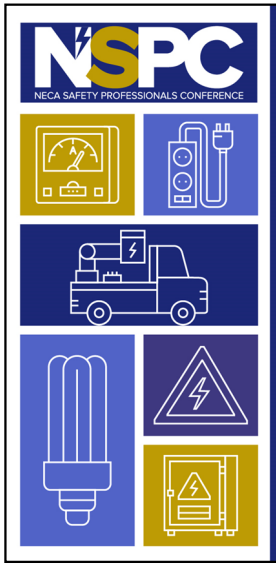

Pre-Task Planning and Post-Task Review: Tools and Resources

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CPWR – The Center for Construction Research and Training

- A nonprofit organization established by NABTU (North America's Building Trades Unions) in 1990
- Located in downtown Silver Spring, Maryland
- Activity areas: research, training, and service
- The National Institute for Occupational Safety and Health's (NIOSH) National Construction Center
- Dedicated to reducing occupational injuries, illnesses and fatalities in the construction industry

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Project and Aims

Project: CPWR's "Prevention through Augmented Pre-Task Planning" funded by NIOSH.

AIMS: Enhance the quality of Pre-Task Planning (PTP) in construction.

- Identify gaps and shortcomings in current PTP practices
- Explore effective strategies to fill the gaps
- Develop applied tools to help practitioners initiate, assess, and improve their PTP and Post-Task-Review processes

Pre-Task Planning

- Research findings suggest that most work-related injuries could be prevented by:
  - Proactively identifying hazards and unsafe conditions associated with each task, tools/equipment, materials, work methods, and jobsite
  - Properly addressing hazards using effective controls before work begins
- When and how to recognize and address hazards?
- **Pre-Task Planning (PTP)** is a process performed before each task starts to discuss the steps of work, the hazards, and available controls. It may also be known as JHA, JSA, or other terms.

Are current PTP practices functional?

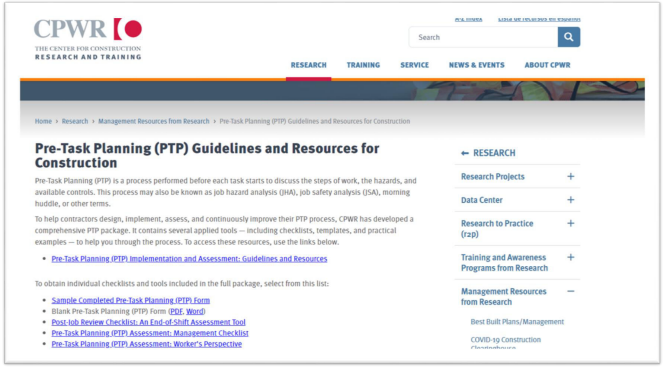
To answer this question, we:

- Interviewed 52 construction managers and safety & health professionals
- Interviewed 156 construction workers
- Observed onsite Pre-Task Planning and morning huddles
- Reviewed 30 sample Pre-Task Planning forms and documents
- Reviewed findings with our Industry Advisory Group

PTP Tools and Resources

- Translated research findings into a comprehensive PTP package (www.cpwr.com/ptp)
- Helps contractors design, implement, assess, and continuously improve their PTP
  - Implementation and Assessment Guidelines
  - Sample Completed PTP Form
  - Blank PTP Template (PDF and Word)
  - Post-Job/End-of-Shift Review Checklist
  - Management PTP Assessment Checklist
  - Workers' Perspective Questionnaire

Pre-Task Planning (PTP) Guidelines and Resources



www.cpwr.com/ptp

Sample PTP Form

Task: Conduit Installation

Steps	Hazards	Controls
Pre-job set up	• Injury from hand tools and power tools • Slips, trips, and falls	• Inspect all tools prior to use. • Secure the work area and clear bystanders. • Use site-specific PPE. • Maintain good housekeeping. • Complete hands-on training prior to using power tools. • Evaluate materials to be drilled for potential hazards (e.g., lead based paint).
Bend conduit using conduit bender tool 	• Injury to hands, including pinching fingers • Strain/sprain from awkward position	• Use site-specific PPE. • Keep hands away from bender head. • Use proper body positioning when bending conduit.
Cut conduit with reciprocating saw 	• Lacerations • Metal debris in eyes • Strain/sprain from awkward position	• Use site-specific PPE. • Secure conduit with a vise prior to cutting. • Keep hands away from saw blade. • Use proper body positioning.
Drill holes with power drill and install conduit supports 	• Debris in eyes • Lacerations • Strain/sprain from awkward position • Breathing hazardous dust • Noise • Burns	• Use site-specific PPE. • In addition to site-specific PPE, use an N95 mask and hearing protection. • Make sure drill bits are sharp and not cracked before use so they don't break off and cause injury. • Do not wear loose fitting clothing that can get caught in moving parts. • Keep hair and jewelry out of the drill path. • Keep hands away from rotating drill bit. • Use proper body positioning. • After drilling, do not touch the drill bit, it is often extremely hot.
Drill hole in junction box with power drill	• Debris in eyes • Lacerations • Strain/sprain from awkward position • Breathing hazardous dust • Noise • Burns	• Use site-specific PPE. • In addition to site-specific PPE, use an N95 mask and hearing protection. • Do not wear loose fitting clothing that can get caught in moving parts. • Keep hair and jewelry out of the drill path. • Keep hands away from rotating drill bit. • Secure junction box with a vise prior to drilling to prevent rotation. • Use proper body positioning. • After drilling, do not to touch the drill bit, it is often extremely hot.
Place conduit 	• Falls • Strain/sprain from awkward position • Debris in eyes	• Use site-specific PPE. • If using a ladder, select one of appropriate height. • Position the ladder directly beneath work area to avoid over-reaching as this can result in falls.

Staff responsible for implementing and checking controls: R. Garcia

How to Develop PTP

- Discuss hazards posed by other crews working nearby
- Include supplemental information
- Give workers the opportunity to lead the PTP meeting
- Provide PTP training – how to complete and how to conduct it
- Gather and incorporate workers' feedback on the PTP process

Crews working nearby:

Crew / Activity	Hazards	Action Plan
Ironworkers / Overhead work	• Falling objects	• Use safety nets. • Establish a clearly marked safety perimeter.
Drywallers / Sanding	• Silica exposure	• Wear a dust mask or N95.
Laborers / Excavation	• Cave-ins • Falling into excavation	• Install barriers or fence off excavation site. • Use a spotter when workers are in or near excavation site.
Operating Engineers / Heavy equipment traffic	• Struck by	• Designate marked pedestrian walkways.

Staff responsible for coordinating with other crews: L. Smith

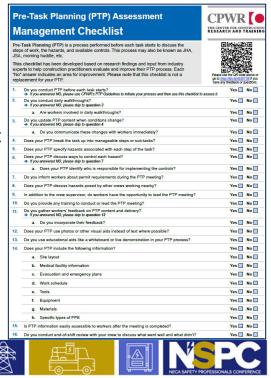
Have you provided the information below?

☑ Site layout ☑ Equipment ☑ Specific types of PPE ☑ Medical facility information
☑ Materials ☑ Tools ☑ Work schedule ☑ Permits ☑ Evacuation and emergency plans

Assess Your PTP Process: Management Checklist

- Use the Management Checklist to assess your PTP process
- Each "No" answer indicates an area for improvement
- Use guidelines presented in the PTP package to improve each component
- Download the Management Checklist:

Pre-Task-Planning-PTP-Assessment-Management-Checklist.pdf (cpwr.com)

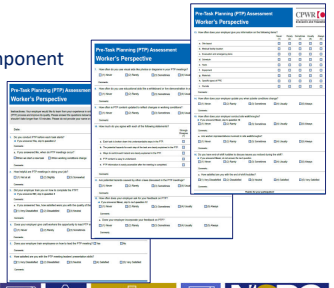

Pre-Task Planning (PTP) Assessment Management Checklist

CPWR

Assess Your PTP Process: Workers' Perspectives

- Actively gather workers' feedback and continuously incorporate it to reach an optimum outcome
- Identify areas for improvement
- Use guidelines presented in the PTP package to improve each component
- Download the Workers' Perspective Questionnaire:

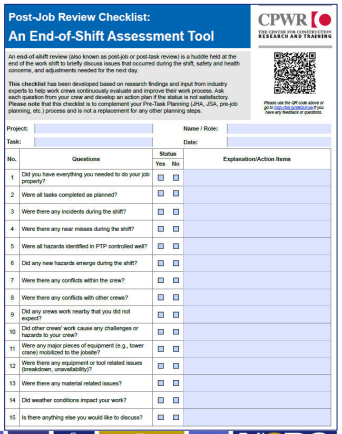
Pre-Task-Planning-PTP-Assessment-Workers-Perspective.pdf (cpwr.com)


Pre-Task Planning (PTP) Assessment Worker's Perspective

Post-Task/End-of-Shift Review

- Huddle at the end of the work shift or completion of the task
- Briefly discuss issues that occurred
- Discuss safety, health, productivity, and other concerns
- Plan adjustments and improvements for the next day or task
- Keep track of issues during the project lifecycle
- Download the Post-Job Review Checklist:

Post-Job-Review-Checklist-An-End-of-Shift-Assessment-Tool.pdf (cpwr.com)



Post-Job Review Checklist:
An End-of-Shift Assessment Tool

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THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING

An end-of-shift review (also known as post-job or post-task review) is a huddle held at the end of the work shift to briefly discuss issues that occurred during the shift, safety and health concerns, and adjustments needed for the next day.

This checklist has been developed based on research findings and input from industry experts to help work crews continuously evaluate and improve their work process. Ask each question from your crew and develop an action plan if the status is not satisfactory. Please note that this checklist is to complement your Pre-Task Planning (JHA, JSA, pre-job planning, etc.) process and is not a replacement for any other planning steps.

Please use the QR code above or go to https://bit.ly/48Ctl1p if you have any feedback or questions.

Project: Name / Role:
Task: Date:

No.	Questions	Status Yes	Status No	Explanation/Action Items
1	Did you have everything you needed to do your job properly?	☐	☐	
2	Were all tasks completed as planned?	☐	☐	
3	Were there any incidents during the shift?	☐	☐	
4	Were there any near misses during the shift?	☐	☐	
5	Were all hazards identified in PTP controlled well?	☐	☐	
6	Did any new hazards emerge during the shift?	☐	☐	
7	Were there any conflicts within the crew?	☐	☐	
8	Were there any conflicts with other crews?	☐	☐	
9	Did any crews work nearby that you did not expect?	☐	☐	
10	Did other crews' work cause any challenges or hazards to your crew?	☐	☐	
11	Were any major pieces of equipment (e.g., tower crane) mobilized to the jobsite?	☐	☐	
12	Were there any equipment or tool related issues (breakdown, unavailability)?	☐	☐	
13	Were there any material related issues?	☐	☐	
14	Did weather conditions impact your work?	☐	☐	
15	Is there anything else you would like to discuss?	☐	☐	

Post-Task/End-of-Shift Review: Benefits

- Systematically communicate with workers and gather their feedback
- Identify and document safety, productivity, and quality issues and their sources
- Complement Pre-Task Planning and feed the next day's plans
- Help continuously improve project performance from all aspects
- Providing leading indicators for future projects' success
- Enhance interaction with workers and improve their buy-in

Post-Task/End-of-Shift Review: Challenges

- Who should conduct it and complete the form? Superintendent, foreman, or workers?
- How often should it be conducted?
  - Every day at the end of the shift
  - End of the task
  - Or …?
- Resistance from crew supervisors and workers
  - Time demands
  - Additional paperwork
  - What else?

Continuous Improvement

- Encourage contractors to initiate their PTP process without emphasizing perfection.
- Ask for workers' perspectives.
- Repeat the process to identify shortcomings.
- Simplify the process so it can be completed with minimal effort.
- Remove unnecessary, non-value adding steps.
- Exercise post-task or end-of-shift review.

www.cpwr.com/ptp

Acknowledgement





Thanks!

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Please complete the Online Evaluation

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