

U.S. Department of Energy
Office of River Protection
Contract Management Division
Mr. Michael K. Barrett
Contracting Officer
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

CCN: 027630

Dear Mr. Barrett:

**CONTRACT NO. DE-AC27-01RV14136 – TRANSMITTED FOR APPROVAL -
AUTHORIZATION BASIS CHANGE NOTICE 24590-WTP-ABCN-ESH-01-030,
REVISION 0, ADD REBAR PRE-ASSEMBLY TO LCAR AND ADD HIGH MAST
LIGHTING**

Authorization Basis Change Notice (ABCN) 24590-WTP-ABCN-ESH-01-030, Revision 0, *Add Rebar Pre-assembly to LCAR and Add High Mast Lighting* (attached) is transmitted to the U.S. Department of Energy (DOE) for approval. This ABCN proposes to add fabrication and pre-assembly of forms, rebar, and embedments (FRE) and add installation of permanent outdoor lighting to the scope of the Limited Construction Authorization Request (LCAR). Adding these activities to the scope of the LCAR has been discussed with Mr. Lew Miller of the DOE Office of Safety Regulation (OSR).

This proposed change includes performing FRE work on the facility mud mats. Using the mud mats as a working surface for these activities has both safety and quality implications as follows:

Safety

The inherent risks of moving large and heavy, pre-assembled material units from a fabrication area include steps such as rigging for loading, lifting, loading, transporting, rigging for off-loading, and unloading the units. The same end product may be achieved, thus reducing risk, by pre-assembling the material units directly on the mud-mat area of the buildings. Elimination of the requirement to pre-assemble out of the mud-mat area would allow the work to progress in the same manner but bypass the rigging for loading, lifting, loading, and transportation steps of this operation. Risk is inherently mitigated by reduction of hours spent on any operation.

Quality

Work on a mud mat provides added protection of permanent plant materials in that pre-assembled units are kept relatively free from contamination by adjacent work operations. Often, material properly stored on dunnage on a gravel or sand lay down area collects contaminants over time. In keeping with any quality program, the contaminants must be removed prior to incorporation in to the final product. Work on a mud mat also provides a better and truer working surface to properly assemble items in to larger material units.

The 10CFR830.206 rule states “that DOE may authorize the contractor to perform construction activities . . . without approval of the PSAR if DOE determines the activities are not detrimental to public health and safety and are in the best interests of DOE.” The draft DOE guidance for limited construction activities before the PSAR is approved states the contractor is to describe the activity requested, the reason for the request, the benefit to DOE of the request, the effect of the delay in conducting the activities, and the risks associated with performing the activity. Attachment 2 provides the information necessary to satisfy the requirements of the 10CFR830.206 rule.

Drawing 24590-BOF-E2-LTE-00003, Site Lighting Feeder Distribution Layout, is included as Attachment 3 for information.

An electronic copy of this letter and the ABCN 24590-WTP-ABCN-ESH-01-030, Revision 0, with its attachments is provided for the OSR’s information and use.

Should you have any questions concerning this correspondence, please contact Mr. Bill Spezialetti at (509) 371-4654.

Very truly yours,

A. R. Veirup
Prime Contract Manager

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JD/sr

- Attachments:
- 1) Authorization Basis Change Notice 24590-WTP-ABCN-ESH-01-030, Revision 0 and its attachments
 - 2) WTP Compliance with 10CFR830.206 Justification
 - 3) Drawing 24590-BOF-E2-LTE-00003, Site Lighting Feeder Distribution Layout

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Authorization Basis Change Notice

ABCN Number 24590-WTP-ABCN-ESH-01-031 Revision 0

ABCN Title Clarification of Disposition of PSC Comments in SRD Volume II, Appendix A

I. ABCN Review and Approval Signatures

A. ABCN Preparation

Preparer: Ken Gibson _____
Print/Type Name *Signature* *Date*

Reviewer: John Hinckley _____
Print/Type Name *Signature* *Date*

B. Required Reviewers

Review Required? *For each person checked Yes, that signature block must be completed.*

<input checked="" type="checkbox"/>	ES&H Manager	<u>Fred Beranek</u> <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input checked="" type="checkbox"/>	QA Manager	<u>George Shell</u> <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input checked="" type="checkbox"/>	PSC Chair	<u>Bill Poulson</u> <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	Operations Manager	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	Engineering Manager	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	Pretreatment APM	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	LAW APM	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	HLW APM	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	BOF APM	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	Construction Manager	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	Business/Project Controls Manager	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input type="checkbox"/>	ALARA PSC Subcommittee Chair	_____ <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>
<input checked="" type="checkbox"/>	PMT Chair	<u>Dennis Klein</u> <i>Print/Type Name</i>	_____ <i>Signature</i>	_____ <i>Date</i>



Authorization Basis Change Notice

ABCN Number 24590-WTP-ABCN-ESH-01-031 Revision 0

ABCN Title Clarification of Disposition of PSC Comments in SRD Volume II, Appendix A

C. ABCN Approval

WTP Project Manager Ron Navventi
Print/Type Name *Signature* *Date*

II. Description of the Proposed Change to the Authorization Basis

D. Affected AB Documents:

Title	Document Number	Revision
Safety Requirements Document Volume II	24590-WTP-SRD-ESH-01-001-02	0

Decision to Deviate Yes No

If yes, DTD Number _____ Deficiency Report Number _____

Initiating Document Number Contract No. DE-AC27-01RV14136 Revision _____

E. Describe the proposed changes to the Authorization Basis Documents:

For SRD Volume II, Appendix A, Section 8.0 – Confirmation of Standards change the last sentence to “Resolution of PSC comments shall be documented”. This change is on page A-18, revision 0.

Implementation of this ABCN does not cause an impact to project design or programs.

F. List associated ABCNs and AB documents, if any:

No associated ABCNs or AB documents are impacted by this ABCN.

G. Explain why the change is needed:

The SRD is ambiguous in its use of the terminology e.g., it states comments by the Project Safety Committee (PSC) receive "formal" disposition by the Process Management Team (PMT). The term formal is ambiguous and it is not appropriate that "all" comments require disposition by the PMT. The PSC captures actions in it's review of standards. Once completed the action is assigned and dispositioned, as the PSC deems appropriate. Once completed the action is closed. The assignment and closure of actions are documented in the PSC meeting minutes.

H. List the implementation activities and the projected completion dates:

<u>Activity</u>	<u>Date</u>
Inform DOE that AB has been revised and provide updated hard copy and electronic version of AB change to DOE	30 days or less after DOE Approval
Distribute controlled copy revised pages	30 days after DOE Approval

Revise the following implementing documents:



Authorization Basis Change Notice

ABCN Number 24590-WTP-ABCN-ESH-01-031 Revision 0

ABCN Title Clarification of Disposition of PSC Comments in SRD Volume II, Appendix A

<u>Documents</u>	<u>Describe extent of revisions</u>	<u>Date</u>
1 24590-WTP-GPP-SANA-002	Minor Revision	30 days after DOE Approval
2 NA		
<u>Describe other activities:</u>		<u>Date</u>
1 NA		
2 NA		

III. Evaluation of the Proposed Change

I. Is DOE prior approval required?

- 1 Does the revision involve the deletion or modification of a standard previously identified or established in the SRD? Yes No

Explain

This change involves the revision of SRD Volume II, Appendix A, which is identified as an implementing standard..

- 2 Does the revision result in the reduction in commitment currently described in the AB? Yes No

Explain

The term formal is ambiguous and it is not appropriate that "all" comments require disposition by the PMT. The PSC captures actions in it's review of standards. Once completed the action is assigned and dispositioned, as the PSC deems appropriate. Once completed the action is closed. The assignment and closure of actions are documented in the PSC meeting minutes.

- 3 Does the revision result in a reduction in the effectiveness of any procedure, program, plan, or management process described in the AB? Yes No

Explain

The requirements for programmatic processes are not deleted and retain the current level of effectiveness.

=====
A multi-discipline Integrated Safety Management team reviewed the implications of changing the wording in the SRD Volume II, Appendix A, Section 8.0. This team consisted of the following individuals:

- John Hinckley Chairperson, ES&H Hazard Safey Analysis, LAW Lead
- Alan Hosler ES&H, Safety and Licensing Engineer
- Dale Lindsey Commissioning & Training, Area Program Manager
- Scott Thomson Engineering, Engineering Technology Lead
- Gary Kloster Engineering, Technical Baseline Manager
- Ken Gibson ES&H, Safety and Licensing Engineer

The evaluation of revising the wording in the SRD was performed from a first principles perspective and demonstrates that the SRD continues to: 1) Provide adequate safety; 2) Comply with applicable laws and regulations, and 3) Conform with the Top-Level Safety Standards and Principles.



Authorization Basis Change Notice

ABCN Number 24590-WTP-ABCN-ESH-01-031 Revision 0

ABCN Title Clarification of Disposition of PSC Comments in SRD Volume II, Appendix A

See section J below for documentation of this evaluation.

J. Complete the safety evaluation by describing how the revision to the AB:

- 1 will continue to comply with all applicable laws and regulations, conform to top-level safety standards, and provide adequate safety

Applicable Laws and regulation:

The proposed change to Section 8.0 of the SRD Volume II, Appendix A does not impact commitments made relative to laws and regulations (e.g. commitments made to 10 CFR 820, 830 and 835 are not impacted) or top-level standards (in particular, commitments to DOE/RL-96-0004 and -0006). The intent of dispositioning Project Safety Committee (PSC) comments is maintained and will be documented in PSC Meeting minutes.

Adequate safety

The proposed change to the currently approved SRD Volume II, Appendix A, Section 8.0 – Confirmation of Standards does not change the commitment to disposition comments from the Project Safety Committee (PSC). Use of SRD Volume II, Appendix A as an implementing standard was reviewed by the Integrated Safety Management team to confirm that adequate safety is still provided. This review was conducted through assessment of the scope and content of the implementing standard to ensure it provided adequate guidance to meet the existing requirements for the disposition of comments by the PSC. It was concluded that this change is a clarification of the process by which the PSC dispositions their comments and does not impact the process used. The term formal is ambiguous as it is not appropriate that “all” comments require disposition by the Process Management Team (PMT). Thus, this revision of SRD Volume II, Appendix A demonstrates a continued commitment to adequate safety.

- 2 will continue to conform to the original submittal requirements associated with the AB documents being revised

The SRD is ambiguous in its use of the terminology e.g., it states comments by the PSC receive "formal" disposition by the PMT. The term formal is ambiguous and it is not appropriate that "all" comments require disposition by the PMT. The PSC captures actions in its review of standards. Once completed the action is assigned and dispositioned, as the PSC deems appropriate. Once completed the action is closed. The assignment and closure of actions is documented in the PSC meeting minutes. Thus the original requirement to disposition PSC comments is unchanged.

- 3 will not result in inconsistencies with other commitments and descriptions contained in the AB or an authorization agreement

The proposed change to the currently approved SRD Volume II, Appendix A, Section 8.0 – Confirmation of Standards does not result in inconsistencies with other commitments in the AB since the implementing standards are unique to the SRD. The Limited Construction Authorization Request (LCAR) and the Limited Construction Authorization Agreement do not discuss standards specifically, but reference the SRD as a basis for approval of the authorization agreement.

K. Justification of the Proposed Change



Authorization Basis Change Notice

ABCN Number 24590-WTP-ABCN-ESH-01-031 Revision 0

ABCN Title Clarification of Disposition of PSC Comments in SRD Volume II, Appendix A

Provide a justification that demonstrates that the proposed change is safe

The proposed change to the SRD Volume II, Appendix A, Section 8.0 – Confirmation of Standards only clarifies the dispositioning of comments made by the PSC in the selection of standards. This change does not impact the safety of the WTP ISM process as defined in DOE/RL-96-0004.

L. Certification of Continued SRD Adequacy

Based on evaluations from III.I.1 and III.J.1. If question III.I.1 is marked “yes, Project Manager certification is required. The Project Manager’s signature certifies that the revised SRD continues to identify a set of standards that provide adequate safety, complies with WTP applicable laws and regulations, and conforms with top-level safety standards and principles. This certification is based on adherence to the DOE/RL-96-0004 standards identification process and successful completion of review and confirmation by the PSC.

WTP Project Manager: Ron Naventi _____
Print/Type Name *Signature* *Date*

M. List of Attachments

1. Safety Requirements Document (SRD), 24590-WTP-SRD-ESH-01-001-02, Proposed Change.

As the standards are tailored, discrepancies with the current version of the SRD may arise. Such discrepancies shall be recorded. Formal changes to the SRD require approval from DOE.

8.0 Confirmation of Standards

Based on the recommendation of the PMT, the RPP-WTP Project Safety Committee (PSC) Chair requests the PSC to confirm the selected set of standards. The PSC defines a review approach, carries out the review, and documents the findings of the review. [Resolution of PSC Comments by the PSC](#) shall ~~be documented~~ ~~receive formal disposition by the Process Management Team~~.

9.0 Formal Documentation

Following confirmation by the PSC, the results of the standards selection process shall be documented in the Safety Requirements Document (SRD). The SRD shall incorporate documentation supporting these results by reference. The SRD shall identify and justify the set of requirements and standards selected to provide adequate protection of workers, the public, and the environment.

10.0 Recommendation

The recommended set of standards shall be certified in accordance with project implementing documents. When properly implemented, the set of standards:

- 1) Provides adequate safety
- 2) Complies with applicable laws and regulations
- 3) Conforms with the Top-Level Safety Standards and Principles

Attachment 2

Hanford Tank Waste Treatment and Immobilization Plant (WTP) Compliance with 10CFR830.206 Requirements for Limited Construction Activities

INTRODUCTION

The 10CFR830.206 rulemaking states “for new DOE Hazard Category 1, 2, or 3 facilities DOE must approve the Preliminary Safety Analysis Report (PSAR) before the contractor can . . . begin construction activities provided that DOE may authorize the contractor to perform construction activities . . . without approval of the PSAR if DOE determines the activities are not detrimental to public health and safety and are in the best interests of DOE.” The draft DOE guidance for the commencement of limited construction activities before the PSAR is approved states “the contractor is to describe the activity requested, the reason for the request, the benefit to DOE of the request, the effect of the delay in conducting the activities, and the risks associated with performing the activity”.

ACTIVITY DESCRIPTION

In accordance with the requirements of 10CFR830.206, BNI is requesting DOE approval for the commencement of additional Limited Construction Authorization Request (LCAR) activities identified in this letter. This LCAR revision requests DOE approval for fabrication and pre-assembly of LAW and HLW rebar, forms, and embedments (FRE) and installation of permanent lighting. The Authorization Basis Change Notice (24590-WTP-ABCN-ESH-01-030) describing this change documents that the requested activities are not detrimental to public health and safety.

REASON FOR THE REQUEST

The request for additional LCAR scope reflects WTP project management initiatives that have occurred since submittal of the April 2001 baseline schedule. These initiatives are focused on enhancing the approaches employed to assure project success. The reason for the request is to achieve additional confidence in the baseline schedule, as further discussed in the following section.

BENEFIT TO DOE AND THE EFFECT OF DELAY

The primary basis for pursuing the additional LCAR scope is risk mitigation relative to the schedule milestones contained in the Bechtel National, Inc. contract and the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), most notably the milestones associated with Start of Hot Commissioning. The baseline schedule submitted per Contract Standard 1, Section (d)(2)B included three weeks of float on the critical path to the Start of Hot Commissioning. Experience from West Valley and Savannah River/Defense Waste Processing Facility (DWPF) as well as other large chemical and

radiological facilities underscores the project management premise that schedule risk mitigation actions are warranted. While advancing initiation of construction of the vitrification facilities does not necessarily shorten the critical path, it does offer the very real and significant opportunity to mitigate the risk in the cold commissioning programs for those facilities. Again, experience at West Valley and DWPF shows that the majority of problems that were encountered in bringing those high-level waste vitrification facilities to full radioactive service were encountered prior to and during the cold commissioning testing programs. Hence, River Protection Project - Waste Treatment Plant (WTP) actions that advance the schedule of these test programs can be expected to have positive results in terms of mitigating potential schedule impacts and achieving the major Hanford Federal Facility Agreement and Consent Order milestones. Approval of this request will allow the project to proceed in a manner to support the project schedules without incurring additional costs for schedule delays or expediting services. The requested construction activities will not compromise or otherwise adversely impact ITS structures, systems and components.

RISKS and MITIGATION STRATEGIES

The WTP project is unique in that there is an existing DOE approved authorization basis for the project that includes the standards for the development of the engineering and quality assurance specifications for construction activities. The design basis for the WTP project is established and the technical requirements for construction activities will be developed in accordance with the approved design basis and the approved Quality Assurance Manual (QAM).

If the situation arises where the WTP project fabricates and pre-assembles FRE during the limited construction activities incorrectly and/or with nonconforming material, the project QAM will provide the controls to deal with these issues.

The additional limited construction activities defined in this letter have no effect on the “health and safety” of the public other than normal risks associated with the construction activities at the Hanford site. These risks are addressed in the WTP project Environmental Impact Statement.

SUMMARY

BNI is submitting a proposed change to the LCAR for DOE approval in accordance with the requirements of 10CFR830.206. This attachment provides the justification for proceeding with the additional LCAR activities as required by the draft DOE guidance. The benefits for proceeding with the additional limited construction activities far outweigh the risks. Proceeding with these activities is an essential component of BNI project management strategy for meeting the commitments in the project’s baseline schedules. The LCAR establishes the safety basis for the requested activities and is maintained as an authorization basis document that supports the DOE need to conclude the activities are not detrimental to public health and safety.



REFERENCE DRAWINGS:

1. FOR GENERAL NOTES AND RACEWAY DETAILS SEE DWG 24590
WTP EQ RWE 00001
2. FOR GENERAL NOTES AND RACEWAY DETAILS SEE DWG 24590
WTP EQ RWE 00002
3. FOR GENERAL NOTES AND RACEWAY DETAILS SEE DWG 24590
WTP EQ RWE 00003
4. FOR GENERAL NOTES AND RACEWAY DETAILS SEE DWG 24590
WTP EQ RWE 00004
5. FOR LIGHTING NOTES AND DETAILS SEE DWG 24590
WTP EQ LIFE 00000
6. FOR LIGHTING NOTES AND DETAILS SEE DWG 24590
WTP EQ LIFE 00002
7. FOR LIGHTING FIXTURE SCHEDULE SEE DWG 24590
WTP EQ LIFE 00003
8. FOR LIGHTING FIXTURE SCHEDULE SEE DWG 24590
WTP EQ LIFE 00004
9. FOR GROUNDING NOTES AND DETAILS SEE DWG 24590
WTP EQ GRC 00000
10. FOR GROUNDING NOTES AND DETAILS SEE DWG 24590
WTP EQ GRC 00002
11. FOR GROUNDING NOTES AND DETAILS SEE DWG 24590
WTP EQ GRC 00003
12. FOR GROUNDING NOTES AND DETAILS SEE DWG 24590
WTP EQ GRC 00004

POLE LIGHT	PANEL	PKT	CABLE SIZE
FM-1 (LUMINAIRE)	A	3, 5, 6	3/0#2+16GND
FM-2 (LUMINAIRE)	A	7, 9, 1	3/0#2+16GND
FM-3 (LUMINAIRE)	A	3, 5, 7	3/0#2+16GND
FM-4 (LUMINAIRE)	C	2, 4, 6	3/0#2+16GND
FM-5 (LUMINAIRE)	A	2, 4, 6	3/0#2+16GND
FM-6 (LUMINAIRE)	B	1, 3, 5	3/0#2+16GND
FM-7 (LUMINAIRE)	A	7, 9, 1	3/0#2+16GND
FM-8 (LUMINAIRE)	B	2, 4, 6	3/0#2+16GND
FM-9 (LUMINAIRE)	C	3, 5	3/0#2+16GND
FM-0 (LUMINAIRE)	C	7, 9, 1	3/0#2+16GND
FM-1 (LUMINAIRE)	C	5, 0, 0	3/0#2+16GND
FM-2 (LUMINAIRE)	B	8, 0, 2	3/0#2+16GND

POLE LIGHT	PANEL	PKT	CABLE SIZE
FL-1	C	7, 9, 1	3/0#2+16GND
FL-2	C	2, 5	3/0#2+16GND
FL-3	B	1, 3	3/0#2+16GND
FL-4	C	2, 7	3/0#2+16GND
FL-5	C	2, 7	3/0#2+16GND

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