري: | ٢٠٥١-٦٤٤٧٧  |
| النشاط:        | جمع ونقل ومعالجة والتخلص الآمن من النفايات الصناعية والخطرة |

رقم الطلب: ١٤٤٣/١٨١٩٩

هاتف: ٠٥٦٢١١٣٣١٥

صندوق البريد: ٤٧١٩

المنطقة: الدمام

المدينة: الدمام

مصدره: الخبر

فاكس: ١٣٨٨١٣٣٥

الرمز البريدي: ٣١٩٥٢

تاريخه: ١٤٤٣٨/١٠/٢٤

المدير التنفيذي للتراخيص وعمليات الالتزام  
عبد بن سعد الكعبيد

**G-CERTI Certificate**

hereby certifies that

**Safe Management for Industrial Waste Co.**

Office Address : Towers of Eastern Province Cement Co., Office# 601, Khabar-Dammam Highway, Khabar 31952, P.O Box. 77075, Kingdom of Saudi Arabia

Site Address : Landfill Area, opposite to Municipal, Dhahran 34373, Old Abqaiq Road, Kingdom of Saudi Arabia

meets the Standard Requirements & Scope as following

**ISO 45001:2018 Occupational Health and Safety Management Systems**

Collection, Transportation, Treatment & Disposal of Industrial and Hazardous Waste

Certificate No : GSIS-0034-OHC  
Initial Date : 19. Aug. 2021 Issue Date : 19. Aug. 2021  
Expiry Date : 18. Aug. 2024 Valid period : 19. Aug. 2021 - 18. Aug. 2022

Signed for and on behalf of GCERTI President: K. O. Al-Otaibi

**G-CERTI** ACCREDITED MSC-115

**IAS** ACCREDITED

**IAF** ACCREDITED

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Site Address : Landfill Area, opposite to Municipal, Dhahran 34373, Old Abqaiq Road, Kingdom of Saudi Arabia

meets the Standard Requirements & Scope as following

**ISO 14001:2015 Environmental Management Systems**

Collection, Transportation, Treatment & Disposal of Industrial and Hazardous Waste

Certificate No : GSIS-0034-EC  
Initial Date : 19. Aug. 2021 Issue Date : 19. Aug. 2021  
Expiry Date : 18. Aug. 2024 Valid period : 19. Aug. 2021 - 18. Aug. 2022

Signed for and on behalf of GCERTI President: K. O. Al-Otaibi

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Site Address : Landfill Area, opposite to Municipal, Dhahran 34373, Old Abqaiq Road, Kingdom of Saudi Arabia

meets the Standard Requirements & Scope as following

**ISO 9001:2015 Quality Management Systems**

Collection, Transportation, Treatment & Disposal of Industrial and Hazardous Waste

Certificate No : GSIS-0034-QC  
Initial Date : 19. Aug. 2021 Issue Date : 19. Aug. 2021  
Expiry Date : 18. Aug. 2024 Valid period : 19. Aug. 2021 - 18. Aug. 2022

Signed for and on behalf of GCERTI President: K. O. Al-Otaibi

**G-CERTI** ACCREDITED MSC-115

**IAS** ACCREDITED

**IAF** ACCREDITED

# OUR CORE SERVICES



- ◆ **TRANSPORTATION OF HAZARDOUS WASTE**
- ◆ **RECYCLING TECHNOLOGIES OF HAZARDOUS WASTE**
- ◆ **TREATMENT & DISPOSAL OF HAZARDOUS WASTE**

## ◆ **TRANSPORTATION OF HAZARDOUS WASTE**

SMIW Co. can collect hazardous waste from different regions in Saudi Arabia through extensive transportation network and diversified range of transportation vehicles, which enable it to deal with different types of liquid, semi-liquid and solid hazardous wastes. The transportation vehicles include but not limited to vacuum tankers, super suckers, flatbed trailers, dump truck, skip trucks, hook truck, cooled dyna etc. SMIW Co. can collect and transport packaged, palletized, and bulk hazardous waste. However, for each type of waste a tailor-made solution can be provided.

SMIW Co. takes all necessary measure to ensure the safety and professionalism of the transportation process for hazardous wastes considering their compatibility, toxicity, flammability, explosivity or corrosive specifications, whether alone or when in contact with other wastes or substances during transportation, and all for the purpose to not cause danger to health or environment while satisfying all the needs of environmental regulations and governmental authorities in Saudi Arabia.



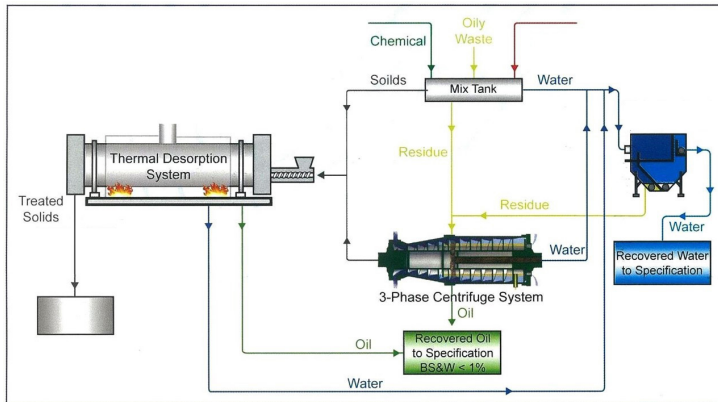
## ◆ **RECYCLING TECHNOLOGIES OF HAZARDOUS WASTE**

SMIW is eager to recycle the hazardous wastes as possible, which has many environmental and economic benefits such as protecting the human & environment, reducing the consumption of raw materials that can be utilized in production, conserving the energy needed to dispose these wastes, also the amounts of harmful emissions that are released to the atmosphere such as CO<sub>x</sub>, NO<sub>x</sub> and SO<sub>x</sub> will be reduced. from these technologies:

- A. OIL SLUDGE AND HYDROCARBON WASTE RECOVERY SOLUTIONS**
- B. ADVANCED OXIDATION OF SPENT CAUSTIC**
- C. BIOGAS TECHNOLOGY**

# A. OIL SLUDGE AND HYDROCARBON WASTE RECOVERY SOLUTIONS

SMIW Co operates a 100% hydrocarbon recovery system to handle the following types of oil wastes, e.g. Slop Oil, API Separator Sludge, Tank Bottoms, Oily Wastewater, Used Oil, Contaminated Sand, Contaminated Catalyst, Drilling Fluids, Hydrocarbon Sludge and Petrochemical Sludge.



It consists of two steps, First by mechanical separation and second by Thermal separation

## 1-THREE PHASE CENTRIFUGATION SYSTEM

A high rate three-phase centrifuge system is used for hydrocarbon recovery and recycling operations, Oily waste are separated into their component parts of oil, water and solids using a high speed centrifuge where the recovered oil can be reused.



The water discharged will average below 2000-PPM total suspended solids and less than 1-% free oil. The hydrocarbon stream will be equal to or less than 1% .BS&W, depending on the feed material.

The solids will be approximately 50% solids by weight and will discharge, via screw conveyor, into a roll-off box for disposal or further treatment by TDU to eliminate total hydrocarbon and oil to 1% TPH.

## 2-THERMAL DESORPTION SYSTEM

Hydrocarbon contaminated solids are indirectly heated in an anaerobic dryer where volatiles are purged from the solids and separated by their specific gravity, hydrocarbons, water and solids. Solids may require further treatment based on the regulations.

It is an ex situ process for physically separating volatile and semi-volatile contaminants from soil, sediment and sludge by heating to high temperatures (usually between 170 to 550 degTC ) to volatilize organic contaminants. TD systems can volatilize selected contaminants and drive off water.



## B. ADVANCED OXIDATION OF SPENT CAUSTIC

### ECONOMICAL RECYCLE



SMIW Co searching and developing a lot of solutions in order to seek ways and means for achieving sustainability in all human activities and industries.

Currently SMIW Co. is in the final stages of development modern advanced oxidation technology, the process optimized to provide efficient and reliable destruction of sulfide mercaptans and COD in spent caustic and other liquid waste treatment applications.

Supplied in a batch reactor working under ambient pressure and temperature minimizes the cost and safe operation. Clear water will be produced and the by product is iron oxide as a comprehensive economical recycle. a chemical treatment technology to treat and safely dispose one of the most challenging waste streams at the Refineries and petrochemical industries which is spent caustic waste.



Spent Caustic



Acidic Catalyst



Neutralized Mixture



Oxidized Mixture



Sludge Mixture



Clear Product



Iron Oxide By Products

## C. BIOGAS RENEWABLE TECHNOLOGY

**| Recovering Organic Waste | Fertilizer-By Product**

**| Renewable Bio-Energy | Clean Disposal**

**| Minimal Emissions**



Biogas is a natural process between microorganism and discarded organic waste (Biomass), such as food, agricultural waste, may be sewage by conversion of biomass through digester to clean disposal of organic waste, produce fertilizer and energy from renewable natural gas.

Biogas is composed mostly of methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>). The methane content vary from 40%–60%, with CO<sub>2</sub> making up most of the remainder along with small amounts of water vapor and other gases.

Biogas can be burned directly as a fuel or treated to remove CO<sub>2</sub> and other gases for use like natural gas.

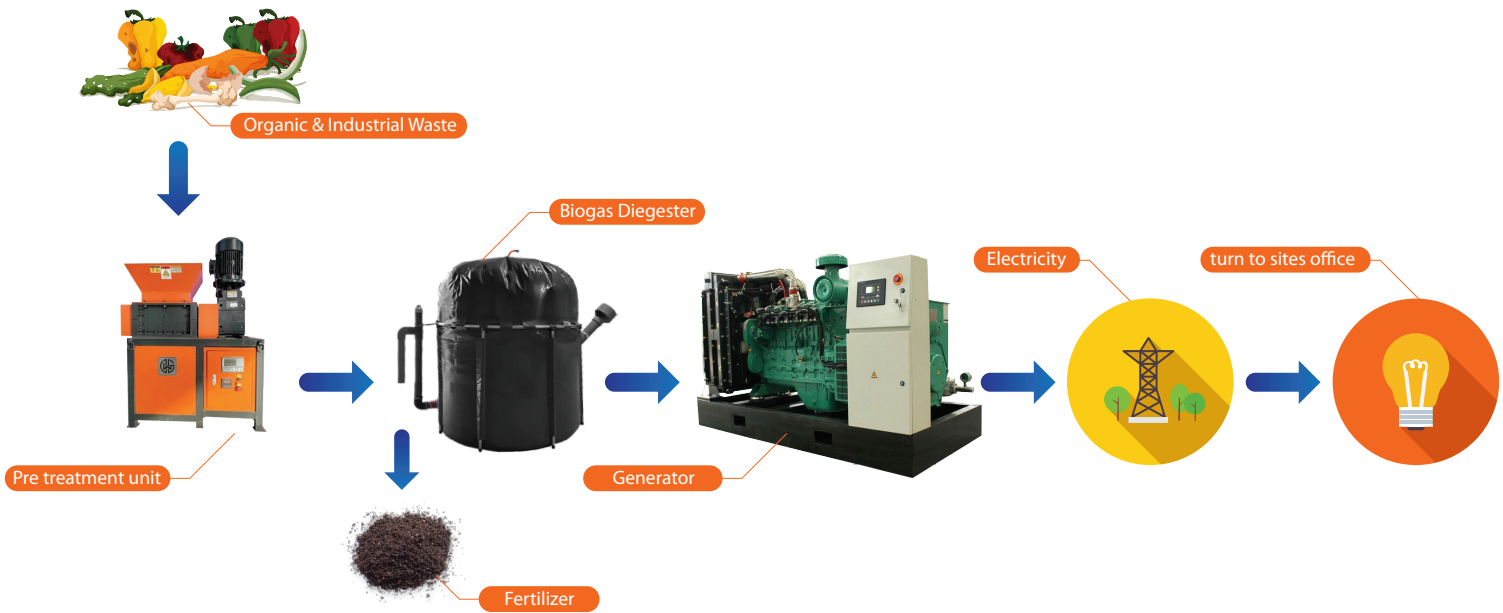
Anaerobic decomposition of biomass occurs when anaerobic bacteria that live without the presence of free oxygen eat and break down, or digest biomass and produce biogas. The material remaining after anaerobic digestion is complete is called digestive, which is rich in nutrients and can be used as a fertilizer.

## Bio-Digester Process

Before start the process, the waste received will be segregated plastic and grass will be sent to the suitable process and the organic waste will be sent to shredder system then will be mix with wastewater 80:20 %

Startup need 25-30 days then the operation will be continuous production, Temperature must be 20-37 C and each digester capacity is 1.5 m3 volume, may add more as needed

1. Liquefaction - Organic matter is degraded to basic structure, Protein, Glycerin, Fatty Acid and Amylose
2. Acid Production - Also called the acidogenesis, Simple organic matters are converted into H<sub>2</sub> and CO<sub>2</sub>
3. Acetate Production- Short-chain fatty acids are metabolized into acetate, carbon dioxide, and hydrogen.
4. Methane Production - In this process, acetic acid, H<sub>2</sub>, CO<sub>2</sub>, are converted into CH<sub>4</sub>.



## ◆ Treatment Processes of Hazardous Waste

SMIW Co. employs physical, chemical, and thermal methods to treat and safely dispose of a wide range of hazardous wastes, including but not limited to industrial wastewater, oily water, acids, alkaline, solvents, spent catalysts, slags, fly ash, asbestos, medicines, contaminated soil, E-waste etc. However, all waste types are subject to evaluation for acceptance.



- |   |                                 |
|---|---------------------------------|
| 1. Solar Treatment                                      | 4. Chemical Treatment           |
| 2. Stabilization/Solidification<br>(Physical Treatment) | 5. Filter Press Process         |
| 3. Class I Landfill                                     | 6. Incineration                 |
|   | 7. Empty Drum Recycling Program |



🏠 Towers of Eastern Cement Co.  
06th Floor, Office# 601, Khobar-Dammam Highway, Khobar 31952  
📍 P.O Box. 77075, Kingdom of Saudi Arabia  
☎ +966 13 8813327  
✉ info@smiw.sa.com  
🌐 www.smiw.sa.com