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EIA ADMINISTRATIVE GUIDELINE

GUIDELINE FOR THE CONSTRUCTION AND UPGRADE OF FILLING STATIONS AND ASSOCIATED TANK INSTALLATIONS

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1. INTRODUCTION

The Department of Agriculture, Conservation, Environment and Land Affairs (the department) is the responsible authority for administering the environmental impact assessment (EAI) regulations, as set out in (GN R. 1182 and 1183), in Gauteng. The purpose of this guideline is to provide an overview of the department's approach to the management of applications in respect of the construction and upgrading of filling stations with a view to ensuring that the department's responsibility in respect of the protection of the environment are carried out in an efficient and considered manner. The guideline is therefore intended to facilitate a reduction of the department's evaluation/ review period, whilst simultaneously ensuring that such developments take place in a sustainable manner but ensuring that the impacts of such developments have been addressed. It is also intended to assist applicants in fulfilling their obligations as envisaged in 3(3) (c) of GNR 1183.

In developing the guideline, the department has taken, *inter alia,* international approaches, the views of stakeholders, the department's legislative obligations and its experience in the processing of environmental impact assessments into account. These considerations have been summarised in a separate document.

It should be noted that this document is a guideline and that the department accordingly reserves the right to deviate from the guideline where appropriate. Furthermore, this document is current as of the date indicated above and may be changed from time to time.

2. GENERAL DEPARTMENTAL GUIDELINES

All applicants should take note of the following general guidelines:

1. New filling stations will generally not be approved where they will be:

    - within 100m of residential properties, schools or hospitals, unless it can be clearly demonstrated that no significant impacts will occur by reason of factors such as noise, visual intrusion, safety considerations or fumes and smells;

- within three (3) kilometres of an existing filling station in urban, built-up or residential areas;
- within twenty-five (25) kilometres driving distance of an existing filling station in other instances (i.e. rural areas, and along highways and national roads), or
- within a sensitive area.

2. Applications for new filling stations will not be considered unless it is intended to undertake the development within a period of six months of approval by the department.
3. Where the filling station is likely to have a significant impact either on the built environment or in areas of high scenic quality, the use of standard "corporate" designs and signage may not be acceptable.
4. For filling stations along provincial roads the approval of the Department of Transport and Public Works (Gautrans) will be used as a key factor in the decision-making process, and approval will be denied if the conditions of Gautrans cannot be complied with.
5. The department encourages upgrades, where it provides an opportunity to improve environmental conditions on an old site.

3. GENERAL DEPARTMENTAL GUIDELINES FOR THE SUBMISSION OF APPLICATIONS

3.1 Classification of applications

Based on the potential impacts associated with filling stations and for facilitating efficient administration, the department will assess applications according to three categories as set out in the box below.

Category 1	Category 2	Category 3
• new filling stations • upgrades of existing filling stations located in sensitive areas which will result in a total capacity increase of more than 25%	• upgrades of existing filling stations which are not located not within sensitive areas and which will result in a total capacity increase of more than 25% • tank installations (for fuel, paraffin, diesel and/ or other associated hazardous substances regulated by legislation) at commercial or industrial sites in industrial areas and which are more than 46m^3 in total storage capacity	• upgrades of existing filling stations which will result in a total capacity increase of less than 25% • tank installations (fuel, paraffin and diesel) for agricultural or temporary purposes (i.e. for less than six months) • tank installations (for fuel, paraffin and diesel) at commercial or industrial sites in industrial areas which are less than 46m^3 in total storage capacity

The requirements for the compilation and processing of applications in respect of each category are set out below. These requirements must be adhered to by applicants. The Department reserves the right to request additional information as required. [Note: the categories form the basis for the general processes should be followed and these may change in specific circumstances. For example, where exemption is not granted in category 2, the scoping process set out for category 1 may be followed].

3.2 General requirements for all applications

A completed copy of the checklist for 1(c) activities (Annexure 4) must accompany all applications. Note that the Department will only consider applications, which are already associated with and supported by a petroleum company.

3.3. Guidelines for each category

3.3.1 Category 1

The following will be required as a minimum for submission for consideration:

- the applicant must appoint an independent consultant to compile a Scoping Report in accordance Annexure 1. The EIA Guideline Document *(EIA Regulations-Implementation of sections 21, 22 and 26 of the Environment Conservation Act - DEAT, April 1998)*, must be followed to ensure that the process is in accordance with the legal requirements.
- Annexure 4 must be completed in full and submitted with the scoping report.

Note: where the application is in respect of a filling station which requires a deviation from the general requirements set out in section 2, a detailed motivation must be included in the application.

3.3.2 Category 2

Exemptions may be considered for applications falling within category 2. Where the applicant elects not to apply for exemption, the department indicates that the particular project may not be appropriate for exemption, or an exemption is refused, the applicant may follow the procedures that have been identified for category 1. The following will be required as a minimum for submission for consideration:

- Annexure 4 must be completed in full to determine if the filling station can be considered for exemption.
- if the application will be considered for exemption, an application for exemption which complies with the provisions of Annexure 2 should be submitted.

3.3.3 Category 3

Exemption will be considered for category 3 applications. Applications must include the requirements outlined in Annexure 3.

To facilitate quicker administration, companies may elect to obtain approval of a generic (Environmental Management Plan) EMP from the department, which can be used as a basis for considering applications in this category pertaining to tank installations for agricultural or temporary purposes (i.e. for less than six months); and tank installations (for fuel, paraffin and diesel) at commercial or industrial sites in industrial areas which are less than 46m^3 in total storage capacity. A generic EMP must incorporate mitigation measures for impacts associated with the nature of the installation, including for the construction, operational and decommissioning phases of the facility. The department reserves the right to require changes to the EMP in respect of particular installations.

As a general rule, this type of activity may be exempted from advertising or public participation. However, the department reserves its right to request otherwise.

ANNEXURE 1: REQUIREMENTS FOR CATEGORY 1 APPLICATIONS IN TERMS OF THIS GUIDELINE

Annexure 4 must be completed in full and submitted together with the application.

1. An application form and Plan of Study for Scoping should be submitted.

2. The following specific requirements, amongst others, must be addressed or provided in the Scoping Report before authorisation can be considered:

2.1 A 1:50 000 map and street map and detailed site development plans.
2.2 The above maps/ plans must indicate the:
- location of the site in relation with, and the distance of the tank/s from, council boundaries,
- lay-out of adjacent properties,
- current land-use and zoning of the area,
- major roads, railways, open spaces,
- environmentally sensitive/ significant features,
- places of social and cultural importance,
- boreholes, seep lines, channels, dams, rivers and other water bodies,
- and existing filling stations within a 3km/ 25 km driving distance (wherever is applicable).

2.3 A description of the geology of the site with a description of soil types in terms of compatibility.
2.4 A detailed description of the adjacent land-use.
2.5 A detailed motivation on the need and desirability of the proposed development.
2.6 The depth of the water table should be provided with a baseline reference of the ground water quality of the site and surrounding areas (if applicable).
2.7 The location of wells and boreholes on the site and neighbouring properties with an indication of the level of reliance of the neighbouring properties on ground water resources.
2.8 A description of other environmental issues (including, for example, impacts on the sense of place, visual impact, air quality, noise, water quality, soil) as a result of the construction, upgrade or the operation of the filling station. This description should also indicate the potential impacts that may eventuate from emergencies such as fire.
2.9 A description of the transportation routes of tankers to the proposed development.
2.10 Details (quantity, quality & method) of liquid and solid waste disposal from the premises.
2.11 Details of anticipated emission vapours, including VOCs and benzene concentrations.
2.12 Specific site design and recommendations for installation of underground tanks in relation to the receiving environment, including an indication as to how the following will be complied with:
- SABS 089, 1535 and 0131 relating to tank installation;
- SABS 0108 relating to classification of hazardous locations and selection of apparatus for such installations; and
- SABS 0400 relating to building regulations.

2.13 If the proposed filling station will include a car wash, the following must be taken into account:
- Manual vs. automated systems.
- Water recycling practices.
- Quantity and quality of the effluent discharged into the sewer must be determined in consultation with the relevant local authority.

2.15 A comparative assessment (benefits and disadvantages) of alternatives, specifically location, land-use and the no-go option.
2.16 Details of the decommissioning phase, including rehabilitation plans, measures for the financing thereof and proposal for end-use of the site.

3. In the case where there are existing filling stations in proximity, an assessment of the cumulative impacts on the environment, as a result of combined impacts from all filling stations in proximity of the proposed one, must be undertaken.

The above assessment must address amongst others:

3.1 the ability of the natural and social environment to assimilate cumulative stresses placed on them;
3.2 the likelihood of negative synergistic effects;
3.3 whether the proposed development has a significant impact on, or be constrained by existing or future developments rights in the area;
3.4 the feedflow and anticipated traffic volume;
3.5 a feasibility study which includes the information in 3.4;
3.6 the demand (necessity) and desirability of the proposed development (not feasibility); with an indication of the potential of the proposed filling station in terms of fulfilling the need of the targeted consumer;
3.7 impact on the feasibility of existing filling stations;

4. A description of the public participation process prescribed by the EIA regulations. (The public participation process must provide for mechanisms to resolve conflict).

5. An EMP addressing all issues associated with the construction, operation, decommissioning and emergencies of the proposed development.

Note:

Should all the above information be submitted in sufficient detail, the department is likely to be in a position to issue a Record of Decision. Alternatively, the department may request additional information and the EIA stage may be initiated.

If all information is provided as requested, the departmental time-frames for review and evaluation of a Scoping Report is 60 - 90 days.

ANNEXURE 2

REQUIREMENTS FOR CATEGORY 2 APPLICATIONS IN TERMS OF THIS GUIDELINE

Annexure 4 must be completed in full and submitted with the application.

2. The application must be supported by the following information:

1.1. A locality map, with a clear indication of the location of the tank(s) and the distance of the tank(s) in relation to the identified sensitive area(s), where applicable.
1.2. The expected location, extent and depth of surface subsidence of the area where the tank will be located.
1.3. The location of wells and boreholes on the site and neighbouring properties with an indication of the level of reliance of the neighbouring properties on ground water resources.
1.4. Precautionary measures to prevent accidental spills.
1.5. Information on the means of disposal of old fuel tanks.
1.6. Specific site design and recommendations for installation of underground tanks in relation to the receiving environment, including an indication as to how the following will be complied with:
   - SABS 089, 1535 and 0131 relating to tank installation;
   - SABS 0108 relating to classification of hazardous locations and selection of apparatus for such installations; and
   - SABS 0400 relating to building regulations.
1.7. The number of tanks to be installed and upgrade capacity, if applicable, in relation to the total storage capacity of all tanks on site.
1.8. In the case of an upgrade, a description of any complaints, warnings, fines or legal processes based on environmental considerations that have been initiated against the operation.
1.9. In the case of an upgrade, a description of any environmental impacts that have eventuated as a result of the existing operational activities, including water pollution and what steps have been taken, if any, to remediate the eventuation of such impacts. (The description should include information on emergency incidents).

2. An EMP addressing all issues associated with the installation must be submitted.

3. The consultation process must entail at least the following:

3.1 The proposed upgrade or installation must be advertised in a local newspaper and on site.
3.2 Interested and affected parties (I&AP's) must be given a thirty (30) day period in which to lodge any objections to the proposed development.
3.3 A list of the I&AP's (such as land owners, residents association, ratepayers' association and environmental groups, etc.) in the area must be submitted together with the proof of advertisement to the Department.
3.4 After the thirty (30) day period, the Department must be informed of any objections raised by any I&AP's regarding the proposed installation/ upgrade.
3.5 All conflicting issues emanating from objections must be addressed by an independent consultant before exemption will be granted.

Note:

Departmental time-frames for review and evaluation for category 2 exemption applications is 30-60 days, provided that all the above information is provided in sufficient detail.

Should all the above information be submitted in sufficient detail, the department is likely to be in a position to make a decision.

ANNEXURE 3: REQUIREMENTS FOR CATEGORY 3 APPLICATIONS

1. Details of the project must be submitted which contain at least the following information:

   - site location;
   - date of proposed installation;
   - any environmental or social conditions would influence the department's decision to grant exemption;
   - type of installation and purpose for installation;
   - number of tanks to be installed and the upgrade capacity in relation to the total storage capacity of tanks on site, if applicable; and
   - anticipated date of decommissioning.

2. An EMP must be submitted addressing all issues associated with the construction, operation and decommissioning of the proposed development or upgrade.

SECTION A: GENERAL INFORMATION

Project Applicant			
Contact Person			
Postal Address			
Telephone		Facsimile	
E-mail		Cell	
Project Consultant			
Contact Person			
Postal Address			
Telephone		Facsimile	
E-mail		Cell	
Registered Owner			
Contact Person			
Postal Address			
Telephone		Facsimile	
E-mail		Cell	
Local Authority			
Contact Person			
Postal Address			
Telephone		Facsimile	
E-mail		Cell	
Project Title			
Property Description (Farm Portion)			
Physical Location (Street Address)			
Grid Reference	Latitude: º ‘ “E	Longitude: º ‘ ”S	
Current Zoning			
Current Land-use			
Area of Site			
Area of Development			

SECTION B: ENVIRONMENTAL FRAMEWORK

1. Are any of the following located on the site earmarked for the development? Provide the direction and nearest distance from the proposed development to each respective feature.

ENVIRONMENT	*Located on Site*		*Distance*	*Direction*
	YES	**NO**	**Metres**	
a) A river, stream, dam or wetland (including pans and seasonal vleis).				
b) A conservation, reserve or open space area, or any other protected environment.				
c) A ridge or other prominent landscape feature.				
d) An area that is of cultural importance, e.g. historical site, graveyard, place of worship.				
e) A hospital or school.				
f) Formal or informal residential area.				
g) An area of archaeological or paleontological value.				
h) Any Red Data or other protected plant or animal species.				
i) Power lines, water pipes or servitudes.				

2. Where the development involves the re-zoning of agriculture land, please answer following questions.

a) What is the soil potential of the site earmarked for development?

b) What is the climatology in the area?

c) What is the vegetation cover in the area?

d) Is the land currently cultivated?

e) When was the land last cultivated if it is not currently cultivated?

f) Is the area contoured, and what is the direction and magnitude of the slope of the site?

g) Do any soil conservationist works exist?

h) Does the area have irrigation rights or has the area in the past had irrigation rights?

SECTION C: PROJECT DETAILS

1. Describe surrounding land-uses.

2. Is the proposed development within a 3km driving distance of existing filling stations within an urban/ built-up/ residential area or 25km driving distance of any existing filling stations in other areas? If yes, please give indication of numbers within:

Residential Area
Number of existing filling stations?

Rural Area
Number of existing filling stations?

3. Give the distance (in meters) from the proposed development to the closest existing filling station in all directions:

North:	Meters	West:	Meters
South:	Meters	East:	Meters

4. What measures will be taken to ensure that noise impacts are mitigated and do not create a nuisance?

5. What measures will be taken to ensure that visual impacts (including lighting and sense of place) do not create an intrusion or disturbance to the sense of place?

What measures will be taken to monitor air emissions and to ensure that emissions do not lead to harmful exposure?

6. Solid Waste:

   (i) What solid waste products will be generated? Please give brief details including estimates of quantities:

   (ii) How will these waste products be disposed of?

7. Effluent and contaminated stormwater runoff:

   (i) What effluent will be generated? Please give brief details including estimates of quantities:

   (ii) What measures will be taken to prevent contamination of stormwater?

   (iii) How will effluent and/or contaminated stormwater be treated (if applicable) before disposal?

   (iii) How will this effluent be discharged and when?

8. How will the site be serviced and who will provide the service? Please confirm that the service provider has the additional capacity for the development. (e.g. Rand Water):

   (i) Electricity

   (ii) Sewage

   (iii) Solid waste

   (iv) Water

SECTION D: FACILITY INFORMATION

Please answer the following questions	YES	NO
1. Are existing tanks being replaced with same capacity tanks?		
If replaced as a result of leaks, has a contamination assessment and remediation taken place.		
Number and size of new tanks?		
Number and size of existing tanks not being replaced (if any)?		
Combined capacity?		
2. Are existing tanks being replaced with larger capacity tanks?		
If replaced as a result of leaks, has a contamination assessment and remediation taken place.		
Number and size of tanks to be replaced?		
Number and size of new tanks?		
Number and size of existing tanks not being replaced (if any)?		
Combined capacity?		
3. Are new additional tanks being installed at an existing site?		
Number and size of new tanks?		
Number and size of existing tanks?		
Combined capacity?		
4. Are the tanks being installed at a new site?		
Number and size of tanks?		
Combined capacity?		

SECTION E: FACILITY SPECIFICATIONS

Will the tank installations mentioned above meet compliance with:	YES	NO
1. SABS 089, Part 3- with reference to the following:		
• Observation wells		
• Pipes slope back to tank		
• Non-return valve on suction line		
• Leak detection on pressure lines		
• Shear valve under dispenser		
• Overfill protection		
• Gravity fill tanks		
• Filler point containment		
2. SABS 1535, GRP-coated steel tank standards.		
3. SABS 1830, non-corrosive piping standards.		
4. Any other additional construction specifications.		
List:		
5. Any additional management practices.		
List:		

ANNEXURE 5: LIST OF SENSITIVE AREAS

1. Rivers, streams, wetlands and pans
2. Sites within the 1:100 year flood line. (This is not considered as a suitable location by the Department of Water Affairs and Forestry and location alternatives must be considered)
3. Bird Sanctuaries or adjoining properties
4. Proclaimed Nature Reserves, protected natural environments or adjoining properties
5. Properties subject to any statutory conservation status or similar, including, but not restricted to, National Parks, Provincial, Local or Private Nature Reserves, Protected Natural Environments, or adjoining properties
6. Any area that is of cultural importance, for example, historical sites, as proclaimed by the National Monuments Act
7. Any Environment Protected Area including zoned open spaces or adjoining properties
8. Areas of high ecological, cultural, social or heritage environmental importance in Gauteng, as defined by this Department [Gauteng Open Space Project (GOSP, Phase 2), 2000]
9. Ridges (the term refers to hills, koppies, mountains, kloofs, gorges etc.
10. Dolomitic or undermined areas.
11. Sensitive or major aquifers.

Note:

For the purpose of this guideline, the term "within sensitive areas" suggest a boundary of 250m from any of the areas listed in Annexure 4 above.

ANNEXURE 6: DEFINITIONS

In this document, unless the context requires otherwise –

Agriculture and temporary tank installations
means tank installations for agricultural purposes on farms or tank installation for projects of a temporary nature such as road works, construction activities and other civil projects.

Commercial site
means a site where tank installations are used for the storage of hazardous or dangerous substances and which do not fall under the definition of filling stations below.

Cumulative impact
refers to impacts on the environment that take place so frequently in time or so densely in space that the effects cannot be assimilated by the environment;

Industrial area:
means an area zoned as industrial as defined under the town planning scheme.

In proximity of existing filling stations
means within three (3) kilometres radius of an existing filling station (urban/ built-up/ residential area), or within twenty-five (25) kilometres radius of an existing filling station in other instances (e.g. rural areas, and along highways and national roads).

Filling stations:
means petrol facilities, service stations, public garages, highway filling stations, petroports and fuel depots.

Sensitive area
refers to the areas listed in Annexure 4 or in close proximity thereof.

Synergistic effect
refers to the impacts from one activity combined with those of another to produce a greater impact or different impact.

Upgrade
means the relocation of existing storage tanks, installation of additional storage tanks, replacement of storage tanks where there is an increase in total storage capacity, total demolition and rebuilding of filling stations where there is either an increase in the capacity or change of location of a filling station.