Standard Operating Procedures

Definition:

Standard operating procedures (SOP) are a detailed explanation of *how* a policy is to be implemented. The SOP may appear on the same form as a policy or it may appear in a separate document. The main difference between a SOP and a policy are *details*. An effective SOP communicates *who* will perform the task, *what* materials are necessary, *where* the task will take place, *when* the task shall be performed, and *how* the person will execute the task.

Are SOP necessary? What benefit do they have to my operation?

The details in an SOP *standardize* the process and provide step-by-step how-to instructions that enable *anyone* within our team to perform the task in a consistent manner. The SOP document serves as an instructional resource that allows employees to act without asking for directions, reassurance, or guidance. The step-by-step written procedure can also help hold team members accountable because the team's expectations are documented and their actions can be measured against the SOP. Communicating procedures that anyone in the operation can follow with consistent results will ensure your operation continually provides high quality products and services.

Purpose of SOP:

- Serve as framework for organizational policy – provide **direction** and **structure**
- Written documentation of best practice
- Tells what, how, when, why, and who
- Provide foundation for:
    - job descriptions,
    - team member training
    - corrective action and discipline, and
    - performance review.

Developing SOP for our team:

• Operation specific SOP can be created by modifying one of these examples or by simply writing down the steps taken when performing specific tasks in our team and following the template of the examples.
• Assess areas in the team in which standard procedures are necessary, start with those in which you are currently communicating most often (i.e battery czar).
• Review available resources to use as a template, or start fresh using these elements.

Elements of an SOP:

• Rationale for SOP
• Detailed description of procedure – based on best practice/standards
• Monitoring actions
• Accountability
• Corrective Actions
• Date of last review or revision date

SOPs Implementation

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• Have available for team members to review
• Conduct a team member in-service to present the information; post one set in a common area
• Use to train new members
• Use them for corrective action/refresher training for all team members
• Incorporate into written job descriptions and performance reviews so there is alignment
• Review and update as needed (i.e new equipment item or team assignment job changes); at minimum review annually

Categories:

*Purpose
*Scope
*Responsibility
*Safety
*Procedure
Knowledge
Checklist
Relevant categories
*Failure Mode

■ Use clear, concise language.
■ Use active voice.
■ Avoid names; use titles instead.

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TEAM 3641
The Flying Toasters
Standard Operation Procedure (SOP)

PITS

1.0 PURPOSE

To outline Team 3641's Pit structure and organization at an FRC/OCCRA type competition.

2.0 SCOPE

This SOP refers to the setup of a Pit area at competition. When a Pit is organized, it is easier to accomplish the necessary goals relevant to the robot and team.

3.0 RESPONSIBILITY

3.1 Pit Chief: Student in charge of the Pit area. This student will have the ability to ask student to leave due to overcrowding. Pit Chief must have a working knowledge of both Technical and Non-Technical.

3.2 Drivers: Responsible for talking to other teams about future matches, communicating with the Pit Chief what needs to occur between matches, talking to Technical Judges, and conferring with Strategy department to determine strategy for the next match.

3.3 Safety Captain: Responsible for ensuring that the Pits are kept safe at all times. Refer to the Safety SOP for protocol for Safety

3.4 Chairman's Representative: Responsible for talking to Non-Technical Judges about the team's activities outside of the robot. Chairman's Representatives must make sure that they are not in the way of the Technical processes that occur in the Pits.

4.0 SAFETY

Safety is the first priority at all events that Team 3641 is involved in. The Safety Captain is responsible for ensuring that the Pits are safe at all times, but the rest of the Pit crew should also be responsible for ensuring that the Pits are safe at all times. Each Pit member should act in a safe manner in everything they do.

5.0 KNOWLEDGE

All team members that are in the Pit must have knowledge of both Technical and Non-Technical aspects of the team. People that may request information include VIP's, other teams, and judges. Pit crew must be able to talk to any of these people about the entire program.

6.0 VISITATION

Team members that are not on the Pit crew are allowed to visit the Pits for short periods of time, but the Pit Chief must ensure that the Pit does not become overcrowded. The Mentors that accompany the team to competition will be responsible for distributing "Pit Passes" to the team members that are sitting in the stands to ensure that the number of students in the Pits is kept to a minimum.

7.0 PIT SET UP

Each morning of the competition, the Pit Crew should proceed directly to the Pit area to begin setting up for the day. No students that are not on the Pit crew should be allowed to visit the Pits until Opening Ceremonies have finished.

8.0 FAILURE MODE

Disorganization and too many people create an atmosphere for tension and chaos. It also displays the wrong image for our team, especially to judges. Moreover, if repairs need to accomplish on the robot, this disturbance can cost the team success and increase stress.

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