



إرشاد فني TECHNICAL GUIDELINE

رقم (1) Number

التخلص من النفايات الخطرة Disposal of Hazardous Wastes

يونيو - 2011 - June

Introduction:

This Guideline explains the procedures and requirements in applying for hazardous waste disposal. Hazardous waste is as described and defined as per EPSS Technical Guidelines and generated only within the Emirates of Dubai as stated in the Waste Acceptance Policy and in consonance with the Basel Convention International Treaty.

The application for permit to dispose hazardous waste is made by online submission of request/application through the Waste Disposal Service (WDS) system - one of the many e-services of the Dubai Municipality. The WDS can be accessed at the Dubai Municipality's website - <http://www.dm.gov.ae> – upon log-in with a business user id and password. The WDS system conveniently allows applicants to file disposal request 24/7, view request status, including online payment of disposal charges and for printing on-line WDS Permit upon approval.

To gain access of this on-line service, hazardous waste generators (**HWG** for brevity) must register with the DM's e-government office and secure a USERNAME and PASSWORD to the DM's portal or web page. Annex 1 shows the registration procedures. *Take note that the WDS system is available only for establishments (company & admin user) and not for public user registrants.*

Key points:

- **disposal fees** is given in *Table 2 of Annex 2*.
- **pre-treatment requirements** at source and **final disposal means** of hazardous wastes by class are outlined in *Table 3 of Annex 2*.
- **flowchart of online application** is shown in *Annex 3*.

Application for the Disposal of Hazardous Waste

1. Only the HWG should submit their hazardous waste disposal request/application online to Dubai Municipality through the WDS system. Relevant documents as described in point # 2 shall be attached in the WDS application. File attachments should be in **tif, jpg, gif, bmp or PDF** formats only.
2. Required documents to be attached in the application:
 - a) ***Analysis Report from any DCL-DAC accredited laboratories*** for the following wastes and the minimum required parameters:
 - i. **For Wastewater** – *pH, Total suspended solids, Total dissolved solids, BOD₅, COD, Oil/grease(emulsified), Free oil, Sulfates, Metals (As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Se, Zn), and Total heavy metals.*
 - ii. **For Sludge & contaminated soil** – *Solids (fixed/volatiles/total) Moisture content, Oil content (% by weight), Heavy Metals.*

- iii. **For Used Oil** – *Free Oil (%)*, *Water Content (%)*, *Sediment (%)*, *Sulfur (%)*, *Total Metals (ppm)*.
- iv. **For Used Chemicals, inks, paints, solvents, etc.** – *pH*, *volatiles*, *hydrocarbon*, *water content (%)*, *Flashpoint (°C)*, *Heavy Metals*.

Note: The laboratory analysis report shall not be more than 1 month old reckoned from the date when the sample was collected for analysis. New analysis report is required for every batch permit application. The ECS may require other tests to further determine the hazard nature of waste.

- b) For all expired/unused goods or products, which are declared waste and unsuitable for use in its original form, the owner of waste must provide Material Safety Data Sheet (MSDS), shipping/importation documents, certificate of country of origin, and certificate of manufacturing & expiry dates
3. Samples of hazardous waste for analysis of chemical constituents must be collected as per procedure (1) stated in the ECS inspector's manual. Other related concerns for the hazardous waste sampling and analysis shall be in accordance with the DAC analysis and procedures.
4. Disposal of other wastes, which may be classified hazardous by ECS, shall follow the requirements of the following Code of Practice and/or Information Bulletin:
 - Waste Acceptance Policy.
 - Code of Practice on Abrasive Blast Cleaning Operations in Dubai.
 - Updated Information Bulletin on Waste Oil Collection and Re-use.
 - Management of Medical Wastes from Hospitals, Clinics and Related Health Care Premises in Dubai.

Disposal Fees:

1. Disposal fee for hazardous waste disposal is computed based on the type and nature of waste, quantity, preferred treatment or disposal means. Schedule of fees is shown in Table 2 of Annex 2.
2. Upon approval of the WDS application, an e-mail message is sent to the HWG/applicant indicating of payment details (amount in AED and voucher number), which can be paid through the Dubai Municipality's E-payment services system.

Transport and Disposal of Approved Wastes:

1. Upon payment of disposal fee, the HWG/applicant must contact the disposal facility to arrange the waste disposal schedule and other arrangement.
2. All permitted waste shall be disposed off only into the designated site within 60 days reckoned from the date of approval or as per the schedule set by the disposal facility.
3. Delivery of the permitted waste to the disposal site shall be made only through an approved vehicle and Transporter holding a valid permit in accordance with the requirements of ECS Technical Guideline No. (5).
4. All HWG/applicant must ensure that printed copy of the WDS Permit is provided to the designated Transporter when delivering the permitted waste to the site. Copy of approval serves as the consignment document and, without this, the Transporter carrying the waste is prohibited to transport the waste.
5. All waste delivered and accepted at disposal facility in excess of the approved quantity will be accounted. The HWG/applicant will be automatically notified through e-mail and SMS message of such excess and payment for this must be settled before the next application can be approved.

For further information please visit

www.dm.gov.ae

or call

Environmental Control Section

Tel.: 6066832 / 6066834 Fax: 7033568

Annex (1)

Online Registration & WDS Application Procedures

Step 1 Online Registration

- Access the public Dubai Municipality portal (www.dm.gov.ae)
- Click on the button "Register" in the LOG-IN area
- Select the option "Apply for Company and Admin User Registration"
- Complete and submit the online-registration form. Select the "Waste Disposal Service" and other services that the company wishes to access.
- Write the web reference number and download the registration form.

Step 2 Required Documents to be submitted to the e-government counter

- Copy of company's trade license
- Printed copy of the on-line registration form (signed and with company stamp)

Step 3 Using the Online Services

- Dubai Municipality will send an e-mail containing the "admin" user name and password to the account provided in the registration form.
- Using the provided user name and password, log-on to the DM's e-service.
- The "admin" user cannot directly transact with the e-services provided by DM, a "business" user must be created to be able to access the –e-services.
- Create a "business" user account. Make sure the WDS is assigned to the user's profile.

Step 4 Apply for the Waste Disposal Service

- Scan properly all required documents in black and white such as: *Fresh Analytical Report representing the waste, volume reports, photos (if applicable), etc.* before logging in to DM Portal; Scanned documents must be saved as tif, or pdf files with dedicated names that represent each attachments; example WW.pdf, LAB.tif ;
- Open DM website: www.dm.gov.ae Click on e-Services. Log in using your *business user name and password*.
- At the left bottom corner you look for *Waste Disposal Services*, Click on that;
- The next window appears with numbers of command buttons;
- Click on “Apply” for Waste Disposal;
- The next window will appear showing your company *trade license no. & company name, contact nos., activity*. Fill in the necessary data, i.e. the waste description, source of waste, etc.
- At the bottom part, click “*CONTINUE*” *Button* and another page will be displayed to fill the required data;
- Attach the required documents by clicking on the (*paper clip symbol*) “Attach” doc button and an applet will appear. You can select the "drag and drop" option or you can click the "file" button and the select file to attach; don't forget to click on “*DONE*” button; Note: The system accepts a maximum of 10 MB only.

- Click on the small box “I accept the terms & conditions.....” button. You must finally click on “*Submit*” button;
- There will be notification that your application has been sent successfully.

Annex (2)

Table (1) – Waste Acceptance Code

Code	Treatment and Disposal Operations
R1	Recovery of oil at oil-water separator system (in case of waste oil in liquid phase)
R2	Recovery of oil and treatment of sludge (in case of oil sludge)
R3	Recovery/reclamation of solvent followed by either operation T6 and/or S2 or S3
S1	Storage – temporary, waste in drum, pending operation of either T6 or T5 and S3
S2	Storage – final deposit at JADS ordinary landfill
S3	Storage – final deposit into secure landfill with single-lined cell
S4	Storage – final deposit into secure landfill with double-lined cell
S5	Special disposal (to be decided on case basis) of waste type not covered in Table 3
T1	Treatment by physico-chemical process other than evaporation by natural means
T2	Treatment by removal of toxic metal followed by operation T5 for sludge and S3 for liquid
T3	Treatment by surface impoundment in impervious pond or lagoon allowing evaporation
T4	Treatment on-land by mixing with soil allowing degradation at JADS
T5	Treatment by stabilization or fixation in solid matrix followed by operation S2, S3 or S4
T6	Thermal destruction (controlled incineration) at high temperature (over 1,000 °C)
U	Unacceptable at DM waste disposal facilities

Table (2) – Fees for Disposal of Hazardous Waste

Acceptance Code*	Waste Treatment and Disposal Operation at JAHWTF	Fees in AED
S1	Safe storage of waste contained in drums	100/drum
S2	Deposit of liquid or sludge form of difficult waste to landfill	10/1000 gal
S2/T4	Deposit of solid difficult waste in ordinary landfill	50/ton
S3	Deposit of bulk solid waste in single-lined landfill	150/ton
S3	Deposit of waste in drums into single-lined landfill	200/ton
S4	Deposit of bulk solid waste in double-lined landfill	200/ton
S4	Deposit of waste in drum into double-lined landfill	250/ton
S3/S4	Disposal of used packaging/bags contaminated with harmful agents	100/m ³
S3/S4	Disposal of empty drums or contaminated containers	150/ton
S5	Disposal of pressurized gas or aerosol cans	400/ton
T3	Surface impoundment and evaporation of liquid waste	100/ton
T1/T2/T5	Physico-chemical treatment of wastes	150/ton
T6	Controlled incineration of wastes	150/ton

Note : ton means metric ton = 1,000 kg, and any fraction thereof will be counted as 1 ton or 1m³ for the purpose of computing fees.

**Table (3) – Acceptable Wastes and Pre-Treatment Requirements at Source
Before Delivery to JAHWTF**

Waste Class or type	Method ^{/A}	Additional Treatment or Alternate Disposal Means
- liquid	T1	Neutralize with acid waste to pH around 7
- solids	T1	Neutralize with acid waste; followed by method T3 or
- liquid with toxic	S3/S4	Method T5 depending on nature of waste, followed by
2) Acid wastes	T1	Oxidize cyanide followed by either Methods, T3 or T5
- liquid	T1	Neutralize with alkali waste to pH around 7
- solids	T1	Neutralize with alkali waste; followed by method T3 or
3) Organic	S3/S4	Method T5 depending on nature of waste, followed by
- liquid solvent-	R3	In-house recovery at the waste generator's site
4) Organic waste	S1/R3	Followed by Method T6 or S3 where solid residue in
- carbon wastes	S3	Deposit at secure landfill
- organo-chloride other than pesticide	S3	Or S2 for less hazardous or difficult wastes
- other solid	S4/S5	Careful study and chemical analysis required; Apply method T5 & S3 where waste inside a sealed container
5) Inorganic	S3	Or S2 for less hazardous or difficult wastes
- spent aluminum smelter not	S2	Can be mixed with other solid difficult wastes or stabilized solid wastes.
- spent catalyst	S3	Method T5 depending on chemical hazard followed by
- spent batteries	S3	Liquid acid drained out and disposed off separately as <i>acid waste</i> (2); Disposed off the solid part as scrap for recovery of metal
- expired products	S3/S4	<i>See requirements of Clause 3(b) of this Guidelines</i>
- sludge from waste treatment plants	S3	Sludge must be dewatered to a spadable solid consistency. Carry out "Elutriation test" and, if required, apply method T5; S2 or T4 for solid cake when proven not containing toxic substance
6) Reactive wastes	S4 or T5	For general type - to stabilize or reduce reactivity
- material that gives off toxic fumes	S4 or T5	Check for incompatible materials to be avoided; (<i>Beware of health risk</i>) Waste generator to provide or assist in the treatment operation.
- material that explodes or gives off heat	S4 or T5	Check incompatible material to be avoided; (<i>Beware of safety risk</i>) Waste generator to provide or assist in the treatment operation.
7) Inert wastes	S3	For general type non-leachable waste material
- asbestos wastes	S3	S2 if in dust free solid matrix form, or if loose, dampen and preferably contained in sealed bags
- slag & foundry	S2	S2 If "Elutriation test proves presence of leachable toxic

wastes		metals in insignificant quantity, otherwise disposed off as in method S3.
8) Paints, resins, ink	S4	Waste in sealed container or Method T5 applies
- liquid form	S4	Allows method R3 where recovery permits or apply method T6
- solid form	S4	Waste contained in sealed receptacle.
9) Oils, oily sludge	R1/R2	Carry out recovery of oil at specially permitted recycling facilities
- liquid waste oil	R1	Oil segregation at source; or to DM-permitted waste oil recycling facilities.
- oil sludge	R2	To a privately-owned waste oil treatment facility with valid license from DM
-oily wastewater	R2 or T1	R1/T1 at JAHWTF if free oil falls < 25% by volume; R1 at privately-owned but DM-licensed facility if free oil is > 25 % v/v
- used oil filters	S3	Drained free oil and contained solid waste in sealed drums.
10) Pesticide / Biocide	S4 or T5	Apply method T5 on extremely harmful and volatile material.
11) Pharmaceuticals	S3	For general expired pharmaceutical products, except chemicals.
12) Metal finishing wastes	T2	In-house minimization, treatment and/or recovery of metal
- sludge	T5	Contain waste in sealed drums, preferably made of strong HDPE plastic
- aqueous	T2	In-house treatment and removal of toxic metals.
Waste Class or type	Method ^A	Additional Treatment or Alternate Disposal Means
13) Wastewater	T1	For general industrial wastewater
-oily wastewater	T1 or R2	(see Class 9) followed by either methods T3 or T4
- organic source	T1	Apply T4 if no toxic substance is present
- inorganic source	T1	Followed by T3 or T4
14) Contaminated packaging, rags, etc	S3	S2 depending on the hazard characteristics of waste
- contaminated soil	T4	Apply method S3 or S2 depending on nature of contaminants
- used packaging	S3	Loose materials inside bag, other solids must be compacted to minimize space
15) Spent blasting grit	S2 or S3	Depending on the elutriation test results
16) Difficult Wastes	S3	Where waste is not categorized under other Class

17) Radioactive wastes	U	Generally not accepted; Seek alternative means as per Basel Convention
- spent isotopes from research/medical use	U	Dispose of by returning spent isotopes to the country of origin where prior understanding to handle such waste has been made.
- NORM ^B	S5	S5 if locally generated; or seek alternative means as per Basel Convention
18) Medical or clinical wastes	T6	Segregation of waste and secure packaging according to <i>Local Order No: (115) of 1997</i> , or the <i>Code of Practice on the Management of Medical Wastes from Hospitals, Clinics, and Health Care Premises in Dubai</i>
19) Other waste not classified above ^C	S2	On case basis and/or in accordance with the <i>Local Order (7) of 2002 On Management of Waste Disposal Sites in the Emirate of Dubai</i> and of <i>Dubai Policy on Waste Acceptance and Disposal</i> .

NOTE:

/A - Disposal methods given in the second column are based on Table 2 Waste Acceptance Code.

/B - NORM refers to Naturally Occurring Radioactive Material

/C - Safe disposal of wastes not specified on the above Table would be determined by EPSS on case basis.

Annex (3)

Online Application Flowchart

