Attachment E Safety Culture Assessment Date: June 15, 2011

ATTACHMENT E

E-1: Example Survey Excerpted From Baker Panel Report

E-2: Written Survey Development – Example from a Facility

E-3: Example Interview / Written Survey Assessment Topics

E-4: Observation Process – Example from a Facility

E-5: Focus Group Development – Example from a Facility

The above tools are provided as examples only for conducting safety culture assessments. These tools may not contain all of the necessary elements as presented in Section F.6 of this guidance document. As such, Stationary Sources should amend the examples provided or use other means to ensure that their Safety Culture Assessments address required components specified in Section F.6.

EXAMPLE SURVEY EXCERPTED FROM BAKER PANEL REPORT (BP REFINERIES INDEPENDENT REPORT)

Have you viewed the survey introduction video? 1 Yes 2 No 1t is highly recommended that you watch the video prior to completing this survey. If you responded NO, please take a moment to view the 5-minute video before completing the survey. OVERVIEW

I. About Me

This section asks for information about yourself and your work background. This information is for research purposes only and will not be used to identify you.

II. My Opinions and Comments

This survey contains three major sections:

This section contains statements that ask for your thoughts on what it is like to work at a BP refinery. There are no right or wrong answers. We simply ask for your opinion, based on your experience. Please review each statement and select the number from 1 to 5 that best expresses your response to the statement. Please note that selecting number 3 in response to a question means either that you do not know or that you do not have an opinion.

Comment sections after each category of questions provide you with an opportunity to express your written thoughts regarding the topic. If you do not have enough space to write your comment after each selection, please feel free to continue commenting on the final page of the survey.

III. Final Comments

There is also an open-ended final comment question at the end of the survey in which you will have an opportunity to add any additional feedback that you might have.

INSTRUCTIONS FOR COMPLETING THE SURVEY

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

- Use a soft lead pencil or a blue or black pen.
- · Place a heavy "X" in the box which best reflects your answer.
- Mark only one opinion for each statement. <u>Multiple marks cannot</u> be counted.
- If you want to change an answer, erase completely, or, if you answered in pen, completely black out the wrong answer and put an "X" in the correct box.

MARKING INSTRUCTIONS CORRECT INCORRECT ☑ ③ ■

I. ABOUT ME

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

I. IN WHICH FACILITY DO YOU DO MOST OF YOUR WORK?	5. WHAT IS YOUR CURRENT PRIMARY JOB FUNCTION?		
ı Carson	OI Administration / Support		
2 Cherry Point	02 Analytical / Laboratory		
3 Texas City	O3 Commercial / Shipping		
4 Toledo	☐ Digital & Communications Technology (DCT)		
s Whiting	Drafting / Engineering Design		
2	66 Engineering Professional (all disciplines)		
2. WHAT IS YOUR JOB LEVEL?	©7 External Affairs / Communications		
Hourly Worker	□ Financial Control & Accounting (FC&A)		
Foreman / First Level Supervisor Superintendent	os HSSE (Health, Safety, Security & Environment) as Full Time (no other functional responsibility)		
Manager	10 Human Resources		
5 Other	II Learning & Development / Training		
	12 Maintenance / Craft Technician (all disciplines)		
3. ARE YOU A MEMBER OF A SAFETY	13 Maintenance Management		
COMMITTEE?	Maintenance / TAR Planning		
ı Yes	Materials / Corrosion / Inspection		
2 No	16 Operations-Management		
.	17 Operator		
4. WHAT TYPE OF WORKER ARE YOU?	Planning / Strategy / Business Development		
Regular Full-Time BP Employee	Procurement / Supply Chain Management		
Regular Part-Time BP Employee	Production Planning / Analysis		
3 Contractor	21 Project Management (Engineering)		
	Research and Technology		
	23 Other (specify:)		
	PLEASE CONTINUE TO NEXT PAGE		

6. WHAT IS YOUR HERITAGE COMPANY?	THE FOLLOWING CODING QUESTIONS ARE			
a Amoco	YOLUNTARY. HOWEVER, WE DO ASK FOR YOUR COOPERATION. THE INFORMATION			
02 Aral	WILL ALLOW US TO COMPARE RESPONSES BY DIFFERENT GROUPS.			
03 Arco				
od BP	9. WHAT IS YOUR GENDER?			
©5 Castrol	□ Male			
∞ Mobil	² Female			
☐ Sohio				
□® Vastar	10. WHAT IS YOUR RACIAL / ETHNIC			
og Veba	BACKGROUND?			
I am a contractor	American Indian / Alaskan Native / Canadian Aboriginal Descent			
None of the above	02 Asian Descent			
7. HOW LONG HAVE YOU WORKED AT THIS REFINERY?	Black / African American			
Less than a year	European Descent (White / Caucasian)			
2 I year but less than 3 years	05 Hispanic / Latino Descent			
3 years but less than 5 years	Middle Eastern Descent			
1 5 years but less than 8 years	Pacific Islander, Aboriginal or Maori Descent			
8 years but less than 10 years	Multi-Racial (more than one of the above)			
6 10 years but less than 15 years	None of the Above			
7 15 years or more	Decline to Respond			
8. HOW LONG HAVE YOU WORKED IN THE REFINING INDUSTRY?	11. WHAT IS YOUR AGE?			
Less than a year	Under 20			
2 I year but less than 3 years	2 20 - 24			
3 years but less than 5 years	3 25 - 29			
5 years but less than 8 years	4 30 - 39			
s 8 years but less than 10 years	s 40 - 49			
6 10 years but less than 15 years	6 50 or above			
7 15 years or more				

SURVEY TERM DEFINITIONS

Please read through the following definitions of key words that are used throughout the survey. You may come back to this page and reference these definitions at any time.

PLEASE REVIEW THESE DEFINITIONS PRIOR TO COMPLETING THIS SURVEY.

"ACCIDENT" refers to an event or series of events and circumstances that results 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 actually 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.

"PROCESS SAFETY" refers to the prevention of unintentional releases of chemicals, energy, or other potentially dangerous materials (including steam) during the course of refinery processes that can have a serious effect. Process safety involves, for example, the prevention of leaks, spills, equipment malfunction, over-pressures, over-temperatures, corrosion, metal fatigue and other similar conditions. Process safety programs focus on design and engineering of facilities, maintenance of equipment, effective alarms, effective control points, procedures and training.

"REFINERY MANAGEMENT" refers to all refinery department managers and the business unit leader of your refinery.

"SUPERVISOR" refers to the person to whom you report directly on a daily basis.

"WORK GROUP" refers to the group of people with whom you work on a daily basis.

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

II. MY OPINIONS AND COMMENTS

Please review each statement below and select the number from 1 to 5 that best expresses your response to the statement. Please note that selecting number 3 in response to a question means either that you do not know or that you do not have an opinion.

Process Safety Reporting

	Tend	l to D	Disa isagr	
		? nd to Agree Agree		
	This refinery provides adequate training on hazard identification, control and reporting	(2 3	4
	I have received training on hazard identification, control and reporting in the last I2 months	(2 3	4
	I can report hazardous conditions without fear of negative consequences		2 3	4
	In general, workers don't bother to report minor process-related incidents, accidents, or near misses		2 3	4
	I believe a culture exists at this refinery that encourages raising process safety concerns		23	4
	Corrective action is promptly taken when unsafe process safety conditions are brought to management's attention		2 3	4
	I am confident that process safety issues are:			
	a. Thoroughly investigated		2 3	4
	b. Appropriately resolved		2 3	4
	Workers are informed about the results of process related incident, accident, and near miss investigations		23	4
	I am satisfied with the process safety reporting system at this refinery		2 3	4
	I do not hesitate to report actions or conditions that raise a process safety concern, even when a co-worker is involved	O (2 3	4
	Please provide any comments you have about Process Safety Reporting in the space	e belo	W.	
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Safety Values / Commitment to Process Safety

	₩J	Disagre
	lend	to Disagree ?
	Tend to	
	Agra	ee
	My supervisor puts a high priority on process safety through actions and not just empty slogans	1234
	Refinery management puts a high priority on process safety through actions and not just empty slogans	1234
	Operational pressures do not lead to cutting corners where process safety is concerned	1234
	At this refinery, process safety improvement is a long-term commitment that is not compromised by short-term financial goals	1234
	In my opinion, the people at my refinery with specific process safety responsibilities have the:	
	a. Authority to make changes	四四四百
	b. Resources to make changes	1234
	In my opinion, process safety programs at my refinery have:	
	a. An adequate number of people responsible for process safety	1234
	b. Adequate funding	回回图图
,	There is usually sufficient staff in my work group to perform my job safely	1234
	After a process-related incident, accident, or near miss, management is more concerned with correcting the hazard than assigning blame or issuing discipline	1234
	At this refinery, a formal hazard assessment is performed to ensure that changes that affect processes will be safe	11 23 4
1	Workers at this refinery feel pressured to work considerable overtime from:	
	a. Co-workers	미 234
	b. Supervisors	1234
	c. Refinery management	11 2 3 4
	d. Their own sense of loyalty to their operating units	1234
e a c	se provide any comments you have about Safety Values / Commitment to Process Safety in t	the space belov

Supervisory Involvement and Support

	T	Disagree
	lend	to Disagree ?
	Tend to Agr	
21.	In my work group, process safety concerns are secondary to achieving production goals	1 2 3 4 5
2.	My supervisor sometimes asks me to operate an unsafe process	12345
3.	My supervisor will support me if I refuse to participate in unsafe work	12345
24.	My supervisor encourages me to identify and report unsafe conditions	12345
25.	My supervisor makes sure that procedures relating to the following activities are safe before such activities are initiated:	
	a. Operations	12345
	b. Maintenance	ा घ्या सड
6.	Persons with appropriate supervisory authority and expertise participate in hazardous process-related activities, such as startup	12345
27.	My supervisor takes action when a worker engages in a poor process safety practice	12343
28.	My supervisor takes appropriate action in response to my suggestions for process safety improvements	T 23 4 5
Р	lease provide any comments you have about Supervisory Involvement and Support in th	e space below.

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Procedures and Equipment

	Tend	Disagree I to Disagree
	Talle	
	Tend to Agr	Marine Mill
	Interlocks, alarms, and other process safety-related devices are regularly:	
	a. Tested	1234
	b. Maintained	1234
	Disabled or failed process safety devices are restored to service as soon as possible $\dots\dots$	1234
	Written operating procedures are:	
	a. Regularly followed	1234
	b. Kept up to date	1234
	Procedures exist at this refinery that instruct operators to take action as soon as possible if safety critical interlocks, alarms, or other process safety-related devices fail or become unavailable during operation	1234
	Maintenance checklists and procedures are:	
	a. Easy to understand	1234
	b. Easy to use	1234
	Process equipment is not regularly:	
	a. Tested	1234
	b. Maintained	1234
	In order to ensure process safety at my refinery, inspection and maintenance are made high priorities	1234
	Please provide any comments you have about Procedures and Equipment in the spa	ce below.
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Worker Professionalism / Empowerment

Tond	to I			gree
iena		Jisa	?	
	_	ee		
Agr	ee			
I feel that I can influence the process safety policies implemented at this refinery		2 [3	4
Workers at all levels of my refinery actively participate in:				
a. Hazard reviews and assessments		2	3	4
b. Incident and accident investigations		2 [3	4
When a process safety issue is involved, I can challenge decisions made by the following without fear of negative consequence:				
a. My supervisor		2	3	4
b. Refinery management		2	3	4
Workers sometimes work around process safety concerns rather than report them		2	3	4
Creating unapproved shortcuts around process safety is not tolerated at my refinery		2 [3	4
I am informed when potentially dangerous processes are started		2	3	4
I am responsible for identifying process safety concerns at my refinery		2	3	4
I feel free to refuse to participate in work activities that are unsafe		2	3	4
Operators are empowered to take corrective action as soon as possible (including shutting down when appropriate) if safety critical interlocks, alarms, or other process safety-related devices fail or become unavailable during operation		2 [3	4
ease provide any comments you have about Worker Professionalism / Empowerment in th	ne sp	pace	be	low.
	I feel that I can influence the process safety policies implemented at this refinery	Tend to Agragee I feel that I can influence the process safety policies implemented at this refinery	Tend to Agree Agree I feel that I can influence the process safety policies implemented at this refinery	Tend to Disagree ? Tend to Agree Agree I feel that I can influence the process safety policies implemented at this refinery

Process S	afety	Trai	ning
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	or you do not have an opinion.			¥		
	Tend	to			gre œ	•
				?		
	Tend to Agr		ee			
45.	The training that I have received does not provide me with a clear understanding of the process safety risks at my refinery		2	3	•	3
46.	I know how to access appropriate process safety resources if I need them		2	[3]	4	3
47.	The following receive the necessary process safety training to do their job safely:					
	a. New workers		2	3	•	3
	b. Experienced workers		2	3	4	3
	c. My supervisor		2	3	4	3
	d. Contractors		[2]	3	4	3
48.	The process safety training that I have received allows me to recognize when a process should be shut down if safety critical interlocks, alarms or other process-safety devices fail or become unavailable during operation		2	3	1	3
49.	The process safety training that workers receive at my refinery is adequate to prevent process-related incidents, accidents and near misses		2	3	Ð	5
	Please provide any comments you have about Process Safety Training in the space	beld	ow.			

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III. FINAL COMMENTS

Please provide any other comments you might have regarding process safety at your refinery in the space below.

THIS IS THE END OF THE SURVEY. THANK YOU FOR YOUR PARTICIPATION.

WRITTEN SURVEY DEVELOPMENT – EXAMPLE FROM A FACILITY

The following is presented as an example of a written survey currently being conducted at one facility. CCHMP has not audited this facility's safety culture program or the written survey process presented below. As such, the written survey example presented should be viewed solely as one that is currently being used, and not necessarily one that has satisfied all of the elements contained within this Safety Culture Guidance document. CCHMP may modify or eliminate this and/or other examples in the future as deemed appropriate.

The Survey consists of ninety-eight items (questions) in thirteen categories.

The categories in the survey are:

Management Commitment & Leadership

Performance & Accountability

Preventive Maintenance

Worksite Hazard Analysis

Health & Safety Training

Injury Prevention

Safety Meetings

Incident Investigation

Health & Hygiene

Emergency Preparedness

Contractor Safety

Self-Inspection

Environmental Awareness

There are six to nine survey items for each category. The survey items are all statements related to a refinery safety, health, or environmental issue. The survey respondent answers each item by choosing a number between one and five or marking "N/A" for not applicable.

Each individual item is rated from 1 through 5 or marked "N/A".

The ratings represent:

- 1; "Strongly Agree",
- 2; "Agree",
- 3; "Not Sure",
- 4; "Disagree",
- 5; "Strongly Disagree".

An "N/A" would be used to mean Not Applicable.

At the end of the survey, some group identification information is requested. The degree of detail in this request has to be carefully expressed to ensure an employee will not feel that they can be identified by the group information checked. If there were only one employee with less than five years in a department, asking for both years of service and specific department would identify the employee. In the past, many employees went out of their way to identify themselves when that information was not requested or desired. The group information requested is: Hourly or Salary (contract covered or exempt), Day or Shift worker, and the years of service.

The survey also provided an area to record comments from the respondent on the survey, an item on the survey, or anything else that they cared to say. The comments were reviewed by management but not compiled in any statistical way. Comments were responded to when requested by the author.

The Site Manager requests Supervisors to distribute the survey to their employees by hand. The surveys are handed to employees during a safety meeting. Employees return the surveys to the Health & Safety Department anonymously by placing them in a refinery mail envelope addressed to the Health & Safety Representative or H&S Coordinator. The face-to-face request by supervisors serves a number of functions. It makes the request more personal, it enables each supervisor to provide time for their employees to complete the survey, and it controls the number of surveys. This site believes the survey should not be made available by email or site message because it would permit multiple submittals.

The responses are sorted into different groups to view the different results between hourly employees and salary employees. Other divisions of the answers were not published but were looked at for potential trends in answers. The percentage of "Favorable", "Not Sure", and "Unfavorable" responses are tabulated to generate an Employee Perception Index, which is the average of all items in the same category.

The report of the results identifies an area as "Needing Improvement" if the Employee Perception Index is below 60%. The "Not Sure" and "Unfavorable" response percentages must be checked for these questions to identify the correct issue. A large number of "Not Sure" answers might indicate a problem with the question or a need for additional training.

Areas that have an Employee Perception Index greater than 90% are noted as highlights.

After a baseline is established with the first survey, an additional objective on following surveys is to measure improvement or decline in the different areas covered by the survey.

The survey results are reviewed during the annual Health, Safety, and Environmental Management System review. Additional goals and objectives are assigned to address the areas that need improvement. Some corrective actions may be related to increasing employee knowledge for those items with a high percentage of "Not Sure" responses.

EXAMPLE INTERVIEW / WRITTEN SURVEY ASSESSMENT TOPICS:

The following is presented as an example of interview/ written survey questions collected from various sources and not specifically used at any particular facility and are being provided for reference only.

There are four dominant types of questions used in assessments: true/false, multiple-choice, open-ended, or ratings. One of the most common types of questions involves those that allow for someone to indicate the amount they agree or disagree with a statement. The Baker Panel Report used this technique and requested answers in the following form:

- 1) Agree
- 2) Tend to Agree
- 3) ? (do not know or no opinion)
- 4) Tend to Disagree
- 5) Disagree

Depending on the type of assessment method used, certain types of questions may be more appropriate. For example, in a written survey like the Baker Panel Report, topics were arranged into statements as described above. On the other hand, many interview type questions are open-ended that allow a more descriptive answer and can start with words like: "Describe...", "Explain...", "Tell me about...", "Give an example of...", "What does the following mean to you...", etc.

The following topics are arranged in a question format. Example open-ended questions are listed first. It should be noted that with only slight wording changes, questions could be converted into true/false or open-ended type of statements.

- What are some examples of how management puts appropriate resources (e.g., money, equipment, people) and commitment into process safety?
- How frequently do you have access to the plant manager/and other management? What are some examples of the discussion topics?
- How frequently do you have access to supervisor/superintendent/manager? What are some examples of the discussion topics?
- How does HSE fit into the daily functioning of your facility?
- What would happen if someone were not following a safety procedure? Would you stop them? What if it is a coworker, contractor, supervisor, or plant manager?
- If you were not following a safety procedure, would a coworker passing by stop you or would a supervisor, or plant manager?
- How would you rate the quality and content of safety meetings/team/committees?
- How well is individual ownership or accountability clearly communicated and followed?
- If you could change one thing at the site about HSE, what would it be?
- Are you satisfied in your job? Can you suggest ways to improve your job?
- Do you think management's commitment to safety is solid and observable?
- Which of the following best describes how appropriate and timely management responds to safety concerns?

- o Appropriate corrective measures are implemented quickly
- o Adequate corrective measures are implemented quickly
- o Appropriate or adequate corrective measures are implemented eventually
- o Some type of a "Band Aid" fix is applied that may or may not be adequate
- o Issues are downplayed or worked on so slowly that the concern seems to go away
- Which of the following best describes how well management communicates corrections made to address safety concerns?
 - Communicated properly to everyone who should know
 - Communicated properly to those involved
 - Communicated to some
 - Some type of communication is made
 - o Management inconsistently communicates how issues were resolved
- How often are the company safety values and management practices consistent?
- Do the plant manager/ and other management personnel have an open door policy? Are they responsive to the workforce?
- Which of the following best describes your experience with the channels of communications to management?
 - o Can talk to anyone and everyone, receive constructive feedback from all levels
 - o Need to talk to direct supervision first then can talk to others, feedback constructive
 - o Can talk to a variety of people, but only a few tend to make any difference
 - o Talk to direct supervision although sometimes feel pressured to resolve issues there
 - Makes little difference who I talk to since rarely anything changes
- How often are job safety expectations known and understood by you?
- How often do you believe job safety expectations are known and understood by your peers?
- How adequate do you believe the training is on Standard Operating Procedures for: (use 5-point agreement or similar scale)
 - Operators working less than 1 year
 - o Operators working 1 to 3 years
 - o Operators working 3 to 6 years
 - o Operators working 6 to 10 years
 - o Operators working over 10 years?
- How well do you believe your peers understand <u>or</u> follow Standard Operating Procedures for: (use 5-point agreement or similar scale)
 - o Operators working less than 1 year
 - o Operators working 1 to 5 years
 - o Operators working 5 to 10 years
 - o Operators working 10 to 20 years
 - o Operators working over 20 years?
- How adequate do you believe process safety training is for: (use 5-point agreement or similar scale)
 - New workers
 - Experienced workers
 - Your supervisor
 - Upper management
 - o Contractors?
- How strongly do you feel that your voice is heard or your comments acknowledged?

- How comfortable are you with understanding the process safety risks: (use 5-point agreement or similar scale)
 - Within your process area
 - Within your unit's boundary limits
 - o That are in upstream units or those that send you product
 - o That are in downstream units or those that accept your product?
- How satisfied are you with the process safety and near miss reporting for: (use 5-point agreement or similar scale)
 - Your shift
 - o Your unit
 - o Your neighboring units
 - o Your site?
- Do you believe that the rewards for good process safety performance are the same as for good production performance?
- To what extent have you experienced peer or management pressure to ignore issues and not report them?
- Have you ever felt pressured to work more overtime than you are comfortable with? Do you see others working more overtime than you think they should?
- How effective is the process used to make sure that the written operating, emergency, and/or maintenance procedures that are applicable to you are up to date, accurate, and clear?
- How comfortable are you that all of the process safety related devices (e.g., interlocks, alarms, PSVs) in your unit are properly tested and maintained?
- How comfortable are you that all of the process safety related devices (e.g., interlocks, alarms, PSVs) in units that border your boundary limits are properly tested and maintained?
- How confident are you right now that all of the pressure relief devices and flare systems associated with your unit are not plugged and would work as intended?
- What is the competency level of: (use 5-point agreement or similar scale)
 - Operators in your unit
 - o Maintenance personnel that work in your unit
 - o Contractors that work in your unit
 - o Line management?
- How would you rank the process safety awareness: (use 5-point agreement or similar scale)
 - Of yourself
 - o Of your peers
 - Of new workers
 - Of experienced workers
 - o Of your line management?
- How would you rank the process safety of your facility?

OBSERVATION PROCESS – EXAMPLE FROM A FACILITY

The following is presented as an example of an observation process currently being conducted at one facility. CCHMP has not audited this facility's safety culture program or the observation process presented below. As such, the observation example presented should be viewed solely as one that is currently being used, and not necessarily one that has satisfied all of the elements contained within this Safety Culture Guidance document. CCHMP may modify or eliminate this and/or other examples in the future as deemed appropriate.

<u>Pre-review preparation should identify documentation of the following items. Items that cannot be found in documented processes should be noted as follow-up in the interview.</u>

- Leadership message regarding health and safety
- Employee beliefs regarding health, safety and the prevention of all injuries
- Health and safety goals and objectives for the site
- Goals and objectives development and communication processes
- Accountability processes in place at the site
- Establishment and communication of expectations and boundaries
- Current challenges with regards to health and safety

Interaction with Front Line Leaders and Workers

- Make contact with employees and encourage safe work
- Emphasize the importance of their personal safety
- Recognize the positive things they do
- Gain perspective of strengths and challenges from line leadership

Observe work practices – Focus Areas (LOTO and Work Permits)

- Observe basic work processes and activities, and explore safety mechanisms used in the execution of work
- Observe and discuss energy isolation practices (LOTO) isolation and verification process
- Observe and discuss work permit process joint jobsite visits

Take note of key observations to share with facility

- Best practices and takeaways
- Opportunities to share
- Suggested actions
- Feedback on strengths and opportunities for improvement

FOCUS GROUP DEVELOPMENT - EXAMPLE FROM A FACILITY

The following is presented as an example of a focus group currently being conducted at one facility. CCHMP has not audited this facility's safety culture program or the focus group process presented below. As such, the example presented should be viewed solely as one that is currently being used, and not necessarily one that has satisfied all of the elements contained within this Safety Culture Guidance document.

The "Hearts and Minds" Health Safety Environmental (HSE) culture program includes nine individual tools for developing the maturity of a facility's HSE culture. One of these tools, "HSE – Understanding your Culture," is specifically designed for assessing HSE culture. A facilitator leads participants in groups of 4-5 individuals through an exercise to assess the current level of HSE culture maturity. The groups are composed of individuals from the same part of the work group. Ideally, the facilitator is a *site* HSE culture champion, who exhibits local commitment to driving HSE culture maturity.

The facilitator introduces the concept of different levels of HSE culture maturity, and explains why it is important to understand the facility's culture and make it stronger. Participants are provided with a brochure that describes a range of organizational characteristics, corresponding to five different levels of cultural maturity, for each of eighteen different dimensions. The five levels of maturity, listed from least mature to most mature, are: Pathological; Reactive; Calculative; Proactive; and Generative. The eighteen dimensions are:

- Communicating HSE issues with the workforce
- Commitment level of workforce
- What are the rewards of good HSE performance?
- Who causes accidents in the eyes of management?
- Balance between profit and HSE
- Contractor management
- Are workers interested in competency?
- What is the size/status of the HSE department?
- Work planning including permit to work
- Work-site safety management techniques
- What is the purpose of procedures?
- Incident/accident reporting/analysis
- Hazard and unsafe act reports
- What happens after an accident?
- Who checks HSE on a day-to-day basis?
- How do HSE meetings feel?
- Audits
- Benchmarking, trends, and statistics

Descriptive language is provided for each level of maturity, for each dimension. Each participant marks on a score sheet where he/she believes the facility is, based on the fit of the

descriptive language to the facility as it appears from his/her part of the work group. Participants are instructed to read the descriptive characteristics from least mature to most mature, and mark the level for each dimension that fits best. If aspects of adjacent levels are perceived to be equally descriptive, participants are permitted to mark adjacent levels for a dimension.

Individual participants complete the entire score sheet first, and then discuss with the other members of their group how they marked their score sheets. The groups discuss whether the weaker and stronger areas are consistent with experience.

The scores are not aggregated across work groups, but rather are intended to indicate how different groups perceive the site's culture.

¹The Hearts and Minds safety program was developed by Shell Exploration & Production in 2002, based on research with leading universities since 1986, for additional information see: http://www.energyinst.org.uk/heartsandminds/