

UPF Bull Rigger Qualifications



Preparer:	<i>Mark W. Murdock</i>	12/08/22
	Mark W. Murdock UPF Construction Issues Management	Date
Approval:	<i>Kieran S. Kelly</i>	12/08/22
	Kieran S. Kelly UPF ES&H Manager, BNI	Date
	<i>Bradley A. Lewis</i>	12/12/22
	Bradley A. Lewis UPF Project Field Engineer	Date
	<i>Gary J. Cough</i>	12/14/22
	Gary J. Cough UPF Site Manager	Date
	<i>Sujal H. Lagowala</i>	12/19/22
	Sujal H. Lagowala UPF Project Manager	Date
		12/19/22
		Effective Date

RC-UPF DMC

12/19/22 13:45

<i>UPF Bull Rigger Qualifications</i>

REVISION LOG

Revision 1	<input checked="" type="checkbox"/> Intent <input type="checkbox"/> Non-Intent
<ul style="list-style-type: none"> • These changes are in response to Condition Report 25774-000-GCA-GAM-03850, <i>Review Y17-95-64-900, UPF Bull Rigger Qualifications procedure with regards to a more specific Craft Union environment</i> <ul style="list-style-type: none"> ◦ Added Project Rigging Superintendent, Bull Rigger Person in Charge, and Rigging Supervisor positions to the Responsibilities Section ◦ Edited Training Manager responsibilities to incorporate the Project Rigging Supervisor and the Rigging Supervisors in the process of validating bull riggers and persons in charge of bull rigging possess the required skill set • This revision incorporates the changes identified in and supersedes PRCN-Y17-95-64-900-R00-01 • No forms have been edited as part of this revision • An evaluation determination has been performed confirming that this Procedure does implement requirements tracked in the Programmatic Requirements Management System (PRMS) • Other changes include: <ul style="list-style-type: none"> ◦ Section 4.0, <i>Records</i> ◦ Updated definitions ◦ Updated references ◦ Updated acronyms ◦ Editorial changes 	
Revision 0	<input checked="" type="checkbox"/> Major intent <input type="checkbox"/> Minor intent <input type="checkbox"/> Non-intent
<ul style="list-style-type: none"> • Initial Issue • The following form was created as part of this procedure. <ul style="list-style-type: none"> ◦ CFN-1298, <i>UPF Bull Rigger Qualification Record</i>. • An evaluation determination has been performed confirming that this Command Media implements BNI quality requirements as tracked in the Programmatic Requirements Management System (PRMS). 	

CONTENTS

1.0 INTRODUCTION.....4

 1.1 Purpose 4

 1.2 Scope 4

2.0 RESPONSIBILITIES4

 2.1 Site Manager 4

 2.2 Project Field Superintendent..... 4

 2.3 Project Rigging Superintendent 4

 2.4 Bull Rigger Person in Charge 5

 2.5 Rigging Supervisor 5

 2.6 Project Training Manager..... 5

 2.7 Project Environmental, Safety, and Health Representative 5

3.0 REQUIREMENTS5

 3.1 General..... 5

 3.2 Site Rigging Induction..... 5

 3.3 Bull Rigging Training Program 6

 3.4 Bull Rigger Qualification Process..... 6

 3.5 Bull Rigger Qualifications..... 6

4.0 RECORDS7

5.0 REFERENCES.....7

 5.1 Source References 7

 5.2 Interfacing References..... 8

6.0 SUPPLEMENTAL INFORMATION8

APPENDIX A Acronyms and Definitions9

APPENDIX B Bull Rigger Qualification Process11

1.0 INTRODUCTION

1.1 Purpose

This Procedure defines processes by which bull rigging personnel are to be qualified and approved to perform bull rigging activities on the Uranium Processing Facility (UPF) construction sites.

1.2 Scope

This Procedure applies to UPF/Bechtel National, Inc. (BNI), Construction qualification and training of personnel performing bull rigging work operations as UPF Construction entities, whether self-performed or by subcontractor. This Procedure defines minimum requirements and provides means of complying with them.

Applicability to subcontractor employees is as specified in subcontract language.

This Procedure does not take precedence over any statutory regulations applying to the jobsite. In the absence of legislation, following this Procedure will increase the opportunity for safe implementation of bull rigging operations.

2.0 RESPONSIBILITIES

2.1 Site Manager

The Site Manager is responsible for ensuring that the requirements of this Procedure are properly implemented.

2.2 Project Field Superintendent

The Project Field Superintendent is responsible for ensuring that the requirements of this Procedure are properly implemented.

2.3 Project Rigging Superintendent

The Project Rigging Superintendent (PRS) is a subject matter expert in the practical execution of Rigging, Bull Rigging, and Crane Operations and is responsible for assisting with practical (hands-on) and/or classroom competency verification for Competent Person Riggers (CPRs), Persons in Charge (PICs), Bull Rigger (BR) PICs, and Crane Operators. The PRS also assists with verification of qualifications of subcontractors acting as CPRs, PICs, BR PICs, and Crane Operators.

The PRS manages the rigging loft, rigging loft personnel, and the site-rigging slings and hardware.

Additionally, the PRS assists the Rigging Supervisors (Discipline Superintendents), as needed, with site rigging tasks.

The PRS is capable of acting as a CPR, PIC, or BR PIC but will only act as an advisor to the Union Construction Professional CPR, PIC, or BR PIC on UPF or any other Union project. On Union projects Non-Manuals are not allowed to perform the physical work of a CPR, PIC, or BR PIC.

2.4 Bull Rigger Person in Charge

An individual appointed to have control and responsibility of a bull rigging (lifting or moving) operation on behalf of the project to ensure safe implementation of the work operations. The BR PIC is also an Advanced Rigger (e.g., qualified through National Center for Construction Education and Research [NCCER] or other equivalent educational scheme) who has been assessed by a UPF Qualified Evaluator to meet the criteria for a Qualified Person and by a CPR Trainer to meet the criteria for a CPR and UPF Bull Rigger in accordance with this Procedure.

2.5 Rigging Supervisor

A Rigging Supervisor is a qualified individual (UPF or subcontractor employee) assigned responsibility for planning and supervising rigging work on a project. The Rigging Supervisor on UPF is typically a Discipline Superintendent or their designee such as a General Foreman. The Rigging Supervisor shall coordinate and work closely with the PRS as needed.

2.6 Project Training Manager

The Project Training Manager develops craft-specific training plans and programs and oversees overall performance of construction training.

Additionally, the Project Training Manager is responsible for:

- Developing craft bull rigging training
- Assisting the Project with staffing construction bull rigging training courses
- Maintaining a site register of qualifications held using a Project-approved training and/or personnel tracking system
- Maintaining contact with third-party professional training providers that specialize in bull rigging operations as necessary
- Working with the Project Rigging Superintendent and Rigging Supervisors to validate that bull riggers and PICs of bull rigging possess the required skill set

2.7 Project Environmental, Safety, and Health Representative

The Project Environmental, Safety, and Health Representative is responsible for monitoring bull rigging operations for procedure compliance and safe work practices.

3.0 REQUIREMENTS

3.1 General

Appendix B, *Bull Rigger Qualification Process*, shows the work process for Qualifying Bull Riggers.

3.2 Site Rigging Induction

In accordance with Y17-95-64-871, *UPF Construction Hoisting and Rigging Work Operations*, all personnel whose job is in any way involved with lifting/transportation or is impacted by these activities including, but not limited to, craft, craft supervision,

<i>UPF Bull Rigger Qualifications</i>

field engineers, managers, or safety personnel, are required to take *UPF Rigging Safety Fundamentals*.

3.3 Bull Rigging Training Program

The UPF Bull Rigging Training Program focuses on planning for utilization of chain hoists and other similar devices to drift, upright, and turn loads. The program involves hands-on activities, moving loads into and out of an engineered structure, vertically through hatchways, and through various other openings.

The training focuses on six points of theoretical understanding required of bull rigging:

1. Estimating load weight
2. Determining the center of gravity and its effect on the load
3. Finding load weight distribution and identifying the share of the weight
4. Understanding tension when working with angles, as well as, level or off level pick points and respecting the influences it has upon the rigging and the supporting structure
5. Determining the force required to pull a load up an inclined plane or hold a load back when lowering
6. Calculating mechanical advantage, associated block loading, and frictional gain in a multi-part winch/block system

3.4 Bull Rigger Qualification Process

The Bull Rigger Qualification Process includes the following:

- The Bull Rigger candidate is nominated by his/her supervisor
- The Bull Rigger candidate successfully completes the appropriate assigned Bull Rigging training
- The Competent Person Rigger Trainer (CPRT) records the results of the written examinations and practical evaluations on CFN-1298, *UPF Bull Rigger Qualification Record*

3.5 Bull Rigger Qualifications

Bull rigging operations are conducted by a Bull Rigging Team under the control and direction of a BR PIC.

3.5.1 Level 3 – BR PIC for Critical Risk Operations

The BR PIC for a Critical Risk Operation shall attain and complete the following:

- NCCER Advanced Rigger (or equivalent)
- Qualified as a Competent Person Rigger in accordance with Y17-95-64-874, *UPF Rigger, Signal Person, and Competent Person Rigger Qualification*
- Complete Rigging Safety Fundamentals
- Complete Bull Rigging Training
- Five years of rigging experience

<i>UPF Bull Rigger Qualifications</i>

3.5.2 Level 2 – BR PIC for General Bull Rigging Operations

The BR PIC for a General Bull Rigging Operation shall attain and complete the following:

- NCCER Intermediate Rigger or equivalent
- Qualified Rigger in accordance with Y17-95-64-874
- Complete Rigging Safety Fundamentals
- Complete the Bull Rigging Training
- Four years of rigging experience

3.5.3 Level 1 – Bull Rigging Team Member

Bull Rigging team members shall attain and complete the following criteria in order to assist in a bull rigging operation under the supervision of a BR PIC:

- Union Qualified Rigger or equivalent
- Complete Rigging Safety Fundamentals
- Complete the Bull Rigging Training

4.0 RECORDS

Records generated by this Procedure shall be maintained in accordance with Y15-95-800, *UPF Document Management*. Record types for documents managed by the UPF DMC in InfoWorks are identified in ML-PS-801768-A004, *Uranium Processing Facility Project Records Retention and Turnover List*, as prescribed by Y15-95-806, *UPF Records Retention and Turnover*. In accordance with E-PROC-3114, *Records Management*, Quality Records are deemed Lifetime or Nonpermanent. The record Quality Type will be identified as Quality-Lifetime (QA-L) or Quality-Nonpermanent (QA-NP) for Quality Records. All non-quality records will be designated Non-Quality (Non-QA).

Records generated during the performance of this Procedure include:

Record or Form Number	Record Title	Record Holder	System/ Location	Document Type	Quality Type
CFN-1298	<i>UPF Bull Rigger Qualification Record</i>	UPF DMC	InfoWorks	TQR	QA-L

5.0 REFERENCES

5.1 Source References

10 CFR Part 851, *Worker Safety and Health Program*

29 CFR 1926, *OSHA Construction Industry Regulations*

Specialized Carriers & Rigging Association (2019), *SC&RA Manual/Bull Rigging Competency Guidebook*

Y17-95-64-823, *UPF Safety Task Analysis and Risk Reduction Talk/Job Hazard Analysis Program (STARRT/JHA) Process*

<i>UPF Bull Rigger Qualifications</i>

Y17-95-64-872, *UPF Cranes Use and Operation*

Y17-95-64-873, *UPF Qualification of Construction Crane Operators*

Y17-95-64-875, *UPF Control of Hoisting and Rigging Equipment*

Y17-95-64-899, *UPF Bull Rigging Work Operations*

Y90-95-027, *UPF Training Program*

5.2 Interfacing References

E-PROC-3114, *Records Management*

ML-PS-801768-A004, *Uranium Processing Facility Project Records Retention and Turnover List*

Y15-95-800, *UPF Document Management*

Y15-95-806, *UPF Records Retention and Turnover*

Y17-95-64-871, *UPF Construction Hoisting and Rigging Work Operations*

Y17-95-64-874, *UPF Rigger, Signal Person, and Competent Person Rigger Qualification*

6.0 SUPPLEMENTAL INFORMATION

Appendix A, *Acronyms and Definitions*

Appendix B, *Bull Rigger Qualification Process*

APPENDIX A Acronyms and Definitions

(Page 1 of 2)

Acronyms

BEO	Bechtel Equipment Operations
BNI	Bechtel National, Inc.
BR PIC	Bull Rigger Person in Charge
CPR	Competent Person Rigger
CPRT	Competent Person Rigger Trainer
ES&H	Environmental, Safety, and Health
NCCER	National Center for Construction Education and Research
PIC	Person in Charge
UPF	Uranium Processing Facility

Definitions

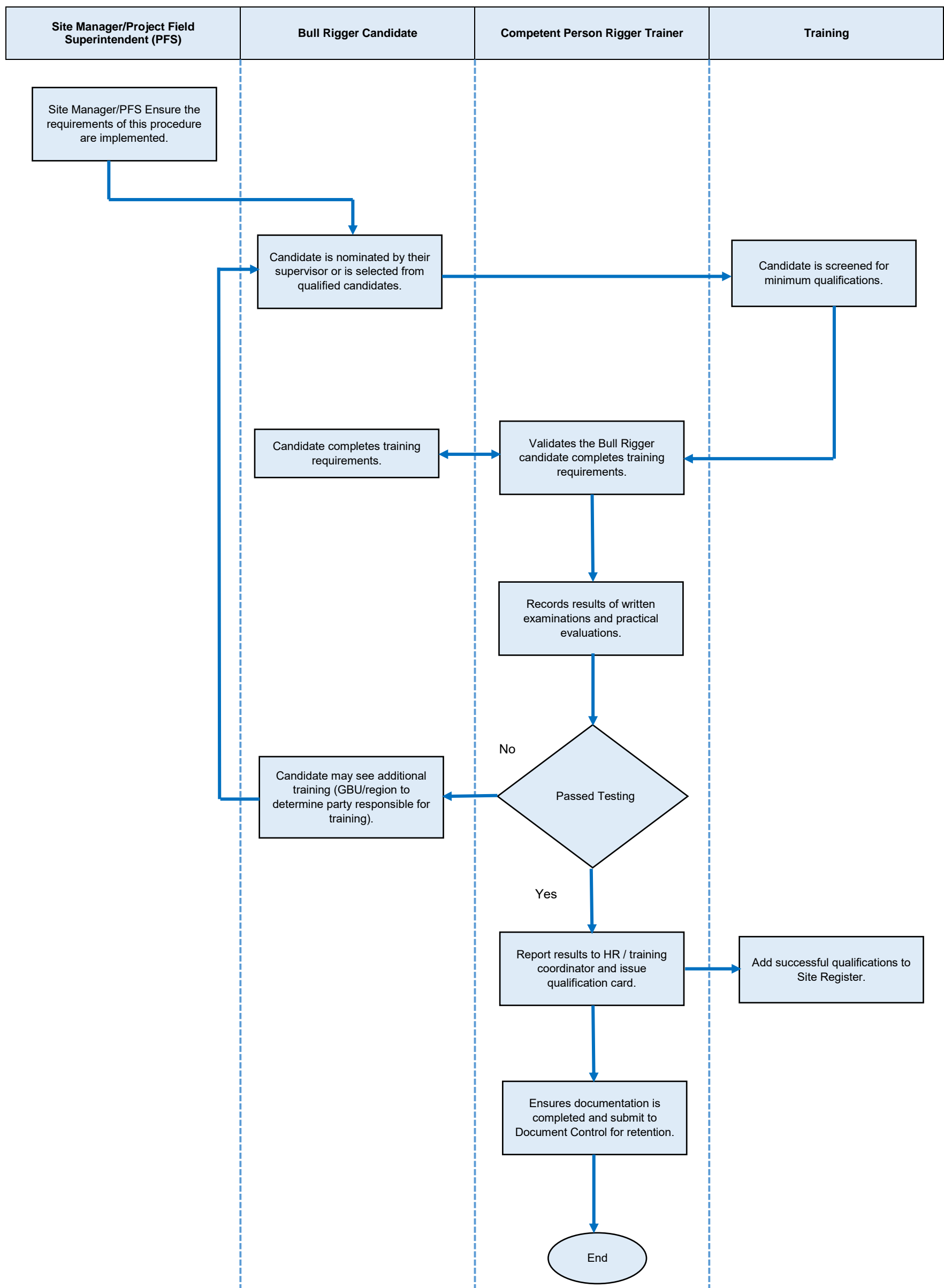
Accrediting Agency	<p>A “nationally recognized accrediting agency” is “an organization that, due to its independence and expertise, is widely recognized as competent to accredit testing organizations”</p> <p>The National Commission for Certifying Agencies (NCCA), and the American National Standards Institute (ANSI) are nationally recognized accrediting agencies in the United States of America.</p>
Accredited Testing Organization	An organization that is accredited by a “nationally recognized accrediting agency” to test and certify persons.
Approved Certifications/Qualifications	Bechtel accepts certifications/qualifications granted by accredited testing organizations who are in turn accredited by nationally recognized accrediting agencies with jurisdiction in the area in which the work is being conducted, provided that the certification scheme is competence based, has scope and content broadly compatible with US accredited courses, and requires formal testing.
Bechtel Equipment Operations (BEO)	Bechtel’s construction equipment division; Bechtel’s rigging engineering group is based on BEO.
Competent Person	An individual capable of identifying existing and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
Competent Person Rigger	A person with advanced rigging skills who is qualified in accordance with Y17-95-64-874.

APPENDIX A Acronyms and Definitions

(Page 2 of 2)

Competent Person Rigger Trainer	A person qualified in accordance with Y17-95-64-874 to train and qualify CPRs.
Qualified Evaluator	An individual who has demonstrated that he/she is competent in accurately assessing whether individuals are qualified to be Bull Riggers and is certified through third-party or UPF as an evaluator (i.e., Rigging Superintendent, CPRT, Rigging Engineer).
Qualified Person	An individual who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, successfully demonstrates the ability to solve/resolve problems relating to the subject matter, the work, or the project.
Qualified Rigger	A rigger who meets the Occupational Safety and Health Administration criteria for a "qualified person," is Certified to NCCER Advanced Level or the equivalent, and whose performance and practical "hands-on" experience has been verified by Bechtel.
Site Register	A listing of qualified persons (and the validity of their qualifications) maintained at site level by the Project Training Manager (or designee).

APPENDIX B Bull Rigger Qualification Process



DISCLAIMER

This work of authorship and those incorporated herein were prepared by Consolidated Nuclear Security, LLC (CNS) as accounts of work sponsored by an agency of the United States Government under Contract DE-NA-0001942. Neither the United States Government nor any agency thereof, nor CNS, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility to any non-governmental recipient hereof for the accuracy, completeness, use made, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency or contractor thereof, or by CNS. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency or contractor (other than the authors) thereof.

COPYRIGHT NOTICE

This document has been authored by Consolidated Nuclear Security, LLC, under Contract DE-NA-0001942 with the U.S. Department of Energy/National Nuclear Security Administration, or a subcontractor thereof. The United States Government retains and the publisher, by accepting the document for publication, acknowledges that the United States Government retains a nonexclusive, paid-up, irrevocable, world-wide license to publish or reproduce the published form of this document, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, or allow others to do so, for United States Government purposes.