

Susitna-Watana Hydroelectric Project Document ARLIS Uniform Cover Page

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April 29, 2014

Mr. Douglas L. Johnson, P.E.
FEDERAL ENERGY REGULATORY COMMISSION
Regional Engineer, Portland Regional Office
Division of Dam Safety and Inspections
805 S.W. Broadway, Suite 550
Portland, Oregon 97205

Subject: Board of Consultant Meeting #4
Susitna-Watana Hydroelectric Project P-14241-AK

Reference: AEA Letter to William H. Allerton, P.E. filed November 16, 2012

Dear Mr. Johnson:

The fourth Susitna-Watana Hydroelectric Project Independent Board of Consultants (BOC) meeting was held April 2-4, 2014 in Bellevue, Washington at the office of MWH Global Inc. The purpose of the meeting was to update and solicit advice from the BOC and advisors on the status of the Probable Maximum Precipitation (PMP) and Probable Maximum Flood (PMF) studies, the Site Specific Seismic Hazards Analysis studies, and the 2014 geotechnical investigation program plans. The progress of the RCC dam configuration feasibility and design studies was presented and discussed. A summary of the Boards comments follows.

The BOC agrees that if the planned site investigation program confirms that there are no shears, linear features or faults found that can negatively affect the performance of the dam, the configuration of the dam would be acceptable as a basis for further design evaluation, analysis and license application. The Site Specific Seismic Hazard Analysis (SSSHA) studies that are being conducted and presented are reasonable and appropriate for determining project feasibility and to serve as a basis for further design evaluation and optimization.

The SSSHA studies cover lineament, probabilistic, and deterministic seismic hazard analyses and are detailed enough to provide preliminary design ground motions for the project. Sensitivity analyses show that further analysis of regional crustal lineaments will not significantly impact the design ground motions in the period range of significant dam response. However, further analysis of site area lineaments and angled drill holes are necessary to assess potential for fault rupture under the dam as a result of primary, secondary, or sympathetic fault displacement.

The BOC agrees that the PMF inflow hydrograph presented in the draft PMF report represents generally appropriate assumptions and modeling methodologies and the study is sufficiently

Mr. Johnson, P.E.

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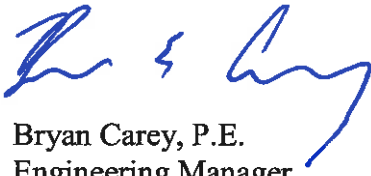
complete to be used in feasibility design.

The proposed and planned Site Investigation Program for the project entails a phased series of field investigations that respond to several of the BOC comments and concerns. The primary focus of the program is to characterize and confirm the geologic/geotechnical conditions in the dam site area. The main objectives include; 1) investigation and verification of the fracture and shear zones and geologic features, 2) evaluation of the potential for offset displacements in the foundation due to earthquake motions; 3) delineation of the frozen ground and groundwater conditions (adits) and 4) evaluation of the abutment stability. The BOC considers the present detailed and phased site investigation appropriate for developing the data for supporting the feasibility and design of the dam.

Attached are the BOC Final Report #4, the BOC Final Report #4 with AEA responses, and the BOC Comment Log for meetings 1,2,&3 with BOC comments.

Thank you for your assistance and please let me know if there is anything else you need.

Sincerely,



Bryan Carey, P.E.
Engineering Manager

cc: Mr. Wayne Dyok, P.E., Alaska Energy Authority, Susitna-Watana Project Manager
Attached Distribution List

The attachments are being made publicly available by uploading them to the "Documents" page of AEA's licensing website,
<http://www.susitnawatanahydro.org/type/documents>.

Attachments: BOC Final Report #4
BOC Final Report #4 with AEA Responses
BOC Comment Log for Meetings 1, 2 & 3 with BOC Comments