DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NORTHWESTERN DIVISION
PO BOX 2870
PORTLAND OR 97208-2870

CENWD-RBT

13 DEC 2012

MEMORANDUM FOR Commander, Kansas City District (CENWK-PM-CJ, Mr. Wolf)

SUBJECT: Review Plan (RP) Approval for National Starch Relief Wells, Kansas City District, Northwestern Division

1. References:

a. Memorandum, CENWK, 6 April 2012, subject: National Starch Relief Wells Review Plan (P2#354344) (Encl).

b. EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

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, which is the lead office and point of contact to execute this plan. The RP includes District Quality Control and Agency Technical Review and has been coordinated with Business Technical Division as the Review Management Office (RMO). The RMO Point of Contact is Steve Bredthauer at (503) 808-4053.

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 Review Plan 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.
COL, EN
Commanding

Printed on Recycled Paper

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, KANSAS CITY DISTRICT
700 FEDERAL BUILDING
601 E. 12TH STREET
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF:

CENWK

6 APR 2012

MEMORANDUM FOR Commander, Northwestern Division, USACE, ATTN: Mr. Steve Bredthauer

SUBJECT: National Starch Relief Wells Review Plan (P2# 354344)

1. The review plan for the National Starch Relief Wells is attached for Northwestern Division's review and approval. The Review Plan was prepared in accordance with EC 1165-2-209.

2. The National Starch Relief Wells project is currently in the implementation phase. As required by EC 1165-2-209, we request review and approval of the Review Plan.

3. The point of contact for this memorandum is the project manager, Whitney Wolf, at (816) 389-3315 or whitney.k.wolf@usace.army.mil

DAVID L. MATHEWS, P.E.
Chief, Engineering Division
Kansas City District

ATR REVIEW PLAN
USING THE NWD ATR REVIEW PLAN TEMPLATE

Project Name: National Starch Relief Wells
Location: North Kansas City, Missouri
Project P2 Number: 354344
Project Manager or POC Name: Whitney Wolf
NWD Original Approval Date: TBD
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 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 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 ®

DQC/ATR REVIEW PLAN

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS 3
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION 4
3. REVIEW FUNDAMENTALS 4
4. DISTRICT QUALITY CONTROL (DQC) 4
5. AGENCY TECHNICAL REVIEW (ATR) 5
6. REVIEW DOCUMENTATION 5
7. RISK INFORMED DECISIONS 6
8. POLICY AND LEGAL COMPLIANCE REVIEW 8
9. TEMPLATE APPROVAL 8

ATTACHMENT 1 – REVIEW PLAN SPECIFICS

A-1. PROJECT INFORMATION 9

A-2. REVIEW SCHEDULE AND COSTS X

A-3. REVIEW PLAN POINTS OF CONTACT X

A-4 PROJECT DELIVERY TEAM (PDT) ROSTER X

A-5 ATR TEAM ROSTER X

A-6 REVIEW PLAN SPECIFICS APPROVAL X

ATTACHMENT 2 - ACRONYMS AND ABBREVIATIONS

B-1. ACRONYMS AND ABBREVIATIONS X

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS

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 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 contacts.

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)

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)?
2. Does it evaluate alternatives?
3. Does it include a recommendation?
4. Does it have a formal cost estimate?
5. Does it have or will it require a NEPA document?
6. Does it impact a structure or feature of a structure whose performance involves potential life safety risks?
7. What are the consequences of non-performance?
8. Does it support a significant investment of public monies?
9. Does it support a budget request?
10. Does it change the operation of the project?
11. Does it involve ground disturbances?
12. Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?
13. Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions?
14. Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos?

15. Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?
16. Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc?
17. Is there or is there expected to be any controversy surrounding the Federal action
associated with the work product?

*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** for the products or project per page 9 explanation below.

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.

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.

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS

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.

Reiterate Decision on Type II IEPR (SAR): This document has stated this project does not involve the production of decision documents and therefore does not reiterate a decision to exclude Type I IEPR. The project covered under this plan is excluded from Type II IEPR (SAR) because it does not meet the Type II IEPR triggers and other factors necessary to consider as described in EC 1165-2-209. The District considered these risks and determined that **Type II IEPR (SAR) is not required** for the products or project.

Provide a narrative here describing the steps of the risk informed analysis the District used to verify why Type II IEPR (SAR) was not required for this specific project. Explain the risks considered and how the risks did not meet thresholds for Type II IEPR (SAR).

NATIONAL STARCH RELIEF WELL NARRATIVE: All work products must undergo DQC. Beyond DQC, however, there is some level of judgment involved in determining whether ATR and/or IEPR levels of review are appropriate for any work product. Therefore, the RP for all work products shall include documentation of risk-informed decisions on those levels of review. Additional details on the various levels of review are provided below.

Initially, NWK believed the trigger descriptions in this RP Template above indicated and IEPR Type II was warranted. Those triggers as stated:

- *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).*

However, from the standpoint of solely the design and construction work to be performed relating to the relief wells, the risk involved in this project is overwhelmingly an improvement. As noted by NWD SMEs, the original levee project would have undergone an IEPR SAR when built, but the relief wells are not a major modification; they are increasing reliability of the system by addressing an undesirable underseepage condition caused by the truncated berm at the railroad tracks. From this standpoint, NWK agrees and is satisfied with "ATR only" decision and not proceeding to IEPR for the installation of relief wells.

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS

NATIONAL STARCH RELIEF WELL ATR DECISION QUESTIONS:

b. ATR. All decision and implementation documents are required to undergo ATR, regardless of the originating organization (Planning, Engineering, Construction, or Operations).

NATIONAL STARCH: This is not a decision document.

In deciding whether to undertake ATR for other work products, answering a series of questions will aid the PDT to help identify work products as decision or implementation documents, even if they are not identified as such. Also, this process provides a basis for making a recommendation whether undertaking ATR is appropriate for products that are not either a decision or implementation document. **A "yes" answer 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.** The following questions, and any appropriate additional questions, shall be explicitly considered:

(1) Does it include any design (structural, mechanical, hydraulic, etc)?
NATIONAL STARCH: Yes

(2) Does it evaluate alternatives?
NATIONAL STARCH: Yes

(3) Does it include a recommendation?
NATIONAL STARCH: Yes in the form of the final design.

(4) Does it have a formal cost estimate?
NATIONAL STARCH: Yes for the purposes of contracting as with all USACE contracts.

(5) Does it have or will it require a NEPA document?
NATIONAL STARCH: Yes. The project is very straight forward and will not be going out on Public Notice.

(6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks?
NATIONAL STARCH: No. The levee is considered sound, but the relief wells will improve performance. Very few actions to improve an already functional structure can be done without some degree of increased risk. To do nothing does not increase the reliability of the structure, but any modification to improve it "could" result in risk to the structure. However, the probability of worsening the reliability of the existing levee by installing relief wells is manageable and minimal.

(7) What are the consequences of non-performance?
NATIONAL STARCH: There would be an unacceptable level of seepage.

(8) Does it support a significant investment of public monies?
NATIONAL STARCH: No.

(9) Does it support a budget request?
NATIONAL STARCH: Yes, as do all USACE projects.

(10) Does it change the operation of the project?
NATIONAL STARCH: Yes, the relief wells will add an O&M requirement for the levee district sponsor.

(11) Does it involve ground disturbances?
NATIONAL STARCH: Yes.

(12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?
NATIONAL STARCH: No.

(13) Does it involve activities that trigger regulatory permitting such as Section 404 or storm water/NPDES related actions?
NATIONAL STARCH: Yes as do most USACE projects that touch soil or areas that water falls upon or drains away from.

(14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos?
NATIONAL STARCH: No.

(15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?
NATIONAL STARCH: No.

(16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, storm water, electrical, etc?
NATIONAL STARCH: No.

(17) Is there or is there expected to be any controversy surrounding the Federal action associated with the work product?
NATIONAL STARCH: No.

A-1. PROJECT INFORMATION

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS

a. **Study/Project Description.** Instruction: Provide the PMP Project Scope information here in sufficient detail to understand the project scope and justify the ATR team composition/expertise.

NATIONAL STARCH PMP Project Scope information: The North Kansas City Levee Unit - Lower is located on the left bank of the Missouri River in the Kansas City metropolitan area. The Federal levee unit was designed and constructed in the 1940's. Following the 1993 Missouri River flood, planning studies were conducted to identify high risk areas and determine Federal interest in levee improvements for all Kansas City metropolitan levee units on the Missouri and Kansas Rivers. The National Starch portion of the North Kansas City Levee Unit was an identified area of unacceptable risk. The National Starch reach consists of an earthen levee with a riverside cut off trench through shallow sand deposits and a landside underseepage berm. The underseepage berm was slightly truncated due to existing railroad tracks during original design and construction. Due to the truncated berm, an undesirable underseepage condition exists at the toe of the berm during design loading. A series of relief wells will be designed and constructed to bring the area into compliance with current underseepage criteria.

The PDT will develop detailed plans, design documentation and an O&M Manual appendix for FY 12 & FY 13 construction that: designs and constructs and maintains seven pressure relief wells at the mid-slope of the landward levee slope of the North Kansas City levee embankment; construct discharge lines from the pressure relief wells to the existing pump station; perform all pressure relief well development; perform all pressure relief well testing; construct access road to the wells, and restore the site. The work shall include all the features and requirements identified within the technical plans and specifications. The work shall comply with the project's technical plans and specifications.

b. **Current Total Project Cost.** Instruction: Provide total project cost or programmed authority here.

NATIONAL STARCH : The expected cost of the project is $1,000,000 or less.

c. **Required ATR Team Expertise.** Provide a description here of the PDT rationale for the ATR team composition and a discussion of how the team and expertise(s) are appropriate for this specific project.

NATIONAL STARCH: ATR team and required expertise; The ATR team requires experience in Geotechnical Engineering and Civil Engineering focusing on seepage reduction, relief well drilling, collection systems, pump capacity analysis, earthwork operations and levee construction. At the time of this version the PDT does not believe an electrical engineer will be required, but if needed Memphis district can accommodate the requirement. Walla Walla District will provide Cost Estimate certification IAW EC 209 EC 1165-2-209, Civil Works Review Policy 1.

ATR Team Members/Disciplines	Expertise Required

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS

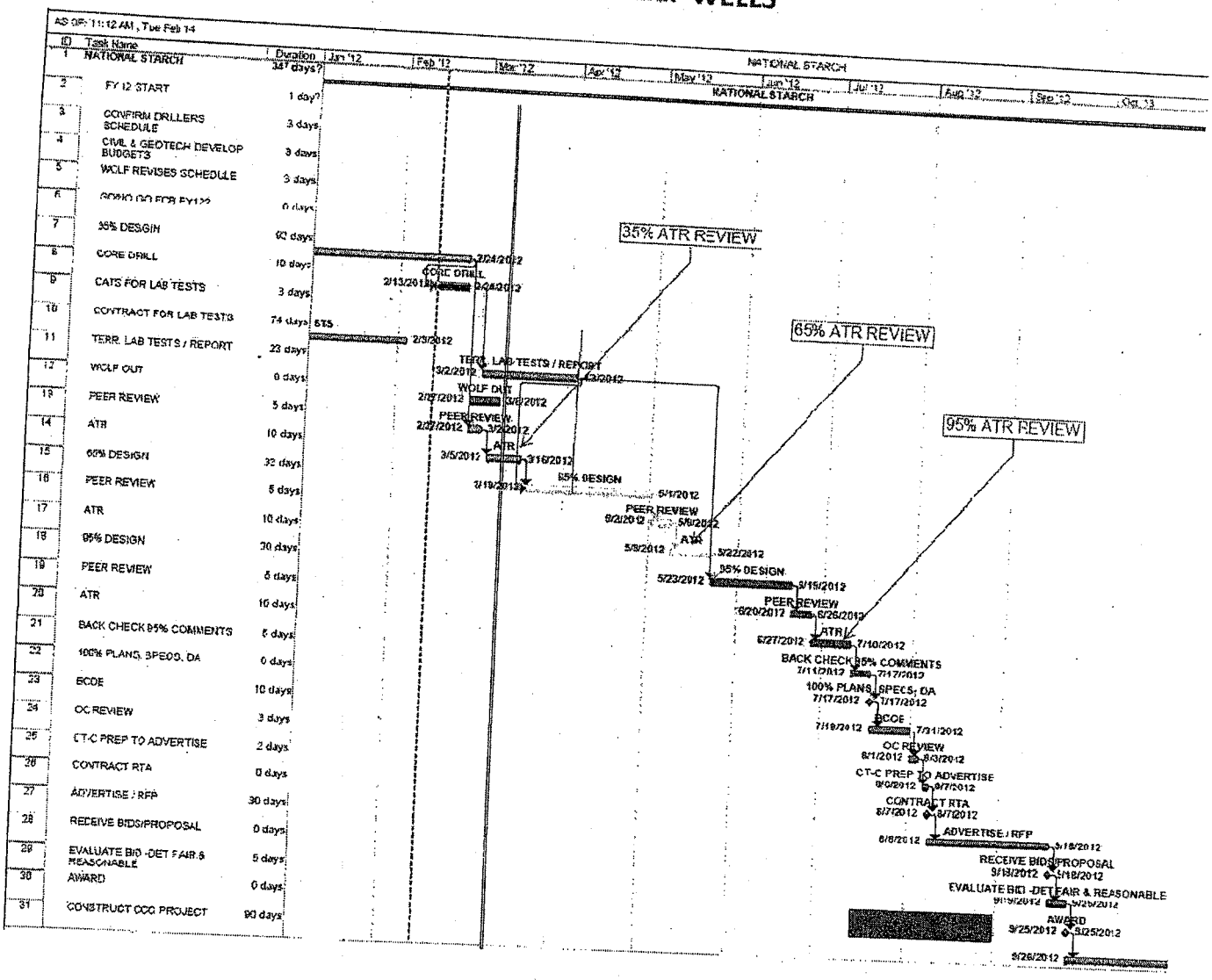
ATR Lead	The ATR lead should be a senior professional with experience in Geotechnical Engineering and conducting ATRs. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process.
Discipline	The Geotechnical reviewer should be a senior Geotechnical Engineer with experience in Geotechnical Engineering and relief well design.
Discipline	The Civil Engineer reviewer should be a senior Civil Engineer with experience in Civil Engineering.
Discipline	Cost Estimating Expertise.

A-2. REVIEW SCHEDULES AND COSTS

a. ATR Schedule. Instruction: Complete project specific milestone, products and dates.

Review Milestone	Review Products	Date Planned
XX% ATR review	Example P&S/DDR	Example April 15 – May 15, 2011
XX% backcheck	SEE ATTACHED SCHEDULE BELOW	SEE ATTACHED SCHEDULE BELOW
XX% ATR review	SEE ATTACHED SCHEDULE BELOW	SEE ATTACHED SCHEDULE BELOW
XX% backcheck	SEE ATTACHED SCHEDULE BELOW	SEE ATTACHED SCHEDULE BELOW
XX% ATR review	SEE ATTACHED SCHEDULE BELOW	SEE ATTACHED SCHEDULE BELOW
100% backcheck	SEE ATTACHED SCHEDULE BELOW	SEE ATTACHED SCHEDULE BELOW
ATR Certification	SEE ATTACHED SCHEDULE BELOW	SEE ATTACHED SCHEDULE BELOW

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS



b. **ATR COSTS - Labor/Expenses.** Instruction: Complete milestones and cost estimates. Example provided.

Review Milestone	#reviewers/total hours	Approximate cost/hr	Totals
30% ATR review	SEE BELOW	SEE BELOW	SEE BELOW
30% backcheck	SEE BELOW	SEE BELOW	SEE BELOW
60% ATR review	SEE BELOW	SEE BELOW	SEE BELOW
60% backcheck	SEE BELOW	SEE BELOW	SEE BELOW
100% ATR review	SEE BELOW	SEE BELOW	SEE BELOW
100% backcheck	SEE BELOW	SEE BELOW	SEE BELOW
ATR Certification	SEE BELOW	SEE BELOW	SEE BELOW
	SEE BELOW	SEE BELOW	SEE BELOW
ATR Expenses (travel etc)	SEE BELOW	SEE BELOW	SEE BELOW
Total ATR costs		$8,000 per discipline	$16,000

c. **Engineering Models.** The following engineering models are anticipated to be used in the development of the implementation documents or other work products:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
NA	NA	NA
NA	NA	NA

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:

Contact	Role	Title	Office/District/Division	Phone
WHITNEY WOLF	Project Manager	PM	Kansas City District, US Army Corps of	816-389-3315

			Engineers	
Steve Bredthauer	RMO - Point of contact	Senior Planner	Northwestern Division, US Army Corps of Engineers	503-808-4053

A-4. PROJECT DELIVERY TEAM (PDT) ROSTER. Before posting to websites for public disclosure of the RP, it may be necessary to remove names and contact information for Corps employees to comply with security policies.

PDT Roster				
Name	**Discipline/Role**	**District/Agency**	**email**	**Phone**
WHITNEY WOLF	Project Manager	Kansas City District	Whitney.k.wolf@usace.army.mil	816-389-3315
PAT MIRAMONTEZ	Cost Estimating	Kansas City District	See Global	See Global
RICH SKINKER	Environmental	Kansas City District	See Global	See Global
BRENDA ADAMS	Core Drill	Kansas City District	See Global	See Global
RON JANSEN	Civil	Kansas City District	See Global	See Global
GLEN BELLEW	Geotechnical	Kansas City District	See Global	See Global
CORY WILLIAMS-	Civil	EC-G, Memphis Dist	See Global	See Global
RONNIE SMITH-	Geotechnical	EC-G, Memphis Dist	See Global	See Global
CARLA BUATTE	Real Estate - C	Kansas City District	See Global	See Global
CPT HERVEY	Contracting	Kansas City District	See Global	See Global
JOSH WATTS	Field Office	Kansas City District	See Global	See Global
ROBERTA NEWMAN	Spec/Bid Package Man.	Kansas City District	See Global	See Global
LEON STAAB	Project Sponsor Rep.	NKC Levee District	lstaab@burnsmcd.com	816-822-3214

A-5. ATR TEAM ROSTER (complete when team members are identified). Before posting to websites for public disclosure of the RP, it may be necessary to remove names and contact information for Corps employees to comply with security policies.

Agency Technical Review (ATR) Team				
Name	**Discipline/Role**	**District/Agency**	**email**	**Phone**
CORY WILLIAMS-	Civil - LEAD	EC-G, Memphis Dist	See Global	See Global
RONNIE SMITH-	Geotechnical	EC-G, Memphis Dist	See Global	See Global
JAMES G. NEUBAUER	Cost Estimating	Walla Walla Dist	See Global	See Global

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS

END OF ATTACHMENT 1
REVIEW PLAN SPECIFICS

A-6. REVIEW PLAN SPECIFICS - APPROVAL

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

Revision Date	Description of Change	Page / Paragraph Number	Date Approved
Original	NA		
Revision 1	NA		

ATR Review Plan for
NATIONAL STARCH RELIEF WELLS

ATTACHMENT 2

B-1. ACRONYMS AND ABBREVIATIONS

Acronyms	Defined
ATR	Agency Technical Review
CAP	Continuing Authorities Program
DCW	Director of Civil Works
DQC	District Quality Control
EC	Engineering Circular
ECI	Early Contractor Involvement
EIS	Environmental Impact Statement
ER	Engineering Regulation
FAQ's	Frequently Asked Questions
HQUSACE	Headquarters, U.S. Army Corps of Engineers
IEPR	Independent External Peer Review
NWD	Northwestern Division
MSC	Major Subordinate Command
PCX	Planning Center of Expertise
PDT	Project Delivery Team
PMP	Project Management Plan
QA	Quality Assurance
QMP	Quality Management Plan
QMS	Quality Management System
RIT	Regional Integration Team
RMC	Risk Management Center
RMO	Review Management Organization
RP	Review Plan
SES	Senior Executive Service
SAR	Safety Assurance Review (also referred as Type I IEPR)