

## **Playbook: Capturing Lessons Learned and Improving Performance**

### **What is the innovation?**

The nominated innovation is using “Playbooks” to communicate essential information to craft production workers to facilitate: project scope and schedule “buy-in” by all project participants; a more knowledgeable, capable, and efficient workforce; faster new employee acclimation; and freeing up superintendent, general foreman, and foreman time associated with asking routine questions.

The Playbook is intended to be a working document that the superintendent and general foreman use to communicate essential project and schedule information as well as planning information regarding tooling, equipment, material staging, and other information required by the craft to more efficiently perform their work.

### **What has it changed or replaced?**

In the nuclear industry, the standard modification project previously utilized two primary documents:

1. Engineering Package—The governing design document with all of the engineering and technical requirements for the scope of work.
2. Work Package/Work Order—A document developed by a work planner/field engineer; containing written instructions and all necessary drawings, sketches, specifications, etc. necessary to implement the design.

These two documents are considered “standard practice” for most U.S. nuclear utilities.

The bulk of nuclear modifications are performed during scheduled outages—usually during periods of lower generation demand. Outages result in lost revenue and increased costs for the utility and there has been a concerted, substantially successful effort over the last 20 years to reduce their duration. The Steam Generating Team (SGT) performs major component replacement work during nuclear plant outages and driven by the need for continuous improvement, realized the need to: get workers quickly up to speed with routine project and job performance information; improve worker productivity through improved knowledge and increased empowerment; and improve supervisory effectiveness. As a result, SGT developed a third document: the Playbook.

Where the work package contained many instructions pertaining to what material was to be installed and work instructions relating to the modified plant equipment, it lacked detail to provide other pertinent information such as types and quantities of tooling to perform the work, scaffold necessary to access the work, material staging information, type of other equipment needed to perform the work, etc. Until the Playbook was developed, knowledge of how to efficiently implement the work package in the field was simply “skill of the craft” or “tribal knowledge”. The Playbook provided a mechanism to provide additional information to project workers, thereby improving their knowledge, participation, and performance.

### **When or where did it originate?**

The Playbook concept was first used by SGT on the Calvert Cliffs Unit 2 Steam Generator Replacement Project in 2003. It was originated by SGT management in response to lessons learned from the previous Calvert Cliffs Unit 1 Project. SGT, a joint venture company owned by AREVA and URS, performs major nuclear component replacements for nuclear utilities in the U.S.

### **When and where has it been used?**

The Playbook process has been used by SGT on every project to date since 2003. Excellent project execution is the result of many variables and the Playbook has been a significant factor in SGT’s success. The Playbook process has contributed to positive results including:

- Improved safety performance
- Improved first time weld quality
- Faster craft acclimation and improved understanding of project scope, schedule and efficiency enhancing information
- Improved craft productivity and schedule adherence
- On-time project completion with associated cost avoidance

The Playbook concept has applications beyond nuclear outage work and would provide benefits on any type of construction project.

**Playbook Innovation Illustration:**

**SGT PLAYBOOK**  
 SGT Project: \_\_\_\_\_  
 Work Package No.: \_\_\_\_\_ Rev Date: \_\_\_\_\_ Sheet 1 of 4  
 Work Package Title: \_\_\_\_\_

Pre-Outage Work		Task Own Support	
1. None		<input type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>

Subcontractors		In-Place	
1.		<input type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>

Field Engineering Steps		WP Step
1.		
2.		
3.		
4.		

Work Scope	
1.	
2.	
3.	
4.	
5.	
6.	
7.	

Schedule Coordination / Interface	
<b>Predecessor</b>	
1.	
2.	
3.	
<b>Work Activity</b>	
1.	
2.	
3.	
<b>Successor</b>	
1.	
2.	

**DISCLAIMER**  
 All work activities are controlled by the applicable Work Package in accordance with QEP 11.01.  
 This Playbook is an assist tool only and shall be used to support the activity.

**SGT PLAYBOOK**  
 SGT Project: \_\_\_\_\_  
 Work Package No.: \_\_\_\_\_ Rev Date: \_\_\_\_\_ Sheet 2 of 4  
 Work Package Title: \_\_\_\_\_

Schedule Coordination / Interface	
3.	

Move – In / Move – Out Requirements		Task Own Support	
1. None		<input type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>

Rigging Requirements		Max Lift : Tons
1. None		
2.		
3.		

Health Physics Requirements		RWP No.
1.		
2.		
3.		

Safety Requirements	
1.	
2.	
3.	

FME Requirements	
1.	
2.	
3.	

Scaffolding Needs	
1.	
2.	
3.	

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**SGT PLAYBOOK**  
 SGT Project: \_\_\_\_\_  
 Work Package No.: \_\_\_\_\_ Rev Date: \_\_\_\_\_ Sheet 3 of 4  
 Work Package Title: \_\_\_\_\_

Materials Needed		
Permanent Plant		PO No.
1.	<input type="checkbox"/> In Stock <input type="checkbox"/> N	
2.	<input type="checkbox"/> In Stock <input type="checkbox"/> N	
3.	<input type="checkbox"/> In Stock <input type="checkbox"/> N	
Temporary		PO No.
1.	<input type="checkbox"/> In Stock <input type="checkbox"/> N	
2.	<input type="checkbox"/> In Stock <input type="checkbox"/> N	
3.	<input type="checkbox"/> In Stock <input type="checkbox"/> N	

Standard Tools Required		In Stock	
1.		<input type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>

Special Tools Required		In Stock	
1.		<input type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>

Lockout / Tagout Requirements	
1.	
2.	
3.	

Permit Requirements		In Place	
1.		<input type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>

Initiatives and Opportunities	
1.	
2.	
3.	

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**SGT PLAYBOOK**  
 SGT Project: \_\_\_\_\_  
 Work Package No.: \_\_\_\_\_ Rev Date: \_\_\_\_\_ Sheet 4 of 4  
 Work Package Title: \_\_\_\_\_

Contingencies	
1.	
2.	
3.	

Applicable Lessons Learned	
1.	
2.	
3.	

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