



Oil Delivery, Storage & Transfer Guide

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Title	Oil Delivery, Storage and Transfer Guide				Owner Name	James Dixon-Gough	

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INTRODUCTION

The purpose of this guidance is to ensure that sufficient information is provided to manage risks associated with oil delivery, storage and use.

SCOPE

This guide covers:

- The delivery of oil to the above ground storage tank at Oxley hall and the underground storage tank at Engineering
- The delivery of oil to university back-up generators
- The storage of oil on campus
- The transfer of oil from storage tanks for operational or research purposes

REFERENCES

Emergency Response Preparedness Procedure

RESPONSIBILITIES

Head of Maintenance and Operations: ensure that relevant staff have had training and understand their responsibilities for the safe delivery and use of diesel oil on campus.

Engineering Health & Safety team: ensure that relevant staff have had training and understand their responsibilities for the safe delivery and use of diesel oil on campus.

Operational staff (delivery, storage & transfer responsibility): must ensure that the procedure is followed and that any problems or non-conformances are reported to the Sustainability Service.

Sustainability Service: will provide relevant training and monitor compliance against this procedure.

REQUIREMENTS FOR THE DELIVERY OF OIL

A safe delivery and emergency procedure must be in place for Oxley Hall and Engineering. These procedures will be informed by discussion with the oil delivery company and will clearly state associated responsibility and account for Health, Safety and Environmental risk. They must also follow the requirements in this guide.

Delivery to site should be agreed in advance and at least one trained University member of staff should be present to give access to storage tank. This staff member should remain on site during delivery.

This member of staff must be aware of any emergency response procedures, numbers and contact details.

The oil delivery company may not deposit any waste, chemicals or any other substances into drains or waste containers on University premises.

No oil or diesel should be allowed to enter into drainage or sewage systems during the course of delivery activity. Under no circumstances should hazardous substances be disposed of into drainage or sewage systems.

Any spills should be addressed according to the local procedure.

All deliveries should be documented and retained for future reference and log books amended accordingly.

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REQUIREMENTS FOR THE TRANSFER AND MOVEMENT OF OIL

The removal of oil from a storage tank should only be conducted by trained members of University staff.

Spill kits must be available and any spills cleaned up immediately with any absorbent materials used being disposed of through hazardous waste.

Removal of oil for use in machinery should be carried out directly wherever possible and not decanted (tractors, ride-on mowers, etc.).

Removal of oil for use in campus backup generators should be decanted into suitable oil drums no larger than 200 litres and must meet the following requirements when being moved:

- The drum should be of sound quality and sealed before they are moved.
- The drum will be stored in an upright position at all times out of sunlight and sources of ignition.
- The drum should be stored on a suitable container that is capable of holding 110% of the largest drum capacity.
- The drum should be properly secured whilst in transit to and from campus and a spill kit should accompany it at all times

Where drums are delivered directly to backup generators, every effort should be made to operate inside bunding. If this is not possible, any drains should be covered during transfer and drip trays should be used. A spill kit should also be kept in this area.

REQUIREMENTS FOR STORAGE OF OIL ON CAMPUS

Any oil stored on campus must either be in a double skinned storage tank or stored in an impermeable bund capable of holding 110% of the total capacity of the largest storage tank or container.

The under-ground storage tank must have a working leak detection system in place.

A visual inspection of storage tanks or areas must be carried out on a monthly basis and any loss of integrity of the bund or damage to storage tanks or vessels reported immediately.

Oil storage containers must not exceed 200 litres and on no account should they be stored without a bund.

All tanks must be stored on a stable and flat base. In addition the checklist at the back of this guide must be completed bi-annually and the results kept as an EMS record.

REQUIREMENTS FOR WASTE OIL ON CAMPUS

Any waste oil should be stored within in a suitable bund, capable of holding 110% of the largest drum capacity. There should also be a spill kit in this area. Any oil spill waste, which will include spill kit material, should also be taken to this point for collection by the approved University hazardous waste contractor.

MONITORING

Compliance against this procedure will be confirmed by the completion of the accompanying checklist and by site inspections carried out by trained internal auditors.

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THE OIL STORAGE, TRANSFER AND DEILVERY CHECKLIST

This checklist identifies aspects and requirements that should be completed bi-annually to reduce the risks associated with the transfer and storage of oil. Not all of the listed aspects and requirements listed are mandated by UK regulation but they are recommended to ensure a reduced likelihood of a spill.

DESIGNATION AND TRAINING OF STAFF

Aspects	Requirements	Guidance	Checklist (tick when criteria satisfied or if not applicable)
Availability of a designated staff member	A designated staff member should be on site and available to assist the driver at all times throughout the delivery.	This staff member should be aware of the layout of the building and the oil delivery procedure.	<input type="checkbox"/>
Appropriate training of designated staff member/s	Designated staff should be trained to receive the delivery and be aware of the layout of the facilities and company procedures.	The authorised person should be able to establish the ullage (the empty space above the surface of the liquid) before delivery and understand the procedure to be followed in the event of a spill.	<input type="checkbox"/>
Ability of designated staff to operate all oil transfer equipment	The authorised person should be competent and able to operate all control valves when transferring oil to generators and machinery.	Users should not operate any unfamiliar equipment when transferring oil.	<input type="checkbox"/>

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CONDITION AND MAINTENANCE OF TANK STORAGE

Tank storage

Aspects	Requirements	Guidance	Checklist
Stable mountings / bases	Storage tanks should be mounted on suitable and secure bases	Tanks should be standing on a secure foundation such that they cannot move. Tanks standing on drums, sleepers or pallets are not acceptable	<input type="checkbox"/>
Clear marking of tanks	All storage tanks should be clearly marked with the tank number or letter, the product grade and the tank capacity.	To ensure easy identification and avoid the mixing of fuel types	<input type="checkbox"/>
Tank bunding	Storage tanks should be surrounded by an impermeable bund capable of holding 110% of the largest tank capacity.	New tanks can be constructed as tanks within a tank i.e. the outer tank forms the bund	<input type="checkbox"/>
Tank vents	All tank vents should direct any oil overflow into a bund. Those vents which open to atmosphere should have free airflow around them and no ignition source within 3 metres		<input type="checkbox"/>
Tank gauges	Storage tanks should be fitted with a working, calibrated tank gauge system or calibrated dipstick with the maximum tank fill capacity	The delivery driver or any users should not be required to use a dipstick or climb over any obstacles to read a tank contents gauge. The maximum	<input type="checkbox"/>

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	shown somewhere on the installation	tank fill capacity should be marked either on the gauge or on the tank	
Fill pipe valves	All fill pipe inlets should be fitted with a shut off valve and lockable cap.	A competent member of university staff should check that each pipe is be shut off and locked securely after each delivery	<input type="checkbox"/>

Tank maintenance

Aspects	Requirements	Guidance	Checklist
Regular inspection	There should be a monthly visual inspection and maintenance of the oil storage facility.	A log book should be kept to note any inspections and maintenance. Any issues should be reported immediately.	<input type="checkbox"/>
Clear bunding area	The bund area should be clear of vegetation and storage of any other materials.	This should avoid contamination of other materials and avoid reducing the effectiveness of the bund	<input type="checkbox"/>

AVAILABILITY OF NOTICES

Aspects	Requirements	Guidance	Checklist
Emergency procedure instructions	A notice should be provided at the fill pipe providing details / instructions relating to the buildings emergency procedure.	This procedure should be displayed alongside appropriate contact details	<input type="checkbox"/>

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On site delivery guidelines	This document and checklist should be in place at the designated offload position.	The designated member of staff should have a copy of this and should work through the procedure prior to and during the delivery	<input type="checkbox"/>
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SPILL RESPONSE

Aspects	Requirements	Guidance	Checklist
Provision of spill kits	The provision of appropriate spill kits close to the storage tanks.	This is to ensure that an appropriately trained staff member can effectively prevent and minimise environmental damage at source quickly in the event of a spill	<input type="checkbox"/>
Alarm systems	Ideally all storage tanks should be fitted with a high level alarm system to avoid overfilling the storage tanks.	Activation of the alarm should be detectable to the driver at the offload point whilst the truck engine is running. Alarm can be audible or visual. If visual, lights should be particularly bright so as to attract the driver's attention immediately.	<input type="checkbox"/>

THE DELIVERY POINT

Aspects	Requirements	Guidance	Checklist
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Vehicle position in relation to fill pipes	All fill pipe inlets should be positioned closely to the designated offload position	This should ensure that delivery pipes are as short as is practicable	<input type="checkbox"/>
Protection of storage tanks	Storage tanks should protected in some way against a possible impact from the delivery vehicle	This should avoid any accidents during access and exit of the delivery vehicle	<input type="checkbox"/>
Drainage area	The tanker offloading area should drain to a suitably sized oil separator of an approved design.	This should prevent oil spills flowing directly to open drainage systems	<input type="checkbox"/>

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THE TRANSFER PROCESS

Aspects	Requirements	Guidance	Checklist
Gauging of tanks	All receiving tanks need to be gauged prior to taking fuel.	This is to ensure that there is sufficient tank storage space and avoid overspill	<input type="checkbox"/>
Underground transfer	If any storage tanks are underground then the delivery should not be pumped from the delivery vehicle	Pumping into underground storage tanks is not permitted	<input type="checkbox"/>
Visibility of tank vent pipes	All the tank vent pipes should be visible to the driver throughout the offloading process.	If not are the storage tanks fitted with a physical tank overfill prevention device? If not then there should be an authorised person available at all times within sight of the vent pipe and in direct contact with the driver.	<input type="checkbox"/>
Visible oil leaks	The installations should be free of visible oil leaks.	From either the tank itself or any pipe work.	<input type="checkbox"/>
Fill pipe drip tray	Where the fill pipe inlet is positioned outside the bund then a suitable drip tray should be provided and emptied in an environmentally responsible manner after each delivery.	The drip tray should not leak and should be large enough to contain a minor spill	<input type="checkbox"/>

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Health & safety concerns	The supplier should be advised of any times when deliveries should not take place due to health and safety concerns.	Where there are concerns then deliveries should be postponed until any concerns have been appropriately addressed	<input type="checkbox"/>
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THE MOVEMENT OF OIL TO CAMPUS

Aspects	Requirements	Guidance	Checklist
Availability of competent member of staff.	Any fuel transfer must be completed by competent members of staff.	This staff member should be aware of the layout of the building and the emergency procedure. This person should also be competent at securing drums on vehicle for movement.	<input type="checkbox"/>
Suitability of container used for transfer	Only standard 50 gallon drums should be used to transfer oil to the main campus.	No alternative carriage is permitted.	<input type="checkbox"/>
Availability of spill kits	A spill kit should be kept with the drums throughout the transfer process.	This is to ensure that an appropriately trained staff member can effectively prevent and minimise environmental damage at source quickly in the event of a spill	<input type="checkbox"/>
Delivery to main campus	The drums should be properly secured before vehicle is in motion.	This should be done with appropriate ratchet-type or similar design straps that are capable of holding full drums in position on vehicle.	<input type="checkbox"/>

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Storage on campus	Where possible, drums should be delivered directly to generator for use. Where this is not possible, the drums should be kept in a suitably bunded area that is capable of holding 110% of single drum capacity.	Preference would be for a permanent bund to be in place for this function. If this is not practical, a temporary tray would suffice so long as it has no leaks, is in a sound condition and is checked periodically for cracks, etc.	<input type="checkbox"/>
Filling backup generators	When transferring oil to generators, drip trays should be used and any local drains should be covered with a suitable drain covering. A permanent spill kit should be present on each generator site.	Filling should be done as soon as the drum is delivered to site and any surplus removed from the site to a suitable storage area.	<input type="checkbox"/>

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