NET ENVIRONMENTAL BENEFIT ANALYSIS (NEBA)

THE EVOLVING STATE OF THE ART

WHAT IS NEBA?

- A STRUCTURED APPROACH USED BY THE RESPONSE COMMUNITY AND STAKEHOLDERS DURING OIL SPILL PREPAREDNESS PLANNING AND RESPONSE, TO COMPARE THE ENVIRONMENTAL BENEFITS OF POTENTIAL RESPONSE TOOLS AND DEVELOP A RESPONSE STRATEGY THAT WILL REDUCE THE IMPACT OF AN OIL SPILL ON THE ENVIRONMENT. (IPIECA, 2015).

4 STAGES OF THE NEBA PROCESS

- **COMPILE AND EVALUATE DATA** TO IDENTIFY AN EXPOSURE SCENARIO AND POTENTIAL RESPONSE OPTIONS, AND TO UNDERSTAND THE POTENTIAL IMPACTS OF THAT SPILL SCENARIO.
- **PREDICT THE OUTCOMES** FOR THE GIVEN SCENARIO, TO DETERMINE WHICH TECHNIQUES ARE EFFECTIVE AND FEASIBLE.
- **BALANCE TRADE-OFFS** BY WEIGHING A RANGE OF ECOLOGICAL BENEFITS AND DRAWBACKS RESULTING FROM EACH FEASIBLE RESPONSE OPTION.
- **SELECT THE BEST RESPONSE OPTIONS** FOR THE GIVEN SCENARIO, BASED ON WHICH COMBINATION OF TOOLS AND TECHNIQUES WILL MINIMIZE IMPACTS.

NEBA PROCESS CAN BE APPLIED BEFORE OR DURING A SPILL

- PLANNING PHASE – HYPOTHETICAL SCENARIOS.
- RESPONSE PHASE – KNOWN SCENARIO. EXISTING NEBAS MAY BE MODIFIED OR NEBA PROCESS CAN BE USED BY ENVIRONMENTAL UNIT.
- DRILLS – REGION VI HAS UTILIZED “EXPEDITED NEBAS” AS A WAY OF SIMULATING NEBA ACTIVITIES OF AN ENVIRONMENTAL UNIT.

USE OF THE NEBA PROCESS IN THE US

- CONSENSUS ECOLOGICAL RISK ASSESSMENT (CERA) – SIMILAR TO NEBA. TYPICALLY DOES NOT ADDRESS SOCIO-ECONOMIC OR CULTURAL CONSIDERATIONS (AURAND, ET AL., 2000).
- CERA GUIDANCE DEVELOPED BY US COAST GUARD IN 2000.
- SEVERAL CONDUCTED SINCE 1990S. NONE CONTEMPLATED AN UNCONTROLLED SUBSEA OIL RELEASE.

CHALLENGES TO THE USE OF NEBA

- LARGE COMMITMENT OF TIME AND FUNDING FOR VARIED STAKEHOLDERS.
- PERCEIVED BIAS TOWARDS NEAR SHORE ENVIRONMENTAL RESOURCES
- INCREASED RELIANCE ON USE OF WEB-BASED MEETING TOOLS IN PLACE OF PHYSICAL MEETINGS

EVOLVING GUIDELINES

- 2000 - DEVELOPING CONSENSUS ECOLOGICAL RISK ASSESSMENTS: ENVIRONMENTAL PROTECTION IN OIL SPILL RESPONSE PLANNING A GUIDEBOOK. U.S. COAST GUARD. WASHINGTON, D.C.
- 2013 - ASTM STANDARD NUMBER F2532 - 13: *STANDARD GUIDE FOR DETERMINING NET ENVIRONMENTAL BENEFIT OF DISPERSANT USE*. ASTM INTERNATIONAL, WEST CONSHOHOCKEN, PA. WWW.ASTM.ORG
- 2015 - *RESPONSE STRATEGY DEVELOPMENT USING NET ENVIRONMENTAL BENEFIT ANALYSIS (NEBA)*. IPIECA-IOGP GOOD PRACTICE GUIDE SERIES, OIL SPILL RESPONSE JOINT INDUSTRY PROJECT (OSR-JIP).
- TBD – API. RESPONSE STRATEGY DEVELOPMENT USING SPILL IMPACT MITIGATION ASSESSMENT (SIMA) IN THE UNITED STATES
- TBD – API. GUIDANCE ON IMPLEMENTING NEBA (NEBA ENGINE)

EVOLVING PRACTICES

- USE OF NEBA PROCESS DURING RESPONSE ACTIONS BY ENVIRONMENTAL UNIT OF THE NIMS INCIDENT COMMAND SYSTEM (ICS)
- SOCIO-ECONOMIC IMPACTS ADDRESSED BY UNIFIED COMMAND, OUTSIDE OF THE NEBA PROCESS
- INCREASED RELIANCE ON "EXPEDITED NEBAS" OR "ENVIRONMENTAL TRADE OFF ANALYSIS" WITH FEWER STAKEHOLDERS DURING RESPONSE PLAN DEVELOPMENT AND DRILLS.
- COORDINATION WITH RESOURCE TRUSTEE EMERGENCY CONSULTATION PROCESSES

POTENTIAL ACTIVITIES FOR GULF OF MEXICO

- GULF–WIDE NEBA THAT CAN BE ADAPTED FOR INDIVIDUAL USE CASES
- COMPREHENSIVE "RESOURCES AT RISK" (RAR) DOCUMENT(S) THAT CAN BE USED FOR NEBAS, PLAN DEVELOPMENT, AND DRILLS
- DRILL OR INCIDENT SPECIFIC RAR'S TO BE POSTED ON NOAA WEBSITE
- "METHOD NEBA" SPECIFIC TO SUBSEA DISPERSANT INJECTION TO BE CONDUCTED BY API FOLLOWING D3 RESEARCH

POTENTIAL NAME CHANGE

- SPILL IMPACT MITIGATION ASSESSMENT (SIMA)