



2007

Engineering Innovation

Judges choose top 15 industry projects

The *E&P* editors and staff proudly present the winners of the prestigious 2007 Special Meritorious Awards for Engineering Innovation. The pages that follow spotlight the 15 awards the independent team of judges picked as best of the 2007 crop of entries. The winners reached across a broad range of disciplines and addressed a number of problems that posed roadblocks to efficient operations. The resulting technologies opened new and better avenues to the complicated process of finding and producing hydrocarbons around the world.

This year, some of the brightest minds in the industry from service and operating companies submitted entries representing better technology and new techniques for judges to consider.

The award program honors engineering excellence and achievement in every segment of the upstream petroleum industry. It recognizes new products and technologies that offer innovation in concept, design and application.

Winning entries represent techniques and technologies that are most likely to solve costly problems and improve exploration, drilling, production, facilities and IT efficiency and profitability. The people and companies that submitted the entries realize the oil and gas

producing industry depends on new, better and constantly changing technological innovation to continue producing low-cost oil and gas from smaller and deeper reservoirs to feed an increasingly energy-hungry world.

Contest judges chose the winners, but there were no losers in this contest.

The products chosen represented the best of a long list of winners.

The expert panel of judges included engineers and engineering managers from operating and consulting companies worldwide. They applied their expertise in areas in which they specialize. Judges were excluded from categories in which they or their companies had a business interest.

E&P would like to thank these distinguished judges for their efforts in selecting the winners in this year's competition.

As in past years, *E&P* will present the 2007 awards at the Offshore Technology Conference in Houston, Texas, April 30.

An entry form for the 2008 Special Meritorious Awards for Engineering Innovation contest will soon be available on the magazine's Web site at www.eandp.info. The deadline for entries for 2008 is Dec. 5, 2007.

Solution protects offshore installations

Founded in 1971, Lightning Eliminators and Consultants Inc. (LEC) designs, manufactures and installs integrated, engineered systems to prevent all varieties of lightning-related problems. Both primary and secondary lightning effect situations are fully resolved through science-based approaches.

LEC's Retractable Grounding Assembly (RGA) is a reliable product available for the reduction of the "bound charge" common to floating roof tanks. Bound charge is a serious problem for sites storing flammables. Many fires occur each year causing losses of product and storage tanks themselves. The losses may include environmental clean-up costs as well,

which can be significant. Millions of dollars in losses require positive actions to be taken to protect valuable product and storage tanks.

Using the RGA reduces the bound charge by providing a consistent positive grounding connection so the bound charge does not fully develop as a storm moves into the site. When used in conjunction with the LEC Dissipation Array System Rim Array, a tank will be protected from both direct strikes and bound charge buildup.

Case study

A client chose the RGA to improve protection of a tank from bound charges. Before using the RGA it



The Retractable Grounding Assembly reduces the risk of fires sparked by lightning. (Image courtesy of Lightning Eliminators)

had a cable attached to the tank shell and the roof ladder. The Dissipation Array System and several RGAs were installed in 2000, eliminating the several lightning strikes and resulting fires that had been experienced prior to that time.



2007

MEA JUDGES

Ben Bloys
Chevron

Randy Clark
POSC

Peter Duncan
Microseismic Inc.

Tom Halbouty
Pioneer Resources

Bob Hardage
University of Texas Bureau
of Economic Geology

Anders Henriksson
Norsk Hydro

George King
BP

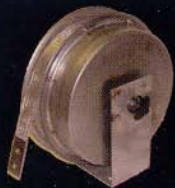
Cindy Reece
ExxonMobil

Eve Sprunt
Chevron

John Thorogood
BP

Tim Tipton
Marathon

Scott Wehner
Whiting Petroleum



RGAs FOR FLOATING ROOF TANKS

Thank you to our customers around the globe for making the RGA (Retractable Grounding Assembly) a resounding success.

2007 MEA
WINNER:
FACILITIES

Why do these leaders choose the RGA to protect their floating roof tanks? Find out now at: www.LECglobal.com/rga-004



Lightning Eliminators & Consultants, Inc.

6687 Arapahoe Road, Boulder CO, 80303-1453, USA
(303) 447-2828 • FAX (303) 447-8122 • www.LECglobal.com

E&P

www.eandp.info

A Hart Energy Publication

April 2007

Offshore Operations

Exploration

Better tools find better pools

Drilling

Integrity pays in offshore wells

Intervention

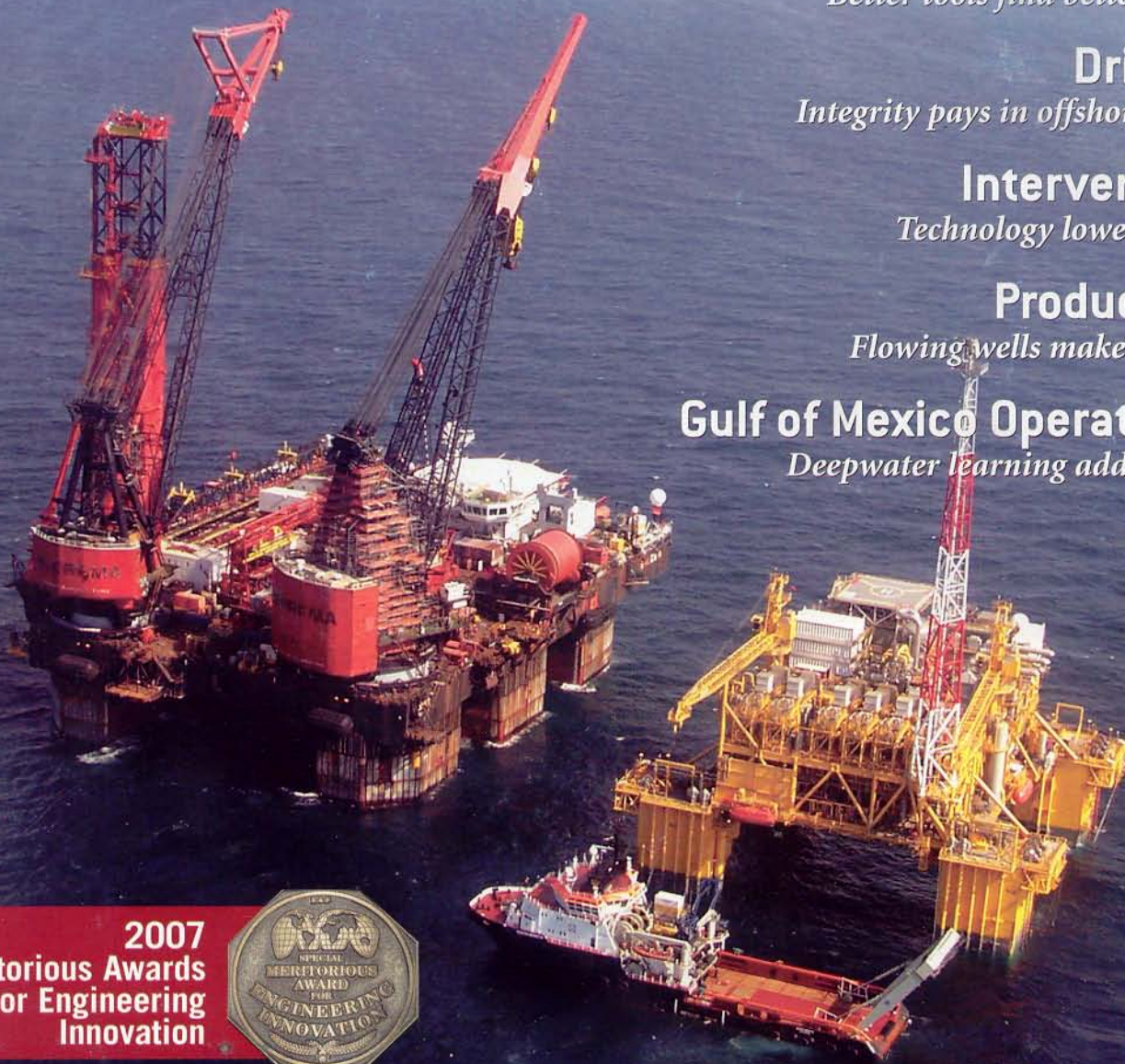
Technology lowers costs

Production

Flowing wells make profits

Gulf of Mexico Operations

Deepwater learning adds value



**2007
Meritorious Awards
for Engineering
Innovation**

