Performance Verification Packet

Industrial Maintenance Mechanic
Version 3

This performance verification is designed as one method to evaluate job skills and safe work habits of a participant. The performance of the participant must be evaluated by an NCCER certified evaluator, at an NCCER authorized assessment site and be approved by an NCCER accredited assessment center.

Last Updated: February 2010

NCCER
13614 Progress Blvd• Alachua, FL 32615
1-888-622-3720

Performance Verification Form
How to fill out and file your information

Participant

1) Print your last name, first name, and social security number.
2) Print your company name, current employer, and the state where your employer's main office is located.
3) In the space provided for "Participant Signature," sign your name and enter the date you signed the form.

Performance Evluator

1) In the space provided for "Site Code," enter the postal zip code of the location where the performance verification is being conducted.
2) In the column provided for "Date," enter the date the participant completed each of the tasks. This date is important because there may be times a participant does not complete a performance verification in one day.
3) In the space provided for "Performance Evaluator," sign your name.
4) In the space provided for "Date," next to your signature, list the date the participant successfully completed all of the tasks.

Administrator

1) In the space provided for "Administrator," sign your name. Your signature indicates that the performance evaluator is certified to conduct this performance verification and that it was conducted within the guidelines of the NCCER.
2) In the space provided for "Date", next to your signature, list the date that this performance verification form is being sent to the NCCER for entry into the National Registry.
3) In the space provided for "Accredited Assessment Center," print the name of the accredited assessment center that is conducting this performance verification.

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Objectives

The candidate will demonstrate the ability to remove and install pull exchanger bundle, perform rigging techniques, remove and install valves, identify valve types, install blinds, perform a hydrostatic test, maintain valves and employ effective safety practices

Scope

This Performance Verification provides a means to observe and evaluate competencies in the following areas:

- Remove and install bundle within exchanger
- Identify, handle, remove, install and maintain valves
- Rigging
- Identify, remove and install couplings
- Identify, remove and install bearings
- Set baseplates and pre-align equipment
- Align equipment using conventional, reverse or laser alignment techniques
- Thread and install a ferrous detail of up to 2 ½ inches
- Install blind and perform hydro-test

Materials and Tools Required

- PPE
- Heat exchanger
- Wrenches (combination and pipe wrenches)
- Hydrostatic test pump and pressure gauge
- Blinds or caps
- Threading machine
- Chain vises
- Threaded fittings and pipe
- Various valve types
- Pipe dope or tape
- Rigging equipment (i.e., sling, shackles, hoist, etc.)
- Pullers
- Induction heater
- 250-degree temp-stick
- Various coupling types
- Emery cloth or Scotchbrite
- Flat file
- Various bearing types
- Allen wrenches
- Foundation and baseplates
- Machinist level
- Optical level
- Shims (hard pack and precision shims)
- Hand held mirror
- Dial indicators with chain or reverse alignment brackets
- Laser
- Brass punch
- Job site specific equipment based on equipment type and procedures

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Time Required

To be determined based on job site

Tasks

The evaluator will provide necessary P&IDs, specification sheets, instrument index, and job-specific details for each task.

- **Safety**
  - Demonstrate safe work practices
  - Obtain proper permits
  - Use PPE correctly
- **Remove and install bundle with heat exchangers**
  - Verify lockout/tagout or obtain permit
  - Remove and Install Bundle
- **Identify, handle, remove, install and maintain valves**
  - Identify type and flow of at least six (6) valves
  - Verify lockout/tagout or obtain permit
  - Remove and install valve indicated by evaluator
  - Notify appropriate personnel for completion of work
  - Repack a valve
- **Rigging**
  - Identify types of rigging
  - Demonstrate a lift and crane hand signals
- **Identify, remove and install couplings**
  - Identify different types of couplings
  - Remove and install non-interference couplings
  - Remove and install interference couplings
- **Identify, remove and install bearings**
  - Identify different types of bearings
  - Remove and install non-interference bearings
  - Remove and install interference bearings
- **Set baseplates and pre-align equipment**
  - Set a baseplate to the proper elevation from a given benchmark
  - Level the baseplate using a machinist level and jack bolts
  - Level the baseplate using a machinist level and hard pack shims
  - Layout equipment centerlines
  - Layout equipment hold-down bolts
  - Use proper drill and tapping techniques
  - Perform rough alignment
- **Align equipment using conventional, reverse or laser alignment techniques**
  - Align the equipment using conventional, reverse or laser alignment techniques to acceptable tolerances
- **Thread and install a ferrous detail of up to 2 ½ inches**
  - Fabricate and install a threaded detail
- **Install blinds and perform hydrostatic test**
  - Obtain permit and test specifications
  - Obtain proper tools and equipment

- Install a blind
- Perform Hydro test according to site specific procedures

Date completed | Task

___-___-___ **1. Safety**

- Demonstrated safe work practices
- Obtained proper permits
- Used PPE correctly

___-___-___ **2. Remove and install bundle with heat exchangers**

- Verified lockout/tagout or obtained permit
- Obtained proper tools and equipment
- Removed and installed bundle

___-___-___ **3. Identify, handle, remove, install and maintain valves**

- Identified type and flow of at least six (6) valves
- Verified lockout/tagout or obtained permit
- Obtained proper tools and equipment
- Removed and installed valve identified by evaluator
- Notified appropriate personnel for completion of work
- Repacked a valve

___-___-___ **4. Rigging**

- Identified types of rigging
- Demonstrated a Lift
- Demonstrated crane hand signals

___-___-___ **5. Identify, remove and install couplings**

- Identified different types of couplings
- Obtained proper tools and equipment
- Removed and installed non-interference couplings
- Removed and installed interference couplings

___-___-___ **6. Identify, remove and install bearings**

- Identified different types of bearings
- Obtained proper tools and equipment
- Removed and installed non-interference bearings
- Removed and installed interference bearings

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___-___-___ 7. Set baseplates and pre-align equipment

- Identified different types of bearings
- Obtained proper tools and equipment
- Set a baseplate to the proper elevation from a given benchmark
- Leveled the baseplate using a machinist level and jack bolts
- Leveled the baseplate using a machinist level and hard pack shims
- Proper layout of equipment centerlines
- Proper layout of equipment hold-down bolts
- Used proper drill and tapping techniques
- Performed rough alignment

___-___-___ 8. Align equipment using conventional, reverse or laser alignment techniques

- Obtained proper tools and equipment
- Aligned the equipment using conventional, reverse or laser alignment techniques to acceptable tolerances

___-___-___ 9. Thread and install a ferrous detail of up to 2 ½ inches

- Obtained proper tools and equipment
- Fabricated and installed a threaded detail

___-___-___ 10. Install blinds and perform hydrostatic test

- Obtained permit and test specifications
- Obtained proper tools and equipment
- Installed a blind
- Hydro tested correctly to site specific procedures

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PERFORMANCE VERIFICATION FORM

INDUSTRIAL MAINTENANCE MECHANIC – MEIDMT32_2 - CRAFT

Candidate information		
Last Name	First Name	Social Security Number
Employer/Company Name	State	Code
Evaluator		
Last Name	First Name	Social Security Number

Task Number	TASK	DATE (MM/DD/YY)	START TIME	END TIME
01	Safety (00101-04)			
02	Remove and install bundle within exchanger (32211-08)			
03	Identify, handle, remove, install and maintain valves (32205-04)			
04	Rigging (32111-07)			
05	Identify, remove and install couplings (32304-08)			
06	Identify, remove and install bearings (32303-08)			
07	Set baseplates and pre-align equipment (32305-08)			
08	Align equipment using either conventional, reverse or laser alignment techniques (32306-08, 32404-09)			
09	Thread and install a ferrous detail of up to 2 ½ inches (32204-08)			
10	Install blind and perform hydrostatic testing (32206-08)			

Consent/Release: I, the undersigned, do hereby authorize the National Center for Construction Education and Research (NCCER) to release the information and results attained through the administration of the National Craft Assessment and Certification Program (NCACP) to the organization referenced below, and acknowledge that the employer noted above is my present employer.

Accredited Assessment Center: _____

Participant: _____ **Date**: _____

Performance Evaluator: _____ **Date**: _____

Administrator: _____ **Date**: _____

Last Updated: February 2010

Return Completed Form To:
NCCER Registry
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