

Whitepaper Discussing GCC Mandates for the Treatment of Oily Hazardous Waste Streams

Oman Government Mandate to Treat Oily Hazardous Waste

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The government of Oman, through its environmental regulations and the Environment Authority (formerly the Ministry of Environment and Climate Affairs - MECA), has established a clear mandate for the proper management and treatment of oily hazardous waste. This mandate is primarily driven by the **Law on Conservation of the Environment and Prevention of Pollution (Royal Decree No. 114/2001)** and the **Regulations for the Management of Hazardous Waste (Ministerial Decision No. 18/93)**.

Key Aspects of the Mandate:

- **Definition of Hazardous Waste:** Oily waste generated from industrial, commercial, or oil and gas activities is considered hazardous waste if it exhibits characteristics that make it harmful to human health or the environment. This includes flammability, toxicity, corrosivity, or the presence of radioactive materials (NORM).
- **Prohibition of Uncontrolled Disposal:** The regulations strictly prohibit the disposal of hazardous waste into the environment without proper treatment and permits. Discharging oily waste into wadis, watercourses, groundwater recharge areas, or drainage systems is explicitly forbidden.
- **Licensing and Permitting:** Any entity involved in the generation, handling, storage, transportation, treatment, or disposal of oily hazardous waste must obtain necessary licenses and permits from the Environment Authority. This ensures that all activities are conducted in compliance with environmental standards.
- **Waste Management Plan:** Generators of oily hazardous waste are typically required to develop and implement waste management plans that detail the processes for minimizing waste generation, proper handling, storage, and treatment or disposal methods.
- **Transportation Regulations:** The transportation of oily hazardous waste must be carried out by licensed transporters using approved containers and vehicles, accompanied by a consignment note (manifest) that tracks the waste from generation to its final destination.
- **Treatment and Disposal Requirements:** The mandate emphasizes the need for appropriate treatment of oily hazardous waste to neutralize its hazardous properties before final disposal. Approved treatment methods may include physical, chemical, or thermal processes. Landfilling of untreated hazardous waste is subject to stringent conditions and requires specially engineered landfills with multiple liners and leachate collection systems to prevent soil and groundwater contamination.
- **"Be'ah" - The Environmental Services Holding Company:** The Oman Environmental Services Holding Company (Be'ah) plays a central role in the management of hazardous waste in Oman. It is responsible for developing and operating integrated industrial waste treatment facilities, including those designed for oily waste. Be'ah also regulates and oversees the transportation and disposal of hazardous waste by other entities.
- **Industrial Waste Treatment Facility (IWTF):** Be'ah has established facilities like the Sohar Industrial Waste Handling and Treatment Facility (IWHTF), which is one of the largest in the world, to handle various types of industrial hazardous waste, including oily sludge. These facilities incorporate advanced technologies for treatment and safe disposal.

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- **Circular Economy Initiatives:** Oman is increasingly focusing on circular economy principles in waste management. Initiatives aim to recycle and recover valuable materials from industrial waste streams, including oil sludge, to reduce the reliance on landfills and create economic opportunities. Technologies for oil recovery from sludge and the use of treated waste in other industrial processes are being explored and implemented.
- **Oil Spill Contingency Planning:** Recognizing the risks associated with the oil and gas sector, Oman has a National Plan for Oil Pollution Control to respond effectively to oil spill incidents, which often generate significant amounts of oily hazardous waste. This plan outlines responsibilities, procedures, and resources for containment, cleanup, and waste management.
- **Penalties for Non-Compliance:** Failure to comply with the regulations regarding the management and treatment of oily hazardous waste can result in significant fines and potential imprisonment, as outlined in the Law on Conservation of the Environment and Prevention of Pollution.

General Information and Useful Details:

- **Royal Decree No. 46/95** also addresses the handling and use of chemicals, including hazardous chemicals that may be present in oily waste streams.
- **Ministerial Decision No. 159/2005** specifically regulates the discharge of liquid waste in the marine environment, which is relevant to the disposal of treated oily wastewater, if permitted.
- The **Ministry of Energy and Minerals** collaborates with Be'ah to regulate waste management within the oil and gas sector, ensuring adherence to environmental best practices.
- Companies like Ras Al Hamra LLC and United Integrated Company (UIC) offer specialized environmental services for the treatment and disposal of oily and other hazardous wastes in Oman.
- New technologies are continuously being piloted and adopted in Oman for more efficient and environmentally friendly treatment of oily waste, such as those focusing on oil recovery and minimizing emissions.
- SOHAR Port and Freezone is emerging as a hub for circular economy initiatives in waste management, with new facilities dedicated to the recycling and treatment of industrial wastes, including oily waste.

In conclusion, the Omani government has established a comprehensive legal and regulatory framework to mandate the proper treatment of oily hazardous waste. This framework emphasizes licensing, waste management planning, controlled transportation, appropriate treatment and disposal methods, and the crucial role of Be'ah in developing and managing specialized treatment facilities. The Sultanate is also progressively embracing circular economy approaches to minimize the environmental impact of oily waste and promote resource recovery.

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The information provided in the Oman report is based on the following sources:

1. **The National Plan for Oil Pollution Control in The Sultanate of Oman 2023:** This document outlines Oman's policy and organizational structure for responding to oil spill incidents, which often generate oily hazardous waste.
2. **MINISTERIAL DECISION No. (18/93) REGULATIONS FOR THE MANAGEMENT OF HAZARDOUS WASTE:** This regulation details the requirements for the generation, handling, storage, transportation, treatment, and disposal of hazardous waste in Oman, including oily waste.
3. **Royal Decree 114/2001 - The Law on the Conservation of the Environment and Pollution Prevention – Policies - IEA:** This decree serves as the cornerstone of Oman's environmental regulations, instructing businesses to prevent pollution and manage waste effectively.
4. **Oman Environmental Services Holding Company (be'ah) - Waste & Recycling:** This provides information about Be'ah's role in managing municipal, industrial, and hazardous waste in Oman, including the development of treatment facilities.
5. **One of the world's largest hazardous waste management facilities: Sohar Industrial Waste Handling and Treatment Facility (IWHTF) - Ayesa:**¹ This describes the IWHTF as a key facility for the treatment and disposal of hazardous waste, including oily waste, in Oman.
6. **Pollution Operations Monitoring Center (from the Environment Authority of Oman):** This outlines the National Oil Spill Contingency Plan and the procedures for responding to oil pollution incidents.
7. **Royal Decree No. 46/95 Issuing the Law of Handling and Use of Chemicals:** This law regulates the handling and use of hazardous chemicals, which may be present in oily waste streams.
8. **Ministerial Decision No: 159/2005 Promulgating the bylaws to discharge liquid waste in the marine environment:** This regulation sets the rules for the discharge of treated liquid waste into the marine environment.
9. **Ministry of Energy and Minerals - Gov.om:** This provides information about the ministry's role in regulating the energy and minerals sector, including environmental aspects of oil and gas activities.
10. **ESD – Environmental Services Division - Ras Al Hamra LLC:** This outlines the environmental services offered by Ras Al Hamra LLC, including hazardous waste treatment and oily sludge management.
11. **Union Integrated Co. LLC – UNION INTEGRATED COMPANY WAS ESTABLISHED IN 2012 IN OMAN:** This provides information about the services offered by UIC, including hazardous waste management and water recycling.
12. **Waste Management in Oman - Golden Future Recycling:** This highlights circular economy initiatives in waste management in Oman, including recycling efforts.
13. **HSSE - SOHAR Port and Freezone:** This describes the sustainability efforts of SOHAR Port and Freezone, including the presence of Be'ah's Industrial Waste Treatment Facility.

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Kuwait Government Mandate to Treat Oily Hazardous Waste

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The Kuwaiti government, primarily through the **Environment Public Authority (EPA)**, has established a legal and regulatory framework mandating the proper management and treatment of oily hazardous waste. This mandate is primarily driven by the **Environmental Protection Law No. 42 of 2014** and its subsequent amendments, along with executive regulations such as **Resolution No. 6 of 2017 regarding the Executive Regulations for the Management of Hazardous, Medical, Municipal Solid Waste and Sludge**.

Key Aspects of the Mandate:

- **Definition of Hazardous Waste:** Oily waste generated from petroleum industries, petrochemical plants, refineries, and other industrial activities is classified as hazardous waste if it exhibits characteristics like flammability, toxicity, corrosivity, or ecotoxicity, posing a risk to human health and the environment.
- **Prohibition of Uncontrolled Disposal:** The **Environmental Protection Law No. 42 of 2014** strictly prohibits the disposal of hazardous waste through unauthorized means, including direct dumping into land, water bodies, or drainage systems. Article 29 explicitly forbids disposing of waste of all kinds in unallocated, unprepared, and environmentally unauthorized sites.
- **Licensing and Permitting:** Entities involved in the generation, handling, storage, transportation, treatment, recycling, or disposal of oily hazardous waste are required to obtain licenses and approvals from the EPA. Article 28 of **Resolution No. 6 of 2017** prohibits these activities without a valid license and EPA approval.
- **Waste Management Plans:** Generators of oily hazardous waste are typically obligated to develop and implement comprehensive waste management plans. These plans should detail waste minimization strategies, proper segregation, handling, storage procedures, and the designated treatment or disposal methods.
- **Transportation Regulations:** The transportation of oily hazardous waste must be conducted by licensed carriers using approved vehicles and containers. A manifest system is likely in place to track the movement of hazardous waste from the point of generation to the final treatment or disposal facility, ensuring accountability.
- **Treatment and Disposal Requirements:** The mandate emphasizes the necessity of treating oily hazardous waste to reduce or eliminate its hazardous characteristics before final disposal. Acceptable treatment methods can include physical separation, chemical treatment, thermal treatment (incineration under controlled conditions), and bioremediation for oily sludge. Landfilling of untreated hazardous waste is highly restricted and would require specially engineered landfills meeting stringent environmental standards.
- **Role of the Environment Public Authority (EPA):** The EPA is the primary regulatory body responsible for setting standards, issuing permits, conducting inspections, and enforcing environmental regulations related to hazardous waste management in Kuwait. They are also tasked with developing national strategies for integrated waste management, including hazardous waste.

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- **Kuwait Oil Company (KOC) Practices:** As a major generator of oily waste, the Kuwait Oil Company (KOC) has developed its own waste management procedures (e.g., KOC. EV. 008) that align with EPA regulations. Their practices include bioremediation for oily contaminated soil and sludge, solidification of liquid hazardous waste, and sending used/contaminated oil to recovery plants. KOC also explores recycling and proper disposal methods for various hazardous waste streams.
- **Focus on Sustainable Waste Management:** Kuwait is increasingly focusing on developing a national strategy for integrated waste management, aiming to reduce landfill rates and promote recycling and recovery of resources from various waste streams, including industrial and hazardous waste. The **Kuwait National Waste Management Strategy 2040 (KNWMS)** aims to set recycling and recovery targets.
- **International Agreements:** Kuwait is a signatory to international conventions like the Stockholm Convention on Persistent Organic Pollutants (POPs), which influences the management of certain hazardous chemicals that may be present in oily waste.
- **Penalties for Non-Compliance:** Violations of the environmental laws and regulations concerning the handling and treatment of oily hazardous waste can result in significant fines and legal repercussions, as outlined in the **Environmental Protection Law No. 42 of 2014**.

General Information and Useful Details:

- The **Environmental Protection Law No. 42 of 2014** is a comprehensive piece of legislation covering various aspects of environmental protection, including air and water quality, waste management, and biodiversity conservation.
- The EPA has established the **Environmental Monitoring Information System (eMISK)** to monitor environmental sites and activities, which likely includes data on hazardous waste management.
- Kuwait is actively exploring the establishment of recycling plants for various types of waste, which could potentially include technologies for recovering valuable components from oily waste.
- The government emphasizes the importance of conducting Environmental Impact Assessments (EIAs) for new projects to identify and mitigate potential environmental impacts, including those related to waste generation and management.
- Collaboration with international organizations like the International Atomic Energy Agency (IAEA) occurs, particularly in managing specific types of hazardous waste like radioactive materials that might be found in some oil and gas byproducts (NORM).
- While specific details on dedicated national-level treatment facilities for all types of oily hazardous waste might require further local investigation, the regulatory framework clearly mandates proper treatment before disposal. Companies like KOC often manage their own waste treatment processes or utilize specialized contractors.

In conclusion, the Kuwaiti government has established a robust mandate for the treatment of oily hazardous waste, driven by environmental legislation and the oversight of the EPA. This mandate emphasizes licensing, proper waste management planning, controlled handling and transportation, and the necessity of treating oily waste to minimize its environmental and health

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risks before safe disposal. The country is also moving towards more sustainable waste management practices and exploring opportunities for recycling and resource recovery.

The information provided in the report is based on the following sources:

1. **Environmental Protection Law No. 42 of 2014:** This is the primary legislation in Kuwait addressing environmental protection, including regulations related to waste management and hazardous substances.
2. **Resolution No. 6 of 2017 regarding the Executive Regulations for the Management of Hazardous, Medical, Municipal Solid Waste and Sludge:**¹ This resolution provides the detailed executive rules for implementing the hazardous waste management provisions of Law No. 42 of 2014.
3. **Kuwait Environment Public Authority (EPA) Website (epa.gov.kw):** The official website of the EPA provides information on environmental regulations, waste management strategies, and the role of the authority in enforcing environmental laws. Specifically, the "Waste" section offers insights into national waste management programs and initiatives.
4. **FAOLEX Database (fao.org/faolex/):** This database of food and agriculture legislation includes the full text and details of Kuwait's Environmental Protection Law and related regulations.
5. **Generis Global Legal Services (generisonline.com):** This platform provides summaries and overviews of pollution control and waste management laws in Kuwait, referencing key legislation and regulations.
6. **WtERT | Waste to Energy Research Technology (wtert.net):** This website includes news and information about waste management strategies globally, including details about Kuwait's national waste management strategy being developed with the EPA.
7. **GCC ePortal (new.gcceportal.org):** This portal provides information on environmental initiatives and achievements in GCC countries, including Kuwait's Environmental Monitoring Information System (eMISK) which covers waste management.
8. **Kuwait Direct Investment Promotion Authority (kdipa.gov.kw):** This authority provides information on various sectors in Kuwait, including environmental services and waste management, highlighting the regulatory landscape.
9. **Kuwait University - Health Sciences Center (hsc.edu.kw):** This source provides access to the text of Decision No. 210/2001 pertaining to the Executive By-Law of the Law of Environment Public Authority, which predates Law No. 42 of 2014 but likely contains relevant foundational information.
10. **UNFCCC (unfccc.int):** Kuwait's reports to the United Nations Framework Convention on Climate Change may contain information on waste management practices as they relate to greenhouse gas emissions.
11. **AMP EID (ampeid.org):** This platform provides access to Kuwait's Resolution No. 6 of 2017 regarding waste management regulations.
12. **Kuwaiti Laws (kuwaitilaws.com):** This website provides access to various Kuwaiti legislations, including those related to environmental protection and food safety (which can intersect with waste management in certain industrial contexts).
13. **GPCA (gPCA.org.ae):** The Gulf Petrochemicals and Chemicals Association provides insights into chemical management and hazardous waste practices in the region, which includes Kuwait's petrochemical sector.

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**Kingdom of Saudi
Arabia Government
Mandate to Treat Oily
Hazardous Waste**

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The Kingdom of Saudi Arabia, under the guidance of its **Ministry of Environment, Water and Agriculture (MEWA)** and the **National Center for Waste Management (MWAN)**, has established a clear legal and regulatory framework mandating the proper management and treatment of oily hazardous waste. This mandate is primarily driven by the **Waste Management Law issued by Royal Decree No. M/3 of 2021** and its **Implementing Regulations**.

Key Aspects of the Mandate:

- **Definition of Hazardous Waste:** The **Waste Management Law** defines hazardous waste as waste generated from industrial or non-industrial activities containing toxic, flammable, reactive, or corrosive materials, including oils, solvents, and pasty residues.
- **Prohibition of Uncontrolled Disposal:** The law strictly prohibits the disposal of any type of waste, including oily hazardous waste, in undesignated sites through methods like leaving, burying, incinerating, or dumping in water.
- **Licensing and Permitting:** Engaging in any waste management activity, including the treatment, storage, and transportation of oily hazardous waste, requires obtaining a license or permit from the **National Center for Waste Management (MWAN)**.
- **Waste Management Plans:** Producers of oily hazardous waste are obligated to adhere to measures such as rationalizing resource use, reusing products, reducing waste generation, and storing waste in designated sites according to regulations. They are also responsible for sorting reusable or recyclable waste.
- **Transportation Regulations:** The transportation of hazardous waste must be carried out by licensed service providers using vehicles that meet MWAN's specifications, displaying warning labels, and accompanied by proper documentation. Designated routes must be followed, avoiding residential areas and city centers during specified times. Vehicles must be washed and disinfected after each use.
- **Treatment and Safe Disposal Requirements:** The law prioritizes recycling and resource recovery. Treatment of hazardous waste is mandated to reduce its hazardous properties before safe disposal in licensed facilities. "Safe disposal" is defined as the safe storage or dismantling of waste using engineered methods to prevent environmental pollution.
- **Role of the National Center for Waste Management (MWAN):** MWAN is the central authority responsible for regulating and supervising all waste management activities in the Kingdom. Its responsibilities include issuing licenses and permits, setting standards for waste treatment and disposal, developing a national waste management strategy, and classifying waste according to its risk.
- **Extended Producer Responsibility (EPR):** The Waste Management Law enforces the principle of Extended Producer Responsibility, holding producers and importers responsible for managing the residues and waste resulting from their products, promoting financial sustainability in the waste management sector and circular economy principles.
- **Import and Export Restrictions:** Importing hazardous waste into Saudi Arabia, its territorial waters, or maritime zones is prohibited without a specific license. Similarly, the

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import, export, re-export, or transit of specified wastes and recycled materials requires licensing from MWAN.

- **Liability for Environmental Damage:** Both waste producers and service providers bear civil and criminal liability for any harm or danger to the environment or public health resulting from their waste management activities, including improper treatment or disposal of oily hazardous waste. They are responsible for addressing and removing any damages or risks.

General Information and Useful Details:

- The **General Environmental Regulations** issued in 2001 and updated in 2020 also provide a framework for environmental protection, including pollution control and hazardous materials management, complementing the specific Waste Management Law.
- The **Royal Commission for Jubail and Yanbu** enforces its own detailed local environmental laws for industrial facilities within these cities, which would include specific regulations for oily hazardous waste generated within these zones.
- Saudi Aramco, a major generator of oily waste, has its own environmental management systems aligned with ISO 14001 standards and implements initiatives for waste management, aiming for resource recovery and minimizing environmental impact.
- The Kingdom is actively pursuing a circular economy approach in waste management, aiming to increase recycling rates and resource recovery from various waste streams, including industrial and hazardous waste.
- The **Technical Guidelines for Construction and Demolition Waste Management**, while focused on a different waste stream, indicate the government's commitment to providing detailed procedures for specific waste types, suggesting similar guidelines may exist or be developed for other hazardous wastes like oily waste.

In conclusion, the Kingdom of Saudi Arabia has established a comprehensive legal mandate for the treatment of oily hazardous waste through its Waste Management Law and the oversight of the National Center for Waste Management (MWAN). This framework emphasizes licensing, proper handling and transportation, the necessity of treatment to mitigate risks, and safe disposal in permitted facilities. The Kingdom's commitment to environmental protection and the principles of a circular economy are driving the development and enforcement of these regulations.

The information provided in the report is based on the following sources:

1. **Waste Management Law issued by Royal Decree No. M/3 of 2021:** This is the primary legislation in the Kingdom of Saudi Arabia governing all aspects of waste management, including hazardous waste.
2. **Implementing Regulations of the Waste Management Law:** These regulations provide the detailed rules and procedures for implementing the provisions of the Waste Management Law. While the exact document title and availability online can vary, they are crucial for understanding the specifics of the mandate.
3. **National Center for Waste Management (MWAN) Official Website (mwan.gov.sa):** The official website of MWAN is the primary source for information on waste management regulations, licensing procedures, national strategies, and guidelines in Saudi Arabia.

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4. **General Environmental Regulations (2001, updated 2020):** These regulations provide a broader environmental protection framework that complements the specific Waste Management Law, addressing pollution control and hazardous materials management.
5. **Royal Commission for Jubail and Yanbu Environmental Regulations:** These local regulations govern environmental compliance within the industrial cities of Jubail and Yanbu, including specific rules for managing industrial wastes like oily hazardous waste.
6. **Saudi Aramco Environmental Reports and Sustainability Initiatives:** Publicly available reports and information from Saudi Aramco detail their environmental management systems, waste management practices, and sustainability initiatives related to oil and gas operations.
7. **Saudi Vision 2030 Documents:** The Kingdom's overarching development plan outlines goals for environmental sustainability and the development of a circular economy, which influences waste management policies.
8. **Technical Guidelines for Construction and Demolition Waste Management (if publicly available):** While specific to C&D waste, these guidelines indicate the approach the government takes in providing detailed procedures for waste management, suggesting similar guidelines may exist or be developed for other waste streams.
9. **Academic Research and Environmental Law Publications:** Scholarly articles and legal analyses focusing on environmental regulations in Saudi Arabia can provide insights into the legal framework for hazardous waste management.
10. **Reports and Publications from International Organizations:** Organizations like the World Bank or UNEP may publish reports that include information on waste management practices and regulations in Saudi Arabia.
11. **Official Government Gazettes and Legal Databases:** Accessing official government publications and legal databases in Saudi Arabia would provide the authoritative texts of laws and regulations related to waste management.

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Kingdom of Bahrain Government Mandate to Treat Oily Hazardous Waste

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The government of the Kingdom of Bahrain, primarily through the **Supreme Council for Environment (SCE)**, has established a legal and regulatory framework mandating the proper management and treatment of oily hazardous waste. This mandate is primarily driven by the **Environment Protection Law No. (27) of 2007** and its subsequent regulations, along with specific guidelines and standards issued by the SCE.

Key Aspects of the Mandate:

- **Definition of Hazardous Waste:** Oily waste generated from industrial activities, particularly from the oil and gas sector, refineries, petrochemical industries, and related maintenance operations, is classified as hazardous waste if it exhibits characteristics such as flammability, toxicity, corrosivity, or ecotoxicity, posing a risk to human health and the environment.
- **Prohibition of Uncontrolled Disposal:** The **Environment Protection Law No. (27) of 2007** strictly prohibits the disposal of hazardous waste in unauthorized locations or through methods that could harm the environment or public health. Article (26) specifically forbids the disposal of hazardous substances or waste in non-designated areas without obtaining necessary approvals.
- **Licensing and Permitting:** Any entity involved in the generation, handling, storage, transportation, treatment, or disposal of oily hazardous waste is required to obtain licenses and permits from the Supreme Council for Environment (SCE). This ensures that all activities are conducted in compliance with environmental regulations and standards.
- **Waste Management Plans:** Generators of oily hazardous waste are typically obligated to develop and implement comprehensive waste management plans. These plans should detail waste minimization strategies, proper segregation, handling, storage procedures, emergency response protocols, and the designated treatment or disposal methods.
- **Transportation Regulations:** The transportation of oily hazardous waste must be carried out by licensed carriers using approved vehicles and containers that meet specific safety standards. A manifest system is likely in place to track the movement of hazardous waste from the point of generation to the final treatment or disposal facility, ensuring accountability and proper handling.
- **Treatment and Disposal Requirements:** The mandate emphasizes the necessity of treating oily hazardous waste to reduce or eliminate its hazardous characteristics before final disposal. Acceptable treatment methods can include physical separation (e.g., oil-water separation), chemical treatment, thermal treatment (incineration under controlled conditions for specific types of oily waste), and bioremediation for oily sludge and contaminated soil. Landfilling of untreated hazardous waste is highly restricted and would require specially engineered landfills meeting stringent environmental standards to prevent soil and groundwater contamination.
- **Role of the Supreme Council for Environment (SCE):** The SCE is the primary regulatory and enforcement authority for environmental protection in Bahrain, including the management of hazardous waste. It sets standards, issues permits, conducts inspections, and ensures compliance with environmental laws and regulations. The SCE

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also plays a crucial role in developing national strategies for integrated waste management.

- **Bahrain Petroleum Company (BAPCO) Practices:** As a major player in the oil and gas sector, BAPCO likely has well-established procedures for managing its oily hazardous waste in accordance with Bahraini environmental regulations and international best practices. These may include in-house treatment facilities or contracts with specialized waste management companies.
- **Focus on Sustainable Waste Management:** Bahrain is increasingly focusing on developing sustainable waste management practices, exploring opportunities for recycling and resource recovery from various waste streams, including industrial and hazardous waste. This aligns with broader environmental goals outlined in national development plans.
- **International Agreements:** Bahrain is a signatory to international environmental conventions related to hazardous waste management, such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, which influences its national regulations.
- **Penalties for Non-Compliance:** Violations of the environmental laws and regulations concerning the handling and treatment of oily hazardous waste can result in significant fines and legal repercussions, as outlined in the **Environment Protection Law No. (27) of 2007**.

General Information and Useful Details:

- The **Environment Protection Law No. (27) of 2007** provides a comprehensive legal framework for environmental protection in Bahrain, covering various aspects such as air and water quality, waste management, and biodiversity conservation.
- The SCE issues various regulations, decisions, and guidelines that further detail the requirements for specific types of waste and industrial activities. Specific regulations related to industrial waste and hazardous materials would contain more detailed requirements for oily hazardous waste management.
- Bahrain has been investing in its waste management infrastructure, including exploring advanced treatment technologies and potentially developing centralized facilities for the treatment of certain types of industrial waste.
- Environmental Impact Assessments (EIAs) are typically required for new industrial projects to assess and mitigate potential environmental impacts, including those related to waste generation and management.
- Collaboration between the government, industries, and specialized waste management companies is crucial for ensuring the effective and environmentally sound management of oily hazardous waste in Bahrain.

In conclusion, the Kingdom of Bahrain has established a clear mandate for the treatment of oily hazardous waste through its Environment Protection Law and the regulatory oversight of the Supreme Council for Environment (SCE). This mandate emphasizes licensing, proper waste management planning, controlled handling and transportation, the necessity of treatment to minimize risks, and safe disposal in permitted facilities. The Kingdom's commitment to

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environmental sustainability and international agreements drives the ongoing development and enforcement of these regulations.

The information provided in the report is based on the following sources:

1. **Environment Protection Law No. (27) of 2007:** This is the primary legislation in the Kingdom of Bahrain governing environmental protection, including regulations related to waste management and hazardous substances.
2. **Regulations, Decisions, and Guidelines issued by the Supreme Council for Environment (SCE):** These secondary legal instruments provide the detailed rules, standards, and procedures for implementing the Environment Protection Law, including specific requirements for hazardous waste management. (Note: Specific titles and availability may vary and require direct consultation of Bahraini legal databases or the SCE website).
3. **Supreme Council for Environment (SCE) Official Website (likely available with a .gov.bh domain):** The official website of the SCE would be the primary source for up-to-date information on environmental regulations, guidelines, and the role of the council in enforcing environmental laws. The "Waste Management" or "Hazardous Waste" sections would be particularly relevant.
4. **Bahrain National Environment Strategy and Action Plan:** This document, if publicly available, would outline the Kingdom's overall environmental goals and strategies, including those related to waste management and pollution control.
5. **Reports and Publications from the Ministry of Oil and Environment (if this was the relevant ministry at the time of legislation or reporting):** Depending on the government structure and timing of information, resources from the ministry overseeing environmental affairs (which may have evolved into the SCE) could be relevant.
6. **Bahrain Petroleum Company (BAPCO) Environmental Reports and Sustainability Initiatives:** Publicly available reports and information from BAPCO may detail their environmental management practices, waste management procedures, and sustainability efforts related to their oil and gas operations.
7. **Academic Research and Environmental Law Publications:** Scholarly articles and legal analyses focusing on environmental regulations in Bahrain can provide insights into the legal framework for hazardous waste management.
8. **Reports and Publications from International Organizations:** Organizations like the World Bank, UNEP, or the Basel Convention Secretariat may publish reports that include information on waste management practices and regulations in Bahrain.
9. **Official Government Gazettes and Legal Databases in Bahrain:** Accessing official government publications and legal databases in Bahrain would provide the authoritative texts of laws and regulations related to waste management.
10. **Information from Environmental Consulting and Waste Management Companies Operating in Bahrain:** These companies often provide insights into the local regulatory landscape and best practices for waste management.

It is important to note that specific titles and accessibility of Bahraini legal documents and government publications online might require targeted searches on official government portals and legal databases within Bahrain. The Supreme Council for Environment's website would be the most authoritative source for current and detailed information.

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UAE Government Mandate to Treat Oily Hazardous Waste

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The United Arab Emirates (UAE) has established a comprehensive legal and regulatory framework for the management of hazardous waste, including oily hazardous waste, primarily driven by **Federal Law No. (12) of 2018 on Integrated Waste Management** and **Federal Law No. (24) of 1999 Concerning the Protection and Development of the Environment**, along with their respective executive regulations and ministerial decrees. The **Ministry of Climate Change and Environment (MOCCAE)** is the key federal authority responsible for setting and enforcing these regulations across the Emirates, while local authorities in each Emirate also play a significant role in implementation and enforcement.

Key Aspects of the Mandate:

- **Definition of Hazardous Waste:** UAE law defines hazardous waste broadly to include waste from various activities that contain substances with hazardous characteristics, such as toxicity, flammability, corrosivity, or ecotoxicity. Oily waste generated from petroleum industries, refineries, petrochemical plants, workshops, and other industrial processes is explicitly included under this definition if it exhibits such characteristics.
- **Prohibition of Uncontrolled Disposal:** The **Federal Law No. (12) of 2018** strictly prohibits the disposal of hazardous waste in unauthorized locations or through methods that could harm the environment or public health. This includes littering, burying, burning, or dumping in open areas, roads, waterways, or public parks. Disposal is only permitted in licensed landfills or treatment facilities.
- **Licensing and Permitting:** All activities related to the management of hazardous waste, including generation, handling, storage, transportation, treatment, recycling, and disposal, require obtaining necessary permits and licenses from the competent authorities, primarily MOCCAE and the relevant local environmental agencies in each Emirate (e.g., Environment Agency – Abu Dhabi (EAD), Dubai Municipality).
- **Waste Management Plans:** Generators of oily hazardous waste are obligated to develop and implement waste management plans that detail waste minimization strategies, proper segregation at the source, safe handling and storage procedures, emergency response protocols, and the designated treatment or disposal methods in compliance with regulatory requirements.
- **Transportation Regulations:** The transportation of oily hazardous waste must be carried out by licensed carriers using vehicles specifically authorized for transporting hazardous materials. Vehicles must be equipped with safety features, warning signs, and GPS tracking systems. A manifest system is mandatory to track the movement of hazardous waste from the generator to the final destination, ensuring accountability.
- **Treatment and Disposal Requirements:** The mandate prioritizes the treatment of hazardous waste, including oily waste, to reduce or eliminate its hazardous characteristics before safe disposal. Acceptable treatment methods can include physical separation, chemical treatment, thermal treatment (incineration for specific oily waste types), bioremediation, and stabilization/solidification. Landfilling of untreated hazardous waste is highly restricted and only permitted in specially engineered landfills meeting stringent environmental standards.

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- **Role of the Ministry of Climate Change and Environment (MOCCAE):** MOCCAE sets the overall national policies and regulations for hazardous waste management, issues permits for transboundary movement of hazardous waste (import and export), and oversees the implementation of federal laws.
- **Role of Local Authorities:** Emirates like Abu Dhabi (through EAD) and Dubai (through Dubai Municipality) have their own local regulations and implement the federal laws within their jurisdictions. They are often responsible for licensing waste management activities within their Emirate, setting local standards, and enforcing compliance. Initiatives like Dubai Municipality's Waste Management Master Plan highlight local efforts in sustainable waste management.
- **Extended Producer Responsibility (EPR):** While not explicitly detailed for oily hazardous waste in the searched snippets, the broader framework of the Integrated Waste Management Law encourages waste reduction and proper management, which aligns with EPR principles. Specific EPR schemes might be in place or developed for certain waste streams that could include components found in oily waste.
- **Ban on Sea Dumping:** The UAE has enacted laws prohibiting the dumping of oil and oily sludge into its waters from vessels, aligning with international maritime conventions and its commitment to protecting the marine environment.
- **Penalties for Non-Compliance:** Violations of the federal and local laws and regulations concerning the handling and treatment of oily hazardous waste can result in significant fines, facility closures, and other legal penalties, as outlined in the respective legislation.

General Information and Useful Details:

- **Federal Law No. (24) of 1999** provides the foundational principles for environmental protection and development in the UAE, including the control of pollution and the management of hazardous substances and wastes.
- **Cabinet Order No. 37 of 2001** serves as the executive order for Federal Law No. 24 of 1999, detailing the regulations for handling hazardous materials, hazardous waste, and medical waste, including licensing, import/export, transportation, storage, treatment, and disposal procedures.
- The UAE is a signatory to the **Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal**, and its national regulations reflect the principles and obligations of this international agreement, particularly regarding the import and export of hazardous waste.
- The **RASID system** under Dubai Municipality is an example of a local initiative for managing hazardous waste, focusing on tracking and ensuring its safe handling.
- The **Abu Dhabi Occupational Safety and Health System Framework (ADOSH-SF)** includes codes of practice for handling hazardous materials, which would be relevant to the safe management of oily hazardous waste in that Emirate.
- The UAE is actively promoting sustainable waste management practices and investing in waste treatment technologies to reduce reliance on landfills and encourage recycling and resource recovery across all waste streams.

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In conclusion, the UAE has a robust legal and regulatory framework mandating the proper treatment of oily hazardous waste. This framework involves federal laws, executive regulations, ministerial decrees, and local regulations in each Emirate, all aimed at protecting human health and the environment. The emphasis is on licensing, waste management planning, safe transportation, mandatory treatment before disposal, and adherence to international conventions. The MOCCAE and local environmental authorities play crucial roles in enforcing these regulations and promoting sustainable waste management practices.

The information provided in the report is based on the following sources:

1. **Federal Law No. (12) of 2018 on Integrated Waste Management:** This is the primary federal law in the UAE governing all aspects of waste management, including hazardous waste.
2. **Federal Law No. (24) of 1999 Concerning the Protection and Development of the Environment:** This foundational environmental law provides the overarching principles for environmental protection, including pollution control and the management of hazardous substances and wastes.
3. **Cabinet Order No. 37 of 2001 Concerning the Executive Regulations of Federal Law No. (24) of 1999:** This executive order details the specific regulations for handling hazardous materials, hazardous waste, and medical waste, including licensing, transportation, storage, treatment, and disposal procedures.
4. **Website of the Ministry of Climate Change and Environment (MOCCAE) (likely with a .gov.ae domain):** The official website of MOCCAE is the primary source for federal environmental laws, regulations, policies, and guidelines related to waste management and hazardous materials.
5. **Website of the Environment Agency – Abu Dhabi (EAD) (ead.gov.ae):** EAD is the environmental regulatory authority in Abu Dhabi and provides specific local regulations, guidelines, and licensing procedures for waste management within the Emirate.
6. **Website of Dubai Municipality (dm.gov.ae):** Dubai Municipality is the local authority responsible for waste management in Dubai and provides its own regulations, initiatives (like the RASID system), and master plans related to waste.
7. **Abu Dhabi Occupational Safety and Health System Framework (ADOSH-SF):** This framework includes codes of practice for handling hazardous materials in Abu Dhabi, which would be relevant to the safe management of oily hazardous waste.
8. **The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal:** As the UAE is a signatory, information on this international convention helps understand the context of the UAE's regulations on the import and export of hazardous waste.
9. **Academic Research and Environmental Law Publications:** Scholarly articles and legal analyses focusing on environmental regulations in the UAE can provide insights into the legal framework for hazardous waste management.
10. **Reports and Publications from International Organizations:** Organizations like the World Bank or UNEP may publish reports that include information on waste management practices and regulations in the UAE.
11. **Information from Environmental Consulting and Waste Management Companies Operating in the UAE:** These companies often provide insights into the local regulatory landscape and best practices for waste management.

It's important to note that specific ministerial decrees, local regulations within each Emirate, and detailed guidelines from MOCCAE and local authorities would provide the most granular information. Accessing official government gazettes and legal databases in the UAE would also offer authoritative texts of the relevant laws and regulations.

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Qatar Government Mandate to Treat Oily Hazardous Waste

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The government of Qatar, primarily through the **Ministry of Municipality and Environment (MME)**, has established a legal and regulatory framework mandating the proper management and treatment of oily hazardous waste. This mandate is mainly driven by **Law No. 30 of 2002 concerning Environmental Protection** and its **Executive Regulations**, along with specific guidelines and standards issued by the MME.

Key Aspects of the Mandate:

- **Definition of Hazardous Waste:** Qatar's environmental law defines hazardous waste as waste generated from various activities that contain substances with hazardous characteristics, including toxicity, flammability, corrosivity, or ecotoxicity. Oily waste from petroleum industries, refineries, petrochemical plants, workshops, and other industrial processes is considered hazardous waste if it exhibits these characteristics. The **Hazardous Chemicals & Waste Department** within the MME is specifically tasked with managing such waste.
- **Prohibition of Uncontrolled Disposal:** **Law No. 30 of 2002** prohibits the disposal of hazardous waste in unauthorized locations or through methods that could harm the environment or public health. Article 32 explicitly forbids the disposal of refuse and liquid or solid wastes, including hazardous waste, except in specified locations far from residential, industrial, agricultural, and water effluent areas.
- **Licensing and Permitting:** Any entity involved in the generation, handling, storage, transportation, treatment, recycling, or disposal of oily hazardous waste is required to obtain licenses and permits from the MME, specifically from the **Department of Radiation Protection and Chemicals**. This ensures that all activities are conducted in compliance with environmental regulations and standards.
- **Waste Management Plans:** Generators of oily hazardous waste are obligated to adhere to measures for reducing waste generation and are responsible for the safe and sound disposal of their hazardous waste through licensed companies.
- **Transportation Regulations:** The transportation of hazardous waste must be carried out by authorized companies licensed by the MME. These companies are expected to transport waste in a healthy and efficient manner, preventing environmental contamination during transit.
- **Treatment and Safe Disposal Requirements:** The mandate emphasizes the importance of treating oily hazardous waste through authorized companies and entities licensed by the MME. The **Mesaieed Industrial City** houses a hazardous waste treatment facility with significant oily water storage capacity and high-temperature incineration capabilities. The selection of appropriate treatment methods depends on the specific characteristics of the oily waste.
- **Role of the Ministry of Municipality and Environment (MME):** The MME is the primary regulatory and enforcement authority for environmental protection in Qatar, including the management of hazardous waste. The **Hazardous Chemicals & Waste Department** within the MME sets regulations, issues permits, conducts inspections, and enforces compliance.

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- **National Oil Spill Contingency Plan:** While primarily focused on oil spill response, Qatar has a National Oil Spill Contingency Plan that addresses the management of oily waste generated from such incidents. The Oil Spill & Emergency Response Division (OSERD) of Qatar Petroleum (QP) plays a significant role in coordinating and managing the response to major spills and the subsequent waste management.
- **International Agreements:** Qatar has signed and ratified the **Basel Convention**, ensuring compliance with global regulations for the transboundary movement and disposal of hazardous waste.
- **Penalties for Non-Compliance:** Violations of the environmental laws and regulations concerning the handling and treatment of oily hazardous waste can result in legal repercussions, as outlined in **Law No. 30 of 2002** and related legislation.

General Information and Useful Details:

- **Law No. 30 of 2002** serves as the overarching environmental protection law in Qatar, covering various aspects such as air and water quality, waste management, and biodiversity conservation.
- The MME prepares technical reports on specific waste streams, such as used oil waste, highlighting their environmental impact and the need for proper management.
- Qatar is actively exploring and implementing alternative waste management techniques beyond landfilling, including waste-to-energy programs at facilities like the Domestic Solid Waste Management Center (DSWMC) in Mesaieed.
- The government is promoting a "Zero Waste" campaign to reduce waste generation, increase recycling, and encourage investment in the waste management sector.
- While a draft law on waste treatment and recycling was approved by the Cabinet in 2019, it has not yet been enacted. This draft law aims to further regulate waste classification, recycling, and disposal processes.

In conclusion, Qatar has a clear mandate for the treatment of oily hazardous waste, primarily enforced by the Ministry of Municipality and Environment under the framework of the Environmental Protection Law. This mandate emphasizes the need for licensed handling, proper treatment through authorized facilities, and safe disposal to protect the environment and public health, aligning with international standards and conventions.

The information provided in the report is based on the following sources:

1. **Law No. 30 of 2002 concerning Environmental Protection:** This is the primary legislation in Qatar governing environmental protection, including regulations related to waste management and hazardous substances.
2. **Executive Regulations of Law No. 30 of 2002:** These regulations provide the detailed rules and procedures for implementing the Environmental Protection Law, including specific requirements for hazardous waste management. (Note: Specific titles and availability may vary and require direct consultation of Qatari legal databases or the MME website).
3. **Website of the Ministry of Municipality and Environment (MME) (likely with a .gov.qa domain):** The official website of the MME is the primary source for up-to-date information on environmental regulations, guidelines, and the role of the ministry in enforcing environmental laws. The "Environmental Affairs" or "Waste Management" sections would be particularly relevant.

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4. **Hazardous Chemicals & Waste Department, Ministry of Municipality and Environment (MME):** Information from this specific department within the MME would provide details on the management of hazardous waste, including oily waste.
5. **Department of Radiation Protection and Chemicals, Ministry of Municipality and Environment (MME):** This department's role in licensing and permitting activities related to hazardous waste management is a key source of information.
6. **National Oil Spill Contingency Plan of Qatar:** This plan outlines the procedures for responding to oil spills and the management of resulting oily waste.
7. **Oil Spill & Emergency Response Division (OSERD), Qatar Petroleum (QP):** Information from QP's division responsible for oil spill response provides insights into the handling of oily waste from such incidents.
8. **Mesaieed Industrial City Website (or related environmental reports):** Information regarding the hazardous waste treatment facility located in Mesaieed provides details on Qatar's treatment infrastructure for oily and other hazardous wastes.
9. **The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal:** As Qatar is a signatory, information on this international convention helps understand the context of Qatar's regulations on the import and export of hazardous waste.
10. **Technical Reports on Used Oil Waste (if publicly available) from the MME or related entities:** These reports would detail the environmental impact and management strategies for specific types of oily waste.
11. **Information on the Domestic Solid Waste Management Center (DSWMC) in Mesaieed:** Details about Qatar's waste management infrastructure and initiatives beyond landfilling, including waste-to-energy, provide context for hazardous waste management strategies.
12. **News and Reports on Qatar's "Zero Waste" Campaign:** Information on this national initiative highlights the broader context of waste management policies in Qatar.
13. **Information on the Draft Law on Waste Treatment and Recycling (if publicly available):** Details about this proposed legislation indicate the future direction of waste management regulations in Qatar.
14. **Academic Research and Environmental Law Publications:** Scholarly articles and legal analyses focusing on environmental regulations in Qatar can provide insights into the legal framework for hazardous waste management.
15. **Reports and Publications from International Organizations:** Organizations like the World Bank or UNEP may publish reports that include information on waste management practices and regulations in Qatar.

It's important to note that specific titles and accessibility of Qatari legal documents and government publications online might require targeted searches on official government portals and legal databases within Qatar. The Ministry of Municipality and Environment's website would be the most authoritative source for current and detailed information.