

WORKING AROUND HYDROCARBON (GAS & FUEL) PIPELINES





دبي للبترول
Dubai Petroleum

dusup

هيئة دبي للتجهيزات
Dubai Supply Authority

DUSUP Website:

<http://dusup.ae>

Underground high-pressure natural gas and liquid transmission pipelines may exist within or in the proximity of your work. These pipelines operate at pressures up to 960psi (66 bar) and any damage to the pipeline could seriously affect both you and the community.

The most obvious and unfortunate cost of third-party damage to the pipelines is injury or death.



DUSUP's BUSINESS

DUSUP provides energy supply (Natural Gas) to Emirate of Dubai through its pipeline network and administers NOC's for the hydrocarbon pipelines of DUSUP, ENOC Group, EMDAD and Dolphin Energy within Dubai. Submission of the No-Objection Certificate is made through the e-NOC system of the Dubai government and managed by the Roads and Transport Authority. <https://noc.rta.ae/RTAeNOC>.

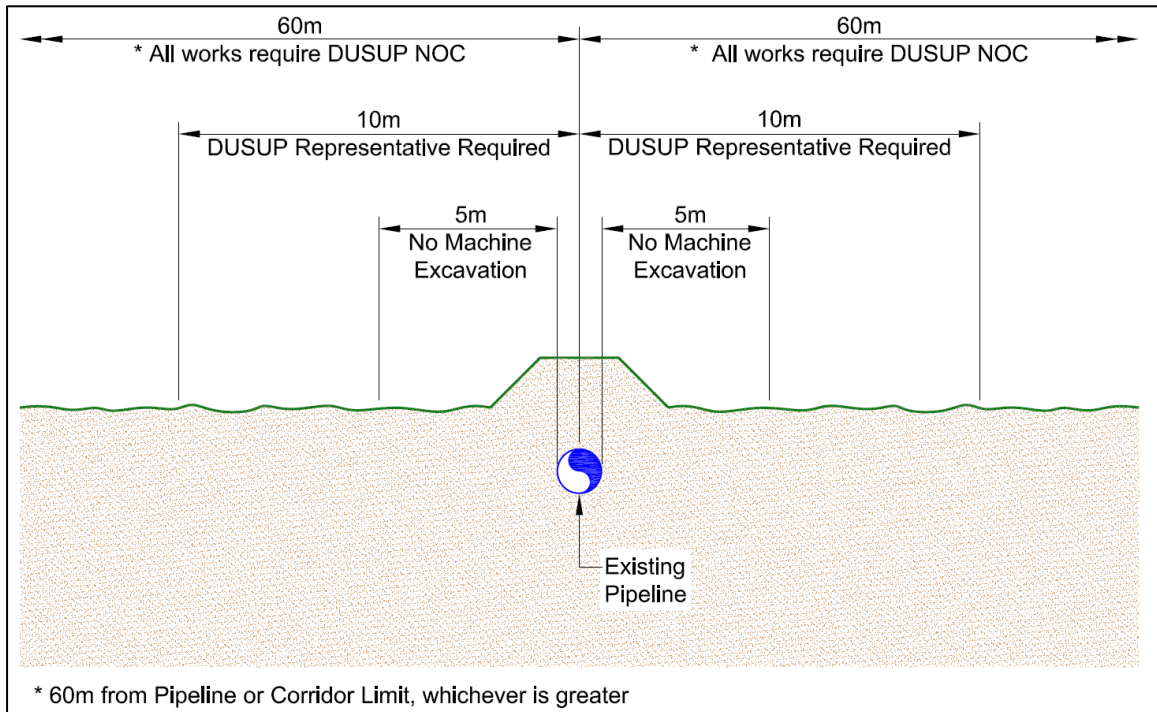
The gas & fuel (hydrocarbon) pipelines covered under the DUSUP NOC system provide fuel for Dubai's:

1. Electricity & Water Production
2. Industries
3. Dubai International Airport



DUSUP NOC

DUSUP's **No Objection Certificate (NOC)** is a system in place to monitor and control activities near gas & fuel pipelines/facilities.



No work within 60 meters of pipelines & within the pipeline corridor without a NOC.

Within DEWA Power Stations and EGA (DUBAL) boundary fence - DUSUP NOC required within 10 meters of DUSUP pipelines.

No work within 10 meters of pipeline without an on-site Pipeline Representative (staff from DUSUP Pipeline Department).

Excavation within 5 meters of the edge of the pipeline by hand shovel only. No pickaxes, powered digging equipment or machines allowed.

PIPELINE PATROL

DUSUP patrols each pipeline route twice during the day and twice during the night, to detect any unauthorized activities, subsidence, erosion or other issues that may affect the safe operation of the pipelines.



The patrolling team are there to assist contractors working within DUSUP corridors, and may stop the job should they feel the work being conducted is deemed as unsafe.

PIPELINE MARKERS

DUSUP pipeline warning signs and markers indicate approximate, but not exact, locations of the pipelines. Pipeline warning signs and markers provide the pipeline, Kilometer Point (KP) location of the pipeline and the DUSUP emergency contact number (04 - 880 1867) to report problems.

Pipeline warning signs are installed adjacent to the pipeline berm at 250 meter intervals, e.g. KP 10+500.

Pipeline Markers are on the pipeline berm mid-way between the Pipeline Warning Signs, i.e. every 125 meters.



DUSUP WARNING SIGN



DUSUP PIPELINE MARKERS

DUSUP WARNING SIGNS, CP POSTS AND VENTS

Contractors shall familiarize themselves with warning signs, CP posts and vents around DUSUP Pipeline Networks.



DUSUP WARNING SIGNS



CP POSTS



VENTS

EPPCO/ENOC & EMDAD WARNING SIGNS

Contractors shall also familiarize themselves with warning signs for other pipeline owners.



EPPCO / ENOC
pipeline warning
signs



EMDAD pipeline
warning signs

DOLPHIN ENERGY WARNING SIGNS





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PIPELINE BERMS

Pipeline berms are the main protection for buried pipelines; but the pipelines maybe within the hump of berms.

When working near a pipeline berm, consult DUSUP. Any damage to the pipeline berm by contractor shall be detailed to DUSUP and repaired by contractor immediately.



UTILITY CROSSING BY OPEN CUT

Cable, water and other utilities must pass above or below the pipeline with minimum **ONE** meter vertical clearance between the edge of the existing hydrocarbon pipeline and edge of proposed crossing utilities.

Approved concrete slab must be provided between the existing pipeline and proposed utility.

This crossing elevation must be maintained across the entire width of the pipeline corridor.



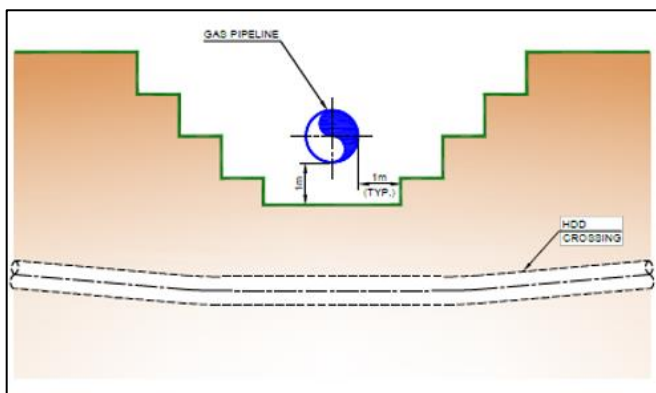
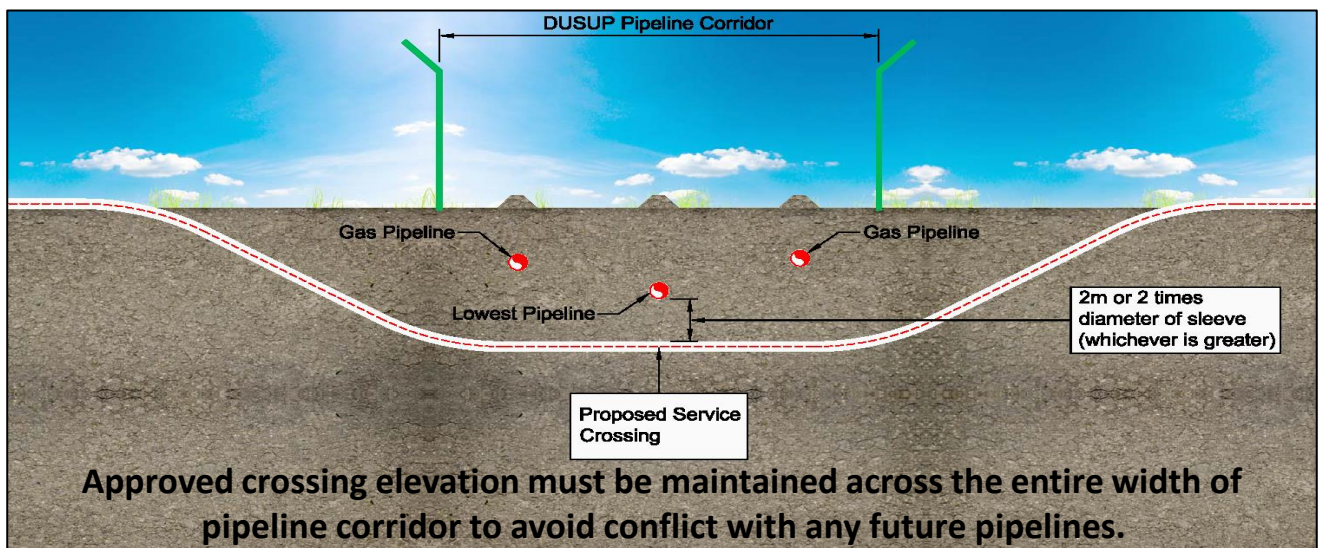
WATER PIPELINE CROSSING UNDERNEATH DUSUP PIPELINE – OPEN CUT

UTILITY CROSSING BY TRENCHLESS METHOD

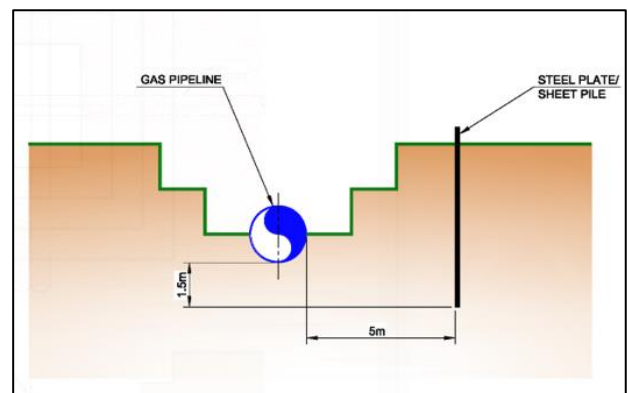
Minimum 2 m separation for pipeline diameters up to and including 1 m, and 2 times sleeve/casing size for pipeline diameters greater than 1 m.

For HDD specific crossings, distances shall be measured from the bottom of HC pipe to crown of maximum size reamer.

Observation pits or sheet piling will be required for HDD crossings. Additional details can be found in DUSUP Guidelines for Utility Crossing (DP-OPSON-0158).



OBSERVATION PIT



SHEET PILING

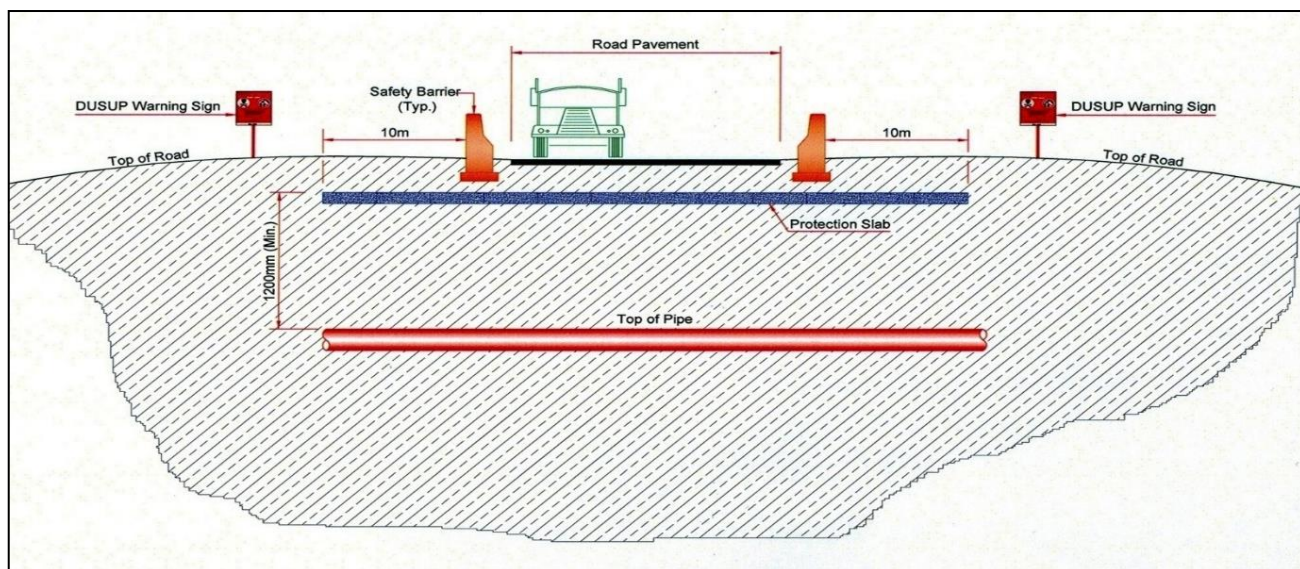
ROAD CROSSING / PARALLEL TO A PIPELINE

Where a roadway is to cross a pipeline, the pipeline must be protected as per DUSUP approved protection design. Pipeline protection must extend beyond the edge of the road shoulder (or toe of the embankment whichever is greater) as follows:

- At grade straight road, and with embankment of 1:3 or flatter – 10m
- Roundabout, Curved road, Elevated road with embankment of 1:3 or steeper and bridge crossing - 20 meters.

Existing pipelines within a parallel distance of 10 meters from the road shoulder must be protected with DUSUP approved protection slabs.

Roadside crash protection must be provided for 20 meters on the approach to and for 8 meters on the leaving side of a road crossing.



EXCAVATION – TRENCH PROTECTION

Shoring / trench box, sloping or step cutting (benching) must be provided for the excavations deeper than 1.2 meters

If the soil type of excavation is not confirmed, the soil shall be defined as Type C (as per OSHA standards) and must have a slope / step cut of 1 ½ horizontal to 1 vertical (34 degrees).

Soil Type	Height / Depth Ratio	Slope Angle
Stable Rock	Vertical	90°
A (i.e. Clay, Silty Clay, or Sandy Clay)	$\frac{3}{4} : 1$	53°
B (i.e. Silts, Sandy Loams, Medium Clays, Unstable Rock)	1 : 1	45°
C (i.e. Granular such as gravel and sand)	1 ½ : 1	34°

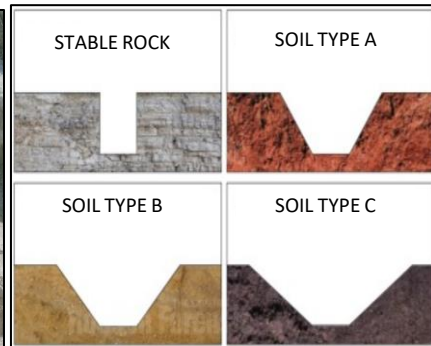
Shoring



Step Cutting



Sloping



GUIDELINES

DUSUP Guidelines and Standard NOC Conditions classified as “Public” documents are published in DUSUP webpage and shall be utilised by Contractors. <https://www.dusup.ae/noc/dusup-noc-guidelines/>

DUSUP CONTACTS FOR NOC WORK

DUSUP must be informed four (4) working days in advance of any work near a pipeline.

Contact Details of DUSUP ROW Team (24 Hours):

Tel: (04) 802 8720 Mob: 050 910 4642

Email: WORK.NOC@dusup.ae

WE VALUE YOUR OBSERVATIONS

Please contact us with any observations regarding unusual activity on the pipeline corridor or facilities which may include:

- Unauthorized access to facilities or suspicious activities.
- Subsidence, erosion, washouts along the corridor.
- Earthwork along the corridor.
- Fallen or damaged marker signs

Please refer to contact details of the DUSUP ROW Team above.

EMERGENCY RESPONSE

Pipeline Representative shall be the focal point at site during emergency within pipeline corridor.

Site personnel should know the emergency exit route, location of fire extinguishers, identification of first aider and the muster point before work starts.

Dedicated muster point shall be located upwind of work location, and may change depending on weather conditions.

Contractor shall have a dedicated Emergency Action Plan.

✦ For Fire / Leak Emergency:

- ✦ Activate / Raise Fire alarm shout "Fire! Fire! Fire!" And alert focal point
- ✦ Focal point should immediately inform GCS on (04) 880 1867
- ✦ Turn off **ALL** equipment and eliminate any potential ignitions.
- ✦ Evacuate to the identified Muster Point.

✦ For Gas Leak Emergency:

- ✦ Stop all work activities immediately
- ✦ Focal point should immediately inform GCS on (04) 880 1867
- ✦ Turn off **ALL** equipment and eliminate any potential ignitions.
- ✦ Evacuate to the identified Muster Point that is upwind.
- ✦ Do not leave Muster Point until instructed to do so.

EMERGENCY CONTACT

DUSUP Gas Control Station (24 hours):

Tel: (04) 880 – 1867

Alternative:

DUSUP ROW Control Room (24 Hours):

Tel: (04) 802 8720 Mob: 050 910 4642

REMEMBER

No job is so important and No service is so urgent that we cannot take time to perform our work safely.

SAFETY is about ensuring freedom from unacceptable risk.

