GOVERNMENT OF KHYBER PAKHTUNKHWA
CLIMATE CHANGE, FORESTRY, ENVIRONMENT
AND WILDLIFE DEPARTMENT
(SECTION ENVIRONMENT)

NOTIFICATION

Peshawar Dated the 25/07/2025

No. SO(ENVT)/CCFE&WD/1-8/EPC-2025: In exercise of powers conferred under Clause xxii of Section 7 of the Khyber Pakhtunkhwa Environmental Protection Act, 2014, (Khyber Pakhtunkhwa Act No. XXX of 2022), the Khyber Pakhtunkhwa Environmental Protection Council (EPC) in its 3rd Meeting held on 13.05.2025 has been pleased to approve the following guidelines for General Environmental Assessment (GEA);

GUIDELINES FOR CNG, LPG, LNG (FILLING AND RE-FUELING STATIONS) AND PETROL PUMPS

1. Introduction

The increase in the number of vehicles and the transportation needs of the people during the past few years has resulted in rapid increase in the number of petrol stations in urban areas, as well as along all main highways. The introduction of LPG, LNG & CNG as an alternative fuel for vehicles has resulted in emergence of LPG, LNG & CNG stations and filling services at the existing petrol stations. Few safety guidelines for the stations are available; however, these stations are not required to meet any environmental standards.

1.1 Scope of the Guidelines

These guidelines are applicable to all Petrol, LNG, LPG and CNG Stations of any capacity to be established in Khyber Pakhtunkhwa.

1.2 How to Use These Guidelines

The project proponent is obliged to use these guidelines. The project proponent has to fill in an environmental impact assessment form. The following steps are to be taken in this regard:

Step 1: Provide information on project [use **Section I**]

Step 2: Determine Applicability (*Are you sure that IEE or EIA is not required?*) [use **Section II**]

Step 3: Describe the physical, biological and social environment [use **Section III**]

Step 4: Assess potential impacts and applicable mitigation measures [use **Section IV**]

Step 5: Provide undertaking to the EPA on mitigation measures and compliance [use **Section V**]

Completed form is to be submitted to the Khyber Pakhtunkhwa Environmental Protection Agency for evaluation. Khyber Pakhtunkhwa EPA may request for additional

information or decide to undertake visit to the proposed project site in order to assess the environmental impact of the proposed project.

1.3 Glossary

Act means the Khyber Pakhtunkhwa Environmental Protection Act, 2014

Contamination introduction of impurities in the environment

Environment "environment" means,---
(i) air, water and land; (ii) all layers of the atmosphere; (iii) all organic and inorganic matter and living organisms;
(iv) the ecosystem or flora and fauna, and ecological relationships; (v) buildings, structure's, roads, facilities, installations and works; (vi) all social or cultural and economic conditions and activities affecting community life; and
(vii) the inter-relationships between any of the factors specified in sub-clauses (i) to (vi);

Environmental Assessment a technique and a process by which information about the environmental effects of a project is collected, both by the developer and from other sources, and taken into account by the planning authority in forming their judgments on whether the development should go ahead.

Hydrocarbon an organic compound containing only carbon and hydrogen

Impact on Environment means any effect on land, water, air or any other component of the environment, as well as on wildlife harvesting, and includes any effect on the social and cultural environment or on heritage resources.

Mitigation Measure means a measure for the control, reduction or elimination of an adverse impact of a development on the environment, including a restorative measure.

Pollution the presence in the environment or the introduction into it, of substances that have harmful or unpleasant effects

Rules means the Khyber Pakhtunkhwa Environmental Assessment Rules, 2021.

2. Project Profile

2.1 Project Description

Petrol Stations typically include provisions for dispensing of motor gasoline and diesel and more recently compressed natural gas (CNG), LNG, and LPG. There are also stations set up solely for the dispensing of CNG, LNG, and LPG. The gasoline and diesel, supplied through bowzers, are generally stored in underground tanks and pumped out into the vehicles via the dispenser that also meters the flow. The natural gas is generally piped to the station from the local utility. At the station a compressor compresses and stores the gas in banks of cylinders from where it is fed to the dispenser for filling the CNG, LNG, and LPG tanks in vehicles.

A petrol station or LNG, LPG and CNG station also offers other services on site besides

selling fuel. A car wash or service station, lubricating oil change facility, tyre shop and a convenience shop are variously available at these facilities.

They are located in the most easily accessible of locations on the major and secondary roads in the cities and towns, and along highways and connecting roads in rural and remote areas.

2.2 Environmental Aspects

Siting

Hydrocarbon emissions from upwind stations neighboring sensitive receptors like schools and hospitals could adversely affect compromised patients and susceptible children.

Taking delivery of fuel

At typical frequencies of once a week the diesel and gasoline bowzers bringing in the fuel empty their loads into the underground storage tanks (USTs). The fuel transfer is rarely without some spillage and certainly with hydrocarbon vapor releases into the atmosphere. The supply of piped natural gas does not generally involve leakages.

Storage of fuel

Leaks in the fuel storage tanks lead to soil and groundwater contamination.

Operation of the blow down valves in CNG, LNG, LPG storage system releases gas into the atmosphere

Operation of the fuel dispensers

Piping from the USTs to the dispenser is usually underground and can develop leaks close to the soil surface, causing volatile organics to escape into the atmosphere.

Improper refueling procedures frequently cause minor oil spills in the dispenser areas

Natural gas compressors contribute to the noise pollution in the surrounding area

Most stations do not have enough space for the refueling vehicles line up and vehicles are parked any which way, leading to traffic congestion.

Car washing or servicing

Groundwater is extracted to meet water requirements and open wells can become a pathway for the contamination of the aquifer

Discharge of wastewater containing oil and grease, to the sewers, and to soil and groundwater

Disposal of waste oil, oil filters, and oily rags in to municipal waste

Separate environmental approval shall be obtained for service station under the rules.

2.3 Mitigation Options

Siting

Only underground storage tanks shall be used for the storage of Liquids at Motor Fuel Dispensing Facilities. Petrol, CNG, LPG and LNG stations should not be located adjacent to hospitals, schools, mosques, wedding halls, and other public gathering buildings.
The siting shall follow other criteria as specified by OGRA/petrol pumps, LNG, LPG and CNG stations regulatory body.

Taking delivery of Fuel

Prepare proper pad for bowzer parking while unloading.

Ensure the pipe and couplings for the fuel transfer are secured tight and drip pans are put in all likely places where leakage can occur to avoid loss to ground.

Schedule deliveries at times of light traffic load to avoid congestion.

Storage of fuel

Underground fuel storage tanks are constructed to modern specifications with secondary containment, impervious linings and leakage monitoring wells in place.

Piping from tanks to the dispensers to be above ground to the extent possible. All buried piping routes to be clearly marked on the ground and on drawings available at the station.

Effective monitoring program for tank integrity checking and leak detection to be in place

Operation of the fuel dispensers

While refueling, drip pans should be used to avoid spillage

Impervious surfaces to be well maintained at all places likely to receive spills

Station should have enough spacing between dispensers for vehicles to queue up without effecting flow of traffic

Washing or Servicing

Suitable oil water separator and treatment systems designed to treat maximum operational capacity load to meet the NEQS should be installed

Discharges of wastewater to the sewage network should be made only when compliance with NEQS is ensured. Any groundwater extraction should be completely

enclosed to prevent the well becoming a pathway to transport of hydrocarbon contamination into the aquifer, waste oil, oily rags and oily sludge from the separators to be disposed off in transparent manner in accordance with approved procedures.

Environmental Assessment Checklist

Section I: Project Description

File No_____(To be filled by EPA)

Date _____

General Information

1. Project Name or Title_____
2. Project Proponent (Department, organization, or owner) _____
3. Address _____
4. Telephone _____
5. Fax _____
6. E-mail _____
7. Representative of the Proponent_____
8. Designation _____
9. Name of the person who conducted this assessment _____
10. Designation _____
11. Qualification_____

Project Information

12. Project Location & GPS Coordinates_____
13. Cost of the Project_____
14. Area of the proposed land for the Station

    Total_____m^2

    Proposed covered_____m^2

    Open space_____m^2
15. Number of vehicles that can park or stand on the site?_____
16. Brief Project Description _____

_____

_____

Please attach a plot plan of the proposed project site showing the location of the key structures, access, utilities, units, etc.

17.Number and qualification of required staff to run the station? _____

_____

18.Indicate the number of filling points for each of the following:

High Octane _____ 87 Octane (Super) _____ Diesel _____

CNG/LPG/LNG ____

Other_____

19.Indicate the storage capacity for each of the following:

High Octane _____ 87 Octane (Super) _____ Diesel _____

CNG/LPG/LNG ____

Other_____

20.For CNG/LPG/LNG station, please provide the list of main equipment ___

_____

_____

21.Indicate what facilities will be provided in the station:

General shopping store ___ Store for automobile accessories _____

Mosque_____ Car service station _____ Public toilets _____ Tyre shop

. Vehicle repair shop_____ Engine oil change facility _____ Other_

.

22.What will be the expected water requirement for the station?_____m^3/d

23.What is the proposed source of water? _____

24.24.Where will the wastewater from the station be disposed?_____

Construction

25.Who owns the proposed land for the station? _____

26.What is the present use of the land? _____

27.Are there any squatter settlements on the land?_____

If yes, please specify

Number of settlements ____ Will any compensation be paid to them? _

28.Are there any structures on the proposed site now? Yes No

If yes, will any structure be demolished? Yes No

If yes, where the demolition waste will be disposed? _____

29.Are there any trees on the proposed site? Yes No

30.Will any tree be removed? Yes No

If yes, how many? _____

31.Period of construction (start and end dates) _____

32.What major construction equipment (dozer, grader, crane, etc.) will be used?

_____

Is construction work during the night planned? Yes No

Section II: Screening

Is the proposed project located in an ecologically sensitive area?

Yes No

If the answer to the above questions is yes, then the project would require an initial environmental examination or an environment impact assessment. Refer to the Khyber Pakhtunkhwa Environmental Assessment Rules, 2021 for appropriate category.

Section III: Environmental Profile

1. Describe the terrain of the project area: Flat or Level (Slope < 3%)
   Level to moderately steep (Slope 3%-30%)
   Moderately steep to mountainous (Slope > 30%)
2. Are there signs of soil erosion or landslide anywhere within 500 m of the proposed site?

   Yes No

   If yes, please describe (where, nature) _____

   _____
3. Is there any surface water body (river, canal, stream, lake, wetland) within 1,000 m of the proposed site?

Yes No

If yes, describe each water body:

Name (including type, ie, river, canal or stream)	**Dimensions**	**Status and Uses** (Is it polluted? Is domestic or other wastewater discharged to it? What are its uses, eg, agriculture, domestic, industrial, washing, fishery

4. Is there any groundwater well on the proposed site or within 500 m of the proposed site?

Yes No

If yes, describe each well:

Type (Dug well, tube well, hand pump)	**Location** (Village, road, mohalla, etc. and distance from the site)	**Depth and Yield**	**Uses** (Drinking, agriculture, domestic, industrial, washing, livestock)

5. Based on the interview of the surrounding population or a wildlife expert, is any form of wildlife found on, or around the proposed site of the project?

Yes No

If yes, please describe _____

_____

Person Interviewed _____

6. Are there any existing trees or vegetation on the proposed site?

Yes No

If yes, how many? _____

7. Are there any reserved forest or protected area within 1,000 m of the proposed site?

Yes No

If yes, please describe?_____

8. Please provide the traffic count for all main roads adjacent to the proposed site or roads that will provide access to the site. The count should be based on data collected, for both directions, on at least three typical working days. Use the following format:

Road_____Count Location _____

	6:00 am-9:00 am	9:00 am-12:00 noon	12:00 noon-3:00 pm	3:00 pm-6:00 pm	6:00 pm-9:00 pm
Large vehicles (trucks, buses, tractor trolleys, Minibuses)					
Medium sized vehicles (Suzuki pickups, cars, jeeps, taxis)					
Small vehicles (Rickshaws, motorcycles, scooters)					
Slow vehicles (animal-driven carts, tongas)					
Others					

(*Please add additional sheets for every road*)

9. What is the present land use in the vicinity (roughly a radius of 500 m) of the proposed site?

Description	**Residential** (Thick, Moderate, Sparse)	**Commercial** (Office, Shops, Fuel Stations)	**Open Land** (Parks, Farmlands, unutilized plots, barren land	**Industrial**	**Other**

(*Please attach a map of the proposed project site, if available, and indicate roughly the area that you have considered for this evaluation*)

10. For any agricultural farmland on the proposed site and a radius of 500 m around it, provide the following information:

Main crop(s) and average yield _____

Source of irrigation water_____

Area affected by salinity or water logging _____

11. Please describe all the sensitive receptors within 500 m of the proposed site:

Type (schools, colleges, hospitals, and clinics)	**Name**	**Size** (Number of students or number of beds)	**Location** (Village, road, mohalla, etc.)	**Distance from Site**

12. Roughly, how many houses are within a radius of 500 m of the proposed site?

_____

13. What proportion of the houses in the area are *pukka, semi-pukka, and* kutcha?

14. How are the general hygienic conditions of the project area?

Generally clean

Fair

Poor

15. Is there any bad odor in the project area?

Yes No

What is the source of the odor?_____

16. What are the main sources of income of the surrounding community? _____

_____

17. Is there any site of cultural importance (graveyard, shrine, mosque, archeological site) within 1,000 m of the proposed scheme?

Yes No

If yes, please describe?_____

18. What other main sources of pollution exist within a radius of 500 m of the proposed site:

Name of the Source	**Type of Pollution** (Noise, air water)	**Location** (Village, road, mohalla, etc.)	**Distance from Site**

Section IV: Impact Assessment

Potential Negative Environmental Impacts	*Tick, if relevant*	*Mitigation Measures*	*Tick, if proposed*	*Monitoring*
Siting near sensitive receptor		Station is not located within____m of any educational institution or health facility		
		Noise wall will be built		
		Compressor will not be operated from _____ am/pm to am/pm		
Spills during fuel transfer		Proper pad will be prepared for bowzer parking while unloading		
		It will be ensured that the pipe and couplings for the fuel transfer are secured tight and drip pans are put in all likely places where leakage can occur to avoid loss to ground		
		While refueling, drip pans will be used to avoid spillage		
		Impervious surfaces will be well maintained at all places likely to receive spills		
Leakage form storage tanks and facilities		Underground fuel storage tanks will be constructed to modern specifications with secondary containment, impervious linings and leakage monitoring wells in place		

Continued...

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Potential Negative Environmental Impacts	*Tick, if relevant*	*Mitigation Measures*	*Tick, if proposed*	*Monitoring*
		Piping from tanks to the dispensers will be above ground to the extent possible. All buried piping routes will be clearly marked on the ground and on drawings available at the station		
		Effective monitoring program for tank integrity checking and leak detection will be put in place		
Washing and servicing		Suitable oil water separator and treatment systems designed to treat maximum operational capacity load to meet the NEQS will be installed		
		Discharges of wastewater to the sewage network will be made only when compliance with NEQS is ensured		
		Any groundwater extraction will be completely enclosed to prevent the well becoming a pathway to transport of hydrocarbon contamination into the aquifer		
		Waste oil, oily rags and oily sludge from the separators will be disposed off in environmentally responsible transparent manner		
Interruption to local traffic		Deliveries will be scheduled at times of light traffic load to avoid congestion		
		Station will have enough spacing for vehicles to queue up without effecting flow of traffic		

Section V: Undertaking

I,_____(*full name and address*) as proponent for_____(*name, description and location of project*) do hereby solemnly affirm and declare:

1. The information on the proposed project and the environment provided in Forms I, II and III are correct to the best of my knowledge
2. I fully understand and accept the conditions contained in the Guidelines for _____ (*name, number and version of the guidelines*)
3. I undertake to design, construct and operate the project strictly in accordance with the project described in Form I, submitted with this undertaking.
4. I undertake to implement all mitigation measures and undertake monitoring stated in Form IV, submitted with this undertaking.

Date_____ Signature _____

Name _____

Designation _____

(with official stamp/seal)

Witnesses:

	Signature	Name	Address
1	_____	_____	_____
2	_____	_____	_____

-sd-
Secretary to Govt. of Khyber Pakhtunkhwa
Climate Change, Forestry, Environment & Wildlife Department

No. SO(ENVT)/CCFE&WD/1-8/EPC-2025:
Copy for information to;

1. All members of Environmental Protection Council (EPC) Khyber Pakhtunkhwa
2. PS to Secretary Climate Change, Forestry, Environment & Wildlife Department, Khyber Pakhtunkhwa

Muhammad Ishaq
Section Officer (Environment)