

Advisory Review on the Addendum 1
for the Environmental Impact Statement for the
West African Gas Pipeline

31 August 2004

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Utrecht, the Netherlands Commission for
Environmental Impact Assessment

Advisory Review on the Addendum 1 for the Environmental
Impact Statement (EIS) for the West African Gas Pipeline,
Ghana

Advice (Additional Review) submitted to the Environmental Protection Agency,
Ghana, by a working group of the Commission for Environmental Impact
Assessment in the Netherlands.

the technical secretary



Ms. Ineke Steinhauer

the chairman



Mr. Klaas Jan Beek

Utrecht, 31 August 2004



commission for environmental impact assessment

Environmental Protection Agency
P.O. Box M-326 (Ministries),
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Attn: The Executive Director,
Mr. J.A. Allotey

your reference

your letter of
17 August 2004

our reference
054-045 (ats) Sh/Mz

subject
Advisory review on the Addendum 1 for
the EIS for the West African Gas Pipeline

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Utrecht,
31 August 2004

Dear Mr. Allotey,

By letter dated 17 August 2004, you invited the Commission for Environmental Impact Assessment (the Commission) to advise on the Review of the Addendum 1 of the Ghana Environmental Impact Statement of the West African Gas Pipeline (WAGP). It is my pleasure to submit herewith our comments, which can be used in the review process of your review team, which is planned to start its work early September 2004. Because of the limited number of observations, the Commission has chosen to present its comments in the form of a letter to you.

First of all, I would like to draw your attention to the following points:

- Unfortunately, our expert on ecology and social impact was not available to contribute to this review due to other obligations on a mission abroad. However, as most aspects in the Addendum deal with engineering and safety aspects, we feel that our comments cover the Addendum to a great extent. The Resettlement Action Plan Ghana of June 2004 however, has not been part of the review due to the absence of the Commission's expert in this theme.
- The following documents have been used for review: (i) West African Gas Pipeline Project EIS, EPA Technical Review Report, May 2004 and (ii) Ghana Final Draft Addendum 1 Environmental Impact Assessment WAGP, July 2004, including 2 CD's containing offshore and onshore technical reports, drawings and specifications. The Ghana Final Draft EIA Report, Rev. 1, was not available for review.

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The Commission has the following **general remarks**:

- The responses in the Addendum to the comments on the draft EIS are well done: clear answers, several additional maps and additional text items have been incorporated in the Ghana Final Draft EIA Report (Rev.1). The Commission has not been able to verify these additional texts, and therefore advises the EPA review team to do so.
- WAPCO indicates that several additional studies will be carried out in relation to the detailed design phase, which is very correct.
- WAPCO has initiated discussions with third parties which have a role to play in safety and environmental aspects.
 - Ghana Port Authorities are expected to contribute to the prevention of damage to the pipeline caused by ships, and construction activities in the port area.
 - Tema Development Co-operation is expected to oversee developments adjacent to the pipeline and Regulating and Metering Station.The Commission advises to record the outcome of these discussions in an Agreement or a MoU, with copies distributed to the parties involved.
- WAPCO states in various responses that 'suggestions by the reviewer will be evaluated and adopted if technically feasible and cost effective. A balance between significant environmental benefits and project costs will be achieved'. Costs however, cannot be the argument for ruling out alternative options on beforehand. The Commission therefore recommends that the weighing procedure of alternatives and variants is as transparent and reproducible as possible. The relative weights given to social and environmental criteria should be clearly shown as compared to the criteria 'financial or economic feasibility'. It is EPA as a licensing authority (and not WAPCO) who decides subsequently which alternative option should be adopted. This can be put as a precondition in the license.

Detailed remarks are:

- Safety aspects of Pipeline Offshore: At Tema, the pipeline is located in the port area, and is close to the anchorage, leading to increased risks for pipeline integrity. The Addendum does not demonstrate that changes and/or improvements in port management practice will reduce this increased risk to acceptable levels. At the other hand the reported cost of adequately protecting the pipeline merits consideration. The Commission reiterates its recommendation that a quantitative risk analysis of the pipeline in the Tema Port Area be carried out. This enables the authorities (representing the public interest) to determine which risks require reduction.
- As for impact by future dredging, WAPCO must be involved in both the planning and the implementation phase of such activities in the vicinity of the pipeline to ensure pipeline integrity. All too often contractors make mistakes. Work should only start after WAPCO due diligence and approval. In many countries legislation to this effect has been enacted.
- WAPCO is still looking at only 2 options to protect the offshore pipeline, being 8 m and 30 m water depth. Depending on a correct risk analysis, including the draught of the ships, and the international standards for protecting the pipeline, an option somewhere between 8 m and 20 m water depth would be more likely.

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- HSE Risk analysis: The EIS (Rev 1) is reported to contain improvements. As the Commission was not able to review this report, it is recommended that EPA checks whether arrangements are foreseen with the Ghanaian Authorities with respect to communications, responsibilities, incident response plans, (warning of population, shutdown procedures for plants in the area, evacuation, medical services etc.). Also near incidents should be included in the plans. Example: A malfunction in the R&M station may warrant a preventive limited evacuation, and closure of roads in the immediate area. Because this type of incident is expected to be rare, planning and training are required.
- Spatial Planning: Since no additional pipelines are expected to be developed by WAPCO, it could be considered to position the pipeline in the centre of the ROW, thereby increasing the safety distance to ca. 12 meters.
- Control over future developments: As recent events in Belgium have shown, low probability events do occur and highlight the importance of ROW control, inspection and zoning, as well as demands being made on emergency services. Also in Ghana low-probability events should be addressed. Working with the authorities remains a priority.

The Commission wishes to express its satisfaction on the fact that EPA has been able to improve the quality of the EIS through its involvement asking for an Addendum. The Commission considers that there is sufficient information available now to proceed with decision making. It is recommended that EPA asks for the quantitative analysis report once ready and the international standards WAPCO claims to adhere to. It is also recommended to pay attention to the follow-up of the stakeholder consultation as soon as final decisions of the project have been taken.

Finally, I would like to draw your attention once more to the questions I also raised in my letter to you on April 26: How does the WAGP relate to the energy planning and distribution in Ghana, how can the people of Ghana benefit from WAGP, how are social benefits claimed by the WAGP reflected in the Ghana Poverty Reduction Strategy or can they be integrated? Will the WAGP cause induced development, what kind of foreseeable new developments should be anticipated? These issues could be addressed perfectly in an SEA on the energy sector, which is now proposed as a possible programme item of the Phase III SEA for the GPRS.

The Commission appreciates to be informed on next steps and is willing to assist if deemed necessary.

K.J. Beek

Chairman Working Group

West African Gas Pipeline

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