An ARPEL Tool to Assist the International Oil Spill Community in Bridging Response Planning and Readiness Gaps

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Slide 1:

On behalf of the Regional Association of Oil, Gas and Biofuels Sector Companies in Latin America –ARPEL- I want to hereby express my humble gratitude to the Petroleum Association of Japan and the Japanese Ministry of Economy Trade for the invitation to this important Symposium, allowing us to share with this distinguished audience a tool developed by ARPEL for the use and benefit of all the international oil spill community.
Arigató!

Slide 2:

- My presentation will include a succinct description of what is ARPEL, for those who do not know us
- Next, a very short story of how RETOS appeared in the international scene. RETOS is the acronym of "Readiness Evaluation Tool for Oil Spills"
- Then, I will use some slides to describe what is RETOS and basic definitions utilized
- To –then- show, through an example, the functionalities of this tool
- And finish with some remarks

Slide3:

- ARPEL is a 50-year-old association of oil and gas companies and institutions in Latin America and the Caribbean aimed at:
    - *promoting integration, growth, operational excellence and effective socio-environmental performance of the regional industry, and*
    - *ensuring the sector maximizes its contribution to sustainable energy development in the region.*

- ARPEL's Mission is accomplished through synergies and cooperation with relevant stakeholders, and
- its members represent over 90% of the upstream and downstream activities in the region.

Slide 4:

ARPEL Member Companies include national and international operating companies as well as providers of technology, goods and services for the whole value chain and with a vested interest in the sustainable energy development of the Latin America and Caribbean region.

Slide5:

To accomplish its Mission more efficiently, ARPEL promotes cooperation, reciprocal assistance and joint action with other sector associations and institutions, regional and international governmental and non-governmental organizations, aligned with ARPEL's purpose. The Association often establishes agreements with them for the joint development of regional studies and/or for the implementation of programs and services, as a way to complement its strengths and capabilities, with the aim of providing greater value-added to its membership.

This approach allowed ARPEL to obtain excellent results and outcomes in developing the tool I'm about to present, and in which institutions such as CLICK IPIECA, Clean Caribbean Cooperative (now Oil Spill Response), the Regional Marine Pollution Emergency Information and Training Centre for the Wider Caribbean and the Central American Maritime Commission, played an important role

Slide6:

There have been few attempts in the oil spill response community to prepare comprehensive guides for assessment of response capability. Most guidance has focused on the content of oil spill response plans and, in places around the world, some governments and companies have developed internal guidelines to assess oil spill response plans and readiness. In 2007, organizers of the 2008 International Oil Spill Conference agreed to support development of general guidance to assess oil spill response readiness. As part of that development, a broad suite of planning and readiness assessment elements was prepared to encourage improved response capacity. That initial work set a framework to aid development and maintenance of response management systems to improve oil spill response readiness, documented in the 2008

International Oil Spill Conference Guideline. **CLICK**

Subsequent feedback received from the international community recommended transforming the 2008 International Oil Spill Conference Guideline into a more user-friendly management tool, hence leading to the "ARPEL Oil Spill Response Planning and Readiness Assessment Manual" (the "Manual") and its accompanying assessment tool, the Readiness Evaluation Tool for Oil Spills (RETOS™). The first version of RETOS was developed in 2011 and a second –upgraded- version was launched in 2014, which is the version I'm going to be talking about in this Symposium

Slide7:

The ARPEL "Readiness Evaluation Tool for Oil Spills (RETOS™)" and its accompanying Manual were developed to assist governments and companies to assess the level of oil spill response planning and readiness management and to identify gaps, information needs and areas for improvement and –ultimately- provide guidance to efficiently bridge the gaps identified

This is done in relation to pre-established criteria commonly agreed between industry and government. Oil Spill Response assessment criteria are the foundation for a consistent approach to gauge the level of oil spill response planning and readiness and to assist in identifying areas for improvement.

Slide8:

RETOS and the accompanying Manual aim to provide a general guideline to petroleum sector operators and governments, so that they may assess their own programs and/or apply the best practices to ensure the continuous improvement of their oil spill contingency management preparedness. These best practices derive from a variety of sources as indicated in the slide. It is worth noting that the 2008 International Oil Spill Conference Guideline mentioned earlier has a preferential reference in the Manual.

CLICK

The guidelines and practices in the ARPEL Manual and RETOS are suggested and not mandatory. The Manual does not reflect the legal requirements of specific jurisdictions. Thus, governments and companies must be aware of any requirements applicable to their respective jurisdictions.

Slide9:

- The criteria provided for assessment are oriented toward oil (hydrocarbon) spills

and do not include hazardous or noxious substances, per se, although many aspects of spill readiness are equally applicable.

- The oil spill response planning and readiness assessment also is directed at any number of possible spill scenarios, including different spill sources such as tankers, pipelines, platforms or land facilities and receiving environments (for example: land, inland waterways, offshore, etc.).

Slide10:

1. Four key concepts utilized while using RETOS to assess oil spill response programs are: Criteria, Categories, Programs and Assessment Levels
2. Detailed assessment criteria are the individual base concepts that are evaluated and form the core of the oil spill response management assessment matrices included in the RETOS tool.
3. Categories are general headings aspects of oil spill response planning and readiness. The ten categories in this Manual and RETOS match those developed and explained in the 2008 International Oil Spill Conference Guideline and are the ones appearing in the green box.
4. The criteria are tailor-made to assess oil spill response Programs of seven different Scopes that we shall see in the next slide
5. For each Program to be assessed, the user can select three different assessment levels. The criteria progress from what may be considered fundamental aspects of oil spill response management capability (Level A) to very complete and/or best international practice (Level C). Assessment levels do not correspond to tiers in the oil spill response planning sense. Rather, an Assessment Level indicates the maturity of that program, so that a Facility (which typically prepares for a Tier 1 response) may be quite well prepared and very capable of mounting a quick and very effective response to a Tier 1 spill. In such a case the Assessment Level C (the highest) would reflect its maturity but for a Tier 1 spill response. Alternatively, a Tier 3 program, such as would be expected at a national level, may be in the early stages of development and implementation, in which case the assessment would be performed at a Level A.

Slide11:

The seven Scopes considered in the Manual and RETOS represent oil spill response programs from two perspectives: Government and Industry. The **Scopes** used are:

- **Government or Industry** :

- **Facility** – (terminal, plant, refinery) - The facilities encompassed in this scope are geographically fixed and local in extent
- **Facility/Asset Operation** (e.g. pipelines, vessels, fleet) – The operations encompassed in this scope have a broader geographic footprint, typically as a result of oil transportation. A key feature of this scope is the broader potential spill source along established operational routes.

  These Scopes can be used by either governmental institutions or companies because oil spill response readiness for a facility or operation is essentially the same regardless of owner/operator

- **Government**
  - **Port/City/Local** – The operations encompassed in this scope are local in extent and associated with cities, ports, and other geographically limited but collective facilities.
  - **Area** (such as a Region, Province or State) – This is typically utilized for governments that have defined requirements or needs for planning at sub-national levels, usually defined by administrative or geo-political boundaries
  - **National** (and Multi-National) – A key feature of this scope is the broad geographic coverage of plans and setting the policies and requirements for more detailed planning and readiness. National readiness for many countries represents its autonomous capability to deal with multiple worst-case situations
- **Industry**
  - **Country or Business Line** (for example, production) – Industry operations conducted solely within one country or operations of a single business line with wide-spread assets may have an oil spill response program that integrates their response capabilities across multiple facilities or operational areas. Assessment programs should be adapted to address operations either within a single country or multiple countries, as appropriate, for company management.
  - **Corporate** – A key feature of this scope is how a company or corporation sets the model for more detailed readiness programs. Likewise, this scope integrates oil spill response readiness across business lines and possible country lines. The policies, expectations, and models for response readiness and emergency management are focal aspects of Corporate oil spill response programs.

Slide12:

We shall see the functionalities of RETOS by making a virtual gap analysis of the oil spill response program of a facility (for example, a refinery). We'll start with Level A

Slide13:

To make the explanation of the use of RETOS easier within the allocated time I have for this presentation, I will show the screens in order of appearance as if we were all making the assessment of the oil spill response program for a Facility in Level A.

I selected Level A **CLICK** because it is the one you should all start to ensure you have – at least- the basic level of oil spill response planning and readiness. If you pass the minimum required, you can continue with Level B and –hopefully- Level C.

Slide14:

Here is the upper part of the Excel Tab that will appear when you start making the Level A assessment of a Facility.

On the left, each row correspond to a criterion. The criteria are grouped in the ten categories I mentioned earlier in a previous slide with some of the definitions. In this slide we can only see the first 3 categories (A: Legislation, Regulation and Agreements / B: Oil Spill Contingency Planning and C: Response Coordination). The other categories will appear as you scroll down in the RETOS Excel file (as we shall see later)

Some rows are yellow shaded. These correspond to Critical Criteria and only appear on Level A. One dictionary definition of critical is *"having a decisive or crucial importance in the success, failure, or existence of something"*. At the basic Level A (exclusively), an oil spill preparedness program must address select minimum criteria to be considered complete. These critical criteria were identified and agreed by experienced spill response professionals. The rationale of their criticality is highlighted in pop-ups and their importance in the gap analysis will be shown later **CLICK**

The evaluator starts assessing the oil spill response program of the Facility checking criterion by criterion. There are three options in RETOS, by which evaluators can specify an indicator for each criterion. **CLICK** The three assessment indicators are:

Missing – no information, inadequate information, and/or lack of confirmation found for a criterion

Partial – information, documentation, or other confirmation reveals some aspects are addressed, yet is either incomplete or does not fully satisfy a criterion

Complete – information, documentation, or other confirmation reveals aspects are fully

addressed such that there is reliable evidence a criterion has been met.
If the evaluator decides that a criterion is missing or partially complete, the tool will request that a comment be made in the cells on the right. These comments are vital to identify what gaps must be filled after the evaluation is over **CLICK**

Slide15:

The evaluation goes on and on until the last Category (J – Sustainability and Improvement) - A space has been left (blue cells) for institution specific criteria to be included.
The Overall Program qualitative conclusion is a score based on the quantitative ratings given to each INDICATOR and by which the following terms correspond to a percent complete for a specific Program and Level. ARPEL has set a high performance expectation for scoring spill response preparedness and readiness. If the quantitative result of the indicators is less than 90%, the Program is In Development. One can only say that the Level has been achieved if it is more than, or equal to, 90%. Only then it is suggested that you move to higher Levels of Assessment such as B and C.
However, if the assessment results in at least one critical criterion evaluated as partial or missing, although the global assessment is over 90%, the qualitative conclusion is that the level is "in development". This is the case for this example **CLICK**
It is worth mentioning that institution specific criteria do not take part of the calculation.
RETOS is now ready to provide its outputs: the Global Performance Analysis and the Global Improvement Program **CLICK**

Slide16:

The Global Performance Analysis presents in a single page a summary information of the gap analysis:

- On the left, the table indicates:
  - the percentage obtained for each of the ten categories (right column).
  - those categories that have at least one critical criterion either missing or partial are highlighted in yellow (this is the case for the categories of Oil spill contingency planning, Response coordination and Operational response)
  - the overall result, the number of questions completed over the total number of questions (in this case, questions mean criteria), and
  - the percent of institution specific criteria accomplished

- On the right hand side, a spider-web diagram displays in a more visually-friendly format, the gaps in each of the ten categories

Slide17:

The Global Performance Analysis is an upper executive approach to knowing where the gaps are.

The Global Improvement Program (which is the second output of the gap analysis using RETOS), gets into the details. From left to right, the table describes:

- the priority for action resulting from the criteria that were either missing or partially complete during the evaluation, starting with missing critical criteria, followed by partially complete critical criteria and then ordered by categories from A to J
- the second column describe the criteria (missing or partial) and is the same of what you have in the Excel file
- the third column includes the comments made by the evaluator during the gap analysis when he or she marked that the criterion was either partial or missing. This column is the backbone of the "work to be done" to bridge the gaps identified and demonstrates the importance of having an experienced evaluator using the RETOS tool.
- the fourth, fifth and sixth column can be completed by the evaluator and by the officer in charge of the oil spill response program allocating responsibilities, identifying resources and defining a logical schedule to complete the missing or partial criteria
- the last column makes reference to specific chapters of the 2008 International Oil Spill Conference Guideline, where professionals can find some best practices that assist them to fill the gaps identified

The value added by RETOS by placing all the gaps and actions required to fill each gap in a single document like this is that a more efficient action plan can be devised by identifying synergies among the different activities that need to be done and that could otherwise not be seen.

Slide18:

In short:

The Manual provides the background for oil spill response management assessment and explains the terms used, the approach to the assessment process, the concept for a Global Improvement Program and over 150 references

CLICK

and the Tool (RETOS) is the Excel application intended as a checklist-type approach for a specific Program and Level of evaluation.

CLICK

The Manual, the seven different RETOS tables (one for each Scope and each table containing the corresponding checklists for Levels A, B and C) plus the 2008 International Oil Spill Conference Guideline can be downloaded for free from ARPEL web site

I will now show the real Excel files from which I took the example I used to explain the functionalities, the operation and the outputs of a gap analysis made by using RETOS in a Facility for Level A (HYPERLINK)

Slide19:

As far as we are aware, RETOS is being used by governments and companies in different parts of the world, as shown in the slide. The dissemination has been done through the collaboration and support of the organizations and programs described: ARPEL with a focus on South America, COCATRAM (Central American Maritime Transport Commission), REMPEITC-Carib (Regional Marine Pollution Emergency Information and Training Center for the Wider Caribbean), the US Coast Guard, The IMO/IPIECA Global Initiative in West and Central Africa (GI-WACAF), South East Asia (GI-SEA) and China as well as the Oil Spill Preparedness Regional Initiative for Caspian, Black Sea and Central Eurasia (OSPRI)

By early 2015, RETOS had been presented and/or used in more than 50 countries. The tool had been used to evaluate over 60 oil spill response programs. Most programs evaluated consisted of industry fixed facilities (installations) or wider operations (such as pipelines) and national oil spill contingency plans.

Results of most of the assessments conducted (nearly all Level A) showed that oil spill response programs typically achieved a 60-70% completion.

RETOS Manual and tables can be downloaded in Spanish and English. However, given the universality of the use of RETOS, ARPEL is looking for the possibility to translate it into French, Portuguese and Russian. Other languages will be considered depending on the demand.

Slide20

- The development of RETOS was a truly international and multi-institutional joint government/industry effort. Institutions involved included: ARPEL,

IPIECA, Clean Caribbean Cooperative, Oil Spill Response Limited, the Regional Marine Pollution Emergency Information and Training Centre for the Wider Caribbean, the Central American Maritime Commission, the International Maritime Organization, the International Tanker Owners Pollution Federation and several individual companies **CLICK**

- Experience has shown that the basics of oil spill response management is not the norm and RETOS wants to ensure that everyone complies with the fundamental aspects of oil spill response management capability (Level A) by including critical criteria conveying the message that those criteria have to be there "yes or yes" **CLICK**
- RETOS has criteria which are tailor-made for seven different types of Programs. It is NOT a "one-size-fits-all" type of evaluation **CLICK**
- The results of the assessment are shown by category so the owner of the oil spill response Program can easily see where the gaps are –and how big- and **CLICK**
- The Global Improvement Program sets the basis for a logical plan to implement the actions required to fill the gaps identified **CLICK**
- Furthermore, the Manual has over 150 references on best international practices on oil spill planning and response that can be found in the Internet. These references are vital in the implementation of the plan to improve the oil spill response Program **CLICK**

ARPEL provides training courses on RETOS through qualified professionals. The courses are delivered to oil spill professionals from different institutions (for example, from different companies and/or from governmental institutions) or can be tailor-made to train professionals directly involved in an oil spill response program and simultaneously make the gap analysis of the oil spill response program under study **CLICK**

Slide21:

NA