CENWD-RBT

MEMORANDUM FOR Commander, Portland District (CENWP-PM-FP/Natalie Richards)


1. References:

2. Reference 1.a. above has been prepared in accordance with reference 1.b. above.

3. The RP has been coordinated with the Business Technical Division, Northwestern Division, U.S. Army Corps of Engineers. The Review Plan includes District Quality Control and Agency Technical Review (ATR). NWD will be the Review Management Organization (RMO) for the ATR.

4. I hereby approve this RP, which is subject to change as circumstances require, consistent with the study development process and the Project Management Business Process. Subsequent revisions to this RP or its execution will require written approval from this office.

5. For further information, please contact Mr. Steve Bredthauer at (503) 808-4053.

Encl

ANTHONY C. FUNKHouser, P.E.
BG, USA
Commanding

CF: PDS
MEMORANDUM FOR Commander, Northwestern Division (CENWD-DE)  
(Stephen Bredthauer, Quality Assurance Manager, CENWD/RBT)


1. Enclosed for Major Subordinate Command (MSC) approval is the John Day Powerhouse Monolith Drainage Repairs for John Day Dam. This Plan Review has been prepared according to EC 1165-2-209, Civil Works Review Policy.

2. The point of contact (POC) for questions or requests for additional information may be referred to Natalie Richards, Project Manager, at (503) 808-4755 or email at natalie.a.richards@usace.army.mil. A secondary POC is Technical Lead Tom North at (503) 808-4952 or email at thomas.north@usace.army.mil.

FOR THE COMMANDER:

[Signature]

LANCE A. HELWIG, P.E.
Chief, Engineering & Construction Division

Encl

CF:
CENWD-RBT (Bredthauer)
PROJECT REVIEW PLAN
Agency Technical Review (ATR) Review Plan for Implementation Documents and Other Work Products Northwestern Division (NWD)

Project Name: John Day North Monolith Repair
Project Location: John Day (JDA) Powerhouse
Project P2 Number: 373284
Project Manager or POC Name: Natalie Richards, PE PMP
NWD Original Approval Date: XX
NWD Revision X Approval Date: XX

General Document Information

The first two pages of this document are the Cover sheet and the Table of Contents and are not numbered.

Review Plan Template. Information provided in PAGES 3-8 is Review Plan Template information for ATR for Implementation Documents and Other Work Products. Do not alter. The controlled (approved) version of this template will be maintained on the NWD SharePoint site. Districts must use the most current version from the Northwestern Division (NWD) SharePoint site and avoid shared versions outside of the NWD SharePoint. See the footer information in the template for document location.

Attachment 1 provides the review plan Review Plan Specifics that supplement the Review Plan (RP) Template. These specifics are prepared by the District team and as coordinated with the NWD.

Attachment 2 provides acronyms and abbreviations for the document and may be altered as necessary.

Review Plan approval memorandums shall be documented with the RP and the dates recorded on the cover sheet.

US Army Corps of Engineers
PROJECT REVIEW PLAN
Agency Technical Review (ATR) Review Plan for Implementation Documents and Other Work Products Northwestern Division (NWD)

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Encl 1
1. PURPOSE AND REQUIREMENTS.

a. Purpose. This ATR Review Plan (RP) Template and attachments describe requirements for the project identified on the cover sheet of this document. This RP describes Agency Technical Review (ATR) associated with implementation documents, or other work products. The RP Template and the completed RP Specifics attachment together describe the risks considered and the review plan proposed for this project or product.

b. General Process. The PDT considers the project risks and selects an appropriate RP Template based on the risks per EC 209. The risk consideration process is determined by Districts as appropriate to develop a risk informed review plan strategy.

1) When the District has considered the project risks and determined the applicability of this template, the Project Manager (PM)/PDT prepares the “RP Specific” information in Attachment 1 and submits with the RP Template to NWD for approval. The RP Specifics provide the essential elements of the RP such as the scope, project cost, the review team and capabilities, review schedules and budgets and points of contact.

2) The RP Specifics are coordinated with the appropriate levels of management in the District and the NWD. Potentially the RP may also need to be coordinated with the Risk Management Center (RMC) and others such as the relevant Planning Center of Expertise (PCX) if required. This may be necessary in cases where there is debate on the project risks, required review levels, the review team composition and areas of responsibility.

3) The approved RP Specifics and RP Template information together shall describe the project scope, review plan, schedule and budget in sufficient detail to allow review and approval for the RP. The RP information is a component of the Quality Management Plan within the Project Management Plan. Once approved, the RP is documented in the project PMP/QMP and project files and also placed on the District Website for a minimum of 30 days.

c. Applicability. Applicability of the review plan template is determined by NWD. Refer to the criteria provided below. This review plan template is applicable, ONLY, for projects that;
- Are agreed to require ATR review based on risk-informed decision process.
- Are agreed to NOT require Independent External Peer Review (IEPR) or Safety Assurance Review (SAR) based on a risk-informed decision process.
- Do NOT require an Environmental Impact Statement (EIS) for the project.
- And, the project for this review plan is NOT producing decision documents.

d. References

Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007
ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO for ATR is Northwestern Division (NWD) unless determined otherwise. The USACE Risk Management Center (RMC) shall serve as the RMO for Dam Safety Modification projects and Levee Safety Modification projects. NWD will coordinate and approve the review plan. The home District will post the approved review plan on its public website.

3. REVIEW FUNDAMENTALS

a. The USACE review process is based on a few simple but fundamental principles:
   - Peer review is key to improving the quality of work in planning, design and construction;
   - Reviews shall be scalable, deliberate, life cycle and concurrent with normal business processes;
   - A review performed outside the home district shall be completed on all decision and implementation documents. For other products, a risk informed decision as described in EC 209 will be made whether to perform such a review.

b. The EC 209 outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review.

4. DISTRICT QUALITY CONTROL (DQC)

The RMO for DQC is the home District. In accordance with EC 209 all work products and reports, evaluations, and assessments shall undergo necessary and appropriate District Quality Control (DQC).

DQC is the internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the project Quality Management Plan (QMP) of the Project Management Plan (PMP).

The DQC is the internal quality control process performed by the supervisors, senior staff, peers and the PDT within the home District and is managed by the home District. DQC consists of;

a. Quality Checks and reviews. These are routine checks and reviews carried out during the development process by peers not responsible for the original work. These are performed by staff such as supervisors, team leaders or other senior designated to perform internal peer reviews.

b. PDT reviews. These are reviews by the production team responsible for the original work to ensure consistency and coordination across all project disciplines.

DQC will be performed on the products in accordance with the QMP within the PMP.

5. AGENCY TECHNICAL REVIEW (ATR)

Since Walla Walla District (NWW) has completed similar changes at its dams, an ITR will be established with them in order to complete an Independent Technical Review of each product. A risk informed
process was completed for this project in accordance with EC 209. See paragraph 7, RISK INFORMED DECISIONS.

The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers.

ATR will be conducted by a qualified team from outside the home District that is not involved with the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC. In limited cases, when appropriate and independent expertise can be secured from Centers or Laboratories or when proper expertise cannot be secured otherwise, NWD may approve exceptions.

6. REVIEW DOCUMENTATION

a) Documentation of ATR. DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

(1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
(2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
(3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and;
(4) Where appropriate, provide a suggested action needed to resolve the comment or concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-2-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

ATR shall be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team).
7. RISK INFORMED DECISIONS

a. ATR: (Source: EC 209, paragraph 15). The process and methods used to develop and document the risk-informed decisions are at the discretion of the District but must be appropriate for the risk and complexity of the project. The following questions and additional appropriate questions were considered:

1. Does it include any design (structural, mechanical, hydraulic, etc)? Yes
2. Does it evaluate alternatives? Yes
3. Does it include a recommendation? Yes
4. Does it have a formal cost estimate? It will
5. Does it have or will it require a NEPA document? No
6. Does it impact a structure or feature of a structure whose performance involves potential life safety risks? No
7. What are the consequences of non-performance? No- make situation better
8. Does it support a significant investment of public monies? $2-$4 million rough construction estimate
9. Does it support a budget request? 2406 BPA Program
10. Does it change the operation of the project? No
11. Does it involve ground disturbances? No
12. Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided? Maybe-Drilling into dam built in 1960's
13. Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions? No all within Powerhouse
14. Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? Concrete drilling
15. Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc? No
16. Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc? No
17. Is there or is there expected to be any controversy surrounding the Federal action associated with the work product? No

*Note: A “yes” answer to questions above does not necessarily indicate ATR is required, rather it indicates an area where reasoned thought and judgment should be applied and documented in the recommendation.

Decision on ATR: The District considered the risks and determined that ATR is required considering the project risks. ATR will be performed on the products in accordance with the District QMP and this RP. See Attachment 1 for RP Specifics.

b. INDEPENDENT EXTERNAL PEER REVIEW (IEPR). The District considered risks and risk triggers for Type I IEPR and Type II IEPR, also referred as a Safety Assurance Review (SAR) as described in EC 1165-2-209.
I. **Type I IEPR** is required for decision documents under most circumstances. This project does not involve the production of decision documents.

**Decision on Type I IEPR:** The District considered these risks and determined that **Type I IEPR is not required**.

II. **Type II IEPR (SAR).** Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

- Any project addressing hurricane and storm risk management and flood risk management or;
- any other project where Federal action is justified by life safety or;
- the failure of the project would pose a significant threat to human life.
- This applies to new projects and to the major repair, rehabilitation, replacement, or modification of existing facilities (based on identified risks and threats).

**Other Factors to consider for Type II IEPR (SAR) review of a project, or components of a project;**

- The project involves the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices.
- The project design requires redundancy, resiliency, and robustness.
- The project has unique construction sequencing or a reduced or overlapping design and construction schedule; for example, significant project features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems.

**Decision on Type II IEPR:** Based on the information and analysis provided in the preceding paragraphs of this review plan, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on a risk-informed analysis. The District considered these risks and determined that **Type II IEPR (SAR) is not required** considering the risks triggers.

8. **POLICY AND LEGAL COMPLIANCE REVIEW**

All documents will be reviewed throughout the process for their compliance with law and policy. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.
ATR Review Plan for
Implementation Documents and Other Work Products

This review plan template is not intended to describe requirements and processes to conduct policy and legal compliance review, or legal sufficiency reviews.

9. TEMPLATE APPROVAL

NWD is responsible for maintaining the current version of this Review Plan template and ensuring the information accurately describes the criteria and considerations necessary to arrive at a risk informed decision. The review plan template is a living document and is subject to change.

The home District is responsible to complete the Review Plan Template Cover page, adjust the Table of Contents and the complete Review Plan specifics in Attachment 1. Significant changes to the review plan specifics (such as changes to the scope and/or level of review) should be re-approved by NWD. The completed Template information and the Attachment 1 will be submitted to the NWD for coordination and approval.

END OF TEMPLATE INFORMATION
ATR Review Plan for
Implementation Documents and Other Work Products

ATTACHMENT 1
Review Plan Specifics

The information in this attachment is prepared by the District PM/PDT for the project specific information required for this review plan. The DQC is managed by the District and is described in the PMP/QMP. This document should be attached or included in the PMP/QMP to document the ATR.

A-1. PROJECT INFORMATION

a) Study/Project Description


Project Background and History. John Day Powerhouse is a Main Stem Columbia plant that is of strategic importance in the Federal Columbia River Power System (FCRPS) due to its size and location. The powerhouse’s sixteen Kaplan turbines have generation capacity of 2,480 megawatt and black start capability.

The JDA Powerhouse has been experiencing significant water flow through monolith construction joints and failed water stops. Water flow has exceeded the floor drainage collection system capacity (floor flooding with water running being diverted through sandbags around the generator electrical chases), galleries flooded with standing water, drainage channels overflowing, and volumes potentially exceed the drainage sump capacity. The presence of flowing, squirting, and free standing water is creating a significant safety hazard to personnel and equipment.

Portland District Engineering published the “Foundation Investigation Report (FY 2002-2004)” thoroughly documenting current information about foundation and foundation related problems at the John Day Lock and Dam. The final report issued September 2004 identified numerous issues related to the project, including the Powerhouse. Failed waterstops, contraction joints, and other drainage deficiencies were identified, recommendations provided, and remedial actions suggested at the powerhouse.

The Project Delivery Team (PDT) will initially complete a Detailed Design Report (DDR) in order to identify the water stops or further corrective action needed. Following review and approval of the DDR, the Plans & Specifications (P&S) will be prepared. Both the DDR and the P&S will undergo Agency Technical Review.

b. Current Total Project Cost. Instruction: The estimated cost for preparation of the DDR is $750,000 and the P&S is $1,000,000. The preliminary estimated cost of the monolith joint and drainage repair is $2-$4 million with possible to be determined cofferdam costs. This estimate will be refined as additional information is developed. See Appendix A.

c. Required ATR Team Expertise. ATR team and required expertise;
A-2. REVIEW SCHEDULES AND COSTS

a. ATR Schedule.

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<td>100%</td>
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<td>Oct 2013</td>
</tr>
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b. Engineering Models. The following engineering models are anticipated to be used in the development of the implementation documents or other work products: None

A-3. REVIEW PLAN POINTS OF CONTACT

The Review Management Organization for ATR will be NWD unless noted otherwise.

Public questions and/or comments on this review plan can be directed to the following points of contact:

<table>
<thead>
<tr>
<th>Contact</th>
<th>Role</th>
<th>Title</th>
<th>Office/District/Division</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Natalie Richards, PE PMP</td>
<td>Project Manager</td>
<td>Civil Engineer &amp; Project Manager</td>
<td>NWP US Army Corps of Engineers</td>
<td>503-808-4755</td>
</tr>
<tr>
<td>Bredthauer</td>
<td>RMO - Point of</td>
<td>Technical</td>
<td>Northwestern Division</td>
<td>503-808-4053</td>
</tr>
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</table>
ATR Review Plan for
Implementation Documents and Other Work Products

The information provided in the Review Plan Template and the Review Plan Specifics in Attachment 1 are hereby submitted for approval.

NWD will review this plan and route by NWD staffing sheet. If the plan is complete and appropriate for the risk and complexity of the project/products, the NWD will recommend approval by the appropriate Senior Executive Service (SES) in NWD. The NWD approval memorandum will be sent to the District PM responsible for the plan. The NWD approval memorandum shall be documented with the review plan, and the approval date should be noted on the cover sheet of this document.

Approved revisions should be recorded in the A-7 block below.

A-7 REVIEW PLAN REVISIONS

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ATTACHMENT 2

B-1. ACRONYMS AND ABBREVIATIONS

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ATR Review Plan for Implementation Documents and Other Work Products

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## ATTACHMENT II
### SCHEDULE AND COSTS
John Day Powerhouse Monolith Joint and Drainage Repairs

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**Total Expense:** 250 530 0 0 0 780

**Notes:**
1) Phase 1 funding.
2) Phase 2 to be added in a future amendment.
3) Project is 100% expense.