AfriForum

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The Director-General
Department of Forestry, Fisheries and the Environment
Attention: Mr S. Moganetsi
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By email: Smoganetsi@dffe.gov.za

cc: mmasondo@dffe.gov.za

Dear Mr Moganetsi

SUBMISSION OF COMMENTS ON PROPOSED REGULATIONS RELATING TO ONSHORE PETROLEUM EXPLORATION AND PRODUCTION REQUIRING FRACTURING TECHNOLOGY

AfriForum hereby submits its formal comments on the proposed regulatory framework for onshore petroleum exploration and production requiring fracturing technology, as published under Government Notices 6806, 6808, 6811 and 6818.

AfriForum is a non-profit company with registration number 2005/042861/08, registered as such in terms of the Company Laws of the Republic of South Africa with its principal place of business at AfriForum Building, corner Union and DF Malan Streets, Kloofsig, Centurion, Gauteng.

Our submission consists of two parts:

1. The first part contains legal commentary on GN6806, being the Proposed Regulations for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology, and focuses on the broader constitutional and administrative law implications of the regulations. These include concerns regarding their enabling nature, rationality, and the adequacy of the current governance and enforcement framework within which they are proposed to operate.

2. The second part contains technical comments to addresses the substantive environmental and procedural aspects of each of the four proposed instruments, namely:

    A. GN6806 – Proposed Regulations for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology.
    B. GN6808 – Minimum Information Requirements for the Exploration and Production of Onshore Petroleum Requiring Fracturing Technology.

C. GN6811 – Minimum Information Requirements for Baseline Monitoring for Onshore Exploration Operations.
D. GN6818 – Onshore Well Decommissioning Guidelines.

This technical submission evaluates the adequacy, clarity, and enforceability of the proposed requirements, with specific reference to water resource protection, baseline data integrity, monitoring obligations, and long-term environmental risk management.

AfriForum supports the development of a coherent and constitutionally compliant regulatory framework. However, as set out in our comments below, we remain concerned that the proposed framework, in its current form, does not sufficiently account for South Africa's water scarcity, administrative capacity constraints and the long-term environmental risks associated with hydraulic fracturing.

We trust that our comments will receive consideration. Should the Department require any clarification in respect of the submission, we remain available to engage further.

Yours sincerely

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PART 1: LEGAL COMMENTARY ON THE BROADER CONSTITUTIONAL AND ADMINISTRATIVE LAW IMPLICATIONS OF THE PROPOSED REGULATIONS

1. The present submission is directed primarily at the enabling nature of the Proposed Regulations for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology published under GN6806 (Regulations).

2. The Regulations do not merely regulate an existing activity but establish the legal conditions under which hydraulic fracturing may proceed in South Africa. In this sense, they functionally lift the moratorium on fracking and normalise a high-risk extractive activity under current governance conditions. This places a heightened constitutional duty on the State to demonstrate that effective oversight, monitoring, and enforcement capacity exists in practice, not only in theory.

3. While AfriForum acknowledges the Department's efforts to introduce a structured, phased environmental authorisation process and to align the Regulations with existing environmental management legislation, it is concerned that several provisions rely on assumptions of monitoring capability, inter-governmental coordination, and enforcement capacity that are not currently borne out in practice.

4. The purpose of this submission is therefore to highlight key thematic concerns arising from the Regulations, with specific reference to environmental protection, administrative capacity, regulatory coherence, public participation, and constitutional compliance. Unless commentary on a specific provision is expressly required, AfriForum's submissions are structured thematically to address the systemic implications of the regulatory framework as a whole.

Environmental Risk Allocation and Water Security

5. AfriForum acknowledges that the stepwise environmental authorisation approach, requiring authorisation for each phase of petroleum activities, is in principle consistent with adaptive environmental management and cumulative impact assessment.

6. However, AfriForum is concerned that the Regulations do not sufficiently account for South Africa's structural water scarcity and the existing administrative incapacity to monitor complex, water-intensive industrial activities at scale.

7. While the Regulations include restrictions on the use of potable water for fracturing and requirements relating to the management and disposal of fracturing fluids and waste streams, the enforceability of these provisions remains unclear. The Department has not demonstrated how real-time monitoring of water abstraction, transport, storage, re-use, and disposal will be implemented, particularly in remote and environmentally sensitive onshore areas.

8. AfriForum further submits that groundwater contamination risks associated with hydraulic fracturing are not limited to the fracturing process itself, but arise primarily from well integrity failure, surface handling of chemicals and waste streams, and long-term

abandonment of wells. These risks may only materialise years or decades after authorisation has been granted. In a water-scarce country, the irreversible loss of groundwater resources cannot be mitigated through post hoc enforcement or remediation, underscoring the need for a precautionary approach.

9. In the absence of demonstrable monitoring capacity, these restrictions risk remaining aspirational rather than protective. In a water-stressed country, environmental regulation must be grounded in enforceability rather than policy intention.

Fragmentation of Regulatory Oversight and Decision-Making

10. The Regulations rely on coordination between multiple authorities, including environmental, water, and petroleum regulators. While cooperative governance is contemplated, AfriForum is concerned that the framework assumes a level of institutional coordination and capacity that does not exist in practice.

11. AfriForum is particularly concerned that the Regulations assume that institutional coordination failures can be addressed through synchronised and fixed decision-making timeframes. In practice, synchronisation under conditions of administrative incapacity creates pressure to proceed in the absence of substantive evaluation, rather than serving as a safeguard. This is especially problematic where water-related risks are concerned, and where delay is more likely to reflect capacity constraints than deliberate inaction.

Administrative Capacity and Authorisation Volume Risk

12. The phased authorisation framework envisaged by the Regulations will result in a high volume of technically complex environmental authorisation applications. South Africa's environmental authorities already face significant backlogs and capacity constraints.

13. Without dedicated specialist capacity, there is a real risk that authorisations may be granted without adequate technical scrutiny, or that approval delays will undermine regulatory certainty. AfriForum submits that the Department should demonstrate that sufficient specialist resources, funding, and institutional capacity exist to implement the Regulations effectively.

Deemed Approvals and Approval-by-Default Risk

14. AfriForum is concerned that the Regulations permit regulatory processes to proceed where required concurrence or input from another competent authority is not provided within prescribed timeframes. In a governance context characterised by chronic administrative backlogs —particularly within water governance— this effectively converts administrative silence into legal permission. Such approval-by-default mechanisms reverse the precautionary principle and are incompatible with reasoned administrative decision-making as required by section 33 of the Constitution and the Promotion of Administrative Justice Act, 2000.

Risk of Regulatory Formalisation Creating Compliance Cover

15. AfriForum is further concerned that the formalisation of fracturing activities through a regulatory framework may inadvertently create a perception of environmental acceptability, even where operational risks remain significant.

16. Experience in other extractive sectors demonstrates that compliance often becomes document-based rather than enforcement-driven once authorisations are granted. In remote onshore contexts, this creates a risk that non-compliant conduct may go undetected for extended periods.

17. AfriForum further notes that the Regulations assign extensive operational, reporting, and monitoring functions to the "designated agency" contemplated in section 70 of the Mineral and Petroleum Resources Development Act, 2002, namely the Petroleum Agency of South Africa (PASA). PASA's statutory mandate is primarily developmental and technical in nature. Vesting such an agency with a central coordinating role in a synchronised regulatory system risks marginalising environmental and water authorities, thereby diluting accountability for environmental harm.

Public Participation and Meaningful Consultation

18. AfriForum supports the emphasis placed on public participation and meaningful consultation. Given the long-term and potentially irreversible impacts associated with hydraulic fracturing, meaningful public participation cannot be confined to once-off procedural engagement at the authorisation stage.

19. Affected communities require continuous access to baseline environmental data, monitoring results, incident reports, and compliance information through independent, state-managed mechanisms. Absent such transparency, public participation risks becoming procedural rather than substantive.

20. This approach will inadvertently align with the constitutional obligations contained in section 24, 32 and 33 of the Constitution of the Republic of South Africa.[1]

Constitutional Rationality and Intergenerational Equity

21. Section 24 of the Constitution requires the State to prevent pollution and ecological degradation while promoting sustainable development for present and future generations.[2]

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[1] *Section 24: "Everyone has the right— (a) to an environment that is not harmful to their health or wellbeing; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that— (i) prevent pollution and ecological degradation; (ii) (iii) promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.*

...

Section 32: (1) (2) Everyone has the right of access to— (a) any information held by the state; and (b) any information that is held by another person and that is required for the exercise or protection of any rights. National legislation must be enacted to give effect to this right, and may provide for reasonable measures to alleviate the administrative and financial burden on the state.

...

Section 33: (1) (2) (3) Everyone has the right to administrative action that is lawful, reasonable and procedurally fair. Everyone whose rights have been adversely affected by administrative action has the right to be given written reasons. National legislation must be enacted to give effect to these rights, and must— 13 Chapter 2: Bill of Rights (a) provide for the review of administrative action by a court or, where appropriate, an independent and impartial tribunal; (b) impose a duty on the state to give effect to the rights in subsections (1) and (2); and (c) promote an efficient administration."

[2] See note 1 above.

22. AfriForum submits that regulation which enables a high-risk activity to proceed in circumstances where enforcement capacity is demonstrably inadequate, and where key decisions may be deemed rather than expressly taken, is irrational and constitutionally inconsistent. Where the risk of harm is foreseeable and potentially irreversible, the Constitution requires restraint rather than regulatory optimism.

Conclusion

23. AfriForum acknowledges the Department's efforts to provide regulatory certainty in a complex and emerging sector. However, regulation alone does not ensure environmental protection.

24. Until South Africa can demonstrate effective enforcement capacity, independent oversight, and explicit, reasoned decision-making by all competent authorities—particularly in relation to water resources—the introduction of hydraulic fracturing presents an unacceptable constitutional and environmental risk.

PART 2: TECHNICAL COMMENTS TO ADDRESS SUBSTANTIVE ENVIRONMENTAL AND PROCEDURAL ASPECTS OF THE PROPOSED REGULATIONS

A. Review of GN 6806 – Consultation on the Proposed Regulations for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology

Chapter 1 – Definition, purpose, and application of these regulations

1. Clarity must be provided why "API standard" means the relevant American Petroleum Institute Standards is used and not a South African standard.

2. The term "blowout" must include a reference to the fluid that is pumped into the well. It may be contaminated and must be contained.

3. Liquid that does not meet this standard must also be defined:

   "Liquid waste" means water that has been contaminated with waste products from the hydraulic fracturing operation that can pass through a 0.45-micron filter at a pressure differential of 0,5Mpa."

Chapter 2 – Prohibitions and restrictions

Prohibited Activities

4. Item 4 (a) - the preparation of slurry for cement mixtures cannot be included in the allowable water abstraction– large volumes of water will be used and must be sourced elsewhere – i.e. reverse osmosis plants.

5. Item 4 (c) - The South African Water Quality Standard Guideline Volume 1 to 8 must be referenced. It is not necessary to create a new standard.

Prohibited Areas

6. Item 5 e, f, g, h, i. The distances are arbitrary and has no scientific foundation. The method of determining the suitable distance must be required and the reason for the distances must be provided. Different geological formations require different distances, and arbitrary distances cannot be used.

Restricted areas

7. Item 6 a and b – same comment as under item 6. The arbitrary distances will not prevent impact. Aquifers are often many square kilometres, and the purpose of a 5 km distance will not prevent impact. The rule must be that NO fracking occurs in an aquifer that services municipal infrastructure.

Chapter 3 – Requirements for the Exploration or Production of Onshore Petroleum Requiring the Use of Fracturing Technology

8. Item 7 b. The required format and contents of the pre-fracturing baseline assessment must be stipulated. It must contain every aspect that could be impacts, to include environment, economic, social, socio economic, health, agricultural impact etc.

9. Item 7 d f – the requirement for monitoring is worthless unless a reaction strategy and plan is provided. Any negative results must be accompanied by a remedial action.

Submission of applications and implementation of monitoring plans

10. Item 8 (1) there must be a time limit between acceptance of the application for exploration and the submission of the application for environmental authorisation.

11. Item 8 (s) the Environmental Impact Assessment Regulations does no stipulate timeframes for all these documents – i.e. A baseline monitoring plan of not described in NEMA regulations.

12. Item 8 (c) placing the responsibility to obtain concurrence DWS on the competent authority open the process up for whitewash and / or corruption.

13. Item 9 the proposal to only submit a scoping report and EIA after the baseline monitoring is completely unacceptable. The baseline monitoring must be preceded by an impact assessment of all aspects. The exploration may have an extreme impact on the environment (biological, social, socio economically and health) and cannot be allowed without an Impact Assessment.

14. Item 12 – Again – monitoring without a rectification plan or strategy is not acceptable. Every negative monitoring result MUST have a rectification action associated with it.

15. Item 12 and 13 – the sequence of processes is missing here. How does the regulation go from discussing a monitoring plan under item 12 to an application for production right under item 13?

16. Item 13, the application for production right must refer to certain minimum standards in the regulations.

17. Item 14 (c) lacks the necessary details – a site plan must be added, civic infrastructure, access, water courses, rectification plans to meet potential negative monitoring results, health protection plan, staff accommodation, storage of drilling fluid etc.

18. Item 17 – Monitoring without rectification plans is worthless, a set of data without the requirements to rectify negative impacts or occurrences has no value.

Chapter 4 – Standards for the Exploration or Production of Onshore Petroleum Requiring the Use of Fracturing Technology

19. Item 9 – any deviation must be assessed in the same manner as the original proposal. An alternative of deviation cannot be accepted without an impact assessment that was conducted to the same level of detail that generated an authorisation. The risk here is enormous, an applicant will submit a mediocre plan on an area of little impact and then

change it without a full impact assessment immediately after securing the production rights.

20. Item 14 (1) clarification must be provided on the term "designated agency".

Chapter 5 – Operations and Management

21. Items 18 and 19 – designated agency must include any of the statutory bodies that must provide approvals required for it to seize, i.e. SAHRA, DWS, municipality etc.

Disclosure of information

22. Item 20 (1) is impractical - How would the public know where the information will be available?

23. Item 21 (d) the final rehabilitation, decommissioning and closure plan, must be scrutinized during the EIA, since the impact must be assessed.

24. Item 21 (g) it is not clear if the monitoring refers to the operations period, decommissioning period, or the post rehabilitation period.

Chapter 6 – General

25. Item 22 (4) when will the potential radioactivity be established?

Appendix 1 – Well Construction Standards

26. The standards are finite and does not relate the onsite conditions. Performance standards that relate to any condition must be used rather than finite standards or instructions.

27. For example – cement mixtures can be compiled with various ratios – to indicate compressive strength of 3447.38 kPa (500psi), ignores the mixture.

Appendix 3 – Standard Conditions Applicable to an Environmental Authorisation for an Exploration and Production Activity

28. These conditions are unnecessary, since site specific conditions are provided in each EA, while standard conditions are set by each mandated authority, based on the site conditions or application details.

29. This Appendix is added to whitewash the regulations – it is completely unnecessary.

B. Review of GN 6808 – Consultation on the Intention to Prescribe Minimum Information Requirements for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology

General comments

30. The minimum information requirements are completely unnecessary since it is already contained in the NEMA regulations 2014 as amended 2017.

31. To rewrite the NEMA regulations in a different format and manner, is unnecessary, and seems to be provided to confuse stakeholders. It is not clear if these regulations override the NEMA regulations, or if it supplementary. The actual purpose is NOT clear.

32. Specialist studies must include a Radiation assessment since the NNR clearance is required.

33. Specialist studies must assess toxic, carcinogenic, and hazardous fluid / material to be transported, stored and disposed of.

34. Specialist studies must include seismic activity and vibration assessments and monitoring.

35. Any Integrated operational monitoring plan must require remediation measures, or method statements must be provided.

36. Well layout must include all associated infrastructure requirements, such as water provision, access roads and sewage treatment or disposal.

37. Socio economic assessments are conducted by sociologists and or socio economists – not psychologist. A psychologist knows little about economics, it is thus highly inappropriate for a psychologist to compile a socio-economic assessment. Independent Socio-Economic Specialists: Consultants hired to ensure objectivity, often with expertise in economics, sociology, or development.

38. The MIR should not attempt to prescribe the requirements of other acts, such as the OSHA. NWA or NHRA.

39. The MIR requires aspects of one specialist to be included in another's reports such as: under section 2.17.2 contents of the hydrology study, the ecological status must be provided. These requirements are completely contradiction to the NEMA regulations. It thus raises the question of the authority of this MIR.

40. The contents of reports such a storm water management, traffic impact assessments that must be compiled to the requirements of the local municipality who is the mandated authority to review and approved these studies, cannot be prescribed by these MIR. The MIR requires that the traffic impact assessment makes statements on air quality, bird strikes, oil spills from trucks, visual impact assessment, sense of place etc, which should be addressed in the relevant studies and not a traffic study.

41. Many requirements are repeated from regulation 6806 to 6808 which is confusing and unnecessary and requires duplication of data that confuses and bulks up the submission.

42. Town planning and the local municipal requirements and or the by-laws are not mentioned. The MIR tries to identify all statutory requirements but excludes the local municipal requirements.

43. Item 2.24.3 that addresses the Impact Assessment is two sentences. The MIR try to stipulate the contents of the report but has no opinion of the impact assessment. This is a fatal flaw, since it should be the focus of any guideline that prescribe the contents of a NEMA process.

44. Cumulative impact is not recommended and is a fatal flaw of the MIR.

C. Review of GN 6811 – Consultation on the Intention to Prescribe Minimum Information Requirements for Baseline Monitoring for Onshore Exploration Operations

45. These requirements are far more practical and logical than *GN 6808 – Minimum Information Requirements for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology*.

46. It is thus suggested that GN 6808 be abandoned and these requirements adopted and expanded to include the exploration and production phases also.

47. Once the baselines have been established the potential impacts can be determined and addressed in the applications for exploration and production. However, the exploration and production regulations require additional assessments that are not provided for in the base line assessments.

48. This MIR duplicates several items contained in reg 6806 and 6808 which is confusing. Each regulation must focus on its own merits. Repeating significant sections of text can be avoided and references to other regulations, will significantly reduce the text in each regulation.

49. Also, repeating existing NEMA regulation is unnecessary and confusing. Only one set of regulations must guide applications under NEMA.

50. As per the NWA Regulations for Naturally Occurring Hydrocarbon, a water use license must be completed for exploration and production. A Water Use License must be required even for the approval of the baseline monitoring plan. Serious impact could be associated with the exploration for which the base lines are conducted, and if a WUL is not completed, the potential impacts cannot be identified.

51. These regulations duplicated the information contained in *GN 6808 – Minimum Information Requirements for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology*.

52. These duplications are extremely confusing and unnecessary. Ther must be combined into a logic document that is concise and yet comprehensive without duplication.

53. Under some of the specialist studies and baseline monitoring process, impact assessment is required. It is not appropriate when the potential development has not been established. Impact can only be determined during the application for exploration and production it provided.

    Under item 3 of this set of regulations, it is stated clearly:

    Baseline monitoring involves determining the reference conditions of key environmental attributes against which changes to the reference condition of these attributes, can be measured over time. It is important to undertake baseline monitoring where projects have various phases, and the impacts will increase over time due to the incremental expansion of the wells, structures and infrastructure and the changing nature of the activities.

An assessment of monitoring results during the fracturing and production phases against the baseline conditions will provide an understanding of the cumulative impacts of the operations and allow for the ongoing determination of the limits of acceptable change, i.e., the acceptability of impacts at the various phases. At each phase the impacts must remain acceptable with or without mitigation. South Africa is in a fortunate position that baseline monitoring will be able to be undertaken prior to any fracturing commencing.

54. Several inconsistencies in the description of the processes are found in every document.

Part 2
Environmental Impact Assessment

55. This section must be contained in *GN 6808 – Minimum Information Requirements for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology*.

56. It is not possible to determine the impact if the proposed development extent, nature, contents, infrastructure requirements, operational plans, etc are not available.

57. Since the baselines are still being established, the locations of wells and all its associated infrastructure cannot be located. If it is done at this stage, it will not be responsive to the environment and findings of the baseline studies.

58. Impact will thus NOT be avoided in response to the site characteristics. The well will be placed in the optimal location as per the engineer's recommendation and no consideration will be given to site conditions. Mitigation measures will be the only option. Avoidance will not be considered, and site conditions will not dictate the well location to ensure the least impact will be caused.

59. Potential impact can only be assessed once full, resource requirements, development and operations plan are available, and these are NOT available during the base line assessments.

60. Only once the sensitivity maps are available, can the well planning start.

61. Similarly, the EMPr can only be compiled during the exploration and production application when the baseline data is available, and the full set of development extent, nature, contents, infrastructure requirements, and operational plans are available.

62. For the same reasons, the Impact Assessment cannot be done in the base line compilation phase, the EMPR must be contained in the *GN 6808 – Minimum Information Requirements for the Exploration and Production of Onshore Petroleum Resources Requiring Fracturing Technology*.

D. Review of GN 6818 – Consultation on the Intention to Prescribe Onshore Well Decommissioning Guidelines Prepared by Petroleum Agency SA

63. This document is compiled by experienced individuals that have significant knowledge and competency.

64. It is clear, concise, and applicable to the tasks that must be completed under this decommissioning phase of the project.

65. No further comment.

General Comments

66. The regulations refer to the American standards; however, it seems that the Norwegian and UK standards are used in international literature more that the USA standards.

67. The document Shale Gas Development in the Central Karoo: A Scientific Assessment of the Opportunities and Risks, compiled by the CSIR, SANBI and the Council for geoscience must under all circumstances be used a guide to the site characteristics in the study area and any scientific information must be provided to CSIR for including in the data base of the project area.