

# LIFT PROCEDURE

Procedure Number: D-L-NCSX-983 Rev. 01

**TITLE: Modular Coil Winding Form Lift Procedure**

**Note: LIFT DATA SHEETS NEEDED TO PERFORM THIS LIFT**

PREPARED BY: James H. Chrzanowski DATE: 3/17/06  
James H. Chrzanowski- Mod Coil ATI

BRANCH/DIVISION HEAD: Larry Dudek DATE: 5/17/06  
Larry Dudek- Modular Coil RLM

PIC: James H. Chrzanowski DATE: 3/17/06  
James H. Chrzanowski- Modular Coil ATI

LIFT MANAGER: Michael Viola DATE: 3/17/06  
Michael Viola- NCSX Lift Engineer

PROCEDURE INCLUDES ALL ATTACHMENTS

**Modular Coil Winding Form Lift Procedure  
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**1.0 INTRODUCTION:**

- 1.1 This procedure describes the necessary equipment and methods to follow in transporting a Modular Coil Winding Form in the horizontal position. It will also be used for repositioning the winding form from the horizontal to vertical position for winding form rework activities.
- 1.2 DELETE
- 1.3 This procedure shall be used for handling the bare winding forms prior to having the coil turns installed.
- 1.4 These tables identify the weights of the three coil types prior to and after winding operations.

**Table 1- Weight of Empty Winding Form**

<b>Casting Type</b>	<b>Weight (lbs)</b>
A	4985
B	4940
C	5700

**DELETE Table 2- Weight of Completed Modular Coil**

- 1.5 This lift has been classified as a Critical lift because of the cost and impact to the NCSX schedule if damaged.
- 1.6 This lift procedure shall used in conjunction with procedures [reference]:  
**D-NCSX-MCF-001-** Modular Coil Winding Form Preparation Activities  
**D-NCSX-MCF-004-** Modular Coil Post VPI Activities

**2.0 PREREQUISITES:**

- 2.1 PIC will attest on the Lift Data Sheet that any installation, disassembly, or removal procedures required to allow the equipment to be moved have been completed.
- 2.2 PPPL Lift Manager and QC shall be notified in advance of a critical lift.
- 2.3 No Critical Lift may be commenced without the presence of a PPPL Lift Manager or his designee unless designated as a repetitive lift by the Lift Engineer.

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- 2.4 The lift must be made in accordance with ENG-021 Hoisting and Rigging Program.

**3.0 PRECAUTIONS:**

- 3.1 The area where lift is being made shall be properly secured so that personnel other than the lift team are allowed access.
- 3.2 All personnel involved in this procedure shall wear hard hats.
- 3.3 All rigging shall be inspected by a qualified rigging specialist (QRS).
- 3.4 The crane operator shall be Critical Lift certified.
- 3.5 Protection for the slings and equipment from sharp edges will be provided.

**4.0 PROCEDURE FIELD CHANGES**

Procedure field change can be made on site if approved by the PPPL Lift Engineer by working up or using a new Lift Data Sheet.

**5.0 LIFT DATA SHEET INSTRUCTIONS**

The attached Lift data sheet provides the specification for the hoisting and rigging aspects of the lift and shall be initiated by the Cognizant engineer.

**6.0 PROCEDURE:**

**6.1 Horizontal Transport:**

- 6.1.1 Use the lifting arrangement identified on the attached Lift Data Sheet no. 1; connect the modular coil winding form to the overhead crane.
- 6.1.2 The PIC shall identify the coil being transferred and information on Lift Data sheet.
- 6.1.3 Slowly lift the modular coil winding form and transport to the desired location.
- 6.1.4 Lower the modular coil into its final position and remove all lift slings, shackles and chain falls.

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6.1.5 The modular coil lift and transfer is complete. Attached a copy of completed/signed Lift Data Sheet to back of procedure.

**6.2 Horizontal to Vertical Repositioning of Winding Form:**

6.2.1 Use the lifting arrangement identified on the attached Lift Data Sheet no. 2; connect the modular coil winding form to the overhead crane.

6.2.2 The PIC shall identify the coil being transferred and information on Lift Data sheet.

6.2.3 Slowly lift the modular coil winding form from the horizontal to vertical position and transport to the desired location.

6.2.4 Once in position, remove all lift slings, shackles and chain falls.

6.2.5 The modular coil lift and transfer is complete. Attached a copy of completed/signed Lift Data Sheet to back of procedure.

**6.3 Vertical to Horizontal Repositioning of Winding Form:**

6.3.1 Use the lifting arrangement identified on the attached Lift Data Sheet no. 3; connect the modular coil winding form to the overhead crane.

6.3.2 The PIC shall identify the coil being transferred and information on Lift Data sheet.

6.3.3 Using the slings and chain fall, slowly lower the modular coil winding form from the vertical to horizontal position.

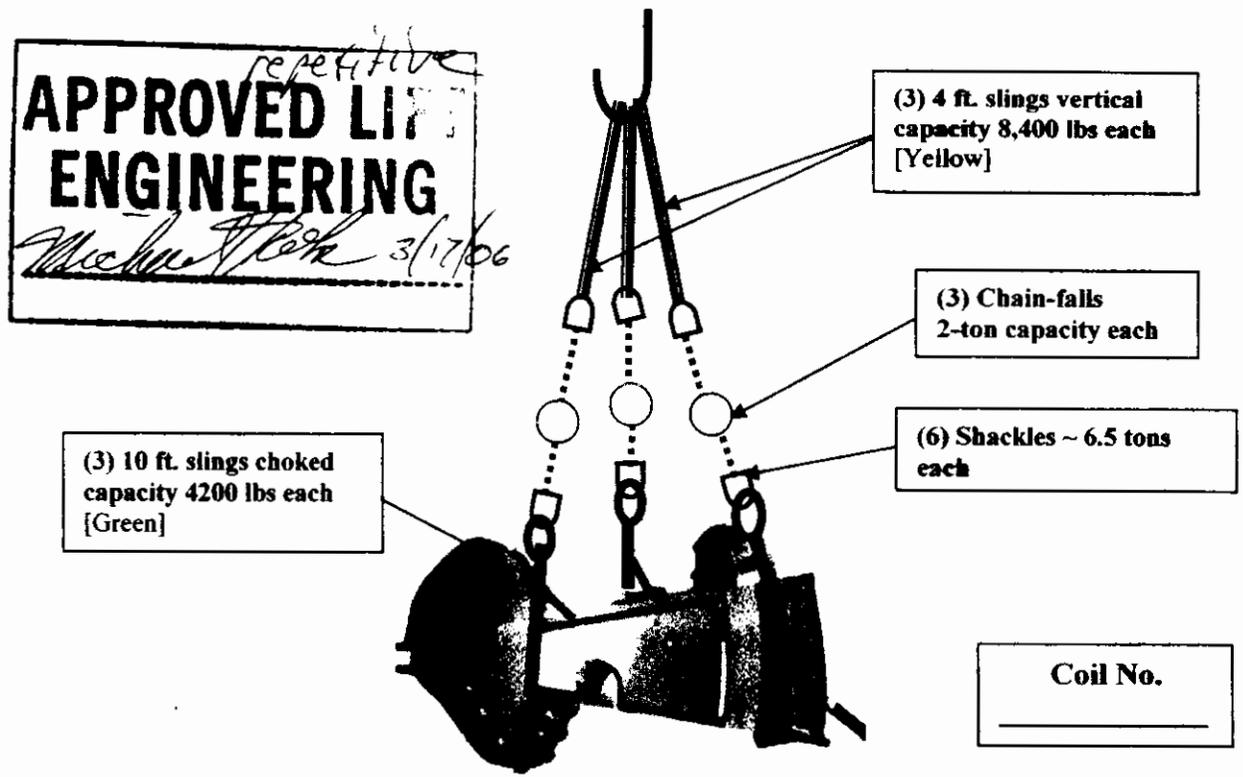
6.3.4 Once in position, remove all lift slings, shackles and chain falls.

6.3.5 The modular coil lift and transfer is complete. Attached a copy of completed/signed Lift Data Sheet to back of procedure.

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<b>LIFT TITLE:</b> Lifting the Modular Coil Winding Form	<b>Effective Date:</b> 3/17/06	<b>Initiated:</b>	<b>Prepared by:</b>
	<b>LIFT PROCEDURE NO. D-L-NCSX-983</b> Sheet 1	<b>Repetitive Lift Expiration Date:</b>	COG. ENG. / PHYS.
<b>AREA:</b> NCSX Coil Manufacturing Facility	Approved: <i>Michael Flork</i> <b>LIFT MANAGER</b>		

**DISASSEMBLY PROCESS COMPLETED** PIC: \_\_\_\_\_  
**PROCEDURE PREREQUISITES COMPLETED** QC: \_\_\_\_\_



**DESCRIPTION:** WEIGHT: 6200 Lbs. (max.) **DETERMINED BY:** Calculations  
 Sketch of rigging shall include: Crane Capacity, Hook Load, All Rigging, Lift Height, Flight Plan  
 Sketch of equipment shall include: Dimensions, Bolts Removed, Allowable Tilt

M. Fernandez CRANE OPERATOR (print)	I. Bertzak, W. Zimmer, M. Hense, E. Gilsonan RIGGING TEAM (print)
APPROVED: <i>R. Delaney</i> F. Simmons	APPROVED: _____ QRS (Rigged per sketch)
APPROVED: _____ QRS (Rigged per sketch)	APPROVED: _____ PIC (Equipment ready to lift)
APPROVED: _____ QRS (Rigged per sketch)	APPROVED: _____ LIFT ENGINEER (Qualification/inspection complete)

... PERFORM LIFT... PERFORM LIFT... PERFORM LIFT...

Equipment is secure and rigging may be removed: PIC: \_\_\_\_\_ Date Performed: \_\_\_\_\_  
**LIFT DATA SHEET AND ALL DATA TO BE RETURNED TO PPPL OPERATIONS CENTER.**

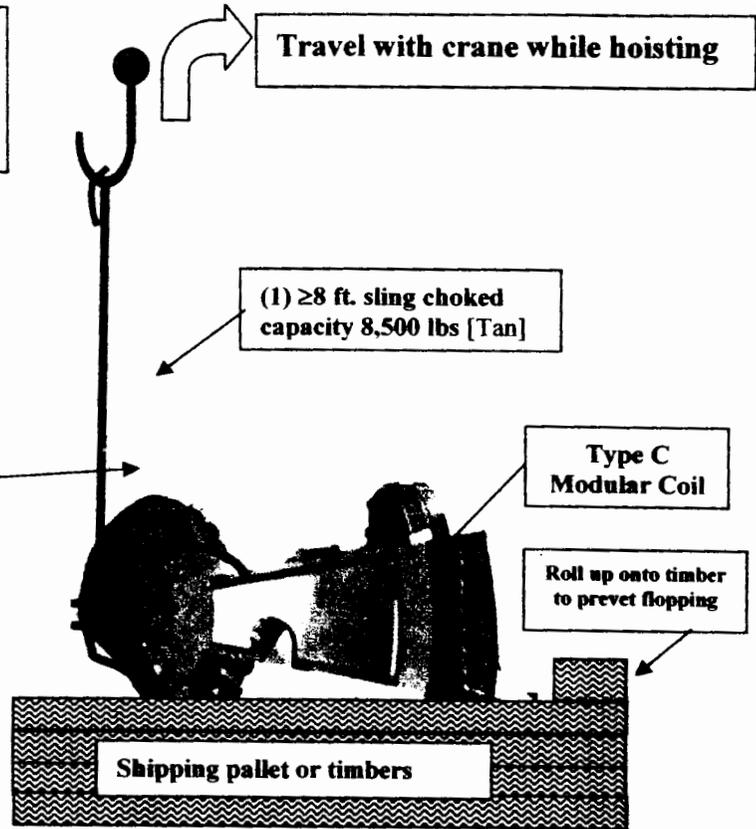
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<b>LIFT TITLE:</b> Lifting the Modular Coil Winding Form	<b>Effective Date:</b> 3/17/06	<b>Initiated:</b>	<b>Prepared by:</b>
	<b>LIFT PROCEDURE NO.</b> D-L-NCSX-983 Sheet 2	<b>Repetitive Lift Expiration Date:</b>	COG. ENG. / PHYS.      QRS
<b>AREA:</b> NCSX Coil Manufacturing Facility		Approved: <i>Michael Keith</i> <b>LIFT MANAGER</b>	

**DISASSEMBLY PROCESS COMPLETED**      PIC: \_\_\_\_\_  
**PROCEDURE PREREQUISITES COMPLETED**      QC: \_\_\_\_\_

This data sheet is used for rotating the type C casting from horizontal to vertical position. Casting is rotated about the support timbers/pallet.

**Modular Coil No.**  
C- \_\_\_\_\_



**DESCRIPTION:** WEIGHT: 6000 Lbs. (max.)      **DETERMINED BY:** Calculations  
 Sketch of rigging shall include: Crane Capacity, Hook Load, All Rigging, Lift Height, Flight Plan  
 Sketch of equipment shall include: Dimensions, Bolts Removed, Allowable Tilt

CRANE OPERATOR _____ (print)	RIGGING TEAM (print) _____	
APPROVED: _____	QRS _____ (Rigged per sketch)	PIC _____ (Equipment ready to lift)
		LIFT ENGINEER _____ (Qualification/inspection complete)

... PERFORM LIFT... PERFORM LIFT... PERFORM LIFT...

Equipment is secure and rigging may be removed: PIC: \_\_\_\_\_      Date Performed: \_\_\_\_\_  
**LIFT DATA SHEET AND ALL DATA TO BE RETURNED TO PPPL OPERATIONS CENTER.**

**Modular Coil Winding Form Lift Procedure  
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<b>LIFT TITLE:</b> Lifting the Modular Coil Winding Form	<b>Effective Date:</b> <i>3/17/06</i>	<b>Initiated:</b>	<b>Prepared by:</b>
	<b>LIFT PROCEDURE NO.</b> D-L-NCSX-983 Sheet 3	<b>Repetitive Lift Expiration Date:</b>	<b>COG. ENG. / PHYS.</b> <i>QRS</i>
<b>AREA:</b> NCSX Coil Manufacturing Facility		<b>Approved:</b> <i>Michael Kola</i> <b>LIFT MANAGER</b>	

**DISASSEMBLY PROCESS COMPLETED**

**PIC:** \_\_\_\_\_

**PROCEDURE PREREQUISITES COMPLETED**

**QC:** \_\_\_\_\_

This data sheet is used for rotating the type C winding form from vertical to horizontal position. Use chain fall to lower and rotate

**Modular Coil #**  
C- \_\_\_\_\_

(1) ≥3 ft. sling  
Vertical cap.  
10,600 lbs [Tan]

**Travel with crane while hoisting**

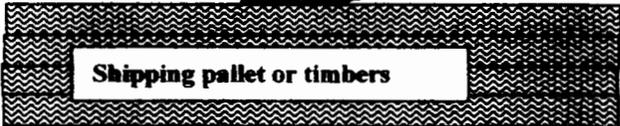
(1) ≥3 ton min.  
capacity chain fall

(1) ≥6 ft. sling  
choked capacity  
8,500 lbs [Tan]

(3) ≥6 1/2  
Ton shackle

(2) ≥20 ft.  
sling Vertical  
capacity  
10,600 lbs  
[Tan]

**Type C  
Modular Coil**



**DESCRIPTION:** WEIGHT: 6000 Lbs. (max.) **DETERMINED BY:** Calculations  
Sketch of rigging shall include: Crane Capacity, Hook Load, All Rigging, Lift Height, Flight Plan  
Sketch of equipment shall include: Dimensions, Bolts Removed, Allowable Tilt

<b>CRANE OPERATOR</b> (print)	<b>RIGGING TEAM</b> (print)		
<b>APPROVED:</b> (Print and Initial)	<b>QRS</b> (Rigged per sketch)	<b>PIC</b> (Equipment ready to lift)	<b>LIFT ENGINEER</b> (Qualification/inspection complete)

**... PERFORM LIFT... PERFORM LIFT... PERFORM LIFT...**

Equipment is secure and rigging may be removed: **PIC:** \_\_\_\_\_ **Date Performed:** \_\_\_\_\_

**LIFT DATA SHEET AND ALL DATA TO BE RETURNED TO PPPL OPERATIONS CENTER.**