Guidance Documents for the Aviation, Space and Defence Organizations

Appendix-4

- Procedures for Collecting Proposal from Gemba (shop floor) -

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1. Objectives

- In such case as each work task's dependence on the Gemba (shop floor), the Gemba being too independent (relying on them too much), there is the possibility that the work will not be performed in accordance with the work instructions, procedure documents, and SPECs, or the risk that rules such as the work procedures, etc. will be changed through an original judgment by a Gemba (particularly in cases in which it is difficult to perform the work in accordance with the requirements and cases in which work improvements are possible).

- In order not to cause such situation, it is important to maintain daily communication with the Gemba and furthermore to establish processes for receiving proposal from the Gemba .

- The objective of these materials is to provide the guidelines and best practices for establishment of processes related to those kinds of communication methods and receiving proposal .

2. Scope

This document can be applied to following areas.

- All aspects of organizations in the aviation, space and defence
 (Note that these materials can be used in other fields as well)
- The Gemba (shop floor) manufacturing the products
- The offices issuing the procedure documents and instructions
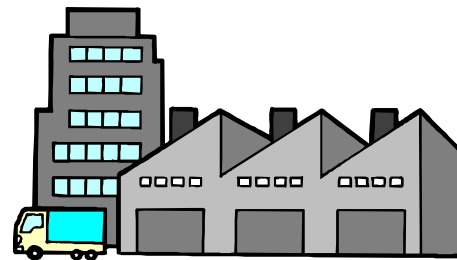
3. Terms

The definitions of the terms used in this material should be as follows.

- Gemba (shop floor) ... The places manufacturing the products, the offices issuing the procedure documents, instructions, etc.

- Proposal ... An idea presented regarding the corrections, work improvements, etc.

- Proposal report ... A document that compiles and reports the proposal from the Gemba

- Correction ... Measures to ensure compliance with blueprints and standards

- Work improvements... Measures implemented to improve work performance and quality
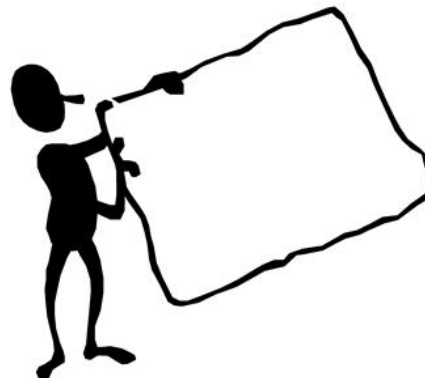
4. Collecting proposal from Gemba (shop floor)

4.1 Introduction

- Isn't your organization in this condition?
  - You have no confidence regarding whether or not the managers are managing the Gemba
  - The managers do not sufficiently understand the status of the Gemba
  - The managers do not know what the Gemba are thinking
  - The proposal from the Gemba are not received in the related departments
  - Proposal from the Gemba are presented, but no measures are taken by the organization as a whole

Here we present three activities that are effective from improving such situation
(communication, receiving proposal, other processes)

4. Collecting proposal from Gemba (shop floor)

4.2 Daily communication

It is necessary for the managers to take care to communicate on a daily basis, so that each work task is not dependent on the Gemba , and the Gemba are not too independent (relied on too much).

Moreover, it is necessary to ascertain

• Whether the Gemba are facing any difficulties

• What the Gemba are thinking

and respond appropriately.

(For the handling methods, refer to Section 4.5)

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4. Collecting proposal from Gemba (shop floor)

4.2 Daily communication (continued)

The managers can utilize the following opportunities to work to improve daily communication.

- ✈ Meeting formats such as the morning meeting, afternoon meeting, etc.
- ✈ Visit to Gemba by managers
- ✈ Opportunities for regular reports such as daily reports, weekly reports, etc.
- ✈ Dinner meetings between executives and workers

Points when engaging in communication ⚠

- Hold regular dialogues (people won't speak up on the first meeting)
- Directly ask actual workers on Gemba
  (not involving superiors is also necessary)

4. Collecting proposal from Gemba (shop floor)

4.3 Processes for receiving proposal from the Gemba

Daily communication is important for ascertaining the conditions in the Gemba, but due to the fact that
"It is difficult to say anything directly(face to face)"
"It is necessary to record proposal in advance"
etc. different methods are necessary.

It is important for the organization to construct "mechanisms for receiving the proposal of the Gemba" and ensure that it can listen to the proposal of the Gemba using appropriate methods.

4. Collecting proposal from Gemba (shop floor)

4.3 Processes for receiving proposal from the Gemba (continued)

Processes for receiving proposal from the Gemba are Processes for reporting the problems that occur on Gemba to the managers/related departments, and are treated as techniques for reporting events that cannot be solved by the Gemba alone to the managers/related departments.

When the proposal from Gemba is NOT confirm sufficiently ...
The proposal from the Gemba arise from the products and are deeply related to quality. When they are neglected, there is a possibility that this will lead to nonconformity

4. Collecting proposal from Gemba (shop floor)

4.3 Processes for receiving proposal from the Gemba (continued)

The work necessary for constructing the processes for receiving proposal from the Gemba is shown below.

(1) Establishment of proposal report form (correction requests, work improvement proposals)
(2) Clarification of the department in charge of the measures
(3) Establish the flow of recommended proposal
(4) Establish methods for managing and measuring the collected proposal
(5) Establish methods of proposal to the Gemba

The points to be careful about for each task and a sample flow at the Gemba manufacturing the products are shown on the next page.
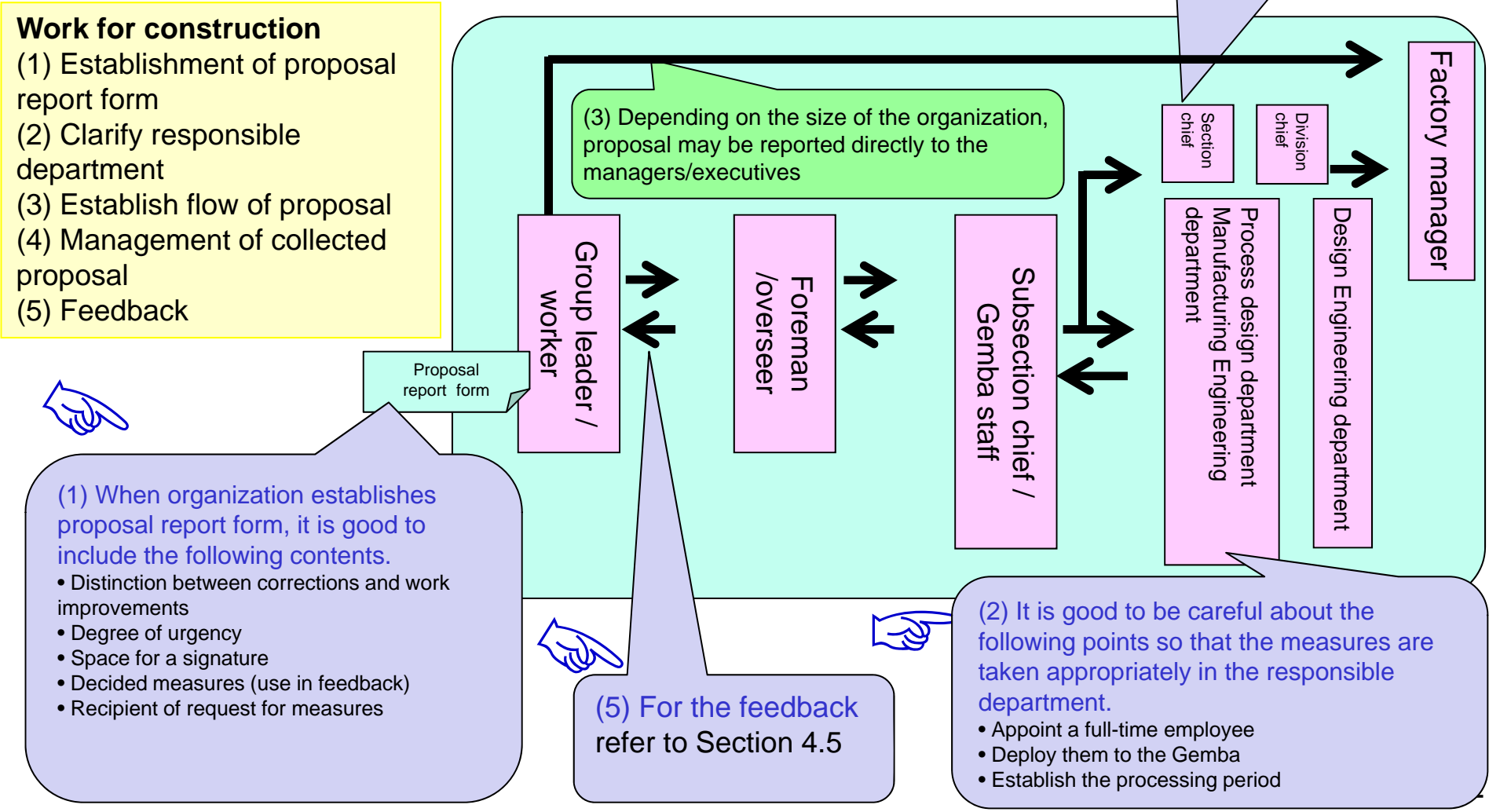
4. Collecting proposal from Gemba (shop floor)

JAQG
Japanese Aerospace Quality Group

4.3 Processes for receiving proposal from the Gemba (continued)

Points for each task and sample flow

Work for construction
(1) Establishment of proposal report form
(2) Clarify responsible department
(3) Establish flow of proposal
(4) Management of collected proposal
(5) Feedback

(4) For the management of the collected proposal refer to section 4.5

(3) Depending on the size of the organization, proposal may be reported directly to the managers/executives

Section chief

Division chief

Factory manager

Proposal report form

Group leader / worker

Foreman /overseer

Subsection chief / Gemba staff

Process design department Manufacturing Engineering department

Design Engineering department

(1) When organization establishes proposal report form, it is good to include the following contents.
• Distinction between corrections and work improvements
• Degree of urgency
• Space for a signature
• Decided measures (use in feedback)
• Recipient of request for measures

(5) For the feedback refer to Section 4.5

(2) It is good to be careful about the following points so that the measures are taken appropriately in the responsible department.
• Appoint a full-time employee
• Deploy them to the Gemba
• Establish the processing period

4. Collecting proposal from Gemba (shop floor)

4.3 Processes for receiving proposal from the Gemba (continued)

Points when the organization establishes processes for receiving the proposal of the Gemba
• Clarify the types of proposal (categories of corrections and work improvements)
• Send the proposal report to the appropriate responsible department (Manufacturing Engineering /Process Design, Design Engineering department, etc.)
• For organizations with no design work, construct a process leading to the customer
• Signing is desirable from the perspective of feedback as well
• For the measures with respect to the collected proposal, refer to Section 4.5
• After establishment of these processes, it is necessary to provide education to the people involved, so that the processes will function reliably
• Incentives for improvement proposals are effective

4. Collecting proposal from Gemba (shop floor)

4.4 Other processes

Even if daily communication is practiced and processes for collecting proposal are established, there are cases in which they will not function perfectly for a variety of reasons.

In such cases, it is desirable to construct an internal reporting system so that the people working on the Gemba and the people

related to them can present their proposal regardless of the office organization.

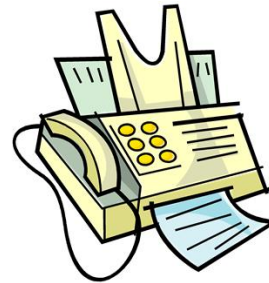Proposal collected using an internal reporting system...
Sometimes these include proposal that do not affect quality such as proposal on their treatment in the company and regarding the work environment, etc. There is, however, a possibility that their awareness of compliance will weaken due to the unfairness/dissatisfaction caused by these factors, so proper responses are necessary

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4. Collecting proposal from Gemba (shop floor)

4.4 Other processes (continued)

When constructing an internal reporting system, it is necessary to prepare several suggestion methods like the following, so that internal reporting is easy to do.

- ➢ E-mails
- ➢ Telephone
- ➢ Documents
- ➢ Fax
- ➢ Bulletin boards
- ➢ Databases
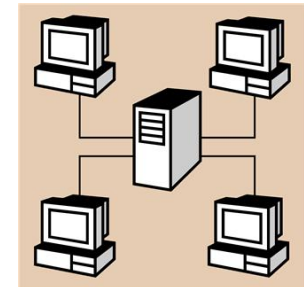
It is also good to handle such a system by organizing a dedicated response group (for example, the Compliance Group).

4. Collecting proposal from Gemba (shop floor)

4.4 Other processes (continued)

When constructing an internal reporting system, it is important to build an environment in which it is easy to get people to present their proposal.

Points when constructing an internal reporting system

- For all internal reporting methods including e-mail, telephone, etc., handle proposal /suggestions both signed and unsigned
- When preparing telephone lines, prepare both internal lines and external lines
- The suggestion box should be installed in a place that is difficult to catch the eyes of people when posting a suggestion, such as a passageway, toilet, changing room, etc.
- Even for signed suggestions, it is necessary to take measures to ensure that the individual cannot be subsequently identified by a third party, etc.

4. Collecting proposal from Gemba (shop floor)

4.5 Responses to the collected proposal

It is necessary for the managers to appropriately handle the proposal collected using a variety of methods. If this is not done adequately, the faith from the Gemba will be lost and the managers will become unable to collect the proposal.

Points when handling the collected proposal

• Establish the order of priority and importance

• It is also necessary to involve the management team in order to handle the collected proposal certainly (utilize follow-up involving the management)

• Openly declare the standard processing period based on the degree of importance

• Ensure that the collected proposal are shared not only within the department, but also in the related departments and can be used for improvements in each department

• It is desirable for the status of the handling of the collected proposal to be shown in lists, etc. so that it can also be understood by the proposal, and the feedback should be given to the recommender
 (Disclose the proposal content and answers/processing status)

• Respond to all of the presented proposal (refer to page 22)

4. Collecting proposal from Gemba (shop floor)

4.6 Application of PDCA to the process of receiving proposal

Even if the methods presented so far have been applied, there are cases in which the proposal are not collected effectively, and sufficient measures have not been taken with respect to the collected proposal.

It is necessary for the managers to make improvements by also applying the PDCA cycle to these processes.

Furthermore, it is good to utilize meeting formats, etc. related to quality to implement reviews of the effectiveness of the processes.
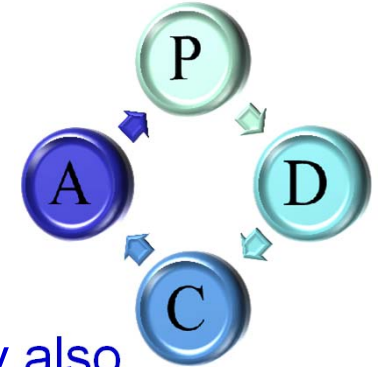
☞ **Points to be careful about when applying the PDCA cycle**

• Check (C) is particularly important

• Have the awareness that the fact that proposal report has not been submitted is not necessarily a good thing

• Check by visualizing the processes and their progress.

5. Example

(1) Quality patrol activities

(i) Gemba patrol by managers

Managers and Gemba leaders conduct patrol to check quality.

The team is consisted of a few members and look at their own

workplaces and other workplaces. Not only findings but

also actions are decided on the spot.
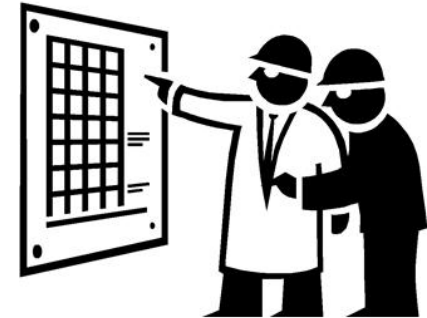
Points when managers patrol Gemba

- Do the workers have any problems?
- Is the Gemba in a situation in which it is not possible to comply with in-house rules and work instructions?
- If there are any problems, summon the related departments and decide the countermeasures on the shop
- Are there any activities in other workplaces that could serve as a reference or example?

5. Example

(1) Quality patrol activities

(ii) Gemba patrol centered on workers

Members primarily consisting of the workers at the Gemba patrol each workplace. The workers themselves aim to raise their own quality awareness by looking at other workplaces.

Points when workers patrol Gemba

• It is good if specific themes is established and a checklist is prepared

(Examples)

• Control of tools... Has the calibration been done, have no tools been lost, have no tools been damaged, are the tools tidy and well-ordered? etc.

• Control of issued documents... Are they consistent with the ledgers, is the work being performed using the current version ? etc.

• Production records... Are there any omissions in the records, are qualified people doing the work, is the work being done in accordance with the process sequence? etc.

• Are there any activities in other workplaces that could serve as a reference or example?

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5. Example

(1) Quality patrol activities

(iii) Gemba patrol by the quality management department

The quality management department implements patrol on specific days established in advance (for example, days with a "9" [pronounced "kyu" in Japanese like "Q" for quality] such as the 9th, the 19th, and the 29th).

They aim to raise quality awareness in each workplace through the patrol.

Points when the quality management department patrols Gemba

- Confirm (ask) if the work is being implemented in accordance with established rules

- Confirm (ask) if the work is being implemented normally

- Raise and establish quality awareness in each workplace by notifying them about the patrol in advance

- It is good to implement the patrol in conjunction with events such as quality month, etc.
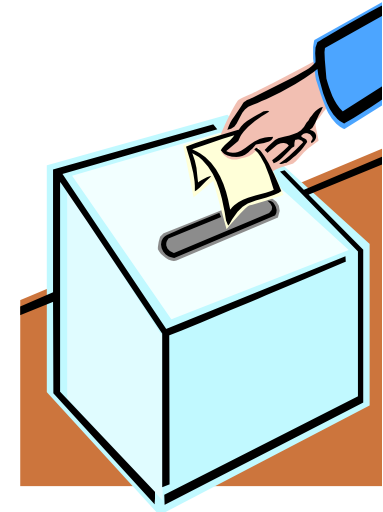
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5. Example

(2) Dialogue activities

(i) Everyone's voice

Regularly solicit corrections and improvement proposals from managers, workers, and related departments belonging to the organization through suggestion boxes and e-mail. Disclose the answers, and share the solutions to problems / status of measures.

Points at time of implementation

- Respond to all of the presented proposal (Even in the case that information is insufficient and a detailed investigation is difficult, disclose such situation as an answer)

5. Example

(2) Dialogue activities

(ii) Quality examination meeting

The quality management department establishes forums for each factory and workplace to discuss quality.
They report the quality status and report the lessons learned from instances of nonconformity.

Points of implementation

• Not only the quality management department but also the managers, workers, and related departments belonging to the organization participate

• It is easier to increase motivation if awards are given to departments with outstanding quality statuses

• It is easier to increase awareness of quality if the representatives of the Gemba also participate

5. Example

(2) Dialogue activities

(iii) Round-table conferences on quality

The organization's executives hold luncheons and tea parties with workers and get them to present problems, dissatisfactions, and improvement proposals, and immediately decide the policies. The organization's executives give instructions for improvements directly to the workplaces and aim for early solutions to the problems.

☞ **Points of implementation**

• Be careful not to put any workers at a disadvantage

5. Example

(2) Dialogue activities

(iv) Interviews at the Gemba by the design engineers, manufacturing engineers, and process designers

The design engineers, manufacturing engineers and process designers visit Gemba and directly receive proposal from workers on sites.

Points of implementation

• Produce improvements in the their activities by directly asking about the workers' evaluations on the blueprints of drawings and processes being planned.

5. Example

(2) Dialogue activities

(v) Interviews at the Gemba by third parties unrelated to the office organization

Third parties unrelated to the office organization (personnel in a position in which they are able to coordinate with the related departments, including consultants, sub-contractors, etc.) visit the Gemba and interview the workers.

☞ **Points of implementation**
- Continue to talk to the Gemba and ask them what the problems are on the Gemba , and what they want from other departments

6. Editor's Note

- Higher quality and safety are required in the products manufactured for the aerospace industry, and an essential condition in development and production is that all of the workers are honest to their work all of the time. This means that the workers perform their work correctly in accordance with regulations and procedures, and correctly record the work they have done. Moreover, we believe that in the case that problems occur even though the work was done in accordance with the regulations and procedures, and in the case that the work cannot be done in accordance with the regulations and procedures, it is necessary for the workers to stop the work and acknowledge the problem.

- In this guidance document, we have complied the guidelines for handling the case that problems occur even though the work was done in accordance with the regulations and procedures, and the case that the work cannot be done in accordance with the regulations and procedures, and have recorded the related best practices. However, what we would like our readers to be aware of at all times is that establishment of the processes for receiving proposal from the Gemba as described in this document is very important, but the foundation of establishment of the processes is daily communication in particular, and is nothing other than relationships of trust between the Gemba and the managers. We believe that no matter how much the managers intend to communicate, and no matter how many mechanisms are constructed for collecting proposal from the Gemba , if there are no relationships of trust between the Gemba and the managers, then it will be difficult for those processes to function adequately. In addition, although we have not discussed this point in detail in this document, we believe that confirming the status and ascertaining the status through daily, open communication in the Gemba makes a large contribution to both proactive prevention of problems and prevention of recurrence of problems. Constructing these kinds of relationships is difficult to do overnight and probably will take a long time sometimes. We hope readers will understand the several points presented in this guidance document to be points in the building of this trust and will utilize them effectively for that purpose.

- In conclusion, we would like our readers to think that when it appears that the manufacturing is relying too much on the Gemba , imposing a large burden on them, then it is necessary to not turn away from the problems but to face the problems on the Gemba , respond sincerely to them, and ensure the continuation of honest manufacturing at all times.