Approach and Methodology for Assessment of the Pak Lay Hydropower Project

Dam Safety

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Overview of the Submitted Documents

Approach for Technical Review

Methodology
I. Overview of Submitted Documents

The Pak Lay FSR relates to “Dam Safety”

• Chapter 2 – Hydrology (82 pages)
• Chapter 3 – Engineering Geology (165 Pages)
• Chapter 5 – Project Layout and Main Structures (245 Pages)
• Chapter 8 – Project Management Plan (61 Pages)
• The review of the FSR by CNR (121 Pages)

Panoramic View at Upper Dam Site (Look to D/S)
I. Overview of Submitted Documents (Cont.)

The Pak Lay FSR makes **reference** to:

- MRC Preliminary Design Guidance
- Lao Electric Power Technical Standards
- ICOLD and the World Bank Guidelines

However, the FSR has been based on Chinese standards.

In order to address:

1. **The safety issues** related to geology, earthquake, flood risk, structural layout associated with location, scale and structure of the dam

2. Initial plan for Emergency Preparedness Plan (**EPP**) and Dam Safety Management System (**DSMS**)
II. Approach for Technical Review

• To **provide a preliminary finding** of the Pak Lay Hydropower Project Feasibility Study Report (FSR) with respect to **Dam Safety requirements**
  • Chapter 2 – Hydrology
  • Chapter 3 – Engineering Geology
  • Chapter 5 – Project Layout and Main Structures
  • Chapter 8 – Project Management Plan
  • The review of the FSR by CNR

• To **suggest (for consideration)** the provision of additional information and investigations review for the PNPCA process
II. Approach for Technical Review

**Approach**

- **Review of the relevant documents and Specifications** to confirm compliance with the relevant Dam Safety Standards
- **Assessment of the relevant design parameters** adopted, the Risk Assessments undertaken and comparing consistency across Lower Mekong Dams
- **Provide recommendations** on actions to improve the content closer matched with the PDG

**Expert Resources**

- **MRCS expertise**
- **Independent external expertise**
  - National Dam Safety Experts
  - International Dam Safety Expert
III. Methodology

To review the safety design of dam as described in the FSR and to draw attention to any non-compliance with MRC PDG.

To provide recommendations on actions that could help to improve the current content as to ensure a closer match with the PDG.

To identify and provide recommendations related to any other issues requiring follow-up so that priorities can be readily established for improvement, remedial measures, or additional investigations.

Include the MRC JC comments related to Dam Safety into the TRR.

The recommendations of the Dam Safety must be included in any possible Statement and must be followed up by a JAP - Observed/implemented during the overall process of design, construction and operation.
Thank you