Occupational Health Management benchmarking in the oil and gas industry in Latin America and the Caribbean

2014 Statistics for ARPEL Member Companies

REGIONAL ASSOCIATION OF OIL, GAS AND BIOFUELS SECTOR COMPANIES IN LATIN AMERICA AND THE CARIBBEAN

ARPEL REPORT

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With the cooperation of the delegates of
ARPEL's Occupational Health Project Team

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Disclaimer

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Contents

1. Executive Summary

The purpose of this report is to evaluate the level of development of occupational health management in ARPEL member companies.

The assessment is based on the Health Management System and the self-assessment methodology developed by the OGP and IPIECA Health Committee (OIHC), which is used by ARPEL following an agreement signed in 2012.

This methodology establishes eight key elements of occupational health management and assesses them qualitatively in four levels of implementation or maturity in order to identify the main gaps and opportunities for improvement.

Two self-assessment Excel tools, "percentages" and "gaps" are used to carry out the evaluation. Both are complementary and differ in their level of detail. The tool for gaps allows, in addition to a comprehensive analysis of the situation, a breakdown by sub-element. It is a simple methodology that with the use of radar charts and heat maps allows a quick and easily understandable global graphic vision of the gaps and opportunities for improvement that may exist within a company in regard to the management of occupational health.

Seven companies shared their data for this first report. Their main results are presented below.

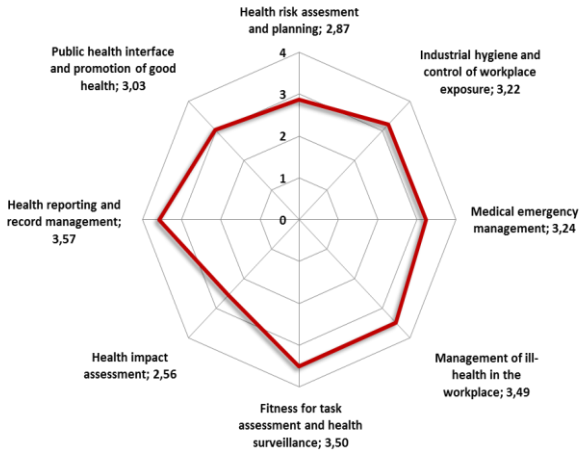
The 8 elements:

- Health risk assessment and planning
- Industrial hygiene and control of workplace exposures
- Medical emergency management
- Management of ill-health in the workplace
- Fitness for task assessment and health surveillance
- Health impact assessment
- Health reporting and record management
- Public health interface and promotion of good health

Level 1: Process under development
Level 2: Process not fully implemented and embedded.
Level 3: Process in place and implemented.
Level 4: On-going improvement process.

Participating companies:
Ecopetrol – Equión – EP Petroecuador – Petrobras – Repsol – OCENSA – Schlumberger.

Main Results



As shown in the graph, the elements with greatest development are Fitness for task assessment, Management of ill-health, and Health reporting and Record management, while those with the lowest level of development are Health impact assessment and Health risk assessment and planning.

The table shows the overall averages obtained by each company for each element, listed in increasing order, thus allowing the identification of the major gaps and opportunities for improvement.

Company code	Health impact assessment	Health risk assessment	Public health/ promotion	Industrial Hygiene	Medical emergency management	Management of ill-health	Fitness for task / surveillance	Health reporting	Av. by copany
EM5	1,75	1,85	2,40	2,44	1,90	2,86	3,13	2,94	**2,42**
EM7	2,40	2,46	3,00	2,56	2,90	3,00	2,75	2,81	**2,73**
EM6	2,50	2,92	2,40	2,89	3,50	3,86	3,25	3,59	**3,18**
EM3	2,75	3,00	3,20	3,56	3,80	3,71	3,50	3,94	**3,48**
EM4	2,88	3,31	3,40	3,89	3,80	3,29	4,00	3,94	**3,61**
EM1	3,00	3,08	3,40	3,78	3,60	3,71	3,88	3,80	**3,53**
EM2	n/a	4,00	4,00	3,44	3,20	4,00	4,00	4,00	**3,77**
Av. by element	**2,56**	**2,87**	**3,03**	**3,22**	**3,24**	**3,49**	**3,50**	**3,57**	**3,22**

2. Introduction

2.1 Background

This report was conducted by ARPEL, through its Project Team on Occupational Health (EPSO), which is part of the Environment, Health and Safety Committee (CASYSIA).

This Project Team began working in 2012 and, among other activities, it has been devoted to the development of Benchmarking on Occupational Health Management. At the end of that year, an agreement was signed with OGP-IPIECA so that ARPEL could adopt and use with its member companies the Occupational Health Management System and the self-assessment methodology developed by the OGP-IPIECA Health Committee (OIHC).

Since then, and in the framework of the agreement, ARPEL has been working in the translation of the self-assessment excel tools and the development of the corresponding manuals. During 2013 a presentation and training in this subject for member companies were made. For this first report, seven companies have already reported their data.

The number of companies is expected to increase for future reports, as several of them are in the process of implementing the tools. The next report will be published in 4th quarter of 2015, and the information reporting stage will close in September 2015.

2.2 Objective

The report aims to evaluate the level of development of occupational health management in ARPEL member companies, so as to identify the main gaps and opportunities for improvement existing in them.

The identification of opportunities for improvement will allow taking the actions required to improve the management and performance of companies in the oil and gas industry in the region as regards health issues.

2.3 Methodology

The measurement is based on the Health Management System developed by the OGP and IPIECA Health Committee (OIHC) and in the methodology and self-assessment tools developed for this purpose.

This management system identifies the following eight key elements for health management within companies[1]:

The eight key elements of the System are:

- Health risk assessment and planning
- Industrial hygiene and control of workplace exposure
- Medical emergency management
- Management of ill-health in the workplace
- Fitness for task assessment and health surveillance
- Health impact assessment
- Health reporting and record management
- Public health interface and promotion of good health

[1] A detailed description of the Management System may be found in *Health Performance Indicators - A guide for the oil and gas industry* - (OGP-IPIECA, 2008) and a summary of this document done for benchmarking purposes in the *Manual on Occupational Health Management Benchmarking* (ARPEL, 2013).

Each element is evaluated on a numerical scale from 1 to 4 that represents the degree of development of occupational health management in the company.

- Level 1: Process under development.
- Level 2: Process in place, but not fully implemented and embedded.
- Level 3: Process in place and implemented. System functioning. System procedures documented and results being measured.
- Level 4: Process in place and implemented. System sustained and supported by an on-going improvement process.

2.4 Self-assessment tools[2]

There are two self-assessment tools, the "percentage tool" and the "gap analysis tool."

Percentage tool: It measures the level of implementation of the eight elements of health management, assigning percentages to different levels for each of the elements. It answers to the question "what percentage of the company is in level 1/2/3/4 in Element 1/2/3 ... / 8?

It allows a comprehensive vision of the company without providing specific details.

Gaps: It separates each element in sub-elements, and the assessor scores (on a scale of 1 to 4) in what level the company is for each of the sub-elements and, consequently, for the element as a whole. The tool answers the question "In what level of implementation is the company in each element/sub-element of the health management system?"

This tool is supplementary to the tool previously described, and the difference between both is that the "gap" tool provides an analysis by sub-elements, allowing a more detailed diagnosis.

2.5 Results

The overall results and the results detailed by element/sub-element and broken down by company are provided, so as to allow the comparison with the average and among companies. The results are shown in radar charts and heat maps.

2.6 Scope

The following companies provided their data:
Ecopetrol, EP Petroecuador, Equión, Ocensa, Petrobras, Repsol and Schlumberger.

The data provided by the companies were collected between 2012 and 2014. This exercise is not a performance evaluation over a specific period of time, but a self-assessment of what is the status of occupational health management in each company at a given time, it is a picture of the company at that time. For this reason, and since it is the first report, it shows a baseline on the management of occupational health, without being as relevant the differences in the moments of time in which each evaluation was conducted. Since the reports and evaluation cycles are annual, the data provided will correspond to the year in which this report is made.

In the cases of international companies, only the information corresponding to the operations in Latin America and the Caribbean is reported.

In all the cases, companies are considered globally, no breakdown is done by line of business.

[2] The annexes provide more detailed information on the tools. For further information, please see the *Manual on Occupational Health Management Benchmarking* (ARPEL, 2013).

3. Percentage tool results

Below are the results obtained with the percentage tool.

Five companies reported their data and the graph represent the overall averages for each element.

As shown in the graph, the elements with greatest development are Fitness for task assessment, Management of ill-health, and Health reporting and record management, while those with the lowest level of development are Health impact assessment and Health risk assessment and planning.

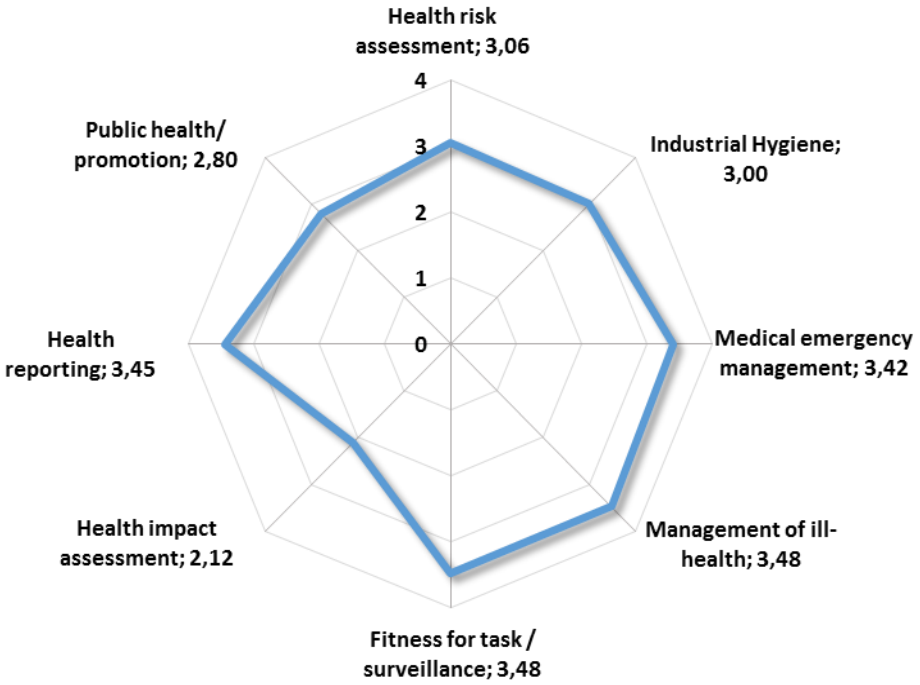


Figure 1: Percentage tool 2014 – Overall averages

4. Gap analysis tool results

Below are the results obtained with the gap analysis tool, for which seven companies reported their data.

4.1 Overall Results

The analysis is done at several levels. The first is a graph with the overall averages for each element, similar to that undertaken through the percentage tool. As shown, the results obtained are consistent with those obtained with the percentage tool. The differences found between the two can be explained by the difference between the reporting companies since it means a different basis for calculation.

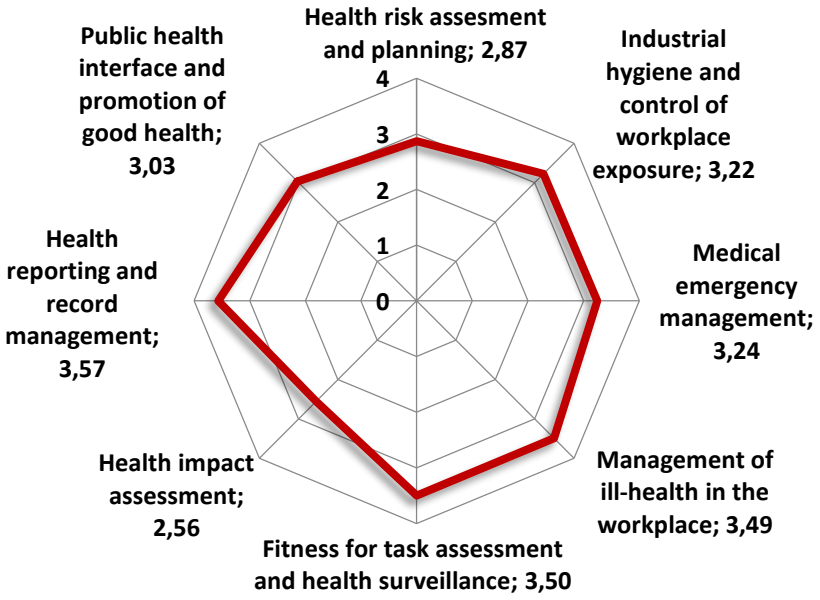


Figure 2 - Gap analysis tool mean analysis 2014, overall averages by element

4.2 Results by company

The results can also be displayed in tables in which values are associated with the colors of traffic lights, and listed in increasing order by company or element/sub-element. This type of graph is called "heat map."

Table 1 shows the overall averages by company and by element, listed in increasing order by companies (rows).

Company code	Health risk assessment	Industrial Hygiene	Medical emergency management	Management of ill-health	Fitness for task / surveillance	Health impact assessment	Health reporting	Public health/ promotion	Av. by copany
EM5	1,85	2,44	1,90	2,86	3,13	1,75	2,94	2,40	**2,42**
EM7	2,46	2,56	2,90	3,00	2,75	2,40	2,81	3,00	**2,73**
EM6	2,92	2,89	3,50	3,86	3,25	2,50	3,59	2,40	**3,18**
EM3	3,00	3,56	3,80	3,71	3,50	2,75	3,94	3,20	**3,48**
EM4	3,31	3,89	3,80	3,29	4,00	2,88	3,94	3,40	**3,61**
EM1	3,08	3,78	3,60	3,71	3,88	3,00	3,80	3,40	**3,53**
EM2	4,00	3,44	3,20	4,00	4,00	n/a	4,00	4,00	**3,77**
Av. by element	**2,87**	**3,22**	**3,24**	**3,49**	**3,50**	**2,56**	**3,57**	**3,03**	**3,22**

Table 1: Gap analysis tool 2014 by company, Sorted by company, worst to best

4.3 Results by element

As shown in table 2, the results can also be listed in increasing order by element.

Considering the order, the largest number of "green" rectangles is expected to appear below and to the right on the table, while the largest number of "red" rectangles is expected to appear above and to the left.

In this type of graphs, the elements that present the greatest opportunities for improvement are quickly identified.

Company code	Health impact assessment	Health risk assessment	Public health/ promotion	Industrial Hygiene	Medical emergency management	Management of ill-health	Fitness for task / surveillance	Health reporting	Av. by copany
EM5	1,75	1,85	2,40	2,44	1,90	2,86	3,13	2,94	**2,42**
EM7	2,40	2,46	3,00	2,56	2,90	3,00	2,75	2,81	**2,73**
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EM3	2,75	3,00	3,20	3,56	3,80	3,71	3,50	3,94	**3,48**
EM4	2,88	3,31	3,40	3,89	3,80	3,29	4,00	3,94	**3,61**
EM1	3,00	3,08	3,40	3,78	3,60	3,71	3,88	3,80	**3,53**
EM2	n/a	4,00	4,00	3,44	3,20	4,00	4,00	4,00	**3,77**
Av. by element	**2,56**	**2,87**	**3,03**	**3,22**	**3,24**	**3,49**	**3,50**	**3,57**	**3,22**

Table 2 - Gap analysis tool 2014 by element, Sorted by element worst to best

4.4 Results by sub-elements

Following is a similar analysis, but now each element is broken down by sub-elements.

4.4.1 Element 1 – Health risk assessment and planning

Element 1 – Health risk assessment and planning (generally understood to relate to 'within the fence' activities)		
Workplace health hazards are identified, their risks assessed, and a health plan addressing any risks is implemented for the following:		
	all current activities and operations.	A
	during the development stage of all new projects.	B
	prior to modifications to plant and equipment.	C
	prior to acquisition or divestiture of sites, leases, plant or other processes or materials.	D
	to address changing public and environmental health conditions or new scientific information	E
Internal targets are set for the workplace health plans.		F
The workplace health plans are reviewed regularly and progressed against the internally set targets.		G
Product health hazards are identified, their risks assessed and a product health plan produced for the following:		
	for all current products.	H
	during the development stage of all new products.	I
	prior to acquisitions.	J
	to address changing public and environmental health conditions or new scientific information.	K
Internal targets are set for the product health plans.		L
The product health plans are reviewed regularly and progressed against the internally set targets.		M

Element 1 - Health risk assessment and planning														
Company code	K	J	D	L	B	C	E	F	G	I	M	H	A	Av. by company
EM5	2,0	2,0	1,0	2,0	1,0	1,0	2,0	2,0	2,0	2,0	2,0	2,0	3,0	1,85
EM7	1,0	2,0	2,0	2,0	2,0	2,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	2,46
EM6	3,0	2,0	2,0	3,0	3,0	2,0	3,0	3,0	3,0	3,0	4,0	3,0	4,0	2,92
EM3	3,0	3,0	2,0	3,0	3,0	3,0	2,0	3,0	3,0	3,0	3,0	4,0	4,0	3,00
EM4	2,0	3,0	4,0	3,0	3,0	4,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,08
EM1	3,0	3,0	3,0	3,0	3,0	3,0	4,0	3,0	3,0	4,0	3,0	4,0	4,0	3,31
EM2	n/a	n/a	4,0	n/a	4,0	4,0	4,0	4,0	4,0	n/a	n/a	n/a	4,0	4,00
Av. by element	**2,33**	**2,50**	**2,57**	**2,67**	**2,71**	**2,71**	**3,00**	**3,00**	**3,00**	**3,00**	**3,00**	**3,17**	**3,57**	**2,87**

Table 3 - Gap analysis tool 2014: Element 1

4.4.2 Element 2 – Industrial hygiene and control of workplace exposures

Element 2 – Industrial hygiene and control of workplace exposures	
The workplace environment meets legal requirements for protection of human health.	A
Industrial hygiene and occupational health expertise is used to assess the following and advise on the implementation of appropriate controls and work practice to eliminate or minimise exposures for the following:	
All chemical health hazards.	B
All physical health hazards.	C
All biological health hazards.	D
All ergonomic health hazards.	E
All psychological health hazards.	F
Workplace exposure monitoring is used to confirm ongoing effectiveness of control measures.	G
Material safety data sheets are in place and kept current.	H
Employees are trained to understand the health risks, preventive measures and emergency procedures associated with their work.	I

Element 2 – Industrial hygiene and control of workplace exposures										
Company code	**F**	**G**	**I**	**B**	**C**	**E**	**H**	**A**	**D**	**Av. by company**
EM5	2,0	3,0	2,0	3,0	3,0	2,0	2,0	2,0	3,0	2,44
EM7	3,0	3,0	2,0	2,0	2,0	3,0	2,0	3,0	3,0	2,56
EM6	2,0	3,0	2,0	3,0	3,0	3,0	3,0	4,0	3,0	2,89
EM2	3,0	2,0	4,0	3,0	3,0	4,0	4,0	4,0	4,0	3,44
EM3	3,0	3,0	3,0	4,0	4,0	3,0	4,0	4,0	4,0	3,56
EM4	3,0	3,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	3,78
EM1	3,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	3,89
Av. by element	**2,71**	**3,00**	**3,00**	**3,29**	**3,29**	**3,29**	**3,29**	**3,57**	**3,57**	**3,22**

Table 4 - Gap analysis tool 2014: Element 2

4.4.3 Element 3 – Medical emergency management

Element 3 – Medical emergency managements	
Provision is made for the management of medical emergencies associated with company operations and activities.	A
There is a medical emergency plan based on competent medical advice and levels of risk, and it is in alignment with existing local provisions.	B
The medical emergency plan is integrated into other emergency procedures.	C
The medical emergency plan is communicated effectively.	D
The medical emergency plan is practised regularly with drills and reviews as appropriate.	E
A process is in place to ensure that lessons learned are acted upon as a result of drills or incidents.	F
Appropriate response times are established for first aid, emergency medical care and evacuation.	G
Adequate resources have been made available to meet established response times for first aid, emergency medical care and evacuation.	H
All staff are provided with emergency contact numbers for medical assistance on each work site.	I
All staff are provided with emergency contact numbers for medical assistance during travel.	J

Element 3 – Medical emergency managements											
Company code	**J**	**F**	**D**	**E**	**H**	**G**	**A**	**I**	**C**	**B**	**Av. by company**
EM5	1,0	1,0	2,0	2,0	2,0	2,0	2,0	2,0	3,0	2,0	1,90
EM7	3,0	3,0	2,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	2,90
EM2	4,0	3,0	3,0	3,0	2,0	2,0	4,0	4,0	3,0	4,0	3,20
EM6	3,0	4,0	3,0	3,0	4,0	4,0	4,0	3,0	3,0	4,0	3,50
EM4	3,0	3,0	3,0	4,0	4,0	4,0	3,0	4,0	4,0	4,0	3,60
EM1	4,0	3,0	4,0	3,0	4,0	4,0	4,0	4,0	4,0	4,0	3,80
EM3	3,0	4,0	4,0	4,0	3,0	4,0	4,0	4,0	4,0	4,0	3,80
Av. by element	**3,00**	**3,00**	**3,00**	**3,14**	**3,14**	**3,29**	**3,43**	**3,43**	**3,43**	**3,57**	**3,24**

Table 5 - Gap analysis tool 2014: Element 3

4.4.4 Element 4 – Management of ill-health in the workplace

Element 4 – Management of ill-health in the workplace		
Employees have access to occupational health practitioners who can:		
	Help mitigate the effects of ill-health on their ability to work effectively.	A
	Facilitate employee rehabilitation.	B
	Facilitate return to work post-illness or post-injury.	C
A system is in place to provide access for employees to:		
	Primary medical care facilities.	D
	Secondary medical care facilities.	E
	Emergency medical care facilities.	F
	Counselling and employee assistance where appropriate.	G

Element 4 – Management of ill-health in the workplace								
Company code	**C**	**E**	**B**	**D**	**A**	**F**	**G**	**Av. by company**
EM5	2,0	3,0	2,0	4,0	3,0	3,0	3,0	2,86
EM7	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,00
EM1	3,0	3,0	3,0	3,0	3,0	4,0	4,0	3,29
EM3	4,0	3,0	4,0	3,0	4,0	4,0	4,0	3,71
EM4	4,0	3,0	4,0	4,0	4,0	3,0	4,0	3,71
EM6	3,0	4,0	4,0	4,0	4,0	4,0	4,0	3,86
EM2	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,00
Av. by element	**3,29**	**3,29**	**3,43**	**3,57**	**3,57**	**3,57**	**3,71**	**3,49**

Table 6 - Gap analysis tool 2014: Element 4

4.4.5 Element 5 – Fitness for task assessment and health surveillance

Element 5 – Fitness for task assessment and health surveillance		
Fitness for task (to ensure employees' health status is compatible with the work that they do)		
A check-list identifying fitness requirements by task is in place covering each appropriate job category.		A
Health assessments (i.e. to match people with task) are performed by a competent health practitioner who has knowledge of the work for the fol		
	Prior to placing an employee in a task with fitness requirements.	B
	Periodically as dictated by legal or company requirements.	C
	As part of change management.	D
Wherever practicable, work is adapted so individuals are included rather than excluded from work. E		E
HEALTH SURVEILLANCE (to ensure employees are working safely where their work is known to be associated with the development of a recognised health problem for which there is a valid method for testing)		
All activities that require health surveillance are defined. F		F
Surveillance is conducted by a competent health practitioner and meets legal requirements:		
	Prior to an employee starting the work (e.g. to establish a baseline). G	G
	Periodically as dictated by the nature of the hazard. H	H

Element 5 – Fitness for task assessment and health surveillance									
Company code	**D**	**E**	**A**	**B**	**C**	**H**	**F**	**G**	**Av. by company**
EM7	2,0	2,0	3,0	3,0	3,0	3,0	3,0	3,0	2,75
EM5	3,0	2,0	4,0	2,0	3,0	3,0	4,0	4,0	3,13
EM6	3,0	3,0	3,0	4,0	3,0	3,0	3,0	4,0	3,25
EM3	3,0	3,0	3,0	4,0	4,0	4,0	4,0	3,0	3,50
EM4	3,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	3,88
EM1	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,00
EM2	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,00
Av. by element	**3,14**	**3,14**	**3,57**	**3,57**	**3,57**	**3,57**	**3,71**	**3,71**	**3,50**

Table 7 - Gap analysis tool 2014: Element 5

4.4.6 Element 6 – Health Impact Assessment

Element 6 – Health Impact Assessment (generally understood to be 'outside the fence' activities)	
HIAs are initiated during the development stage of all new projects and expansions.	A
Prior to the start of a new project, baseline data are established on the following:	
Demography (age distribution and key social characteristics).	B
Community health status (e.g. nutritional status, disease prevalence, vulnerable groups).	C
Key environmental factors affecting human health including air, soil and water quality.	D
Health impact assessors are assigned to work with social and environmental impact assessors in order to outline the range and types of hazard and potential beneficial impacts from the new project/ expansion.	E
External stakeholders are identified.	F
Project staff communicate with external stakeholders (e.g. local community) and consult with them on a regular basis.	G
Relationships are developed with joint venture, contractors and local governments to create a common, cost-effective approach to health management.	H

Elemento 6 –Evaluación del impacto en la salud									
Código de compañía	**E**	**H**	**A**	**D**	**G**	**B**	**F**	**C**	**Promedio por compañía**
EM1	1,0	2,0	1,0	2,0	2,0	2,0	2,0	2,0	1,75
EM3	1,0	n/a	3,0	2,0	n/a	3,0	n/a	3,0	2,40
EM4	2,0	3,0	2,0	2,0	3,0	2,0	3,0	3,0	2,50
EM5	3,0	2,0	3,0	3,0	2,0	3,0	3,0	3,0	2,75
EM6	3,0	2,0	3,0	3,0	3,0	3,0	3,0	3,0	2,88
EM7	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,00
Promedio por elemento	**2,17**	**2,40**	**2,50**	**2,50**	**2,60**	**2,67**	**2,80**	**2,83**	**2,56**

Table 8 - Gap analysis tool 2014: Element 6

4.4.7 Element 7 – Health reporting and record management

Element 7 – Health reporting and record management (including tracking and analysis)	
Health information on all operations is accurate, score and readily available and meets legal requirements.	A
Health informations on all products is accurate, score and readily available and meets legal requirements.	B
Records are maintained on the following:	
Raw materials and products (Material Safety Data Sheet – MSDS).	C
Work duties.	D
Health risk assessments.	E
Workplace monitoring results.	F
Personal exposure monitoring.	G
Fitness for task health assessments.	H
Health surveillance.	I
Personal health records are retained confidentially in line with any legal requirements on access and data protection.	J
Health records are retained for a minimum of 40 years after an individual leaves employment.	K
Significant health incidents (including occupational illness) and significant near misses are:	
Investigated.	L
Root causes determined.	M
Corrective actions identified.	N
Corrective actions tracked to completion.	O
Reported to appropriate authorities as required.	P
Health data is analysed routinely to identify any necessary changes to operations or products.	Q

Element 7 – Health reporting and record management																		
Company code	**A**	**B**	**C**	**D**	**F**	**G**	**L**	**O**	**Q**	**E**	**I**	**J**	**M**	**N**	**K**	**H**	**P**	**Av. by company**
EM7	3,0	2,0	3,0	3,0	3,0	3,0	1,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	n/a	3,0	3,0	2,81
EM5	2,0	2,0	2,0	3,0	3,0	3,0	3,0	2,0	3,0	3,0	3,0	3,0	3,0	3,0	4,0	4,0	4,0	2,94
EM6	n/a	n/a	3,0	3,0	3,0	3,0	4,0	3,0	3,0	3,0	3,0	4,0	4,0	4,0	3,0	4,0	4,0	3,40
EM4	n/a	n/a	4,0	3,0	3,0	3,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	3,80
EM1	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	3,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	3,94
EM3	3,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	3,94
EM2	n/a	n/a	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	n/a	4,0	4,0	4,00
Av. by element	**3,00**	**3,00**	**3,43**	**3,43**	**3,43**	**3,43**	**3,43**	**3,43**	**3,43**	**3,57**	**3,57**	**3,71**	**3,71**	**3,71**	**3,80**	**3,86**	**3,86**	**3,54**

Table 9 - Gap analysis tool 2014: Element 7

4.4.8 Element 8 – Public health interface and promotion of good health

Element 8 – Public health interface and promotion of good health		
An effective interface between public health and occupational health is maintained to mitigate major business risks and to identify key sources of epidemiological information.		A
Communications are maintained with local governments and health authorities to plan timely response to major outbreaks of infectious diseases.		B
A programme is in place to:		
	Identify key employee health and wellness (e.g. smoking, obesity, heart disease, high risk behaviour) issues.	C
	Develop programmes to educate employees on prevention and risk reduction (e.g. anti-smoking and fitness campaigns).	D
	Where appropriate extend these programmes beyond the workforce to include the community (e.g. HIV, tuberculosis, malaria and vaccination programmes).	E

Element 8 – Public health interface and promotion of good health						
Company code	**E**	**B**	**A**	**D**	**C**	**Av. by company**
EM5	1,0	3,0	3,0	2,0	3,0	2,40
EM6	2,0	2,0	3,0	2,0	3,0	2,40
EM7	3,0	3,0	3,0	3,0	3,0	3,00
EM3	3,0	3,0	3,0	3,0	4,0	3,20
EM1	4,0	3,0	3,0	3,0	4,0	3,40
EM4	3,0	3,0	3,0	4,0	4,0	3,40
EM2	n/a	n/a	n/a	4,0	4,0	4,00
Av. by element	**2,67**	**2,83**	**3,00**	**3,00**	**3,57**	**3,03**

Table 10 - Gap analysis tool 2014: Element 8

5. Final considerations

ARPEL decided to use the gap and percentage tools developed by the OGP/IPIECA Health Committee, obtained through an agreement between the Associations, as a strategy to gain time and reliability through the use of tools already reviewed and approved by global oil and gas companies. An added advantage was that some ARPEL member companies had experience in the use of these tools.

The use of these tools allows obtaining a complete, systemic, quick and reliable diagnosis of how health management is in a company. Each company determines how rigorous the analysis in the self-assessment will be. The comparison of companies shows that there are no major differences among them.

The highest scores are in "fitness for task assessment" and "management of ill-health." The element with the highest opportunities for improvement is "health impact assessment." It can also be seen that there is a predominant standard response among the different items for each element in the assessment of companies.

The results and the difficulties identified in this report were the same as those observed in companies that already use this self-assessment methodology. In turn, the simplicity, speed and applicability of these qualitative assessment tools are recognized.

The assessment cycle for ARPEL is annual. However, these tools allow each company to carry out such assessment more frequently or apply it in specific areas or units.

The number of companies is expected to increase for future reports, as several of them are in the process of implementing the tools. The next report will be published in the 4th quarter of 2015, and the information reporting stage will close in September 2015.

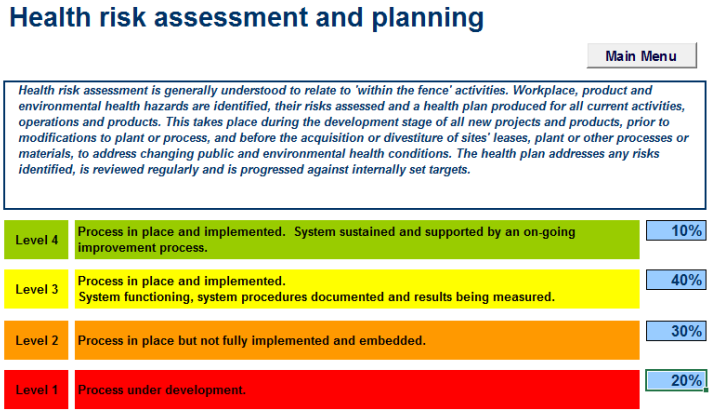
6. Annex 1: Percentage tool

The percentage tool presents 8 equal questionnaires (1 for each element) and it answers the question, "what percentage of the company is in level 1/2/3/4 in Element 1/2/3.../8?
In the example, a questionnaire of the percentage tool is shown, completed by a fictitious company that report that the 20% of the company is in level 1, the 30% in level 2, the 40% in level 3 and the 10% in level 4, for the element "Health risk assessment and planning".

The weighted average give us a value of 2.40 for this element.

This exercise is made for the 8 elements and give us average values that then are reflected in the radar chart of each company.

To make the global radar chart a simple average is made between the values obtained for each company for each element.

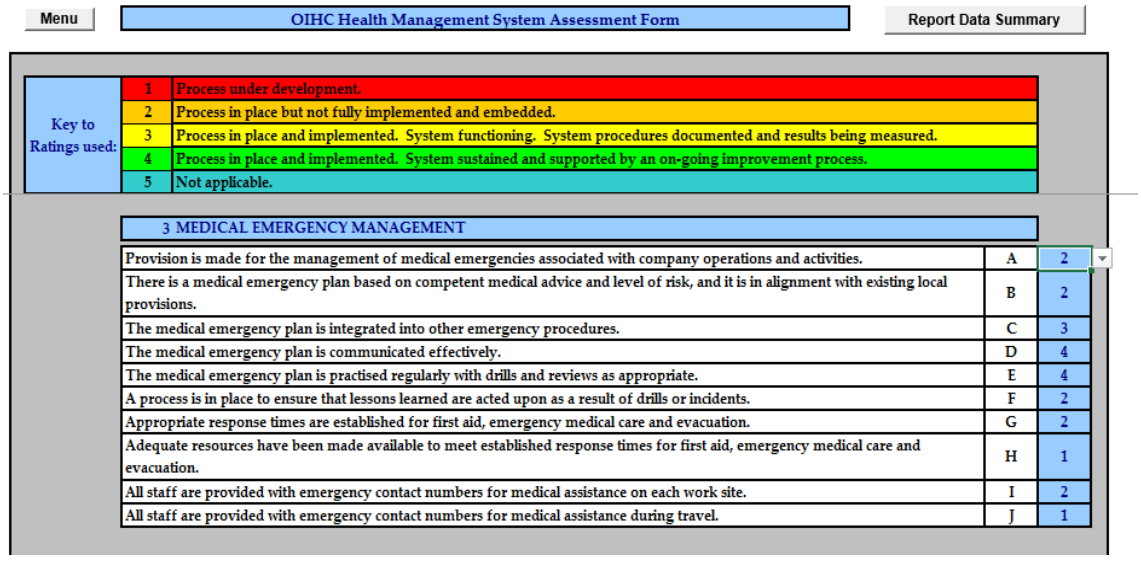


7. Annex 2: Gap analysis tool

The gap analysis tool divides each element into sub-elements. Therefore this tool proposes 8 different questionnaires (1 for each element). In each questionnaire each sub-element is evaluated in a scale from 1 to 4. The simple average of the sub-elements' results of a specific element give us the global result for this element.

In the example, data for a fictitious company is given for the element Health risk assessment and planning. The simple average of the results give us a value of 2.30. To obtain the global value of all the companies, an average of all the answers for a specific element is done.

This tool allows a more detailed analysis, which is performed by heat charts.



ARPEL is a non-profit association gathering oil, gas and biofuels sector companies and institutions in Latin America and the Caribbean. It was founded in 1965 as a vehicle of cooperation and reciprocal assistance between sector companies, with the main purpose of actively contribute to industry integration and competitive growth, and to sustainable energy development in the region.

Mission

To promote the integration, growth, operational excellence and effective socio-environmental performance of the industry in the region, facilitating the dialogue, cooperation, development of synergies among players as well as the shared creation of value among members through the exchange and extension of collective knowledge.

Vision

To be a referent in the consolidation of the industry as a provider of reliable and safe energy, meeting the growing energy demand in a sustainable manner.

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