

環境チェックレポート

- (1) プロジェクト名
製油所増設プロジェクト
- (2) 実施場所
大韓民国全羅南道
- (3) プロジェクト概要
製油所の増設
- (4) カテゴリ分類
カテゴリ A
- (5) カテゴリ分類の根拠
本プロジェクトは、環境ガイドラインに掲げる影響を及ぼしやすいセクター（石油精製セクター）に該当するため。
- (6) 環境許認可
同国制度に基づき EIA が作成され、1992 年 3 月 31 日付で同国地方政府より承認を取得済みである。
- (7) 汚染対策
大気質、騒音・振動の計画値は現地基準を満たすとともに、世銀基準を下回る見込みである。水質は現地の基準を満たすよう適切に処理される計画である。廃棄物は同国制度に基づき適切に処理される計画である。
- (8) 自然環境面
本プロジェクトは、同国で指定している自然環境保護区には立地せず、自然環境面での特段の懸念はない。なお、サイト周辺の山林において IUCN の危急種に該当するシカ科の生息が確認されている。
- (9) 社会配慮面
本プロジェクトサイトは既存の工業団地内に立地するため、本プロジェクトの実施により住民移転等は発生せず、その他周辺住民の生活への影

響も発生しない見込みである。

(10) その他・モニタリング

本件については、大気質及び陸域生物についてモニタリングを行う。

以 上

Questions

Q1. Please provide the address of the project site.

Address of the project site : 3 Block National Industrial Complex Extension, Jeokryang-dong, Yeosu, Jeonnam 555-270, Korea

Q2. Please provide brief explanation of the project.

No.3 HOU is a heavy oil upgrading facility that yields clean light petroleum products such as gasoline, diesel, and kerosene, feeding high sulfur fuel oil.

The objective of this project is to strengthen the company's competitiveness for the sustainable profit growth in petroleum industry under rapidly changing business environment.

The project enables the company to achieve higher profit by producing high value-added products while reducing fuel oil production. Crude oil cost will be reduced by processing low-cost, high-sulfur crude as feedstock.

No 3 HOU also gives a positive opportunity to the company as an eco-friendly project to comply with the future environmental regulations.

Process Configuration :

- Stage 1 : **VR HCR (Vacuum Residue Hydrocracker)**
Hydrogen Manufacturing Plant
Sulfur Plant (Sulfur recovery process)
Related Utility and Offsite
- Stage 2 : **VGO FCC (Vacuum Gas Oil Fluidized Catalytic Cracking)**
Related Utility and Offsite

The company started the project on Mar. 2007 and targets to finish mechanical completion on Aug. 2010 for Stage 1 and on Oct. 2012 for Stage 2.

The company has maintained long-term close relationship with many Japanese vendors in respect to technical cooperation and equipment purchase. We expect the strong relationship with various Japanese vendors will continue going forward and moreover, active businesses could contribute Japanese economy by promoting exports.

Q3. Will JBIC loan be applied to a new project or an executing project? In case of executing project, please inform the presence of strong claims by local residents.

- | | |
|--|---|
| <input checked="" type="checkbox"/> New Project | <input type="checkbox"/> Executing Project (with Claim) |
| <input type="checkbox"/> Executing Project (without Claim) | <input type="checkbox"/> Others (Please specify _____) |

Q4. In case of this project, is it necessary to execute Environmental Impact Assessment (EIA) based on the laws or regulations? If necessary, please inform the progress of EIA.

- | | |
|--|---|
| <input checked="" type="checkbox"/> Required (Completed) | <input type="checkbox"/> Required (Under execution or under planning) |
| <input type="checkbox"/> Not Required | <input type="checkbox"/> Others (Please specify _____) |

Q5. In case that EIA is already completed, please inform whether EIA report is already approved based on the environmental assessment system or not. If EIA report is already approved, please provide the date and name of authorities of the approval.

※ Note : Korea Water Resources Corporation, owned by Korean government reclaimed 799ha of the land to construct Yeosu National Industrial Complex. The company purchased 66 ha of the reclaimed land from the government to build No.3 HOU, adjacent to the No.2 HOU plants.

Q10. Please reply to this question only in case that the project involves some of the above (1) to (4) elements. In the country where the project is planned, are there any regulations on a scale of the elements asked in question 9? If the country has such regulation, please answer whether the project satisfies the regulation or not.

- Regulation is applicable (satisfied not satisfied) No regulation
 Others (Please specify)

Please reply to questions 11 and after.

Q11. Will JBIC share in the project be equal or less than 5% of the total project cost, or the total amount of JBIC loan equal or less than SDR 10 million?

(Yes / No)

If you answered "Yes", it is not necessary to reply to the following questions.
If you answered "No", please reply to questions 12 and after.

Q12. Does the project belong to either of the sectors that impact on the environment is deemed immaterial or is not anticipated under normal conditions (e.g. maintenance of the existing facilities, non-expansionary renovation project, acquisition of rights or interest without additional plant investment)?

(Yes / No)

If you answered "Yes", it is not necessary to reply to following questions.
If you answered "No", please reply to the questions 13 and after.

Q13. Does the project belong to the following sectors?

(Yes / No)

If you answered "Yes", please specify the sector by marking, and reply to questions 14 and after.
If you answered "No", it is not necessary to reply to the following questions.

- (1) Hydro power plant, Dam or water reservoir
- (2) Thermal power plant
- (3) Mines
- (4) Development of oil and gas
- (5) Pipeline
- (6) Steel industry (with large scale furnace)
- (7) No-ferrous metal refining
- (8) Petrochemical (including manufacturing of raw materials and petrochemical complex)
- (9) Terminal of oil, gas and chemicals
- (10) Petroleum refining
- (11) Paper and pulp
- (12) Manufacturing and/or transportation of hazardous substances (specified by international agreement)
- (13) Road, railway or bridge
- (14) Airport
- (15) Port
- (16) Waste material processing or treatment

- (17) Treatment of sewage and/or waste water that includes hazardous substances or executed at environmentally sensitive area
- (18) Power transmission and/or distribution lines (including large scale involuntary resettlement, large scale deforestation or submarine cable)
- (19) Tourism (Construction of hotel, etc.)
- (20) Forestry or tree planting
- (21) Agriculture (large scale project and/or project including irrigation)

Q14. Please provide information on the scale of the project (project area, area of plants and buildings, production capacity, amounts of power generation, etc.) Further, please explain whether an execution of EIA is required on account of the large scale of the project in the country where the project is implemented.

Site Area : 678,000 m² including building area of 33,000 m²

Major Unit Capacity

- VR HCR (Vacuum Residue Hydrocracker) Unit : 60,000 BPSD
- VGO FCC (Vacuum Gas Oil Fluidized Catalytic Cracking) Unit : 53,000 BPSD
- Sulfur Plant : 450 Ton/day (150 Ton/day x 3 trains)
- Hydrogen Plant : 110 MMSCFD
- Utility and Offsite

Amounts of Power Generation : 10 MW

EIA is required when industrial location and industrial complex are 150,000 m² or bigger.