Assessment task 2 –Applying the Plan-Do-Check-Act quality management tool

BSBPMG513A (505A)

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Introduction

Purpose of assessment

To demonstrate knowledge of quality management tools, techniques and methodologies. This assessment task accounts for 10% of total assessment.

Assessment task

Discuss how you would apply the Plan-Do-Check-Act approach to a problem or activity that occurs in the building and construction workplace

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Discuss how you would apply the Plan –Do– Check – Act approach to a problem or activity that occurs in the building and construction workplace.

Scenario:

On the construction site, the labours are trying to install the roof trusses with a crane. The first batch of roof trusses just arrived. However, the emergency signal light was suddenly on when the crane was unloading the trusses. Since there will be more trusses and roof titles are coming the next day, the labors were required to finish today's job on time. Shall they ignore the signal and keep going?

1. Plan:

1.1 Develop the issue and specify the objective

In our scenario, the issue could be wrong operation by crane operator, mechanical failure from crane itself, or load over-weight trusses. The potential risk could be people get hurt by falling objectives or tipping objectives from the crane when they are doing the roof trusses lifting. Also, there is possibility they will damage the crane if the machine continues working when the emergency signal is on. The consequence could be very serious and might cost a lot on money and time wise.

1.2 Develop the solution

Confirm with the operator to find out if it was a wrong operation issue by operator himself. Check the trusses on the crane, to see if we got too many on it. If not, then ask the operator to check the crane see if he can fix it and put it back to work within 2 hours.

Have an emergency meeting with project manager and the labors for a backup solution and see if they can lift the trusses to the roof manually with safe and care, to finish the job in time. Or use other equipment instead.

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1.3 Decide on the actions and allocate the responsibility

At first, pause the whole work, give the labors 30 mins break and ask them to leave the site and buy a coffee or drinks. Secondly, have a quick meeting with project manager and the crane operator, to find out the reason why the emergency light is on. Thirdly, ask project manager to contact the crane company immediately to rearrange another crane and to know when it can be delivered.

1.4 Schedule the time or date to meet the first target

Arrange another crane: If the crane breakdown and could not get the new one delivered in time.

Meeting with relative parties: find out an emergency backup plan.

2. Do

2.1 Carry out the plan immediately:

- pause the whole work, send the labours to have a break and make the site clear.
- Confirm with the operator to make sure if the crane cannot be fixed within a short period.
- Call the crane company to replace a new crane immediately to make sure the continuing jobs could be done on time.

2.2 Gather the data

- Record all the contents of the meeting and all relative documents and data with specific date and time.
- Report the company's management team.
- Hold team briefings to explain the changes to operations that may occur under a new quality system and how they will affect individuals

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- Have an emergency meeting with project manager and the labours at workplace, in order to find out a backup solution for today's job and discuss if they can lift the trusses to the roof manually with safety care. Or find and use other equipment instead.

- Communicate details of changes to all colleagues who will be involved

- Explain changes to the procedures with site manager and labours and make sure they know what they have to do

- Be seen as a leader and involved in the change process, if necessary, seek guidance from a quality system consultant.

3. Check:

3.1 Checking the system

- measuring the results of activities related to quality against the determined requirements.
- Quality audits and reviews: check the works which the labours have done without the crane.
- Quality surveys of major key area, the roof trusses, posi trusses and the structures.
- Quality inspections which check standards and working practise of a section.
- Quality sampling which measures the error potential of a process by random sampling of the area where the roof trusses have been installed.

3.2 Investigating and following up problems or defects

- Collecting evidence and information about the problem of the crane
- Checking the validity of the evidence, double confirm with site manager, the crane operator and crane company.
- Analysing the evidence and deciding the most likely cause
- recording the findings and results
- Notifying the person responsible for taking corrective action.

4. Act:

- **Standardise good solutions**

  Always check the crane in advance. Always have a backup solution.

- **Update the plan with new knowledge**

- **develop counter-measures for things which didn't work**

- **Reassess the plan**

  Set up a meeting with all colleagues who will be involved to reassess the plan, using the internal benchmarking system if necessary.

Conclusion

In conclusion, this assessment demonstrates how to apply the Plan-Do-Check-Act approach to a problem or activity that occurs in the building and construction workplace.

Reference list

Manage project quality (BSBPMG505) –Learner resource

http://asq.org/learn-about-quality/project-planning-tools/overview/pdca-cycle.html

http://news.ewmfg.com/blog/how-to-implement-the-pdca-cycle-plan-do-check-act-in-any-department

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