



PROCESS SAFETY CULTURE ASSESSMENT GUIDELINE

EGPC-PSM-GL-020

PSM GUIDELINES

The Egyptian Process Safety Management Steering Committee (PSMSC Egypt)
PSM TECHNICAL SUBCOMMITTEE (PSMTC)

Acknowledgments

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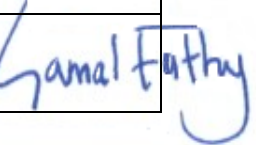
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1. Introduction

People play a key role in process safety management (PSM) system implementation. Systems are created, followed, and assessed by people. In addition, safety and process safety measures require people to design, construct, maintain and operate assets; hence, people can cause incidents (due to human error) and act as a barrier to prevent them. People's behavior or human error directly or indirectly causes all incidents.

The facilities must conduct organizational culture assessments to assess individual and group safety and risk tolerance values within each workgroup. One objective of the process safety culture assessment is to gauge the commitment and effectiveness of an organization's PSM program by evaluating attitudes, perceptions, competencies, and behavior patterns. Once these issues are known, a facility can direct the design, execution, evaluation, and continuous improvement in the work environment to affect changes to process safety-related behaviors and attitudes that ultimately minimize accidents.

2. Purpose

The purpose of this guideline is to guide the COMPANIES to conduct a process safety culture assessment, analyze the process safety culture level of the COMPANY, and identify and implement improvement opportunities to enhance process safety culture to achieve process safety objectives.

3. Scope

This document applies to the Egyptian General Petroleum Corporation (EGPC) and Oil and Gas Holding Companies, including the Egyptian Natural Gas Holding Company (EGAS), the Egyptian Petrochemicals Holding Company (ECHEM), and the South Valley Petroleum Holding Company (GANOPE) covering all their operational subsidiaries, governmental companies, affiliates, contractors, and joint ventures. ENTITIES and their COMPANIES and contractors shall ensure that all requirements listed herein are fully understood, implemented, complied with, and always monitored, including current operations and existing and future projects during the whole project's lifecycle from feasibility to decommissioning.

4. Definitions

COMPANY: Refers to any operating company, subsidiary, affiliated, or Joint Venture companies belonging to an ENTITY.

ENTITIES: Refers to the Egyptian General Petroleum Corporation (EGPC) and Oil and Gas Holding Companies, including the Egyptian Natural Gas Holding Company (EGAS), the Egyptian Petrochemicals Holding Company (ECHEM), and the South Valley Petroleum Holding Company (GANOPE).

5. Abbreviations

CCPS	Center for Chemical Process Safety
ECHEM	Egyptian Petrochemicals Holding Company
EGAS	Egyptian Natural Gas Holding Company
EGPC	Egyptian General Petroleum Corporation
GANOPE	The South Valley Petroleum Holding Company
PSM	Process Safety Management

For other definitions and abbreviations, refer to the PSM Glossary of Definitions and Abbreviations Guideline (EGPC-PSM-GL-011).

6. Attitude, Behavior, and Culture

People usually confuse culture, attitude, and behavior. An individual's attitude shapes their habits and behavior. Group behavior ultimately influences an organization's culture. So, to improve organizational culture, the organization must first focus on changing people's attitudes. The concepts of attitude, behavior, and culture are explained in the following:

- **Attitude** refers to a person's mental view, i.e., regarding how they think or feel about someone or something. Attitude is based on experience and observation.
- **Behavior** is more personal and pertains to an individual's value systems. Behavior is the range of actions and mannerisms individuals, organizations, or systems make. Behavior implies an individual or group's actions, moves, or functions toward other persons. The main difference between attitude and behavior is that behavior reflects one's attitude toward something or someone.
- **Culture**, generally, is an umbrella term that encompasses the social and institutional behavior and norms found in human societies, as well as the knowledge, beliefs, arts, laws, customs, capabilities, and habits of the individuals in these groups. Culture often originates from or is attributed to a specific region or location. In the same context, organizational culture refers to the culture in any organization, including schools, universities, not-for-profit groups, government agencies, or business entities.

7. What is Process Safety Culture?

Focusing on the culture from a process safety perspective, process safety culture is defined as "the combination of group values and behaviors that determine how process safety is managed." More succinct definitions include "how we do things around here," "what we expect here," and "how we behave when no one is watching."

A culture developed as a group identifies certain attitudes and behaviors that provide common benefits to its members; in this case, attitudes and behaviors support the goal of safer process operations. As the group reinforces such attitudes and behaviors and becomes accustomed to their benefits, these attitudes and behaviors become integrated into the group's value system. In an especially sound culture, deeply held values are reflected in the group's actions, and newcomers are expected to endorse these values to remain part of the group.

The process safety culture of an organization is a significant determinant of how the organization will approach process risk control issues, and PSM system failures can often be linked to cultural deficiencies. Considering the above, understanding the organization's culture is crucial to ensure the right and most robust implementation of safety and process safety management systems.

8. Process Safety Culture Assessment

Many process safety culture elements are unique to an individual facility or even to a specific workgroup within the facility. Therefore, comparing results and establishing standards across different work units is difficult. However, it is still possible to establish a baseline and measure progress over time within the same (or similar) work units.

When conducting a culture assessment, data is best collected in various ways designed to encourage a complete and accurate disclosure while minimizing any bias imposed by the collection process. The result can then be compared to eliminate (or explain) inconsistencies. Various collection methods consist of:

- Surveys.
- Focus group interviews.
- Individual interviews.
- Process safety metrics.

In this document, a survey was adopted and used to provide an easy application that can be done without needing to outsource a third party. Surveys, such as the Baker Panel Survey Instrument, are useful for comparing and measuring shifts in employee perceptions over time. Surveys are easy to administer and analyze and can be useful in measuring perceptions.

9. Process Safety Culture Survey

A process safety culture survey using a questionnaire can be used as a tool to identify gaps in process safety culture in an organization and recommend actions for improvement. A process safety culture survey can give insight into the organization's response toward safety. It can also be considered a proactive tool to predict or signal possible future failures. Thus, a safety

culture survey that shows employees do not feel safe at work is a leading indicator that the safety process performance needs to be adjusted or action needs to be taken to mitigate possible risks that can arise from the work environment and the organizational culture. The best practices show that the questionnaire is best constructed based on the following aspects:

1. Process safety reporting.
2. Safety values/commitment to process safety.
3. Supervisory involvement and support.
4. Procedures and equipment.
5. Worker professionalism/empowerment.
6. Process safety management training.

Questions or objective statements are written such that employees can answer the extent of agreement or disagreement with the statement. This type of measurement is known as the Likert Scale, a rating scale that assesses opinions, attitudes, or behaviors. The objective results of the extent of agreement/disagreement can then be categorized as an extent of commonly held sets of values, norms, and beliefs that forms the facility process safety culture.

The questionnaire was prepared, and the validity of its questions was measured to illustrate the possibility of relying on these questions in assessing the process safety culture among workers in the Egyptian petroleum sector through several verification stages according to the following steps:

1. A draft of the questionnaire was prepared in Arabic by one of the process safety experts in the Egyptian PSM technical subcommittee concerning the "Baker Panel Questionnaire" that was prepared internationally for the same purpose.
2. The draft was reviewed by members of the Egyptian PSM technical subcommittee who have cumulative experience in all aspects of PSM elements to illustrate that the questionnaire includes clear, structured, consistent, and comprehensive questions. Then the questionnaire was modified according to the proposals for the amendment.
3. The internal (statistical) validity and reliability coefficient of the questionnaire was calculated and verified through the following:
 - a) Determine the number of experimental sample members for some workers in an Egyptian firm working in the petrochemicals industry (the number of the sample was calculated using the Stephen Thompson equation).
 - b) The questionnaire was distributed to approximately 10% of the sample members (a specified percentage of the experimental sample) of various disciplines.

- c) The alpha coefficient of Cronbach (the statistical coefficient used to measure the validity and reliability of the questionnaire's phrases and the accuracy of the results taken from this questionnaire) has shown that the results of the alpha coefficient are good. That illustrates the significant statistical validity and reliability of the questionnaire.

From the above, the validity and reliability results of the questionnaire's phrases are good; therefore, the questionnaire can be applied in assessing the culture of process safety for workers in the Egyptian petroleum sector COMPANIES.

9.1 Culture Survey Form

The survey form contains three major sections:

1. About Me:

This section asks for information about the employee and his work background, not including the employee's name, as the questionnaire is anonymous. This information is for research purposes only and will not be used to identify him.

2. My Opinions and Comments:

This section contains statements that ask for the employee's thoughts on what it is like to work at the facility. There are no right or wrong answers; the questions ask for his opinion based on his experience; the questions in this section are designed with a five-point scale: strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree. The employee shall review each statement and select the equivalent number to his opinion from 1 to 5. The questions in this section are grouped under six main aspects mentioned in section 9.

Comment sections after each aspect of the questions provide the employees with an opportunity to express their written thoughts regarding the topic. If the employees do not have enough space to write their comments after each selection, they will be allowed to continue commenting on the final page of the survey.

3. Final Comments:

There is also a final comments section at the end of the survey in which the employees will have an opportunity to add any additional feedback that they might have.

9.2 Culture Survey Methodology

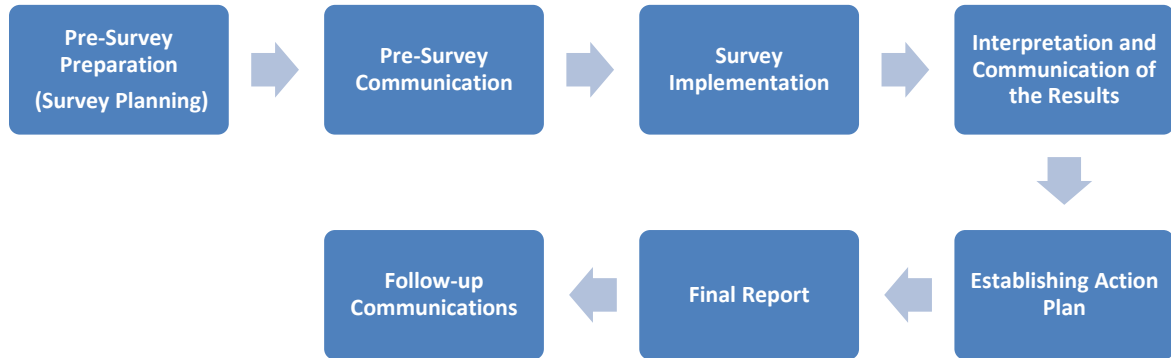


Figure 1. Culture survey steps.

9.2.1 Pre-Survey Preparation (Survey Planning)

The PSM team will prepare a culture survey plan, send it for approval, and coordinate with a focal point of each division to implement the safety culture survey compliance with an approved plan. The plan shall include the following:

1. Criteria for successful participation:

Due to the potential of different subcultures existing within various major workforce disciplines, at a minimum, the workgroups assessed should include employees from management, supervisors, operators, maintenance, engineering, HSE, resident contractors, and applicable transient contractors, taking into consideration the following:

- The minimum number of staff from each department required for the culture survey is 50 %.
- A rule of thumb is that a 20–30% participation rate should be expected. So, plan to send periodic reminders to participants to boost participation.

2. Confidentiality:

A key consideration in obtaining honest feedback and a representative sampling of the workforce is to verify/confirm confidentiality. People will be unwilling to participate in the survey if they believe they can be identified. It will be necessary to make every effort to ensure the anonymity of everyone who participates in the survey.

3. Timing:

An initial consideration for completing the survey should be timing. Avoid holidays or other periods when the organization may be distracted, such as during major organizational changes or times when other surveys may be planned. Decide on a

timetable and how the survey will be administered. Allow time for individuals to work within or around their schedules to complete the survey so that the maximum number of responses can be obtained.

A good rule of thumb is to keep the survey length so that the average person can complete it in 20 minutes, with 30 minutes being the maximum. The survey included in Annex A and Annex B considers such requirements.

4. Analysis type and survey tool:

The data analysis of the survey should be decided upon before the survey is designed. The process safety culture survey tool could be either a hard copy form (Annex A and B) or an online-based process safety culture survey depending on each survey time and available resources.

9.2.2 Pre-Survey Communication

Before conducting a survey, it is important to set the stage well before issuing it. This will help to enlist employee buy-in and provide a basic understanding of why the survey is being conducted. People will be more willing to participate if they know the objectives, that the survey is endorsed by senior management and that the results will be shared. Several further communications should be issued at various time intervals leading up to the actual survey being issued; several methods that can assist in the initial communications are:

- Notification in the company safety newsletter or other communications format.
- Discussions at company safety meetings and training sessions.
- Written notices are provided in break areas.
- A description of how the survey will be kept confidential and how anonymity will be maintained.

9.2.3 Survey Implementation

All participating personnel shall answer the questions in the survey form (Annex A and B). After the survey, the focal point of each division collects the filled survey forms and sends them to the PSM lead for data collection, results analysis, and final reporting.

9.2.4 Interpretation and Communication of the Results

Data analysis should be completed within a reasonable time after closing the survey. Information about the raw data observations should be provided to employees as soon as possible to recognize and reinforce the value placed on the survey and their participation. Likert Scale questions are best represented by summing the number of responses and calculating the percent response by aspect.

The first step in the analysis is to calculate the percentage of positive feedback (sum of the percentages of "agree" and "strongly agree" responses) and the negative feedback (sum of

the percentages of "disagree" and "strongly disagree" responses). Then, the gaps in process safety culture could be identified based on the percentage of positive and negative feedback. Table 1 provides an example of an analysis of Likert Scale questions, and Table 2 illustrates an example of the analysis of the culture survey feedback toward the process safety training and the possible corresponding gap in the system. Table 3 illustrates the actions required for different ranges of positive feedback percentages.

In addition to the responses to the Likert questions, the written notes in the questionnaire are a good source to extract clear opinions about different aspects of process safety management. Additionally, general observations related to a specific question could indicate a gap. For example, all mechanical department personnel didn't respond to the same question, or the mechanical department responded differently from all other departments.

Table 1. Data analysis of the Likert Scale.

I. Process Safety Reporting					
1.1 This facility provides adequate training on hazard identification, control, and reporting.					
1	2	3	4	5	Total
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree	
6	9	15	21	9	60
10%	15%	25%	35%	15%	100%
Negative Feedback			Positive Feedback		
$\frac{6 + 9}{60} \times 100 = 25\%$			$\frac{21 + 9}{60} \times 100 = 50\%$		

Table 2. Example of an identified gap in the PSM system analysis.

Question	% Positive Response	Gap
This facility provides adequate training on hazard identification, control, and reporting.	50%	The facility doesn't have a training plan. Mechanical department response is more negative than other groups.

Table 3. Criteria for required actions based on the percentage of positive feedback.

Positive Feedback	Required Action
> 80 %	Mature – No action
60 – 80 %	Border - Further investigation
<60 %	Poor culture – Immediate action

Once data tables are created, graphical analysis can be done. For a Likert Scale, simple 100% stacked bar charts visually represent the percent agreement of questions by demographic grouping rolled up to whatever objective level of the desired aspects. Figure 2 is an example graph showing the hypothetical results of a culture survey.

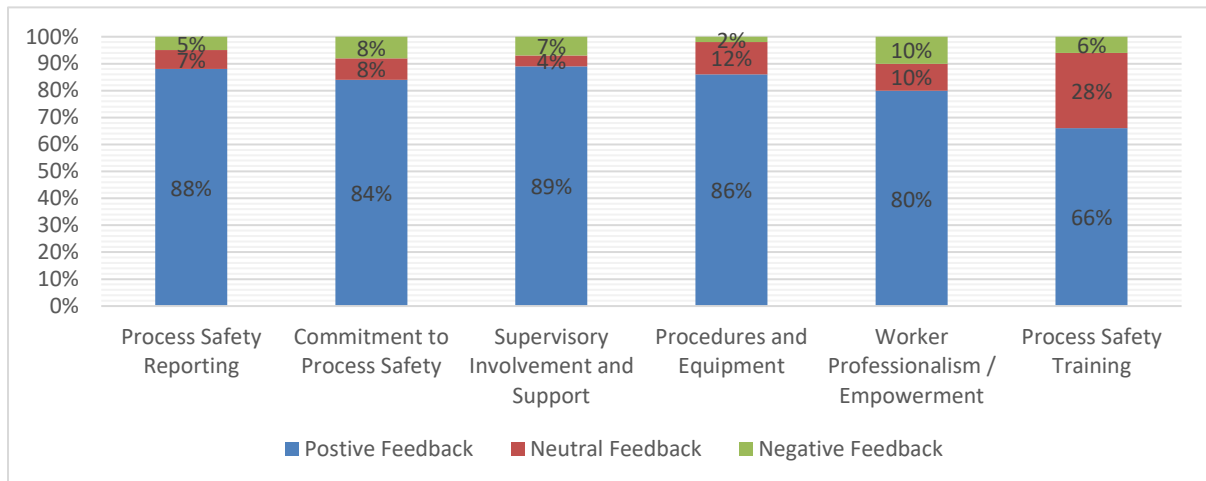


Figure 2. Example of graphical analysis of results.

A well-planned and delivered survey will provide the organization with insights into employee perceptions of safety but not always answer the question of why those perceptions exist. For this reason, the organization should be prepared after the data analysis to dig further into the results to understand better what may be driving employee perceptions. This can be accomplished by conducting small focus group meetings or simple one-to-one sessions.

The positive feedback percentage shows the overall levels of positive perceptions. However, a more comprehensive way to fully pinpoint areas of concern, specific issues, or topics against the overall benchmark is to categorize the responses based on different dimensions and make further analysis to look for causes, such as potential differences in the subculture that may exist in the facility such as within units/zones, from crew to crew, age, department ...etc. The following dimensions could be considered for categorization:

- Gender.
- Plant (in case of multiple plants).
- Job Level.
- Worker type (full-time - part-time - contractor).
- Department.
- Age.
- The number of years in the organization.
- The number of years in the petroleum industry.

9.2.5 Establishing Action Plan

Establishing an action plan is an essential part of the process safety culture assessment process, and it depends on the nature of the feedback provided. Before developing a plan of action for any possible improvements, an additional study may be required to determine why employees responded to questions in a particular way. This can be an important step to help ensure that corrective action plans are credible. Information derived from a safety culture assessment can usually be divided into two types of actions:

1. Short-term, tactical interventions.
2. Long-term, strategic initiatives.

Components of an action plan include:

- A well-defined description of the goal to be achieved.
- Tasks/ steps that need to be carried out to reach the goal.
- People who will oversee carrying out each task.
- The time when these tasks will be completed (deadlines and milestones).
- Resources needed to complete the tasks.
- Measures to evaluate progress.

9.2.6 Final Report

Process safety culture assessment final report shall include the following as a minimum:

- The average score of process safety culture survey items.
- General comments from the survey.
- Results analysis and an evaluation of the current process safety culture level.
- Observations and suggestions (action plan) for enhancing process safety culture level.

The report is to be presented to management and the workforce and should be within one month of data collection. The implementation of improvements should start within three months of the report presentation.

9.2.7 Follow-Up Communications

A key action item is providing employees with follow-up information regarding the safety culture survey. This is particularly important if there is a plan to conduct future surveys, as it will help to demonstrate the value of participants' time. The information provided should be as transparent and open as possible and identify any deficiencies that need to be addressed.

Immediately following the survey, a notice from senior leadership should be issued thanking everyone for their participation and providing a cursory review of the raw data and the next steps in the process. Within a defined time after the first raw data communication, the actual areas identified for improvement and defined action plans should be communicated to all employees. The following types of communication platforms may be of assistance:

- In-house safety newsletter.
- Cascading the results of downline management.
- Audio-casts to staff.
- Podcasts.
- Conference calls.
- Face-to-face group debriefings.
- Postings in employee break areas.

9.3 Culture Survey Responsibilities

9.3.1 PSM Lead (Survey Administrator)

- Prepare process safety survey plan as required.
- Compile process safety survey results associated with its comments.
- Analyze and report the survey results and proposed recommendations for improving process safety culture level.
- Track the actions raised from survey analysis.
- Present survey results to management.
- Monitor the process safety culture change (based on period assessments).

9.3.2 Department Managers

- Responsible for assigning a focal point to coordinate all activities related to the process safety culture survey at his division.
- Encourage and facilitate all staff of his division actively participate in the process safety culture survey.
- Review and provide comments (if any) to enhance the process safety culture level of the organization.
- Implement actions raised from the survey analysis.

9.3.3 Senior Management (Senior Leadership)

- Approve process safety culture report along with its improvement recommendations.
- Provide support and enough resources to demonstrate visible management commitment in implementing an action plan for enhancing process safety culture.
- Show appreciation to the participants.
- Provide a cursory review of the raw data to the participants and the next steps in the process.

9.4 Culture Survey Considerations

Process safety culture survey shall be conducted at least once every three years or as required considering that the assessment of process safety culture reflects a single moment in time and is sensitive to temporary conditions such as organizational changes. PSM Lead (or the survey administrator) should be able to compare the process safety culture assessment results with other surveillance activities. This will support, supplement, and validate the results of the assessment. Should also, when possible, integrate the results of other surveillance activities and culture assessments in terms of the effects of process safety culture in the context of safety performance.

Potential employee resistance to a survey can also limit accomplishing a successful survey. Generally, most employees will welcome the opportunity to express their views about the effectiveness of the company safety/process safety management system and management systems. However, there may be a minority of employees who are resistant to the survey for some of the following reasons:

- They must complete the survey on their own time (for example, during break time).
- They are suspicious of the intentions behind the survey.
- The survey may be seen as a waste of time.
- Previous surveys did not result in any remedial action or safety improvements.

Any potential resistance can be overcome by exploring the following types of actions:

- Allowing employees to participate in the design and execution of the survey.
- Providing incentives to complete the survey based on a target response rate.
- Using external resources to facilitate the survey outside the company or department to help maintain confidentiality.

10. How to Improve Process Safety Culture?

Upon reviewing the survey results, the organization may need to improve the process safety culture to reach the desired level that the organization targets in the first place. The survey results (if performed properly and correctly) will announce the organization's drops and failures that need to be fixed. Recommending corrective actions, assigning responsibilities, due dates, and follow-up action plans will be the fastest route for quick improvement. Moreover, the center for chemical process safety (CCPS) identified ten core principles the organization needs to consider these principles for improving the safety culture:

1. **Establish an imperative for process safety;** Production is impossible without process safety.
2. **Provide strong leadership;** Leaders inspire others to process safety excellence and Walk the Talk.
3. **Foster mutual trust;** Everyone does what they say and says what they mean.
4. **Ensure open and frank communications;** Communication channels are open and encouraged, and the messenger is not blamed.
5. **Maintain a sense of vulnerability;** Healthy level of respect for hazards and risks of the facility and company.
6. **Understand and act upon hazards/risks;** Hazards and risks analyzed, controlled with appropriate safeguards, and managed
7. **Empower individuals to fulfill their process safety responsibilities Successfully;** Workers have the authority and resources to perform assigned process safety roles
8. **Defer to expertise;** Technical knowledge related to process safety valued and technical opinions accepted
9. **Combat the normalization of deviance;** Deviance from approved rules and standards is never tolerated.
10. **Learn to assess and advance the culture;** Culture lessons learned sought internally and externally. Learnings are used to maintain and enhance culture.

Improving an organization's process safety leadership and culture can have significant and lasting impacts on a company's process safety performance. Three steps that organizations can undertake to advance this effort include the following:

- Amending metrics to include more leading indicators designed to prevent process safety incidents.
- Cultivating communications geared toward process safety.
- Ensuring incentive schemes include measures related to process safety.

11. References

- [1] The BP US Refineries Independent Safety Review Panel, "The Report of the BP USRefineries Independent Safety Review Panel," 2007.
- [2] Center for Chemical Process Safety (CCPS), "Essential Practices for Creating, Strengthening, And Sustaining Process Safety Culture," 2018.
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12. List of Annexes

- **Annex A** - Process Safety Culture Survey Template (English).
- **Annex B** - Process Safety Culture Survey Template (Arabic).
- **Annex C** - Safety Culture Ladder.



Annex A - Process Safety Culture Survey Template (English)

Section 1: About Me

In this section you are asked to provide some information about yourself and your position within the organization. This information is requested because workers from different locations or from different job levels might have varying opinions. The information from this section will be used to break down results in a meaningful way while preserving the anonymity of all respondents.

1- WHAT IS YOUR GENDER?

- Male
- Female

2- IN WHICH FACILITY DO YOU DO MOST OF YOUR WORK?

-
-
-

3- WHAT IS YOUR JOB LEVEL?

- Technician / Operator
- Engineer / Chemist
- Section Head / Department Head
- Assistant General Manager / General Manager
- Other (Please Specify :)

4- WHAT TYPE OF WORKER ARE YOU?

- Full-Time Employee
- Contractor

5- WHAT IS YOUR CURRENT PRIMARY JOB FUNCTION?

- Health, Safety & Environment (HSE)
- Engineering Design
- Training
- Production & Operation
- Maintenance
- Instrumentation & Automatic Control
- Corrosion/Inspection
- Planning
- Lab
- Project Management
- Research & Development
- Other (specify:)

6- WHAT IS YOUR AGE?

- Under 20
- 20 - 24
- 25 - 29
- 30 - 39
- 40 - 49
- 50 or above

7- ARE YOU A MEMBER OF A SAFETY COMMITTEE?

- Yes
- No

8- HOW LONG HAVE YOU WORKED AT THIS ORGANIZATION?

- Less than a year
- 1 year but less than 3 years
- 3 years but less than 5 years
- 5 years but less than 8 years
- More than 8 years

9- HOW LONG HAVE YOU WORKED IN THE PETROLEUM INDUSTRY?

- Less than a year
- 1 year but less than 3 years
- 3 years but less than 5 years
- 5 years but less than 8 years
- 8 years but less than 10 years
- 10 years but less than 15 years
- 15 year or above



INSTRUCTIONS FOR COMPLETING THE SURVEY

Please observe the following requirements carefully to ensure that your responses are correctly recorded:

- Place a heavy "X" in the box which best reflects your answer.
- **Mark only one** opinion for each statement.
Multiple Marks Cannot be counted.
- If you want to change an answer, completely black out the wrong answer and put an "X" in the correct box.

MARKING INSTRUCTIONS

CORRECT



INCORRECT



PLEASE REVIEW THESE DEFINITIONS BEFORE COMPLETING THIS SURVEY.

"**ACCIDENT**" refers to an event or series of events and circumstances that result in one or more undesirable consequences.

"**HAZARD**" refers to chemicals, materials, operating environments, or conditions that have the potential to cause damage to people, property, or the environment.

"**NEAR MISS**" refers to an event or series of events that could have resulted in one or more undesirable consequences under different circumstances but did not.

"**PROCESS**" refers to any activity involving, but not limited to, a hazardous chemical (i.e., a substance possessing toxic, reactive, flammable, or explosive properties) or other potentially dangerous material (including steam), including any use, storage, manufacturing, handling, or the on-site movement of such a chemical or material.

"**SUPERVISOR**" refers to the person you report directly daily.

"**WORKGROUP**" refers to the group of people with whom you work daily.

"**WORKER**" refers to all refinery personnel in all departments (including employees and contractors).



PROCESS SAFETY CULTURE ASSESSMENT GUIDELINE

DOCUMENT NO: EGPC-PSM-GL-020



1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

IV. Procedures and Equipment	1	2	3	4	5
15) Management systems ensure that procedures relating to the operation, maintenance, or inspection activities are safe.					
16) Safety Critical Elements (SCE) are regularly tested, maintained, verified, and audited and are restored to service as per company procedures soon as possible in case of maintenance or failure.					
17) Written standard operating procedures are strictly followed, reviewed in planned intervals, and kept up to date.					
18) Procedures exist at this organization to manage Safety Critical Elements (SCE) when it fails or becomes unavailable during operation.					
19) Change management in my company is adequately controlled to ensure associated risk is controlled, and drawings and procedures are updated and built.					
20) At my organization, the asset integrity and reliability program and procedures are developed and well-implemented to put high-priority inspection and maintenance as part of the PSM system.					

Please provide any comments you have about Procedures and Equipment in the space below:



Annex B - Process Safety Culture Survey Template (Arabic)

أولاً: معلومات عنك

في هذا القسم ، يُطلب منك تقديم بعض المعلومات عن نفسك وعن وظيفتك داخل الشركة. هذه المعلومات مطلوبة لأن العاملين من مواقع مختلفة أو من مستويات وظيفية مختلفة قد يكون لديهم آراء متباينة. ستستخدم المعلومات الواردة في هذا القسم لتقسيم النتائج مع الحفاظ على سرية الهوية.

<p>6- ما هو سنك ؟</p> <ul style="list-style-type: none">- تحت الـ 20 سنة- 20-24 سنة- 25-29 سنة- 30-39 سنة- 40-49 سنة- 50 سنة فيما فوق <p>7- هل انت عضو في احدي لجان السلامة ؟</p> <ul style="list-style-type: none">- نعم- لا <p>8- ما عدد السنين التي عملت بها داخل الشركة ؟</p> <ul style="list-style-type: none">- أقل من سنة- أكثر من سنة ولكن أقل من 3 سنوات- أكثر من 3 سنوات ولكن أقل من 5 سنوات- أكثر من 5 سنوات ولكن أقل من 8 سنوات- أكثر من 8 سنوات <p>9- ما عدد السنين التي عملت بها داخل قطاع البترول ؟</p> <ul style="list-style-type: none">- أقل من سنة- أكثر من سنة ولكن أقل من 3 سنوات- أكثر من 3 سنوات ولكن أقل من 5 سنوات- أكثر من 5 سنوات ولكن أقل من 8 سنوات- أكثر من 8 سنوات و لكن أقل من 10 سنوات- أكثر من 10 سنوات و لكن أقل من 15 سنة- أكثر من 15 سنة	<p>1- ما هو نوعك ؟</p> <ul style="list-style-type: none">- ذكر- انثي <p>2- ما هو الموقع الذي تعمل به ؟</p> <ul style="list-style-type: none">--- <p>3- ما هو مستواك الوظيفي ؟</p> <ul style="list-style-type: none">- فني / مشغل- مهندس / كيميائي- رئيس القسم / مدير ادارة- مدير عام مساعد / مدير عام- أخرى (حدد: <p>4- ما هو نوع عملك ؟</p> <ul style="list-style-type: none">- عامل دائم- عامل مقاول (Contractor) <p>5- ما هي الإدارة التي تتبعها ؟</p> <ul style="list-style-type: none">- السلامة و الصحة المهنية وحماية البيئة- الشئون الهندسية- التدريب- الإنتاج و التشغيل- الصيانة- الأجهزة والتحكم الآلي- التفتيش الهندسي- التخطيط- المعمل- المشاريع- البحث و التطوير- أخرى (حدد:
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تعليمات لاستكمال الاستبيان

في حالة تغيير الرأي

صحيح



خطأ



يرجى مراعاة المتطلبات التالية بعناية للتأكد من أن الآراء الخاصة بك قد تم تسجيلها بشكل صحيح:

- ضع علامة X في المربع الذي يعكس اختيارك للإجابة.
- ضع علامة واحدة فقط للإجابة على كل سؤال حيث أنه لن يحتسب السؤال إن وضعت أمامه أكثر من علامة واحدة.
- في حالة رغبتك في تغيير الإجابة بعد وضع علامة X في مربع ما، قم بتظليل المربع المراد تغييره بالكامل وضع علامة X جديدة في المربع الذي يعبر عن رأيك الصحيح.

الرجاء مراجعة التعريفات التالية قبل استكمال بنود هذا الاستبيان

الحادث : يشير إلى حدث أو سلسلة من الأحداث والظروف التي تتسبب في واحد أو أكثر من العواقب غير المرغوب فيها.

الخطر : يشير إلى الظروف الكيميائية أو ظروف المواد أو ظروف التشغيل (التصرفات غير الآمنة والأوضاع غير الآمنة) والتي قد تتسبب في وقوع ضرر، أو خسائر للإنسان، أو للممتلكات، أو للبيئة.

الحدث وشيك الحدوث : يشير إلى حدث أو سلسلة من الأحداث والظروف التي كادت أن تتسبب في واحد أو أكثر من العواقب غير المرغوب فيها، ولكن ذلك لم يحدث فعلياً.

العملية : تشير الكلمة إلى أي نشاط يشمل على سبيل المثال لا الحصر الكيماويات الخطرة (أي مادة لها خصائص سامة، أو تفاعلية، أو قابلة للاشتعال، أو متفجرة) أو مواد أخرى يحتمل أن تكون خطيرة (بما في ذلك البخار) سواء كانت عمليات استخدام، أو تخزين، أو تصنيع، أو مناولة أو تحريك من مكان لآخر داخل موقع العمل.

المشرف : تشير إلى الشخص الذي تعمل تحت إدارته مباشرة بشكل يومي.

مجموعة العمل : تشير إلى مجموعة الأشخاص الذين تعمل معهم بشكل يومي.

العامل : تشير إلى جميع الأشخاص العاملون بالمنشأة في جميع الأقسام وتشمل الموظفين والمقاولين.

Annex C - Safety Culture Ladder

To assess the culture, the basic step is to adopt a model on which culture assessment will be based. Although there are many suitable theoretical models, the Hudson Ladder has proved to be a success in the context of cultural maturity. Hudson describes the Safety Culture Ladder (illustrated in Figure 3) as an evolutionary ladder that plots the development of an organization's safety culture. Each level has distinct characteristics and is a progression from the previous level. The range runs from the pathological, through to the reactive, to the calculative, to the proactive, and then to the final stage of generative.

1. Pathological:

- People don't care about safety and are only driven by regulatory compliance or not getting caught.

2. Reactive:

- In a reactive safety culture, safety is generally regarded as a burden imposed by the authorities. Action is taken only to satisfy the regulations or after a safety event and often consists of identifying and punishing the responsible person(s). Only in the case of significant events does it become a topic of communication, and actions are taken to prevent a recurrence.
- Managers perceive that the unsafe behavior of front-line staff solely causes most accidents. Unsafe behavior is acceptable to get the job done.
- Safety is taken seriously, but only after things have gone wrong. Managers feel frustrated about how the workforce won't do what they are told.

3. Calculative:

- In a calculative safety culture, safety is considered a factor that must be accounted for. Safety is considered in management's decision-making, but safety is not a core value. Managers recognize that a wide range of factors causes accidents, and the root causes often originate from management decisions.
- A safety reporting system is installed to meet legal requirements and is only used for gathering information. There is a general awareness of the safety risks induced by the operation, and the organization is willing to act if these become too large. There are situations where unsafe behavior is acceptable to get the job done, but generally, there is a mutual expectation of safe behavior.
- Focus on systems and numbers. Data is collected and analyzed, many audits are performed, and people begin to feel they know "how it works." The effectiveness of the gathered data is not always proven, though.

4. Proactive:

- In a proactive safety culture, safety is considered a core value. Safety plays an important role in decision-making at the management level and in day-to-day

operations. The safety reporting system is not only used for detecting significant safety issues but also for issues with less or no obvious impact on safety.

- The operations are regularly assessed, and safety actions are evaluated after implementation. After a safety event, the main objective of management is to prevent a recurrence. There is a general awareness of the safety risks associated with the operation, and action is taken to reduce them as much as possible.
- Moving away from managing safety based on what has happened in the past to prevent what might go wrong in the future. The workforce starts to be involved in the practice, and the line begins to take over the safety function, while safety personnel reduce in numbers and provide advice rather than execution.

5. Generative:

- Organizations set very high standards and attempt to exceed them. They use failure to improve, not to blame. Management knows what is really going on because the workforce tells them.
- People are trying to be as informed as possible because it prepares them for the unexpected. This state of "chronic unease" reflects a belief that despite all efforts, errors will occur and that even minor problems can quickly escalate into system-threatening failures.

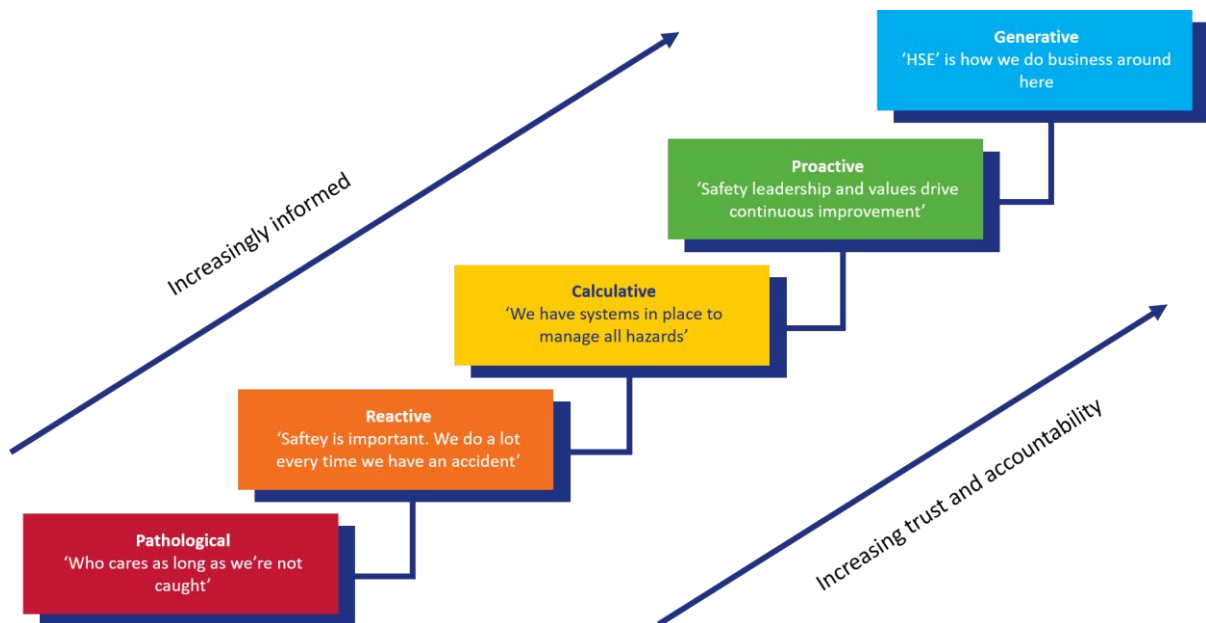


Figure 3. Hudson Safety Culture Ladder.